



MONTANA  
ARCHAEOLOGICAL  
SOCIETY

**65<sup>th</sup> Annual Meeting**

**April 10-12, 2026**

**Missoula, Montana**

**Program and Abstracts**

## **Montana Archaeological Society Annual Conference**

Welcome to the 65<sup>th</sup> annual meeting of the Montana Archaeological Society in Downtown Holiday Inn, Missoula, Montana.

**The MAS Officers and Board Members responsible for this year's conference are:**

### **Officers:**

President – Jeannie Larmon (term ends 2026)

Vice President – Carl Davis (term ends 2027)

Secretary – Mike Neeley

Treasurer – Ethan Ryan

AIM Editor – Sara Scott

### **MAS Board Members:**

Scott Dersam (term ends 2026))

Walt Allen (term ends 2026)

Jennifer Macy (term ends 2026)

Sara Scott (term ends 2026)

Mike Neeley (term ends 2027)

Sydney Bacon (term ends 2027)

Jennie Lee (term ends 2027)

Jeannie Larmon (term ends 2027)

Carl Davis (term ends 2028)

Liz Dolinar (term ends 2028)

Ethan Ryan (term ends 2028)

Tim Urbaniak (term ends 2028)

### **MAS Conservation Committee Chairs:**

Laura Evilsizer

Patrick Rennie

### **MAS Education Committee Chair:**

Crystal Alegria

### **Montana Burial Board Representative:**

Weber Greiser

Election of new officers and board members will take place at the General Member Meeting on Saturday April 11, 2026 at 3:00 pm.

## For the Early Birds

Wednesday, April 8<sup>th</sup>, Cranky Sam Public House (233 W Main St.)

**7:00 pm—8:00 pm: So You Think You Know Missoula?** Come show Missoula what you are made of! In partnership with Heritage Missoula, we will be hosting a Missoula History Trivia night!

Thursday, April 9<sup>th</sup>, The Roxy Annex (718 S Higgins Ave)

**7:30 pm—10:30 pm:** A very special screening of “*More Bitter Than Death*”

Three questions for you: 1.) Looking for a solid representation of archaeology in popular media? 2.) Looking for serious, not cheesy archaeological drama? 3.) Most importantly, looking for an accurate depiction of how archaeologists dress at their annual conferences? This movie is not for you! But don’t worry, we have the Roxy Annex reserved, as well. Come watch a silly movie or just have a beverage and commune with your fellow Early Birds.

## 2026 Program Activities and Abstracts

Friday, April 10<sup>th</sup>, Rock Art Workshop – Holiday Inn,  
Glacier/Yellowstone Rooms

### Workshop on Rock Art Site Recording

The Montana Archaeological Society (MAS), in collaboration with Sacred Sites Research (SSR), will sponsor a workshop on rock art recording methods and procedures. Participants will be guided through the ten steps for recording a pictograph or petroglyph site. The workshop includes classroom lectures by Lawrence Loendorf, Laurie White, Karen Steelman, and Mark Willis, who together bring more than 100 years of experience in rock art documentation.

Workshop schedule—April 10, 2026

**8:45 am–11:30am** Classroom lecture to include the importance of American Indian involvement; controversy about the term rock art; rock art sites are archaeological sites; logistics for recording rock art sites; panel designation; and photography, including DStretch, 3-D models, pole photography and site mapping.

Lunch (Sack lunches will be provided)

**12:30 pm–2:45 pm** Classroom lecture to include the use of pXRF to study pigment make-up; relative dating and use of Harris diagrams; Pictograph dating methods; experimental petroglyph dating; panel drawings with the use of drawing tablets; motif analyses; and report writing.

Textbook: A copy will be handed out to all enrolled participants

Loendorf, Lawrence and Nancy Medaris Stone

*2025 Ten Steps for Recording Pictograph and Petroglyph Sites: Methods and Technologies.*

University of Utah Press, Salt Lake City.

## Friday, April 10<sup>th</sup>, Unseen Missoula Tour

### Carnal Enterprises

#### **3:00 pm–5:00 pm – Meet outside of The Wilma Theatre (131 S Higgins Ave)**

While most in Missoula are familiar with the name Mary Gleim or the brief history of Front Street, many of the district's stories remain untold including Gleim's and her businesses. Since its existence along the historic Mullan Road, Front Street has been dubbed with the title of Missoula's 'red light district' implicating that district remained a place of vice, sin, and corruption influenced by the radical reformist religious movements of the late 19th century. However, violence and addiction found throughout the entirety of the American West remain only a sliver of the true story.

From 1889-1917, West Front and Main Streets became home to a vibrant 'restricted' community of working women, Chinese laborers, African American soldiers, and immigrants who built the environment we as Missoulians have come to love today. This tour discusses the district through the historical lenses of sex, race, class, and occupation in order to create a broader social understanding against the backdrop of the remaining built environment.

