

PROGRAM & ABSTRACTS

2019 ANNUAL MEETING

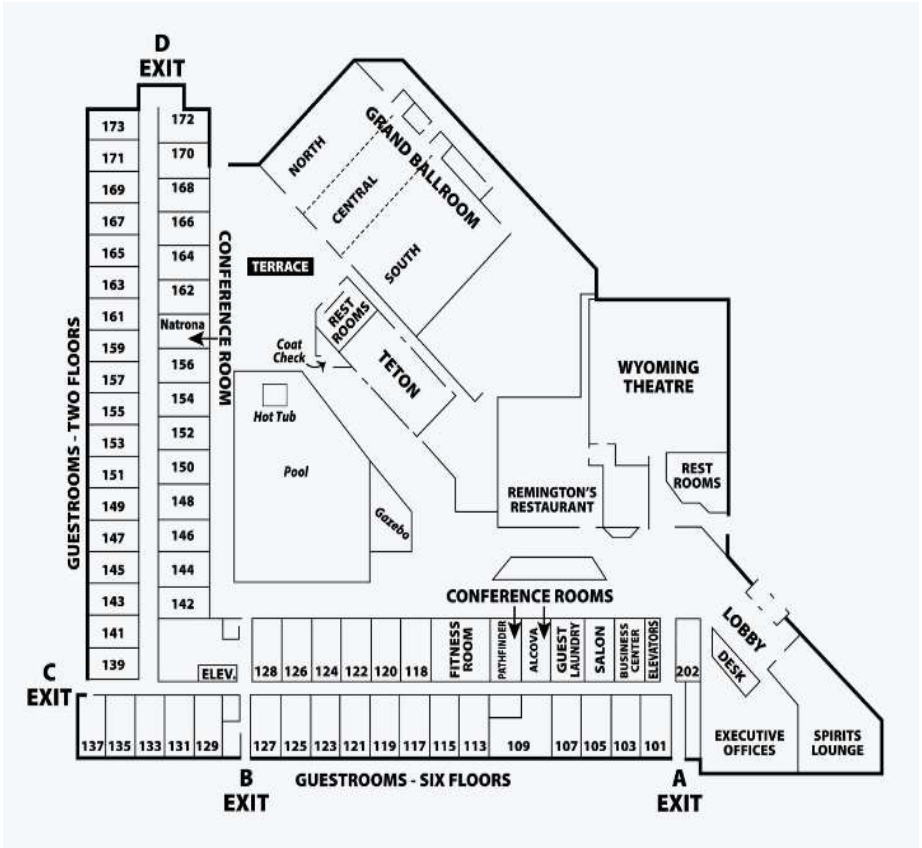
WYOMING ARCHAEOLOGICAL
SOCIETY AND
WYOMING ASSOCIATION OF
PROFESSIONAL ARCHAEOLOGISTS

CASPER, WYOMING
MAY 3-5, 2019



HOSTED BY

The Casper Chapter of the Wyoming Archaeological Society is pleased to host the 2019 Spring Meeting of the Wyoming Archaeological Society (WAS) and Wyoming Association of Professional Archaeologists (WAPA) at the Ramkota Hotel and Conference Center, just off I-25 at 800 N. Poplar Street, Casper, WY 82601, Phone No. 1-307-266-6000, Website <https://ramkotacasper.com>.



COVER PHOTO: The cover photo is courtesy of Marcia Peterson, Office of the Wyoming State Archaeologist. The photo shows the first day of the 2018 Wyoming Avocational Archaeology Survey Training Program in the Bighorn Mountains.

