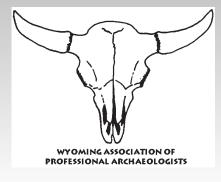
2016 ANNUAL MEETING

WYOMING ARCHAEOLOGICAL SOCIETY AND WYOMING ASSOCIATION OF PROFESSIONAL ARCHAEOLOGISTS

Cheyenne, Wyoming May 6-8, 2016

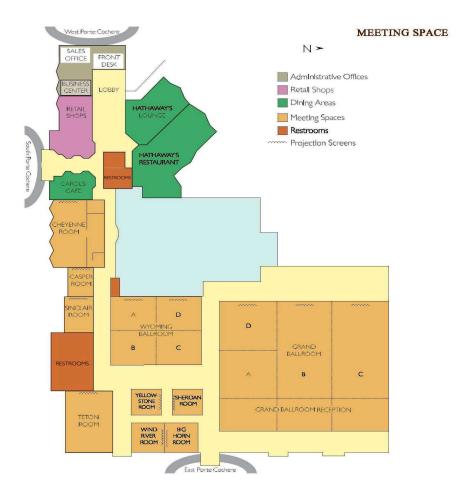






HOSTED BY

The Cheyenne Chapter of the Wyoming Archaeological Society is pleased to host the 2016 Spring Meeting of the Wyoming Archaeological Society (WAS) and Wyoming Association of Professional Archaeologists (WAPA) at the Little America Hotel and Resort, 2800 West Lincolnway, Cheyenne, WY 82009, Phone Nos. 1-307-775-8400/1-800-235-6383, www.littleamerica.com/cheyenne. Little America is an 80-acre oasis of luxury and service, surrounded by beautifully groomed grounds, a nine-hole executive golf course, and a heated outdoor swimming pool.



COVER PHOTO: The cover photo is courtesy of Todd Guenther, Instructor of Anthropology, History, and Museum Studies at Central Wyoming College. The photo was taken during CWC's 2015 field season in the Wind River Range, Wyoming. It shows (from left to right) CWC students Morgan Dreesbach, Morgan Robins, and Jesi Crawford reaching the top of the boulder field for the first clear view of Dinwoody Glacier.

2016 SPRING MEETING MAY 6-8, 2016 SUMMARY SCHEDULE

Friday, May 6, 2016	
Wyoming Association of Professional Archaeologists Meeting	1:00-5:00 pm
Poster Set-up	5:00-6:00 pm
Welcome Social	5:00 pm-TBD
Saturday, May 7, 2016 Wyoming Archaeological Society Business Meeting	8:00-10:00 am
Paper Presentations	10:10-11:50 am
LUNCH	11:50 am-1:20 pm
Scholarship Committee Meeting	12:00-1:00 pm
Paper Presentations	1:20-3:20 pm
BREAK	3:20-3:40 pm
Paper Presentations	3:40-5:00 pm
Poster Presentations *and during meeting breaks	5:00-6:00 pm*
BANQUET	6:00-9:00 pm
Sunday, May 8, 2016 Wyoming Archaeological Foundation Meeting	7:30-9:00 am

9:30 am-TBD

Field Trip

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MEETING SPONSORS

- The Cheyenne Chapter of the Wyoming Archaeological Society (Welcome Social)
- The Sheridan/Johnson County Chapter of the Wyoming Archaeological Society (Break Refreshments)
- The Wyoming Association of Professional Archaeologists (WAPA) (Banquet Keynote Speaker)
- SWCA Environmental Consultants (Break Refreshments)
- Dr. Danny Walker, Zoological Investigations (Welcome Social)
- Metcalf Archaeological Consultants, Inc. (Break Refreshments)
- Wyoming State Historic Preservation Office (Poster Presentations)
- Office of the Wyoming State Archaeologist (Poster Presentations)



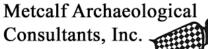


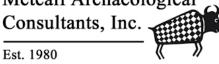
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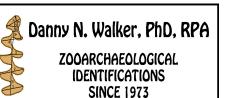
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WYOMING ASSOCIATION OF PROFESSIONAL ARCHAEOLOGISTS

Wyoming State Parks & Cultural Resources









GENERAL INFORMATION

Meeting Headquarters

All meeting events will be held at Little America Hotel and Resort, 2800 West Lincolnway, Cheyenne, WY 82009. Call 1-307-775-8400/1-800-235-6383 or visit www.littleamerica.com/chevenne for more information.

Registration

Meeting registration and packet pickup will be in Wyoming Ballroom C starting at 5:00 pm on Friday, May 6, 2016.

WAPA

The WAPA meeting is 1:00–5:00 pm, Friday, May 6, in Wyoming Ballroom C.

Welcome Social

The Welcome Reception is Friday, May 6, from 5:00 pm-TBD in the Cheyenne Room & Reception. The Cheyenne WAS Chapter and Zoological Investigations will provide a keg of beer, and a cash bar is also available.

Paper and Poster Presentations

Oral presentations are Saturday, May 7, from 10:00 am-5:00 pm. Poster presentations are scheduled for May 6 to 7 during break times, and May 7 from 5:00-6:00 pm. All presentations will be in Wyoming Ballroom C. Our sponsors are providing complimentary refreshments during the presentations.

Silent Auction

The annual silent auction is in Wyoming Ballroom C. The auction provides a variety of items for your bidding pleasure. If you have items you would like to donate, please bring them with you to the meeting. Our Silent Auction Chair will be available to have you sign your name, address, and list the items donated. Please be prepared to pay in CASH/CHECK at the close of the auction.

Scholarship Committee

The Scholarship Committee meets at 12:00 pm, Saturday, May 7, at Little America's Hathaway's Restaurant. The back of the restaurant is reserved for the Committee, and you may order lunch from the restaurant's menu.