## Friday, April 10<sup>th</sup> Meetings

#### **3:00 pm–4:00 pm**

Committee Meetings

Education Committee: Holiday Inn, Glacier and Yellowstone Room

Conservation Committee: Montana Board Room

#### **4:00 pm–5:00 pm**

Board Meeting: Holiday Inn, Montana Board Room

## Friday, April 10<sup>th</sup> Poster Session, Tabling, Posters, and Auction (Holiday Inn, Big Sky Atrium North)

#### **5:00 pm–8:30 pm**

Attend the poster session, catch up with friends and colleagues, visit local organization's tables, and participate in the auction. Cash bar and free hors d'oeuvres.

**Tables and Poster Sessions will be 5:30–7:30. Poster session abstracts can be found on pages 4-10. Labeling participants include:**

Montana Burial Board

Harris Anthropological Research, LLC

Extreme History/Dirt on the Past

Preserve Historic Missoula

Preserve Montana

Fact and Fiction

**Silent Auction will run from 5:30 pm–8:30 pm**

**Live Auction will run from 7:30–8:30 pm**

### Poster Abstracts

***We are the Broadwater Brainiacs!! The Stone Feature Recording App. Our Presentation for the FIRST LEGO Robotics League “Unearthed” Competition, 2025-2026 [Board A]***

Erilyn Strait, Broadwater Brainiacs, 2025-2026

FIRST (For Inspiration and Recognition of Science and Technology) was founded in 1989 to inspire young people's interest and participation in science and technology. FIRST LEGO teams are composed of students grades 4-8, each season has a theme for creating an “Innovation” project along with designing a LEGO Robot to compete in a game challenge at regional, state and world levels. Teams are scored based on Innovation, Core Values, Robot Design and Robot Game. The 2025-2026 season theme was “Unearthed”, with the innovation projects intent “to identify a problem faced by archeologists and propose a solution that can help”. The team did the work and are now set to face off at the World championship competition in Houston, Late April of 2026. This paper presents our innovation project, designed to help archeologists record Stone Features, and to show off our robot that helped get us here.

***Are Bedrock Milling Features Present in Yellowstone National Park? [Board B]***

Maria Sanial-Banrey, Great Basin Institute

Within Yellowstone National Park, there is a vast array of pre-contact resources that provide information on human settlement and subsistence. Recent fieldwork identified a previously undocumented feature along the northern stretches of the Yellowstone River in the park.

This poster presents three hypotheses for the function of this feature, consisting of a circular worn spot on a low boulder set into the ground. The first hypothesis considers if the wear pattern is a food processing surface, similar to incipient bed rock mortars in the northern Sierra Nevada Range in California. Support for this hypothesis includes previous pollen analysis of nearby sites that indicates the presence of plants that were used as a food source in addition to many tipi ring stone circles in close proximity that show temporary settlement in the area along the river. A starch analysis could determine if grains were processed at the site. The second hypothesis considers if this feature is cultural but not for food processing. The worn boulder is within a documented pre-contact site and is in close proximity to multiple other archaeological sites. This suggests the area was in high use and the feature could be the result of another activity. The final

hypothesis considers whether the wear spot is a result of natural and not cultural processes. Natural wear from weather and water collection over the years could possibly create a mark on the boulder, in addition to the possibility of animals rubbing on the boulder. Increasing our understanding of these types of wear patterns will help us to better understand pre-park human use of this landscape and close gaps in our knowledge.

***Looking Over the Edge: Modeling Archaeology Sites on Slopes in Yellowstone National Park, WY [Board C]***

Katie G. Norton, Great Basin Institute

Yellowstone National Park (YNP) contains evidence of a rich human history for at least 11,500 years. In 2025, YNP and Salish-Kootenai College initiated an extensive inventory effort on the Blacktail Plateau, northwest and east of Prospect Peak. Archeological sites were documented extending from the tops of landforms with <30 degree slope into areas with slopes >30 degrees, up to approximately 50 feet, highlighting the importance of examining these areas despite their difficulty to traverse and modern expectations of low site probability. Associated tribal members shared that traditional hunting techniques used natural slope formations as impromptu hunting blinds to hunt game on landforms at the top of the slope. Wyoming and Montana SHPOs have a Class III standard slope exclusion policy for surveying slopes >30 degrees, which means optimal areas for natural hunting blinds are likely under-surveyed.

These 2025 datasets informed a predictability model to identify potential natural hunting blind locations on slopes >30 degrees and <50 degrees extending about 50 feet below the tops of landforms. This poster presents results for slopes along Mount Everts, rising east from the Gardiner River Canyon, YNP. It is anticipated that including archaeological survey in these areas will fill a gap in our knowledge and understanding of pre-park human use of mountain peaks in non-ice contexts in the Greater Yellowstone Ecosystem.