2019 SPRING MEETING
MAY 3-5, 2019
SUMMARY SCHEDULE

Friday, May 3, 2019

WAPA Meeting	2:00-5:00 pm
Poster Set-up	5:00-6:00 pm
Welcome Social	6:00-9:00 pm

Saturday, May 4, 2019

WAS Business Meeting	8:00-10:00 am
MORNING BREAK	10:00-10:30 am
Paper Presentations	10:30-11:50 am
LUNCH	11:50 am-1:40 pm
Scholarship Committee Meeting	12:00-1:30 pm
Paper Presentations	1:40-3:20 pm
AFTERNOON BREAK	3:20-3:40 pm
Paper Presentations	3:40-4:20 pm
Poster Presentations *and during meeting breaks	4:30-5:30 pm*
WAF Meeting	4:30-6:00 pm
Evening Social	6:00-7:00 pm
BANQUET	7:00-9:00 pm

Sunday, May 5, 2019

Field Trip	9:00 am-TBD
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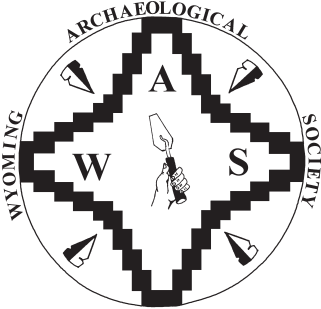
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MEETING SPONSORS

- The Casper Chapter of the Wyoming Archaeological Society-Conference Host
- The Wyoming Association of Professional Archaeologists (WAPA)-Break sponsor
- Ramkota Hotel and Conference Center-Break sponsor
- Gene Munson, GCM Services, Inc. and Cloud Peak Energy-Printing costs for one issue of The Archaeologist
- Office of the Wyoming State Archaeologist-Meeting Programs



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GENERAL INFORMATION

Meeting Headquarters

All meeting events will be held at the Ramkota Hotel and Conference Center, just off of I-25 at 800 N. Poplar Street. Call 1-307-266-6000 for more information.

Registration

Meeting registration and packet pickup will begin as early as 5:00 pm on Friday, May 3, in the lobby of the Ramkota Hotel and Conference Center just to the right of the main entrance.

WAPA

The WAPA meeting is 2:00–5:00 pm, Friday, May 3, in the Wyoming Theater, just to the right of the main entrance.

Welcome Social

The Welcome Social is Friday, May 3, from 6:00-9:00 pm in the Gazebo Area of the Ramkota Hotel and Conference Center. There will be a no host cash bar where you can greet old friends and make new ones.

WAS Business Meeting

The WAS business meeting is 8:00-10:00 am, Saturday, May 4, in the Wyoming Theater.

Paper and Poster Presentations

Oral presentations are Saturday, May 4, from 10:30 am-4:20 pm. Poster presentations are scheduled for May 3 to 4 during break times, and May 4 from 4:30-5:30 pm. All presentations will be in the Wyoming Theater.

Silent Auction

The annual silent auction is in Ramkota Hotel and Conference Center. The auction will be open from Friday, May 3 to Saturday, May 4. Specific auction opening and closing times to be determined, and winners will be announced at the banquet. If you have items you would like to donate to the auction, please bring them with you to the meeting. Please direct any questions to Mavis Greer at mavis@greerservices.com.

Scholarship Committee

The Scholarship Committee meets from 12:00-1:30 pm, Saturday, May 4, in the Ramkota Hotel and Conference Center restaurant.

Wyoming Archaeological Foundation

The Foundation Board meeting is Saturday, May 4, at 4:20 pm in the Wyoming Theater immediately following the paper presentations. All are welcome.

BANQUET

The banquet will be at the Yellowstone Garage, 355 W. Yellowstone Highway on Saturday, May 4. Cocktails start at 6:00 pm, and the banquet starts at 7:00 pm. A shuttle service will be available from the hotel to the banquet if no flights are scheduled. The keynote speaker for the banquet is Rob Bozell, Nebraska State Archaeologist, who will speak on the Plains Apache in northern Nebraska.