Wyoming Archaeological Foundation

The Foundation Board meeting is Sunday, May 8, from 7:30 am – 9:00 am at Little America's Hathaway's Restaurant. The back of the restaurant is reserved for the Board, and you may order from the restaurant's menu. All are welcome.

FIELD TRIP

Friday and Saturday (May 6-7): Onyour-own touring of Cheyenne and Cheyenne museums (see Chamber of Commerce Welcome Packet)

Sunday (May 8): Dr. Steve Cassells will lead a tour of the Biscuit Hill Tipi Ring site (5WL1298), located south of town on the Terry Bison Ranch. The field trip will leave Little America at 9:30 am (weather permitting). We will caravan from Little America, but if you want to meet at the Terry Ranch HQ, follow these directions and be there by no later than 9:45 am: From Little America, go south on I-25 to the Terry Ranch Rd. Exit (Exit 2). Go east under I-25 to the stop sign (I-25 frontage road/Hwy 223) and then turn south (right) on 223 to the Terry Ranch headquarters. Wait at the headquarters until the Little America caravan arrives. All vehicles will have to go into the property at one time, as the gate will be locked after we enter.





Overview photograph of Biscuit Hill (Photo courtesy of Dr. Steve Cassells).

BANQUET

The banquet will be in Wyoming Ballroom A & B on Saturday, May 7, from 6:00-9:00 pm. The keynote speaker for the banquet is Dr. Craig Lee. Dr. Lee will be giving a talk entitled "Ice Patch Archaeology at the Crossroads of Culture and Climate Change in the Greater Yellowstone Area, Northern Rocky Mountains, USA."



Dr. Craig M. Lee is a Principal Investigator at Metcalf Archeological Consultants and a Research Scientist at the Institute of Arctic and Alpine Research (INSTAAR) and Montana State University. He currently serves on the Boards of Directors for the Lamb Spring Archaeological Preserve (www.lambspring.org) and the PaleoCultural Research Group (www.paleocultural.org), as well as numerous organizations, including Montana's Site Stewardship Advisory Council. He is a past-President of the

Montana Archaeological Society. Dr. Lee earned his Ph.D. from the University of Colorado at Boulder, an M.A. from the University of Wyoming, and a B.S. from Montana State University. His current research focuses on the human ecology and landscape archaeology of alpine and high latitude environments with an emphasis on sharing the process and results with numerous audiences, including the professional scientific community, Native American communities and the lay-public.

Ice Patch Archaeology at the Crossroads of Culture and Climate Change in the Greater Yellowstone Area, Northern Rocky Mountains, USA

Melting ice-patches are revealing an incredibly unique array of ancient plant and animal remains as well as archeological materials. These discoveries shed new light on past climate variability in high-elevation environments and the use of the alpine by Native Americans. Ancient wood, plant remains, vertebrates and insect parts provide valuable clues about past environments, and ancient dart shafts, basketry, and other objects of material culture provide important information on human activities. These discoveries -- the ice patch record -- are nothing short of astonishing, scientifically very important, and at risk of loss. High-elevation environments are among the most vulnerable settings to projected changes in climate. Ongoing efforts within the Greater Yellowstone Area to identify additional cultural and paleobiological sites transcend the divide between the cultural and natural world as well as the numerous jurisdictions that manage the lands on which they occur.

ORAL PRESENTATIONS Saturday, May 7, 2016 10:10 am-11:50 am

MORNING SCHEDULE

10:10 am INTRODUCING ORCA: A NEW ONLINE TOOL-KIT FOR ARCHAEOLOGY AND HISTORIC PRESERVATION IN COLORADO by Christopher M. Johnston and Mark D. Mitchell (Paleocultural Research Group)

10:30 am THE DINWOODY BISON JUMP: COMMUNAL HUNTING AT 11,000 FEET IN THE WIND RIVER MOUNTAINS by Morgan Robins (Central Wyoming College)

10:50 am RUNNING OF THE BUFFALO: NEW INVESTIGATIONS ON THE ROBERTS BUFFALO JUMP (5LR100), NORTHERN COLORADO by Christopher M. Johnston (Paleocultural Research Group and Center for Mountain and Plains Archaeology, CSU)

11:10 am *FINDING EQUUS CABALLUS IN THE ARCHAEO-LOGICAL RECORD* by Cassidee Thornhill (University of Wyoming)

11:30 am A FORTUITOUS FIND: HOW AN ISOLATED RESOURCE SENT ME TO ENGLAND by Gina Clingerman (BLM Lander Field Office and Wyoming DEQ)

11:50 am-1:20 pm LUNCH

ORAL PRESENTATIONS Saturday, May 7, 2016 1:20 pm-5:00 pm

AFTERNOON SCHEDULE

1:20 pm A CASE STUDY CONCERNING THE ABILITY TO MEASURE FLINTKNAPPING SKILL VARIATION IN THE ANALYSIS OF DEBITAGE by Sean T. Carroll (University of Wyoming)

1:40 pm *2015 EXCAVATIONS AT THE LA PRELE MAM-MOTH SITE* by Madeline E. Mackie (University of Wyoming)

2:00 pm *LIVING STRUCTURES: A NATIVE AMERICAN ARCHAEOLOGIST'S PERSPECTIVE* by Nelson White III (Central Wyoming College)

2:20 pm REVISITING THE SUMMER OF 1969: WYO-MING'S FIRST HIGH ALTITUDE ARCHAEOLOGICAL SURVEY by Connor Corcoran Johnen (University of Wyoming) and Dr. Richard Adams (Colorado State University)

2:40 pm PREDICTIVE MODELING OF ARCHAEOLOGICAL SITES IN THE WIND RIVER RANGE WYOMING by Connor Corcoran Johnen (University of Wyoming)