***The Dichotomy of Western Women Through Household Spaces [Board D]***

Anna Owens, University of Montana

For generations, Western women have been redefining the ‘woman’s sphere,’ conquering the rugged landscapes of Montana and demanding equal rights from the heights of Denver society. Of these women, two stand out: Evelyn Cameron and Margaret Brown; both wealthy, influential and independent women living in the 19th century, whose roles in Western society created lasting impacts on their communities. Despite this, their stories are not entirely the same. For Cameron, her wealth was generational; choosing the frontier lifestyle in Montana, maintaining a restrained version of wealth showcased by her photography and diaries. For Brown, however, her wealth was new, brought about by a gold strike in Leadville, Colorado; she set her sights on Denver high society, where Brown would take on a lavish lifestyle, becoming a worldwide philanthropist, advocate, and socialite. In this presentation, the dichotomy between these two figures is examined through the lens of household archaeology, specifically their dining rooms, kitchens, and the everyday artifacts these spaces present. As a road to survival on the rugged frontier, or a path to influence and substantial change through fundraising, their lifestyles and use of these household spaces present two different Western ideals: survival versus influence.

## **Salish Kootenai College Tribal Historic Preservation Program Archaeological Research**

### ***Connecting Past with Present: Tribal Partnerships with the Yellowstone Archeology Program [Board E]***

Elizabeth Horton , Yellowstone National Park and  
Dean Nicolai, Salish Kootenai College

This presentation highlights the unique partnerships between the Archeology Program, Yellowstone National Park and the Native American Natural Resource Program, University of Montana, Missoula, and the Native American Studies Department, Salish Kootenai College. Consisting of internships and an Indigenous Archeology field school, these partnerships are designed to provide educational, personal development, and professional growth opportunities to Native American students while living and working in the park. Student participants gain hands-on experience in natural and cultural resources management and resource education, as well as planning, research design, analysis and interpretation phases of fieldwork. We discuss the challenges and successful strategies implemented to increase student engagement, but also highlight student experiences. These partnerships are deepening our understanding of the past archaeological record and its importance for nurturing connections for those in the present.

### ***Archaeological Investigations of Sheepeater Cliffs, Inventory of Archaeological Resources, Gardiner River, Yellowstone National Park [Board F]***

Whitney Nomee, Salish Kootenai College  
Tina Maughan, Salish Kootenai College

First, we acknowledge the indigenous people associated with this traditional landscape. Integrating Salish Kootenai College Tribal Historic Preservation methodology with place-based Indigenous knowledge for this project, documents lithic scatter distributions, camp sites, a probable atlatl-era dart base, and other diagnostic tools. Salish Kootenai field school applied non-invasive methods of collection, pedestrian transects for survey, high-resolution in-situ photography, and ArcGIS linkage to produce spatial evidence of site connections within the project area. The methodology also includes observing the cultural landscape. Archaeological site interpretation also includes observing landforms, benches, drainages, vantage points, water access, and asking what the place itself indicated about movement and resource use. Recorded lithic materials include chert, obsidian, and basalt. The goal of this poster is to present a collaborative process for interpreting cultural landscapes with spatial evidence using archaeological survey and inventory. The documentation, assessment, monitoring, and in-situ curation will help to preserve these cultural resources and landscapes.

### ***Salish Kootenai College Archaeology Field School 2025:***

#### ***Archeological Investigations on the Blacktail Plateau, Inventory of Archaeological Resources, Yellowstone National Park [Board G]***

Persephone Sandoval, Salish Kootenai College  
Darealynn Juneau, Salish Kootenai College

First, we acknowledge the indigenous people associated with this traditional landscape. Integrating Salish Kootenai College Tribal Historic Preservation methodology with place-based

Indigenous knowledge for this project, documents lithic scatter distributions, quarry workshops, and expedient diagnostic tools. The surveyed area is located along Blacktail Road in Yellowstone National Park, a region rich in natural beauty and cultural history. This specific location was selected for its potential to yield Indigenous artifacts, including tools and lithic cores, which provide valuable insight into the historic and prehistoric human activities in the region. The terrain around Blacktail Road comprises diverse ecosystems, offering a varied lithic resource base that Indigenous peoples likely utilized. SKC field school applied non-invasive methods of collection, pedestrian transects for survey, high-resolution in-situ photography, and ArcGIS linkage to produce spatial evidence of site connections within the project area. The methodology also includes observing the cultural landscape. Archaeological site interpretation also includes observing landforms, benches, drainages, vantage points, water access, and asking what the place itself indicated about movement and resource use. Recorded lithic materials include Crescent Hill chert and obsidian. The goal of this poster is to present a collaborative process for interpreting cultural landscapes with spatial evidence using archaeological survey and inventory. The documentation, assessment, monitoring, and in-situ curation will help to preserve these cultural resources and landscapes