ROB BOZELL

Plains Apache Archeology in the Nebraska Sand Hills

Perhaps as early as 1200, ancestors of the Navajo and Apache migrated from the sub-arctic to the Rocky Mountains, Southwest, and High Plains. One area they settled in by the 1600s was the Nebraska Sand Hills and Panhandle. These people are what we know of archeologically as the Dismal River culture. Initial excavations of Dismal River sites in Nebraska took place in the 1930s and 1940s with little excavation since then. In 2017-2018, History Nebraska and partner agencies sponsored test excavations at the Humphrey site along the Middle Loup River located nearly at the geographic center of the Sand Hills. Geophysical work suggested domestic structure floors are buried at the site and test excavations confirmed it. Excavations focused on testing three 'lodges' which revealed a diverse lithic, ceramic, botanical, and bone inventory; prepared sandy clay floors; and complex architectural debris. Clearly, some Apaches were calling the Sand Hills home and not just using it for transitory hunting expeditions. This new work will add much needed detail to understanding the life of Sand Hills Apaches with respect to technology, architecture, subsistence, and chronology.



FIELD TRIP

Friday-Sunday (May 3-5): On-your-own touring of Fort Caspar, which is open daily from 8 am to 5 pm. The costs of admission are: Adults \$4; Seniors (65+) \$3; Teens (13-16) \$3; and Kids (0-12) Free.

Sunday (May 5): Dr. Todd Surovell will lead a tour of the La Prele Mammoth site, a Clovis mammoth kill and camp-site located northwest of Douglas and west of Fort Fetterman (the Fort is not open to visitors until Memorial weekend). The field trip will leave from the Ramkota Hotel and Convention Center lobby at 9:00 am for the drive to the site, which is on a private ranch.



ORAL PRESENTATIONS

Saturday, May 4, 2019

10:30 am-11:50 am

MORNING SCHEDULE

10:30 am *SKY-DATING AT THE BIGHORN MEDICINE WHEEL* by Dr. Ivy Merriot (Sky Traditions, Bozeman, MT)

10:50 am *LOST IN SPACE: HISTORICAL ARTIFACTS EJECTED BY EAR SPRING, YELLOWSTONE NP* by Dr. Beth Horton (Park Archaeologist, Yellowstone National Park)

11:10 am *GEOLOGICAL STRATUM, GEOLOGICAL HORIZON, AND SOIL HORIZON: HOW THEY DIFFER AND WHY IT MATTERS FOR ARCHAEOLOGY* by William Eckerle, MA, RPA, LPG (Western GeoArch Research, LLC)

11:30 am *FINDING THE BISHOP MAMMOTH* by Dr. Todd A. Surovell and Madeline E. Mackie (University of Wyoming)

11:50 am-1:40 pm **LUNCH**

ORAL PRESENTATIONS

Saturday, May 4, 2019

1:40 pm-3:20 pm

AFTERNOON SCHEDULE

1:40 pm *THE DINWOODY HOLY ROAD* by Sara Bales
(Central Wyoming College)

2:00 pm *DINWOODY GHOST FOREST: ALPINE
PALEOECOLOGY IN THE WIND RIVER MOUNTAINS*
by Rita Bove (Central Wyoming College)

2:20 pm *ICCE MICROBIOLOGY: CAN MICROOR-
GANISMS INDICATE PREHISTORIC HUMAN PRES-
ENCE OR SPECIFIC ALPINE ACTIVITIES IN THE
WIND RIVER MOUNTAINS?* by Brayden Wirick and Lucas
Schwandt (Central Wyoming College and Prescott College)

2:40 pm *CALCINED BONE DATING OF THE SHEAMAN
CLOVIS SITE, WYOMING* by Chase M. Mahan and S.A. Allaun
D’Lopez, Dr. Todd A. Surovell, Dr. Marcel Kornfeld, and Dr. George
C. Frison (University of Wyoming)

3:00 pm *JAMESON: A MULTI-COMPONENT SITE
IN JOHNSON COUNTY* by Anne-Marie Card and Madeline E.
Mackie (University of Wyoming)

3:20-3:40 pm **BREAK**

ORAL PRESENTATIONS

Saturday, May 4, 2019

3:40 pm-4:20 pm

AFTERNOON SCHEDULE, CONT'D

3:40 pm *ALM SHELTER: A PRELIMINARY REPORT ON A DEEPLY-STRATIFIED ROCKSHELTER IN THE BIGHORN MOUNTAINS OF WYOMING* by Alexander Craib and Dr. Robert L. Kelly (University of Wyoming)