3:00 pm *OPTICALLY STIMULATED LUMINESCENCE DATING OF THE HELL GAP STRATIGRAPHY* by Heidi L. Van Etten and Spencer Pelton (University of Wyoming)

ORAL PRESENTATIONS Saturday, May 7, 2016 1:20 pm-5:00 pm

AFTERNOON SCHEDULE, CONT'D

3:20 pm *GEOARCHAEOLOGICAL INVESTIGATIONS AT CAMP GUERNSEY, 2013-14: OPTICALLY STIMULATED LUMI-NESCENCE DATING OF UPLAND LOESS AND ITS ARCHAEO-LOGICAL IMPLICATIONS* by William Eckerle (Western GeoArch Research, LLC), Kenneth P. Cannon (USU Archaeological Services), and Molly Boeka Cannon (Museum of Anthropology, USU)

3:20-3:40 pm BREAK

- **3:40 pm** ASSESSING PALEOENVIRONMENTAL AND GEO-MORPHIC VARIABILITY IN RELATIONSHIP TO PALEOINDI-AN SITE BURIAL: CENTENNIAL VALLEY, SOUTHWEST MON-TANA by Hillary A. Jones, Judson B. Finley, Tammy M. Rittenour, and Kenneth P. Cannon (Utah State University)
- **4:00 pm** THE TRANSCONTINENTAL AIRWAY IN WY-OMING: SURVEY, IDENTIFICATION, AND CATALOGING OF MORE THAN 60 ASSOCIATED SITES by David Marcum (Laramie County Community College)
- **4:20 pm** THE ATLANTIC CITY PIONEER CEMETERY RE-CORDING PROJECT by Ashley Harris (Central Wyoming College)
- **4:40 pm** FOOD ON PARADE: THE USE OF FOOD TO CREATE SOCIAL IDENTITY AND DIFFERENCES WITHIN THE POST-CIVIL WAR U.S. ARMY AT FORT LARAMIE, WYOMING by Sarah E. Wolff, (University of Arizona)

ORAL PRESENTATIONS Saturday, May 7, 2016 Paper Abstracts

Carroll, Sean T. (University of Wyoming)

A Case Study Concerning the Ability to Measure Flintknapping Skill Variation in the Analysis of Debitage

One application of experimental archaeology is attempting to understand variations in flintknapping skill. These experiments often have flintknappers of varying skill levels attempt to replicate different variants of prehistoric stone tools. Previous studies on skill level in the debitage produced during flintknapping have largely been restricted to qualitative methods of analysis. To add to the expanding collection of experimental archaeology that attempts to identify flintknapping skill, this study addresses whether quantitative analysis can be used to distinguish individual flintknapper skill levels in debitage analysis. Additionally, in an attempt to produce a more controlled flintknapping environment, the experiment reported in this paper implements liquid porcelain biface casts as the objective pieces. Using a more controlled objective piece, this paper attempts to take the quantitative analysis, which has previously been largely restricted in experimental archaeology to formal tools, and apply them to debitage to see if similar indications of skill can be identified.

Clingerman, Gina (BLM Lander Field Office; Wyoming DEQ)

A Fortuitous Find: How an Isolated Resource Sent Me to England A rare find in the Copper Mountains outside Shoshoni, Wyoming connects to the heart of the industrial revolution in Sheffield, England. During the 2015 AML inventory and monitoring season I was fortunate enough to discover a large metal spear point stamped with a unique maker's mark. Efforts to elucidate and identify the origin of this rare find led me to Sheffield, England into the heart of the cutlery industry. My research led to a family of file makers who persisted in the family business from 1767 through World War I. Join me on a circuitous journey from the wilds of Wyoming to the cutler's forge.

Eckerle, William (Western GeoArch Research, LLC), Kenneth P. Cannon (USU Archaeological Services), and Molly Boeka Cannon (Museum of Anthropology, USU)

Geoarchaeological Investigations at Camp Guernsey, 2013-2014: Optically Stimulated Luminescence Dating of Upland Loess and Its Archaeological Implications

Geoarchaeological investigations conducted at Camp Guernsey, Wyoming, in support of site testing performed by the authors, provided an opportunity to chronometrically date loess-mantled uplands. Previous investigators, who had studied this upland loess prior to the common utilization of optically stimulated luminescence dating (OSL), concluded that the loess predated human occupation of the region. OSL dating documents that, to a depth of 100 cmbs, loess on upland localities dates within the era of human occupation. Constraining the age of the loess allows better correlation of Camp Guernsey's latest Pleistocene and Holocene deposits with the geochronology of the nearby Hell Gap site developed by C. Vance Haynes. It also permitted more realistic site burial modeling for Camp Guernsey.

Harris, Ashley (Central Wyoming College)

The Atlantic City Pioneer Cemetery Recording Project

This paper discusses surface recording of grave sites in and around the 1860s gold-mining boom town of Atlantic City, Wyoming. Many of the grave markers and fences have disappeared over time but surface evidence of burials is visible. The project began as a simple mapping project to define the extent of two pioneer cemeteries, the main cemetery and "The Children's Cemetery," and then developed to include research documenting some of the people buried there. Several locally prominent people are still buried in these wind swept slopes, in contrast to the nearby South Pass City cemetery from which the desiccated and well-preserved remains of the most prominent people were removed to the Lander cemetery. The Atlantic City project was a public archaeology volunteer effort by CWC archaeology students whose assistance had been requested by the Atlantic City Historical Society and the BLM-Lander Field Office. The cemeteries are in the process of being fenced and public access granted by private land-owners.