### **University of Montana Graduate Student Archaeological Research**

***Archaeology of Yellowstone's Bechler Region: Survey Results & Diet Modeling [Board H]***  
William Powell, University of Montana

The goals of this poster are to outline the findings of University of Montana's 2025 archaeological survey in the Bechler region of southwest Yellowstone National Park through four sections. The first section covers background knowledge of the survey area and previous findings. The second section focuses on findings from the 2025 field season, highlighting the most important sites that were found. Included here will be a brief description of sites, artifacts, and XRF sourcing results for obsidian. The third section is an interpretation of the findings and conclusions. There will be maps featuring the obsidian source areas, the sites (generalized locations), likely routes through the area, and figures/graphs that explain artifact types and frequency wherever appropriate. In the final section, a hypothesized diet model is presented using optimal foraging theory and diet breadth. The model ranks food/prey packages and tests whether they should be included in the optimal diet based on their net caloric return in varying conditions. The model also divides targets between male and female demographics and changes by season. Results for the model will be shown in the form of graphs made in R.

***The hoofbeats were many, but our hearts beat as one: Layers of Controversy with the BLM Wild Horse and Burro Round Ups in the Pryor Mountains [Board I]***  
Renee Carpenter, University of Montana

The Bureau of Land Management is a federal institution in the United States that acquired the responsibility of managing and maintaining wild horse and burro populations as well as the health of the ecosystems; this organization is BLM's Wild Horse and Burro. The diplomatic statements on the BLM website greatly juxtapose the negative connotation of the public reaction to the BLM's techniques to mitigate wild horses' effects on the environment while protecting the horses' health and wellbeing. Despite scientific evidence of wild horses degrading the

environment, people and organizations still advocate for a more hands-off approach when it comes to managing wild horse herds. The BLM is required to be in accordance with NEPA and their efforts to mitigate population are an attempt to reduce environmental harm. However, in 2015, the BLM was found in violation of NEPA as an EA was not in compliance with NEPA standards. The BLM is also bound to humane treatment of these animals. The recently discovered subsequent slaughter pipeline from the AIP (Adoption Incentive Program) adds another layer of pressure to the institution.

In addition is the upsetting reality of the condition of unmanaged wild horse and burro herds; these landscapes often cannot sustain wild horse herds without intervention. Horses succumb to starvation, dehydration, injury, and illness without management from the BLM. Though the methods are critiqued heavily and the BLM has been held accountable for violations against NEPA, these wild horse and burro populations would not survive on their own. The system is imperfect but not impossible to fix. Holding BLM to NEPA standards is a step toward that direction and exploring these herds as traditional cultural resources for Native tribes is another. There is a lot of work still to be done, but through acts like NEPA and tribal/public involvement, change is possible.

***Ancient DNA Analysis of Salmonid Remains and Traditional Fishing Practices at Housepit 54 [Board J]***

Kara Fox, University of Montana

Ancient fishing practices have been an important source of information for understanding past human populations in the Pacific Northwest. This research has laid the groundwork for the successful use of ancient DNA (aDNA) analysis to identify Pacific salmonid species pursued by members of Housepit 54 at the Bridge River site in British Columbia. Samples of archaeological fish vertebrae were selected from 15 generational floors to provide a general understanding of salmonid species distribution during the Bridge River 2 (1600-1300 cal. B.P.) and Bridge River 3 (1300-1000 cal. B.P.) periods. Currently, 131 samples have undergone aDNA analysis, seven of which were processed using a non-destructive extraction protocol. 116 samples have tested positive for Sockeye Salmon (*Oncorhynchus nerka*). The remaining samples are undetermined pending further testing and analysis. Throughout this project, opportunities have arisen to further this research and to incorporate advances in aDNA methods to elucidate species selection and patterns in past fishing practices.

***It's Weighing On Me: A Phylogenetic Analysis Examining The Evolution of Archaic Period Hunter-Gatherer Bannerstone Technology [Board K]***

Carolina Hannon, University of Montana

Atlatl technology is one of the earliest examples of prehistoric weapons found in the United States. They have been recovered and excavated by archaeologists from the coasts of Alaska, the desert of New Mexico, the tip of Maine, and panhandle of Florida. The Midwest to East Coast excavations of prehistoric sites have led to a trend of small, weighted stones being found. They have been found grave goods, shell middens, caches, or assemblages (Sassaman, 2010). Archaeologists today believe it is a counterweight, designed to help overall improve the effectiveness of the atlatl. The similarity in designs and material may reflect cultural

transmission across different geographical areas. In this paper I present examples of bannerstone materials and designs that I have hypothesized to reflect change as they move further down the Midwest and East Coast. I plan to address three questions; first, what evidence of social learning is visible by examining designs; second, how the transmission process is displayed in designs or materials across space and time; and third, is the evolution of design being affected by social learning or a cultural mutation? To answer these questions, I will be using PAleontological Statistics, or Past, to construct parsimony trees to examine the branch length and order, distance from ancestor, and material similarity. I will also be using neighbor joining clusters to examine correlations of shared traits, evolution based branches and use a phylogram to display the relationships of the data applied to this analysis of cultural transmission.