4:00 pm *OWSA'S AVOCATIONAL ARCHAEOLOGY TRAINING PROGRAM: AN UPDATE ON THE 2018 ICE CAVE EXCURSION AND THE UPCOMING 2019 PROGRAMS* by Marcia Peterson (Office of the Wyoming State Archaeologist)

ORAL PRESENTATIONS

Saturday, May 4, 2019

Paper Abstracts

Bales, Sara (Central Wyoming College)

The Dinwoody Holy Road

In 2018, the CWC Field School mapped an 18-mile long prehistoric trail system from Dinwoody Lake to the Dinwoody Glacier high in the Wind River Mountains. Students recorded hundreds of stacked stone cairns, some over 2m high, a 3m wide and half-meter deep trail swale, and old blazes on trailside trees. Sighting cairns along the way point at the Dinwoody Glacier. Fluted Paleoindian projectile points suggest this trail could be very ancient. This trail may be an example of a world-wide phenomenon: a pilgrimage route similar to those used by prehistoric and modern Incas practicing the Quyllurit'i (Quechua: bright white snow) ceremony in which believers climb to Andean glaciers to pray and worship, and to prehistoric Scandinavian 'pilgerwege' trails which led worshipers to sacred mountains.

Bove, Rita (Central Wyoming College)

Dinwoody Ghost Forest: Alpine Paleoecology in the Wind River Mountains

CWC archaeology students participating in the Interdisciplinary Climate Change Expedition (ICCE) have mapped 70 logs and stumps at nearly 11,000 feet on Arrow Mountain immediately adjacent to the Dinwoody Bison Jump. Other researchers have found evidence of similar ghost forests on Union Pass and at High Rise Village. The sampled Arrow Mountain specimens C14 date between 1,100 and 3,000 years BP and indicate that prehistoric tree line was approximately 500 feet higher than today. This ancient forest probably provided logs that bolstered the Dinwoody bison drive lines and perhaps to build a corral beneath the jump off. At least one pine branch dated 2,910BP was used as a flagpole in the driveline. These relict trees show little sign of stress and provide insight into paleoclimate that can help us understand more about climate change and the prehistoric environment in which Archaic hunters and gatherers lived and thrived in the high alpine.

ORAL PRESENTATIONS
Saturday, May 4, 2019
Paper Abstracts

Card, Anne-Marie, and Madeline E. Mackie

Jameson: A Multi-Component Site in Johnson County

The Jameson site (48JO2), is a multi-component located in the eastern foothills of the southern Bighorn Mountains in Johnson County, Wyoming. The site was occupied at various times between the Middle Plains Archaic and Protohistoric periods. Artifacts found on site include a cache of sticks wrapped in cordage, a bark bundle, shell beads, faunal remains, chipped stone artifacts, and fire-cracked rock. Incised rock art panels and at least one hand spray have also been identified. Recent excavations have focused on a small excavation block containing an intact Late Plains Archaic hearth feature with associated stone tools, bison bone (Bison bison), and thousands of pieces of chipped stone. The block also contains at least two older, possibly redeposited components. All components have bison bone (MNI = 3) and show evidence of human activity, including cut and impact marks suggesting multiple bison butchering events have taken place at the site over the course of several hundred years.

Craib, Alexander, and Dr. Robert L. Kelly (University of Wyoming)

Alm Shelter: A Preliminary Report on a Deeply-Stratified Rockshelter in the Bighorn Mountains of Wyoming

Alm rockshelter, located at the mouth of Paintrock Canyon in the Bighorn Mountains of Wyoming, contains a well stratified cultural sequence spanning roughly 11,000 years (Late Paleoindian through the Late Prehistoric). Preliminary analyses demonstrate that the site was occupied and used variably over this time, particularly in periods of population growth and decline that are associated with periods of increasing and decreasing aridity. Here we present a preliminary report on the excavations, completed in summer, 2018. The focus of the research is on how use of the site changed over time in relation to changes in climate and regional population density. Increased aridity in the Early Holocene appears to have resulted in increased site use while decreased aridity resulted in a decline in activity. The current research presents the preliminary analysis of lithic materials recovered from 2014-2018 excavations.