ORAL PRESENTATIONS Saturday, May 7, 2016 Paper Abstracts

Johnen, Connor Corcoran (University of Wyoming)

Predictive Modeling of Archaeological Sites in the Wind River Range Wyoming

This paper will present the preliminary results of fieldwork conducted in August 2015 in the southern portion of the Wind River Range, Wyoming. The fieldwork was conducted to accomplish two goals: to relocate and formally record sites found in 1969, and to test predictive models of prehistoric site location. A GIS model published by Stirn in 2014 for the northern Wind River Range was employed and manipulated with a two-fold goal: to test the potential of Stirn's model in another region of the same mountain range while trying to isolate the critical variables associated with site location. This paper will discuss the results of systematic survey in the southern Wind River Range and the implications of these results to Rocky Mountain archaeology.

Johnen, Connor Corcoran (University of Wyoming) and **Dr. Richard Adams** (Colorado State University)

Revisiting the Summer of 1969: Wyoming's First High Altitude Archaeological Survey

A student paper written back in 1971 surfaced in the library of late archaeologist Dr. James Benedict a few years ago. The paper describes the first high altitude archaeological survey in Wyoming's Wind River Range. Written by two Colorado State University undergraduates, the paper describes their exploration of two drainages in the southern Wind River Range in the summers of 1969 and 1970. They discovered about two dozen high altitude prehistoric sites, but no site forms were ever filled out. Site numbers were obtained in 2012. In 2015, we visited as many of the sites as we could relocate in a week-long field session. We present preliminary results of our field work.

Johnston, Christopher M. (Paleocultural Research Group and Center for Mountain and Plains Archaeology, CSU)

Running of the Buffalo: New Investigations on the Roberts Buffalo Jump (5LR100), Northern Colorado

Since the Roberts Buffalo Jump (5LR100) was first reported on in 1971 by Max Witkind, a great deal of research on bison kills has been completed. This, coupled with advancements in faunal analysis methods and spatial analytic techniques, allows for new discussions about an important yet somewhat forgotten site. This paper will describe the results of my MA thesis research, which uses new data from the collection to explore different aspects of the site, including bone element composition and site structure. The updated faunal analysis shows at least 19 adult and subadult bison, along with at least eight fetal bison, were driven over a cliff and heavily processed around A. D. 1650. The faunal data, along with new data on the modified stone, modified bone, and ceramic assemblage, are used to explore how the bonebed and other site materials are spatially organized. The spatial analysis shows two main concentrations of bone, likely representing primary and secondary processing areas. Additionally, the stone tools and flaking debris are arranged around the bone concentrations, showing discrete activity areas associated with, but separate from, the bonebed. Lastly, the spatial analysis shows artifacts such as ceramics and bone bead manufacturing debris, along with most of the fetal bone assemblage, are situated away from the main bone concentrations, representing secondary task areas.

Johnston, Christopher M. and **Mark D. Mitchell** (Paleocultural Research Group)

Introducing ORCA: A New Online Toolkit for Archaeology and Historic Preservation in Colorado

Paleocultural Research Group currently is building the organizational and digital infrastructure needed to support an online platform for research, cultural resources management, and public education in Colorado archaeology. Funding for the project is provided by History Colorado–State Historical Fund, the Colorado Council of Professional Archaeologists, the Colorado Archaeological Society, and other organizations. The resulting open-access website will incorporate new content, legacy documents, links to other online resources, and tools for collaboration. The project represents a first step toward revising the existing statewide CCPA context documents and will help the public better understand and appreciate the preservation planning process.

ORAL PRESENTATIONS Saturday, May 7, 2016 Paper Abstracts

Jones, Hillary A., Judson B. Finley, Tammy M. Rittenour, and Kenneth P. Cannon (Utah State University)

Assessing Paleoenvironmental and Geomorphic Variability in Relationship to Paleoindian Site Burial: Centennial Valley, Southwest Montana

Wave action along Lima Reservoir in Centennial Valley, Montana has exposed three neighboring Paleoindian sites along the north shore cutbank. Site 24BE46 contains subsurface cultural levels while sites 24BE43 and 24BE52 are apparent surface manifestations. While these sites lie in close proximity, they exhibit dissimilar stratigraphy and hint at variable geomorphic settings. From Late Pleistocene through present, the Centennial Valley has experienced a complex geomorphic history. Previous researchers have identified alternating periods of alluvial aggradation and incision, pluvial lake formation and eolian deposition. Each of these geomorphic contexts possesses different potential for site burial and structural preservation. Using stratigraphic interpretation, optically stimulated luminescence (OSL) and radiocarbon dating, grain size distribution analysis, and other techniques we attempt to reconstruct the environmental and geomorphic history of the area encompassing these three sites. By determining site formation histories and antecedent conditions we seek to model what geomorphic processes and resultant landforms could signal potential for buried Paleoindian material in the Centennial Valley.

Mackie, Madeline E. (University of Wyoming)

2015 Excavations at the La Prele Mammoth Site

The La Prele Mammoth site was found in 1986 eroding out of a cutbank next to the La Prele Creek in Converse County, Wyoming. Initial excavations in 1987 found the remains of a single young Columbian mammoth (*Mammuthus columbi*) along with a flake tool and fourteen flakes. In 2014 and 2015 the University of Wyoming Field School returned to the La Prele site to investigate the extent of intact deposits and clarify debate around the association between artifacts and the mammoth. Two seasons of field work have resulted in strong evidence of cultural activities on site that are contemporaneous with the mammoth. The 2014 discovery of a chopping tool 12 meters south of the main excavation led to the creation of a second excavation block in 2015. The new block, named the 'Chopper' Block, revealed a secondary work area adjacent to the mammoth. This secondary work area contained some unexpected finds, including a bone needle and a large ocher stain, which have never before been found in association with a mammoth in North America.