It is to be noted that majority of these bannerstones were found in burials and therefore abiding to the Native American Graves Protection and Repatriation Act of 1990 (Congress, 1990) I will not be including images of burials or human remains in this paper. Due to this some examples of bannerstones are unavailable to be used due to no classification or the circumstances in which they were photographed or identified from previous researchers.

***Lithic Raw Material Use in the Gallatin Mountains, Yellowstone National Park [Board L]***  
Samuel Rosenbaum, University of Montana

Investigations into lithic procurement and conveyance within the Greater Yellowstone Ecosystem (GYE) have long served as a proxy for understanding prehistoric hunter-gatherer mobility, highlighting aspects of broad social boundaries. Current scholarship, defined by the Yellowstone Multi-Use Model, identifies distinct northern and southern conveyance networks, centered around high-quality, local, obsidian sources. This paper presents new lithic sourcing data (ED-XRF) from the University of Montana Gallatin Trails Project, derived from lithic assemblages recovered from the southern Gallatin Mountains between 2018 and 2022. By utilizing Obsidian Cliff as a benchmark for comparison against western (eastern Idaho) and southern (Teton-area) sources, this study evaluates the degree of inter-assemblage relatedness within the northwestern GYE boundary. Results indicate that the geographic extent of western source influence on the Yellowstone Plateau is significantly broader than previously described, extending from the western shores of Yellowstone Lake, north into the southern Gallatin Range.

***Adoption Under Constraint: Testing Rodger's Diffusion of Innovation Model in Rural Appalachia [Board M]***  
Rebecca Williams, University of Montana

Archaeologists study the material record to understand how societies adapt to changing circumstances, establishing patterns of change. Rogers' Diffusion of Innovations Theory provides a framework for how ideas, technologies, and practices spread within and throughout populations. However, applying this model to constrained environments, such as rural Appalachia, presents significant challenges. Geographic isolation and economic hardship restrict agency, limiting or slowing the adoption of innovations. Drawing on historical archaeology, diffusion theory, and oral history, this research investigates how innovations and consumer goods circulated (or failed to circulate) within landscapes structured by extractive capitalism and corporate paternalism. While classic diffusion models emphasize individual agency and access to

social and economic networks, this project investigates how diffusion operates under conditions of enforced constraint, where restricted markets, company stores, surveillance, and limited economic choices may have influenced adoption decisions.

Focusing on household-scale material culture, the project analyzes material indicators of access, standardization, reuse, and durability. Analysis is informed by the historical archaeology of labor and inequality and by Appalachian scholarship that emphasizes structural explanations for persistent poverty rather than cultural deficiency. Concepts of spatial discipline and human-object networks are used to examine how power relations were embedded in both the built environment and everyday objects. By integrating archaeological and oral historical evidence, this project advances archaeological theory by refining diffusion models to account for constrained agency and enforced adoption. It also contributes to broader societal conversations around corporate control, labor rights, and persistent generational poverty.

## Saturday, April 11<sup>th</sup>, Paper Presentations

### Garden City Parlor B

**9:00 am–9:10 am**

**Welcome and Opening Remarks**

**9:10 am–9:30 am**

**Got a skeleton in the closet? We can help. The Montana Burial Preservation Board.**

Erika Scheuring, US Forest Service

Jessica Bush, Montana State Historic Preservation Office

Have you ever thought to yourself, what would I do if I found human remains on State or Private lands? What if I saw human remains in a museum? What if when cleaning out a family's member closet and found a skull? What would you do? If you have had this question or now you are wondering what would you do, please join the Montana Burial Preservation Board for a short presentation during conference and or visit us at our table.

**9:30 am–9:50 am Refresh your coffee!**

**9:50 am–10:10 am**

**Archaeological and Geophysical Investigations of 32OL0561, The St. Lucas Cemetery Discoveries, Excavations, and Reinterment**

Sarah R. Nichols, Ethnoscience, Inc.

In 2022, BNI Coal LTD began expansion of mining operations in Oliver County, North Dakota. This expansion included impacts to an area identified as the rural Saint Lucas Cemetery. The cemetery, site 32OL0561, was a small family cemetery related to the Strand and Berg Families, who were also known to have homesteaded and resided in the area. BNI partnered with the current landowner and next of kin and Ethnoscience Inc. to assist with the identification of plot locations and the exhumation of the remains, transportation of the remains to new caskets, and reinterment to new plots. Prior to these activities, it was unknown how many individuals had

been interred at the site or what the conditions of the caskets and human remains were. Ethnoscience partnered with Geolex, Inc of Helena, Montana- specialists in geological and geophysical data collection, presentation, and analysis. This presentation discusses the benefits of that partnership, the geological and archaeological investigation of the area, and the three stages that were developed based on the data collected; removal of the topsoil and subsoil, documentation of the burial dimensions and locations, and excavation of the remains based on their conditions led by Ms. Nichols.