ORAL PRESENTATIONS

Saturday, May 4, 2019

Paper Abstracts

Eckerle, William (Western GeoArch Research, LLC)

Geological Stratum, Geological Horizon, and Soil Horizon: How They Differ and Why It Matters for Archaeology

A geological stratum (singular, strata is plural) is composed of transported sedimentary particles that were eroded at some distant location from rock or unconsolidated sediment, and then transported by some medium (e.g. wind, water, glacial ice), to where they were eventually deposited when the transport medium lost energy. By contrast, a geological horizon is a sedimentary contact or surface between strata where lithology changes, or alternatively is a distinctive stratigraphic “marker bed” with a characteristic lithology (e.g. Mazama tephra). The upper contact (i.e. boundary) of geological strata and the contact between geological horizons, if occupied, provide archaeological stratigraphic provenience and allow the inference of archaeological associations and context. By contrast, a pedogenic soil horizon is a post-depositional modification to rock or unconsolidated sediment (e.g. soil parent material) resulting from various soil processes, including additions, translocations, transformations, and removals. Pedogenic soil horizons exhibit boundaries and these can be mistaken for geological strata boundaries and/or geological horizon boundaries. Soil horizon boundaries are post-depositional, and with the exception of the upper boundary of pedogenic soil horizons that form at the ground surface (e.g. A or O horizons), they never, or only by chance, coincide with an occupied ground surface. Exceptions aside, soil horizons cannot be used for defining archaeological provenience or for inferring association or context. As a result, it’s critical to archaeologists that soil horizons are not mistaken for geological strata or geological horizons.

Horton, Dr. Beth (Yellowstone National Park)

Lost in Space: Historical Artifacts Ejected from Ear Spring, Yellowstone NP

Yellowstone’s Ear Spring in Upper Geyser Basin had been relatively inactive since 1957. On September 15, 2018, it erupted sending water 20-30 feet in the air, ejecting historical refuse long hidden in its waters. The artifacts, manufactured as far back as the 1930s, represent a variety of functional uses, providing us with glimpses of various people who visited and worked in the park. This paper discusses these topics, and explores the challenges of documenting archaeological sites situated within hot springs.

ORAL PRESENTATIONS

Saturday, May 4, 2019

Paper Abstracts

Mahan, Chase M., S.A. Allaun D'Lopez, Dr. Todd A. Surovell, Dr. Marcel Kornfeld, and Dr. George C. Frison (University of Wyoming)

Calcined Bone Dating of the Sheaman Clovis Site, Wyoming

The Sheaman site, located in eastern Wyoming near the Agate Basin site, represents one of only a few Clovis campsites in North America. However, problematic dating of the site has resulted in questionable Clovis affiliation. A total of sixteen radiocarbon dates have been used by various researchers to argue for or against that affiliation, with some research suggesting a later Paleoindian Agate Basin affiliation. This paper presents the results of radiocarbon ages obtained from calcined bone, a relatively newly accepted method producing consistently reliable radiocarbon dates. In contexts where charcoal or bone produce inconsistent radiocarbon dates, calcined bone can serve as a viable alternative dating method. These dates bring illumination to the original argument of the Sheaman site as a Clovis component.