Marcum, David (Laramie County Community College)

The Transcontinental Airway in Wyoming: Survey, Identification, and Cataloging of More Than 60 Associated Sites

In 1918 the U.S. Post Office Department initiated regularly scheduled air mail service between New York City and Washington, D.C. Transcontinental Air Mail service between New York City and San Francisco began in 1920; service that included stops in Cheyenne, Rawlins and Rock Springs, Wyoming. The Transcontinental Airway largely followed the route of the transcontinental railroad across southern Wyoming. The physical infrastructure associated with the airway included emergency and intermediate airfields, lighted beacons, concrete arrows, and segmented circles. Since 2014 the author has been engaged in an ongoing effort to identify, survey and catalog the more than 60 sites associated with the airway in Wyoming and this paper will present findings to date.

Robins, Morgan (Central Wyoming College)

The Dinwoody Bison Jump: Communal Hunting at 11,000 Feet in the Wind River Mountains

The Dinwoody Bison Jump was discovered by the CWC archaeological field school during the 2015 Interdisciplinary Climate Change Expedition (ICCE) to the Dinwoody Glacier. This jump is several thousand feet higher than the next known recorded jump site, most of which are at far lower elevations. The Dinwoody jump consists of a gathering area of several square miles, a 1.6 km long drive line which leads to a rocky outcrop jump off, and a butchering area consisting of a surface lithic scatter containing an estimated 10,000 sharpening flakes. What makes this site important is not so much its unique elevation as what it suggests about prehistoric people's large group adaptations, possibly year round, to the high alpine environment.

ORAL PRESENTATIONS Saturday, May 7, 2016 Paper Abstracts

Thornhill, Cassidee (University of Wyoming)

Finding Equus caballus in the Archaeological Record

The introduction of *Equus caballus* (modern horse) into North America during European-American contact altered Native American life on the Plains. The horse influenced a variety of cultural practices including the distance at which resources could be exploited, the amount of material goods that could be transported and war practices. Considering the importance of the horse, it should be expected that horse remains would be prevalent in the archaeological record. Despite the impact of the horse on native Plains societies, there is a paucity of horse remains in the archaeological record in Wyoming. In this paper I explore the distribution of horse remains in Wyoming and potential explanations for the low representation of *Equus caballus* remains in the archaeological record on the Plains.

Heidi L. Van Etten and **Spencer Pelton** (University of Wyoming) Optically Stimulated Luminescence Dating of the Hell Gap Stratigraphy

Hell Gap in eastern Wyoming offers an opportunity to study human responses to change during the Pleistocene/Holocene transition at a multi-use occupation site containing the most complete Paleoindian sequence in North America. While many charcoal samples have been assayed, and work is being done to improve the 14C chronology, some cultural components and sedimentary units remain undated. Additionally, disagreements persist between geologic and paleoclimatic studies conducted at the site which could be resolved with better dating resolution such as that provided by OSL dating. This summer I will be testing the hypothesis that OSL dates will correspond with changes in sedimentation and cultural complexes, thus rendering a greater understanding of sediment deposition, cultural sequences, and human responses to climate change at Hell Gap. Hell Gap is an ideal site both culturally and geographically for OSL dating. Advantages of using OSL data include direct depositional dates and no need for organic material. I hope to better understand sediment deposition at the site and create a tighter chronology of Hell Gap by comparing OSL dates, 14C dates and ongoing work with age-depth modeling, as well as paleoclimate research done previously which will make answering age related questions easier in the future.

White III, Nelson (Central Wyoming College)

Living Structures: A Native American Archaeologist's Perspective
Tepees are the most familiar lodge structures used by Plains Indians. This paper
compares tepees which were generally used at lower elevations, with wikiups, or
pole lodges that were often used in the mountains. Topics will include construction materials and techniques, dimensions, how and where they were used, as well
as why they were used in particular environments, whether they were used differently by males or females, and how the two types of structures might be distinguished in the archaeological record. Examples will include sites recorded by
CWC field schools and ethnographic information from the presenter's Northern
Arapaho relatives.

Wolff, Sarah E. (University of Arizona)

Food on Parade: The Use of Food to Create Social Identity and Differences within the Post-Civil War U.S. Army at Fort Laramie, Wyoming On a remote frontier fort where conspicuous consumption materials were limited, officers and enlisted men reinforced distinct hierarchical and social status identities through differential food consumption. While status differences in the military are primarily signaled through rank insignia and uniform elements, I intend to focus this paper on differences in diet to better understand the maintenance of Victorian class structure at Fort Laramie from 1870 – 1890. A zooarchaeological and historical document analysis demonstrates that while enlisted men and officers had similar rations, their diets were different in many respects. Officers maintained greater diet diversity because they were the only ones who regularly hunted wild game. In addition, officers regularly purchased canned meats, fruits, and vegetables. This research increases our knowledge of everyday life and social relationships between officers and enlisted men in the U.S. Army in the late nineteenth century.

POSTER PRESENTATIONS Saturday, May 7, 2016 During Meeting Breaks & 5:00-6:00 pm

GENERAL POSTER SESSION

Organizer: **Peterson, Marcia** (Office of the Wyoming State Archaeologist)

The general poster session includes five posters on Wyoming and Colorado archaeology. They cover one Colorado rock art site, one Wyoming prehistoric buffalo jump, two historic sites in Wyoming (Deadwood Road and Reliance No. 1 Mine Camp), and the archaeological collections housed at the University of Wyoming Archaeological Repository (UWAR).

Frame, Seth (Alpine Archaeological Consultants)

Rock Art Recording at the Wolf Creek Pictograph Site (5RT90)

As part of the 2015 excavation plan of 5RT90, the Colorado Department of Transportation (CDOT) also requested an update of the recording of nearby rock art panels associated with the site. The panels are made up of a number of proto-historic pictographs of probable Ute origins as well as some Euro-American historic inscriptions. The rock art was recorded in 1988 during previous fieldwork and has since degraded significantly, especially the pictographs.