### **10:10–10:20 am BREAK**

#### **10:20 am–10:40 am**

#### **Plants as Archaeological Witnesses: A Multispecies Approach to Detecting Burials in Montana**

John Harris, Harris Anthropological Research, LLC.

This paper examines how cultural features, specifically historic burials, generate detectable patterns of extrinsic anthropogenic vegetation in Montana cemetery landscapes. Using species-level indicators of cover, vitality, sociability, stress, and frequency, the study identifies clear qualitative, quantitative, and relational differences between vegetation growing on cultural features and adjacent controls. Disturbance-adapted cryptogams such as *Cladonia fimbriata*, *Peltigera aphthosa*, *Pohlia nutans*, and *Rhizocarpon macrosporum* consistently exhibit hemerophilic responses, while species dependent on stable soils—such as *Antennaria rosea*, *Koeleria macrantha*, and *Nassella viridula*—show hemerophobic patterns including lower abundance, reduced sociability, and stress.

These findings have direct implications for archaeological site prospection. Cultural features act as ecologically distinct microsites whose botanical signatures persist even when material evidence is subtle or obscured, improving detection of unmarked graves and low-visibility features. The study recommends expanding site form vegetation documentation beyond presence/absence to include indicators of vitality, sociability, abundance, stress, and non-random distributions. Importantly, the results demonstrate that bias toward recording only native or only non-native species obscures key anthropogenic signals. Both groups contain species that respond strongly to cultural features. Comprehensive vegetation recording, rather than selective listing, will make botanical evidence a more effective tool in archaeological survey and interpretation.

#### **10:40 am–11:00 am**

#### **Environmental Influences on Western Stemmed and Clovis Technologies**

Sara Raffel, Montana State University

The technological trajectories of the Western Stemmed Tradition (WST) and Clovis Paleoindian lithic traditions reflect adaptations to distinct environments. These cultural traditions were not derivative but are separate and contemporaneous. The WST predates and is technologically distinct from Clovis traditions during the late Pleistocene. The WST consists of shouldered and unshouldered stemmed projectile points that are found in the Intermountain West, whereas Clovis consists of fluted spear points found across most of North America. Resource distribution and raw material availability clearly shaped mobility, tool design, and reduction strategies for

both tool traditions. However, differences in preservation conditions between open plains and sheltered cave sites may bias the archaeological visibility of each tradition, potentially influencing current interpretations of their distribution and technological development.

**11:00 am–11:20 am**

**Material Lives on the Margins: Archaeology of Bozeman’s Historic Red-Light District**

Crystal Alegria, Extreme History

Nancy Mahoney, Montana State University

Craig Lee, Montana State University

In October 2025, Extreme History partnered with the Montana State University Department of Anthropology and a local property owner to conduct an archaeological excavation in downtown Bozeman, Montana, on a lot that once housed buildings associated with the city’s historic red-light district. This collaborative project brought together professional archaeologists and MSU students to investigate a landscape often omitted from traditional local histories. The excavation sought to better understand daily life within Bozeman’s red-light district and to document material evidence of a marginalized, yet economically and socially significant community. Over the course of the project, students participated in all phases of archaeological fieldwork, including excavation, screening, documentation, and preliminary artifact analysis. Recovered artifacts—including personal items, architectural materials, and consumer goods—offer insight into patterns of consumption, gendered labor, and urban life in late nineteenth- and early twentieth-century Bozeman. This presentation will outline the motivations behind the excavation, describe the field methods employed, highlight key artifact discoveries, and discuss the next stages of analysis and interpretation. Ultimately, this project demonstrates how archaeology can illuminate overlooked stories and expand public understanding of Bozeman’s complex past through creative, public facing archaeology projects that integrate with urban redesign and development.

**11:20 am–11:40 am - VIDEO**

**Brothels of Bozeman, Montana**

Dr. Craig Lee & Anthropology 215, Montana State University

Crystal Alegria, Extreme History

Nancy Mahoney, Montana State University

Daniel J. Smith, ooLite Media, LLC.

When a hotel was slated to go up on an old parking lot just off Main Street in Bozeman, Montana, The Extreme History Project and Montana State University teamed up to excavate the plot of land that once housed Bozeman's Red Light District in the late nineteenth and early twentieth centuries. The Extreme History Project is currently housed in one of the main historic brothel buildings and the parking lot is right next door. Urban (or historical) archaeology is a main focus of the Extreme History Project and they approached the landowner to see if he would allow them to conduct an excavation before construction began. He was happy to allow them to see what they could find to shed light on some of Bozeman's early history. The video can be watched on youtube: [Youtube.com/@thisisyellowstone](https://www.youtube.com/@thisisyellowstone) Crystal Alegria and Nancy Mahoney, principals at Extreme History Project worked with Montana State University Archaeology professor Dr. Craig Lee and his Anthropology 215 class to survey and excavate the ground

before construction began. This is a story of a new generation of archaeology students using modern techniques to uncover clues to a distant past.