Merriot, Dr. Ivy (Sky Traditions, Bozeman, MT)

Sun-Dating at the Bighorn Medicine Wheel

Archaeoastronomy research can be baffling at first, but only two fundamental methods are needed to engage and enjoy in the research concerning astronomy in culture. The first method uses the change in star positions over time; the other uses the change in the Sun's position over time. Both methods have been applied at the Bighorn Medicine Wheel in Wyoming. John Eddy set the Bighorn Medicine Wheel on the international map of archaeoastronomy sites using the first method (change in star positions over time). Now, forty-five years later, new research using the second method (change in the Sun's position over time) has dated the Wheel. A wider landscape survey located a rock outcrop (17 ft diameter x 7 ft high) on the northeast ridge that aligns with the Wheel from 4.1 miles away. A one foot diameter hole bored through the distant rock could have allowed the Sun to shine through the hole to skywatchers at the Wheel on the summer solstice more than 5000 years ago. In 1974, Eddy's method described a specific time when stones were last aligned with stars at the Wheel, whereas the recent data using the Sun's changing position could show a possible date of construction of the Wheel. Both methods may bookend the first and last use of the Wheel for skywatching using the stone alignments. The date obtained using the second archaeoastronomical dating method sets the Bighorn Medicine Wheel contemporary with a wheel of similar design, the Majorville Medicine Wheel in Canada that was radiocarbon dated to 3200 BC by James Calder in 1975.

ORAL PRESENTATIONS

Saturday, May 4, 2019

Paper Abstracts

Peterson, Marcia (Office of the Wyoming State Archaeologist)
OWSA's Avocational Archaeology Training Program: An Update on the 2018 Ice Cave Excursion and Upcoming 2019 Programs

In 2018, the Office of the Wyoming State Archaeologist (OWSA) launched its Wyoming Avocational Archaeology Training Program. The first year consisted of a one-day curation workshop in Laramie on June 16 and a week-long survey training program from August 12-17 at the Ice Cave in the Bighorn Mountains. The survey training program started with a 1/2-day workshop on basic archaeological surveying and recording procedures followed by a guided tour of the Medicine Wheel. The next three days included hands-on survey and recording of the Ice Cave and the canyon in which it sits. This presentation will detail the 2018 survey training program and the results of the Ice Cave survey, and it will also preview our 2019 programs in the Black Hills and at the Pioneer Museum in Douglas.

Surovell, Dr. Todd A., and Madeline E. Mackie (University of Wyoming)

Finding the Bishop Mammoth

Sometime around 1938, L. C. Bishop, the Wyoming State Engineer, found mammoth bones in a cut bank of a draw in Converse County. Those bones were eventually put on display at the Wyoming Pioneer Memorial Museum in Douglas, where we first learned of them in the summer of 2014. At the time, we were working at the nearby La Prele Mammoth site and in conjunction with our work their began a search for the find location of the Bishop Mammoth. During the summer of 2017, we sampled the humerus on display, which produced a radiocarbon age of 10,900 BP, suggesting the mammoth dates the Clovis period. Following clues from several documentary sources, during the summer of 2018, we completed fieldwork in an area south of Douglas with the aim of identifying terminal Pleistocene deposits. We failed. Nonetheless, due to a combination of public outreach, and a remarkable stroke of luck, in September 2018, we were able to relocate the site, some 80 years after its initial discovery. We do not yet know if the Bishop mammoth is archaeologically significant, but several lessons can be drawn from the process of rediscovering it.

ORAL PRESENTATIONS

Saturday, May 4, 2019

Paper Abstracts

Wirick, Brayden, and Lucas Schwandt (Central Wyoming College and Prescott College)

ICCE Microbiology: Can Microorganisms Indicate Prehistoric Human Presence or Specific Alpine Activities in the Wind River Mountains?

During the 2018 CWC archaeology students participating in the Interdisciplinary Climate Change Expedition (ICCE) collected soil samples from known and suspected prehistoric lodge pads at three sites above 10,500ft in the Wind River Mountains. The purpose was to test for microorganisms that could indicate the presence of prehistoric humans or even identify specific activity areas within lodges. This technique has been utilized with some success in Sicily, but students wondered if it could be accomplished by undergraduates working at elevation? If so, this technique could be used elsewhere to verify whether or not suspected high elevation features are in fact lodge pads without having to undertake costly and destructive subsurface excavations in the fragile alpine soils.