With the help of volunteers from the Vermillion Chapter of the Colorado Archaeological Society (CAS), the rock art panels at the site were recorded and photographed. Each image was digitally enhanced using the D Stretch (a.k.a. Decorrelation Stretch), software program authored by Jon Harman. D Stretch is a photoenhancement program that enriches the intensity of the colors represented in the original photograph. The colors that are strengthened depend upon the particular colorspace chosen by the user. The resulting digitally altered photos visually enhance details of the rock art that are no longer visible to the naked eye. Many of these details were not seen in the earlier recordation.

GENERAL POSTER SESSION, CONT'D

Garhart, Zachary, Adam Guinard, Rachael Shimek, and Dr. Jody Clauter (University of Wyoming Archaeological Repository)

Clovis Points, Trade Beads, and Everything in Between: Collections at the University of Wyoming Archaeological Repository

This poster details the archaeological collections housed at the University of Wyoming Archaeological Repository (UWAR) located in Laramie. The repository houses approximately 3 million artifacts from 15,000 different Wyoming sites as well as comparative, replica, experimental, and educational materials. We highlight our extensive suite of artifacts from across the state, which includes artifacts from all time periods from the Paleoindian to the Historic. Many of these objects are submitted through private donations, academic research, or are curated by contractors through Section 106 projects. We also discuss our partnerships with state, federal, and local agencies to complete education and outreach programs. These programs increase awareness and use of our archaeological collections in a variety of ways including hosting visiting researchers, loans to museums and historical societies, exhibit preparation, school group tours and classroom activity development, and an archaeological collections management class for undergraduates and graduates at the university. Finally, we show how we have used information from our own research on older collections to enhance modern investigations.

Grund, Brigid, Spencer Pelton, and **Dr. Todd Surovell** (University of Wyoming) and **Neffra Matthews** and **Tom Noble** (Bureau of Land Management)

Where the Buffalo Groan: Spatial Modeling at Wold, WY

The Wold Bison Jump (48JO966) is a communal bison (Bison bison) hunting site in Johnson County, Wyoming. It likely represents a single kill event, precipitated by Great Plains foragers between 1433 and 1643 A.D. Operating the jump required that prehistoric hunters drive stampeding bison up a steep slope in order to position them within a V-shaped drive line configured to funnel them towards a cliff. Using iterative models of least cost paths, topographic cross-sections, and visibility analysis, we test which landscape-embedded variables are optimized at the jump site as compared to other potential localities across the study area. We find that this site's placement is primarily explained by minimizing the distance at which the cliff face is visible and secondarily by minimizing the cost of slope and curvature routes ascending into the drive lines. Our procedure could hypothetically be used to predict optimal jump locations on similar landscapes.

POSTER PRESENTATIONS Saturday, May 7, 2016 During Meeting Breaks & 5:00-6:00 pm

GENERAL POSTER SESSION, CONT'D

O'Dell, Kevin (ACR Consultants, Inc.)

Metal Detecting on the "Crookedest Road in America" (Deadwood Road, Belle Fourche River Route)

The discovery of gold in the Black Hills in the summer of 1874, prompted a rush to the region. Five major trails provided access to the gold field. The least used route left the Bozeman Trail, near the Powder River, and largely followed the Belle Fourche River through northeast Wyoming before terminating at Deadwood, SD. Portions of the trail were built in 1865 and 1866 by a civilian road-building expedition. The Deadwood Road would play a minor role in the military campaigns of 1876. In December of that year, a large military command followed a portion of the road on a two week reconnaissance.

Oil and gas development since the early 2000s has prompted the documentation of the Deadwood Road in the Powder River Basin. A unique partnership between federal agencies, oil and gas operators, and landowners has allowed for metal detecting on the Deadwood Road. By analyzing the artifacts recovered by professional archaeologists and surface owners, we are able to interpret the activities on this little studied route.

Tinkcom, Marina, Rita Bolton, and Charity Taylor (LTA, Inc.)

Rediscovery of the Reliance No. 1 Mine Camp

An underground coal mine fire led LTA, Inc. to conduct an archaeological survey of an area near Reliance, Wyoming that resulted in the location of the Reliance No. 1 Camp. The camp, its buildings, building ruins, and historic artifacts were encountered, the identities of which were confirmed by historic photographs, maps, and documents. Some of the artifacts found are probably Japanese in origin, adding to our knowledge of immigrant working communities. The Reliance No. 1 Camp is a good example of an early to mid-twentieth century mine camp. Information derived from both the archaeological work and the archival record provides a framework for understanding other, less well documented coal camps from this period.

POSTER SESSION: CENTRAL ROCKY'S ARCHAEOLOGY: ROCKSHELTERS, TIPI RINGS, PALEOINDIANS, AND OTHER MUSINGS

Organizers: Garhart, Zach, Dr. Mary Lou Larson, and Dr. Marcel Kornfeld (PaleoIndian Research Lab, University of Wyoming)
The Paleoindian Research Lab (PiRL) investigations from the Pryor Mountains of southern Montana to Hell Gap in southeastern Wyoming produced a wealth of new archaeological data from the Pleistocene through the Holocene. Testing of several Pryor Mountain shelters recovered chipped stone, bone, and heating features, as well as new rockshelters dating as early as 7900 BP. In addition, the project tested a stone circle site. The focus of investigation at the stratified Paleoindian Hell Gap site was the lowest cultural components, Agate Basin through Goshen. The recovery from these components at Hell Gap sheds new light on Paleoindian occupation and chronology. The posters in this session provide preliminary results of these studies.