### Garden City Parlor C

**9:00 am–9:10 am**

**Welcome and Opening Remarks**

**9:10 am–9:30 am**

**The Sun River Crossing**

Jeannie Larmon, Historical Research Associates, Inc.

Bob Gardner, Historical Research Associates, Inc.

Kathryn Burk-Hise, Historical Research Associates, Inc.

This paper briefly presents the history of the Sun River Project within the context of early Western non-Indigenous colonization. The stories born from these early ventures into large irrigation systems are drawn from historical newspaper articles and early reports from the then newly minted Reclamation Service. The focus, however, is on the Sun River Crossing section of the Pishkun Canal, where a steel bridge carried a wood-stave water pipe over the Sun River. The Sun River Crossing has transformed through the years; eventually the wood-stave pipe was abandoned, and the crossing no longer served the canal but provided access to rural homelands of local ranchers and farmers. A remarkable feat of construction in the early 1900s, the Sun River Crossing structure stands in stark contrast to the towering Rocky Mountains to the west and the expansive plains to the east. At once dwarfed by the mountain peaks and emphasized by the flat plains, the crossing is a physical gateway between two landscapes, providing passage between mountains and plains. It is also a historical marker of change from a world of Indigenous subsistence to one marked by nationalist expansion, industrial agriculture, and market economy.

**9:30 am–9:50 am**

**LEGO my Trowel! A Coach's Adventures as an Archeologist in the First LEGO Robotics Leage "Unearthed" Competition, 2025-2026.**

James Strait, Montana Department of Environmental Quality

FIRST (For Inspiration and Recognition of Science and Technology) was founded in 1989 to inspire young people's interest and participation in science and technology. FIRST LEGO teams are composed of students grades 4-8, each season has a theme for creating an "Innovation" project along with designing a LEGO Robot to compete in a game challenge at regional, state and national levels. Teams are scored based on Innovation, Core Values, Robot Design and Robot Game. The 2025-2026 season theme was "Unearthed", with the innovation project "to identify a problem faced by archeologists and propose a solution that can help". As the father of a participating child, I was convinced to become an assistant coach for two Broadwater County teams, the Brainiacs and the Avengers. This is their story as much as mine.

**9:50 am–10:10 am**

**From Chop Suey to Chow Mein: Heritage Adaptation Exhibited through Archaeological Culinary Remnants and the Evolution of Chinese Restaurants in Western Montana, 1860-1980**

Sophia Etier, University of Montana

From Chop Suey to Chow Mein explores heritage adaptation in Western Montana's nineteenth and twentieth century Chinese communities exhibited through archaeological culinary remnants and the evolution of regional Chinese restaurants. This paper also explores the shift from private heritage sites to public spaces shaped by anti-Chinese legislation and economic adaptation. Regionally, restaurants such as the Pekin Noodle Parlor became cultural anchors, preserving cultural identity amid decades of severe cultural exclusion and discrimination. Later establishments such as the Golden Pheasant and Ming's Restaurant served as tangible memory spaces, bridging historic traditions with modern community life. By integrating archaeological evidence and historical narratives, this paper aims to demonstrate how adapted culinary practices offer insights into the cultural adaptation and heritage resilience in Western Montana.

**10:10 –10:20 am BREAK**

**10:20 am–10:40 am**

**HRA's AIRSS Program: What's Been Done and What's to Come**

Ethan Ryan, Historical Research Associates, Inc.

Historical Research Associates, Inc. (HRA) recently launched a new service line, Aerial Imagery and Remote Sensing Services or "AIRSS," to support traditional archaeological methods with remote sensing technologies. The mission of AIRSS is to facilitate the digital preservation of cultural resources and a minimally invasive approach to archaeology through geophysical survey, aerial photography and videography, photogrammetry, and LiDAR. Archaeologist and Geophysical Specialist Dr. Ethan Ryan will highlight results from a diverse range of projects in Montana and beyond. Project examples include the identification of buried historic-period features at Fort Parker, MT and Kam Wah Chung Historic Site in John Day, Oregon, buried precontact features from Yelm, Washington, unmarked graves in Blaine County, MT, and much more!