POSTER PRESENTATIONS
Saturday, May 4, 2019
During Meeting Breaks & 4:30-5:30 pm

GENERAL POSTER SESSION

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

The general poster session includes six posters on a variety of archaeological issues including rock art images and modeling, mammoth ivory identification, stratigraphy and small mammals from the Hell Gap site, and faunal analysis from the Agate Basin site.

Elder, William (Central Wyoming College)

Late Prehistoric Human Fertility and Birthing Images Depicted in Wyoming Rock Art

Two rock art sites in central and southwest Wyoming have images that represent religious and cultural-related human fertility and birthing. 48SW302 and 48FR2506 have similar incised and burnished glyphs of vulvae and small human feet suggesting the sites' importance as Late Prehistoric Period loci utilized for physical and spiritual conception, and the birthing of infants.

Herron, Molly (University of Wyoming)

Camping with Mammoths? Identification of Ivory Fragments at the La Prele Mammoth Site using Microscopy

While it is well known that Clovis people hunted mammoths (*Mammuthus columbi*) there are few cases in the Paleoindian record where campsites associated with mammoth remains have been found. The La Prele Mammoth site, located near Douglas, Wyoming, is an approximately 13,000-year-old mammoth kill site with an associated camp. While mammoth remains have been found on site, they have not been identified within the camp area. This may be due to the fragmentary nature of the faunal assemblage which limits traditional means of morphological identification of taxa. However, based on a preliminary analysis, some of these small fragments may be proboscidean ivory. Here I discuss the identification of material type using microscopy. Under magnification, ivory can be identified by its unique characteristics such as Schreger lines and annual rings. The identification of mammoth remains from the campsite area would support the association of cultural deposits contemporaneous with the mammoth remains at the site. This method could also offer an alternative means to identifying ivory in other sites with fragmentary faunal remains.

POSTER PRESENTATIONS

Saturday, May 4, 2019

During Meeting Breaks & 4:30-5:30 pm

Larson, Dr. Mary Lou, and Dr. Marcel Kornfeld (PiRL and University of Wyoming)

Hell Gap Site: Expanded Investigations into Paleoindian Deposits

The foremost question we had, from the start of our investigations of the Hell Gap site 25 years ago, was “What natural and cultural formation processes created the site?” Understanding the structure and formation of Hell Gap Locality I involves consideration of the relationship of stratigraphy and archaeology. This presentation queries the distribution of stone, bone, charcoal, and ochre within their geologic context for information about Paleoindian occupations and activities from about 7500-13,000 years ago. Our understanding of stratigraphy has given us a clearer view of how the deposits (geologic sediments and cultural material) have formed.

Lemminger, Jennifer (University of Wyoming)

Agate Basin Stratified Paleoindian Site: 2008 Faunal Analysis from Area I

Agate Basin is a significant stratified Paleoindian site with multiple kill/processing localities and campsites. The Area 1 bone bed was excavated in 1942, 1961 and 1975 by the Smithsonian Institute and the University of Wyoming. Bone was not collected during the earlier excavations and an insignificant assemblage was encountered in 1975. However, bone was collected in 2004 and 2008 when the back dirt from previous work was excavated. The results of 2004 zooarchaeological analysis were inconclusive with regards to Paleoindian behavior due to small sample and attritional bias. The bones from the 2008 analyzed here increase the sample size and provide a more precise composition of the faunal assemblage. Previous studies of Area 2 of the Agate Basin site suggest that Area 1 was the primary kill area for the Agate Basin components of Area 2. Comparisons between the Area 1 bonebed and the Area 2 bonebed and other bonebeds could support this hypothesis or provide evidence supporting different interpretation.