PRYOR MOUNTAINS RESEARCH

Garhart, Zach, and **James Goulding** (University of Wyoming)
Rockshelters and Tipi Ring Research in the Pryor Mountains of Southern Montana

Hundreds of archaeological sites on the Pryor Mountains include tipi rings, quarries, camps, rock cairns, vision quests, rock images, wooden structures, and rockshelters. The primary goal of Paleoindian Research Lab's Pryor Mountain Project is to relocate and test rock shelters on Bureau of Land Management land within the Pryor Mountains. In the resurvey process, 25 new rockshelters were recorded, while all but one of the tested shelters contain archaeological deposits described in this presentation. A tipi ring at the Last Canyon site was also excavated.

POSTER PRESENTATIONS Saturday, May 7, 2016 During Meeting Breaks & 5:00-6:00 pm

CENTRAL ROCKY'S ARCHAEOLOGY, CONT'D

PRYOR MOUNTAINS RESEARCH, CONT'D

Cory, Mackenzie (Indiana University)

Another Stone Circle Excavation: Last Canyon (24CB879), Western Pryor Mountains, Montana

The Last Canyon site (24CB879) in the western foothills of the Pryor Mountains of south-central Montana consists of several closed and several open localities. A survey of the small cul-de-sac below two shelters indicates extensive use of this locale. The focus of the 2014 and 2015 investigation at Last Canyon was subsurface testing of the cul-de-sac. The Paleoindian Research Lab (PiRL) completed test excavation of a previously mapped stone circle. Cowley, Wyoming middle school students under the supervision of the PiRL crew excavated approximately 15 m² of one circle to an average depth of 10 cm. The excavation and the results of the subsequent lab analysis of the recovered material are presented.

Goulding, James, and Zach Garhart (University of Wyoming)

Marian's Shelter: Pryor Mountains, Montana

Located in a secondary dry drainage to Burnt Tiber Creek in the Pryor Mountain Wild Horse Range, Marian's shelter is adjacent and a few meters above the arroyo. Recorded first by Montana State University's 1969 Pryor Mountain Project, the 2015 investigations consisted of re-recording the shelter and excavating two 1 x 1 meter units. Chipped stone tools, debitage, and bone were recovered and several features were exposed. A tang knife and an Early Plains Archaic projectile point are among the artifacts recovered. Stratigraphy of the site consists of externally derived low energy alluvium, fluvial deposits from several outside conduits, as well as autogenic roof fall.

CENTRAL ROCKY'S ARCHAEOLOGY, CONT'D

PRYOR MOUNTAINS RESEARCH, CONT'D

Mankin, Brooke (University of Wyoming)

Branger Rockshelter of the Northwestern Pryors, Montana

Branger rockshelter in Carbon County of southern Montana is situated on the northwestern edge of the Pryor Mountains. The small shelter is in a southwest-facing Madison/Mission Canyon Formation Limestone cliff face in an unnamed, west-trending ephemeral drainage. Originally excavated by the Branger family in 1965, the shelter was recorded by Joe Medicine Crow, Denes G. Istvanffy, and Stuart W. Conner in 1967. The lowest occupation of the shelter was recorded as Middle Archaic or McKean age, followed by subsequent occupation episodes. The potential for additional undisturbed deposits remained unknown at that time. The purpose of the 2015 testing was to document the shelter stratigraphy, the level of disturbance from previous excavation, and evaluate the potential for intact sediment. The testing yielded a stratified depositional sequence, chipped stone, and faunal remains that included a badger skull.

HELL GAP UPDATE

Lynch, Elizabeth (University of Wyoming), Sarah Jacobs (St. Cloud State University), Rebecca Heidenreich (Utah State University), and Aundrea Sheri Thompson (University of Wyoming)

Close Range Photogrammetric Recording of a Bison Bed

During the 2015 field season at Hell Gap overlapping-stereo photographs of a small bison bone bed were taken in 5 cm levels until the entire bone bed was uncovered. Resulting images were used to build 3-D models of excavation material. The photographs were used to build virtual excavation units for future laboratory analysis. We show the methods and provide a means for using the current images to aid in lab analysis of the bison bone.

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CENTRAL ROCKY'S ARCHAEOLOGY, CONT'D

HELL GAP UPDATE, CONT'D

Moore, Amanda (Montana State University), Keatton Wilson (University of Wyoming), Bradley Saint (University of Kansas), Anthony Vizina (University of Wyoming), Christie Huber (Texas State University-Denton), Heather Hilson (University of Aberdeen), and Sarah Jacobs (St. Cloud State University)

Examining Early Paleoindian Strata at Hell Gap: New Data from the 2015 Field Season

1960s excavations at the stratified Paleoindian Hell Gap site in southeastern Wyoming demonstrated an early North American Paleoindian cultural sequence and contributed significantly to the understanding of late Pleistocene and early Holocene lifeways. Intervening years produced a wealth of new data, some of which questioned the early results. The 2015 field season provides the first solid field evidence since the 1960s to evaluate Hell Gap chronostratigraphy and site formation, specifically of the earliest site components. Excavations resulted in recovery of multiple flake clusters indicating several stages of on-site tool manufacturing, including Folsom point production, ochre use, and significant faunal remains including hereto unidentified taxa. This poster presents the preliminary results of 2015 field season.

Curcija, Zack (University of Northern Arizona), and Dr. Marcel Kornfeld (University of Wyoming)

The First Folsom Point Production Locus at Hell Gap

Folsom projectile point production areas are rare in the archaeological record, thus the one excavated at the Hell Gap site is potentially significant. Two Folsom point preforms, six channel flakes, an abrader, ochre, and several wolf bones were recovered in a concentrated area of Locality I at Hell Gap. These diagnostic Folsom artifacts are spatially and stratigraphically associated with one Folsom channel flake found during Harvard's Peabody Museum's 1960s excavations. The 1960s channel flake clearly belongs to the same nodule as a channel flake recovered in 2015. We also analyze another isolated channel flake discovered adjacent to Locality IIIS/V in 1980. The eight channel flakes discussed in this poster represent the complete assemblage of Folsom point channel flakes discovered at the site. These channel flakes in conjunction with the broken Folsom preforms delineate the only Folsom projectile point production station at Hell Gap.