POSTER PRESENTATIONS

Saturday, May 4, 2019

During Meeting Breaks & 4:30-5:30 pm

Robins, Morgan (University of Wyoming)

Reassembling Pieces of the Past: The Use of 3-Dimensional Modeling Techniques to Piece Rock Art Back Together

Archaeological remains are often found in pieces. While curators can reconstruct smaller items like ceramics, rock art panels present a contextual dilemma. Namely how can we reconstruct the context of the rock art panel (it's original location along with the curated fragments). The purpose of this study is to use 3D methods to create an interactive, virtual model that repositions fragmented pieces of panels with their original rockface. My project uses fragments of panels rediscovered in 2017- that were once part of a collection of rock art panels from the northeastern part of Wyoming. The panels are located in collections at the University of Wyoming (Laramie) and at The Buffalo Bill Center of the West (Cody). I used standard photogrammetry collection methods to capture panel data. AgiSoft Photoscan was used to create accurate models for visualization.

Walker, Dr. Danny N. (University of Wyoming), **and Rachael L. Shimek** (PiRL, University of Wyoming, and Wyoming SHPO)

Small Mammals from the Hell Gap Site, Wyoming and Their Paleoecological Significance

Limited small mammal remains were recovered from Hell Gap during the early 1960s. Based on these remains, a lowering of "life zones" was proposed at Hell Gap around c.a. 10,800 years B.P. In 1997, the Early Holocene small mammal population of the Hell Gap site Locality One was reinvestigated. Flotation samples were collected by five-centimeter intervals within defined stratigraphic units. Small mammal remains were also collected during archaeological excavations in 1996-1998. Since 1998, additional small mammal remains continued to be collected during excavations and have been recently examined. This endeavor resulting the identification of one new species of small mammal, but overall representation of species throughout the stratigraphic profile did not change even with changes in recovery and mapping protocols over the years of excavations at the site. While the small mammal sample from the Hell Gap site continues to be sparse compared with medium or large mammals, these small mammals remain critical for paleo-environmental reconstructions of this early Holocene period.



EXPLORING THE GREAT UNKNOWN

The 150th Anniversary of John Wesley Powell's Colorado River Expedition



WYOMING ARCHÆOLOGY AWARENESS MONTH SEPTEMBER 2019

On May 24, 1869, with the cliffs of the Green River in sight, nine men led by John Wesley Powell set off in four boats from Green River City in the territory of Wyoming to explore for the U.S. government the last, large, unknown portion of the continental United States. Originally an exploration, the work developed into a survey of the Colorado River country's geography, geologic ethnography, and natural history. The expedition down the Green and Colorado rivers and through the Grand Canyon is one of the most celebrated adventures in American history.

Powell came to be recognized as one of the leading scientists of his day. In 1879, Powell was named the first director of the newly established Bureau of Ethnology a position he held until his death in 1902. Under Powell, the bureau sponsored ethnographic, archeological, and linguistic field research and promoted the fledgling discipline of anthropology. In 1881, Powell became chief of the U.S. Geological Survey as well. He also helped establish the National Geographic Society and the Geological Society of America. The starting point for the Powell expedition, Expedition Island in the city of Green River, was designated a National Historic Landmark in 1969.

Wyoming State Historic Preservation Office; Eastern ID Chinese Special Collections; University of Wyoming Libraries; Office of the Wyoming State Archaeologist; University of Wyoming Department of Anthropology; U.S. Bureau of Land Management; National Park Service; U.S. Forest Service; Wyoming Army National Guard; Wyoming Department of Transportation; Western Archeological Society; The Environmental Corporation; Cultural Resource Systems, Inc.; RWCA Environmental Consultants; Renoville Archeology; Wyoming Association of Professional Archaeologists; Wyoming Archeological Society.

The Cliff of the Green River painting by Jay Wynn, courtesy of the artist. 1873 Union Pacific map of the Green River country of the Western U.S. Chinese Special Collections; University of Wyoming Libraries; Images from LHM to right: The Start from Green River Station, made in Canyon of the Colorado, 1869, by John Wesley Powell; Green River Station (wood print) 1869 by John Wesley Powell; 1871 John Wesley Powell, 1869. From copyright of John Wesley Powell, copyright, Green River, Wyoming Territory, 1871; John Wesley Powell for the "Times Herald"; 1873. Copyright design of Green River, Wyoming U.S. Historical Photo Bank.

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