CENTRAL ROCKY'S ARCHAEOLOGY, CONT'D

HELL GAP UPDATE, CONT'D

Hampton, Alex (University of Wyoming)

An Outdoor Museum at the Hell Gap Site: A Re-evaluation

The Hell Gap archaeological site (48GO305) near Guernsey, Wyoming is currently under consideration for the designation of National Historic Landmark by the National Park Service. To improve visitor experience at the site I propose the creation of an outdoor museum focused on place-based learning environment of Hell Gap. My poster presents a model for an outdoor museum at the site. Locality I was chosen as the initial model for the museum because of the most recent and extensive excavations and because this locality is most accessible to the public.

Bossio, Laura (Michigan State University), and **Dr. Mary Lou Larson** (University of Wyoming)

Flake Clusters, Informal Tools, and Heat Treatment at Hell Gap Nine hundred sixteen pieces of chipped stone were mapped at the Hell Gap site during the 2015 season. These included chert, quartzite, and petrified wood specimens. Of the recovered specimens about 8% were heated or burned. The production debris and informal tools include angular debris, shatter, flakes, heat spalls, a retouched heat spall, and utilized flakes. Analysis of the flake clusters, as well as the other lithics enhances our understanding of Paleoindian stone tool production.

Fitzpatrick, Tony (University of Wyoming)

Stable Isotope Analysis at Hell Gap: A Proposed Project

Stable isotope analysis of faunal remains from archaeological sites provides a range of information about diet, mobility, and paleoecology. The Hell Gap site is a unique Paleoindian locality due to the accretional stratigraphic record over an extended period at the Pleistocene to Holocene transition and thus provides an excellent laboratory for stable isotope studies. Fauna from a 4,000 year interval at a non-kill site can show diachronic changes in animal diet, seasonality, migration, and climate. This information, combined with previous and future isotopic data from North America, highlights Paleoindian ecology. Carbon and oxygen stable isotope studies are being initiated on bison bone to assess diet and climate throughout the history of the site, and possible herd affiliation at various time periods. Future phases of research will also be described.

POSTER PRESENTATIONS Saturday, May 7, 2016 During Meeting Breaks & 5:00-6:00 pm

CENTRAL ROCKY'S ARCHAEOLOGY, CONT'D

HELL GAP UPDATE, CONT'D

Martin, Houston L. (Utah State University)

Archaeological Inventories of the Hartville Uplift During the 1960s Investigations at Hell Gap: What's Around?

The 1960s excavations of the Hell Gap site by Harvard/Peabody Museum and University of Wyoming archaeologists included exploration of the Hartville Uplift and surrounding landscapes of Goshen and Platte counties. A preliminary examination of the results of their investigations using maps from the original investigation show the sites and their context, as well as their current status. Learning more about these sites lays the foundation for planned future prehistoric land use studies of the Hartville Uplift, as well as the potential gaps in our current knowledge of archaeological sites in east-central Wyoming.

FROM PALEO TO LATE PREHISTORIC

Curran, Robert, Dr. Marcel Kornfeld, and **Dr. Mary Lou Larson** (University of Wyoming)

Willow Spring(s): A Stratified (?) Laramie Basin Occupation Site
The multi-component Willow Spring(s) site was first occupied by Folsom or possibly even Clovis groups. First excavated by William Mulloy of the University of Wyoming from 1962 to 1967, the collection remained unanalyzed (except for ceramics; see Charles Reher's MA thesis) as Mulloy's interests turned to Easter Island. The most recent, historic occupations of Willow Spring are by the US military from Fort Sanders in the 1870s, a historic stage station of the same period, and subsequent rural ranching activities. The middle Holocene is well represented at the site by chronologically diagnostic artifacts. In our poster we provide an overview of the past occupations and briefly describe the collected assemblage of chronologically diagnostic artifacts.

CENTRAL ROCKY'S ARCHAEOLOGY, CONT'D

FROM PALEO TO LATE PREHISTORIC, CONT'D

Grunwald, Allison M., Dr. Marcel Kornfeld, and **Dr. George C. Frison** (University of Wyoming)

The Hanson Site: A Faunal Analysis

The Hanson site in northern Wyoming's Bighorn Basin is known as a Folsom lithic workshop. Evidence of hearths, toss zones, lithic concentrations, and butchering areas were shown by earlier studies. In the present analysis we examine the identifiable faunal material. Results indicate the procurement of at least four bison and a variety of smaller mammals. Our study supports a previous conclusion that the site was the result of at least one extended occupation by a small group.

CELEBRATING A CENTURY OF PALEOINDIAN ARCHAEOLOGY IN WYOMING



Wyoming Archaeology Awareness Month September 2016

In 1916, sheep rancher William Spencer discovered the Agate Basin site. While the significance of the site was recognized early on, twenty six years would pass before professional excavations would be conducted at Agate Basin. Later archaeological work in Wyoming would result in the discovery of additional, previously unknown, Paleoindian cultural complexes with distinctive projectile point types. Depicted on the poster from left to right, are Frederick, Eden, Goshen, Agate Basin, and Hell Gap points.

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Poster image courtesy of Judy Wolf, Wyoming State Historic Preservation Office. For more information on the poster or how to obtain one, go to http://wyoshpo.state.wy.us/AAmonth/Index.aspx.