**10:40 am–11:00 am**

**Indigenous Fort Owen**

Rachel Reckin, Montana Fish, Wildlife and Parks Archaeologist

Łqelmlš (Wide Cottonwoods) is the Salish name for the Stevensville area, including Fort Owen (1850-1872). This place was home to the largest Salish winter camp west of the Continental Divide for thousands of years. In 1850, John and Nancy Owen arrived in the Bitterroot, established Fort Owen, and stayed for the next twenty-two years, shaping and witnessing the transformation of this ancient landscape. This presentation will travel through the material culture of Fort Owen, highlighting how inhabitants of the fort adapted to life in a Salish world, and how Indigenous people made the architecture and material culture of the fort work for them. From a root cellar used to store camas alongside carrots to European artifacts repurposed for

tribal life, Fort Owen's story is filled with resilience and adaptation. The fort's adobe architecture, built by Spanish/Indigenous workers to resemble a Mexican hacienda, was both defensive and ideological. The fort's blacksmith mended Indigenous firearms and kettles for the buffalo hunt, and axes and plows to fence fields and grow crops. The combination of oral histories, John Owen's letters and journals, and the fort's architecture and archaeology allow for a rich story of an incredibly complex time and place.

**11:00 am–11:20 am**

**“Oldest Settlement in Montana”.**

Sally Thompson, Cultural Heritage Consultant

The St. Mary's Mission-Fort Owen complex at the Salish traditional village site of “Place of Wide Cottonwoods” represents the earliest non-Indian settlement in Montana and, as such, is significant to the history of the State of Montana. Surprisingly little is known about the relationship between the buildings of the original mission complex (1841-1850) and those of Fort Owen's construction phases (1850-1863). A Ft. Owen State Park research project in 2024 examined extant data to determine what is known and what needs to be known to provide a basis for potential future site protection. Recognizing that the lands being investigated are on private property, no on-site examinations were part of this study. Instead, research focused on the varied sources of evidence available including Jesuit maps, sketches and narrative descriptions; John Owen's journal; recently discovered historical records about Ft. Owen; and ethnographic and archaeological work conducted by Carling Malouf (UM). In this presentation, we will take a visual tour through the evidence and conclude with the results of preliminary GIS work to locate the original St. Mary's Mission buildings.

**11:20 am–11:40 am -VIDEO**

***Les Davis and the Search For the First Montanans***

Daniel J. Smith, ooLite Media, LLC.

This is a story of Montana archaeology in the last half of the twentieth century. It follows the career of noted Montana archaeologist Les Davis as he criss-crosses Montana searching for archaeological evidence of the earliest Montanans. Along the way we learn about the discovery of human antiquity in the world, first in Europe then North America. We explore Paleo Indian lifeways at the end of the Pleistocene glaciation. And we discuss different theories for the extinction of ice age mammals and the Clovis culture. Full film and episodes are available to watch on Youtube: [Youtube.com/@thisisyellowstone](https://www.youtube.com/@thisisyellowstone)

**11:40 am–1:00 pm LUNCH (on your own)**

Garden City Parlor BC

**1:00 pm–1:20 pm**

**Contextualizing the 1854 Battle of Corral Creek**

Simon Johnson, Eastern Oregon University

The contact period had profound effects on Native American societies. As European influences moved west, indigenous ways of life were profoundly altered. The 1854 Battle of Corral Creek, fought between the Shoshone and Crow tribes, happened in the context of the contact period. All prior knowledge of the battle is provided by historical documents and interpretation, which come from the Shoshone's perspective. Before beginning archeological investigation into the battle, a proper understanding of the historical and cultural context of the battle is important. It is also necessary to learn which distinct group of people fought against the Shoshone, and what motivated them to engage in a costly battle. Chief Washakie led the Shoshone war party, but it is unknown which band of Crow participated in the battle. Through analyzing the broader context of the battle, and by interpreting tribal census estimates from the mid-1800's, it appears likely that a band of Mountain Crow led by Two Face engaged Chief Washakie's Shoshone over access to the bison herds in the Centennial Valley.

**1:20 pm–1:40 pm**

**At a Cultural Crossroads: The Dalys Pictograph Site in Southwest Montana**

Carl Davis, US Forest Service (Retired)

Sara Scott, Montana Fish, Wildlife and Parks Archaeologist (Retired)

The Dalys site comprises a large rockshelter and nearby boulder alcove nestled beneath a towering cliff near the Beaverhead River in Clark Canyon, southwest Montana. Recorded using photogrammetry in 2025, these well-known but vulnerable shelters contain a variety of pictographs painted and drawn in red pigment and black charcoal. Because southwest Montana is a historical culture crossroads for a variety of Native American groups, we provide a preliminary review of the Dalys site pictographic imagery with reference to Plains, Intermountain, Great Basin and Columbia Plateau rock art traditions.

**1:40 pm–2:00 pm**

**Trails and pictographs along the Continental Divide in Southwestern Montana and Southeastern Idaho**

Carolynne Merrell, ARCHAEOGRAPHICS (Retired)

The mountains of the Continental Divide provide a natural north/south boundary between Montana and Idaho. For centuries people sought out pathways across this Divide, through natural breaks in the mountainous terrain. Over time these pathways became accustomed trails that often included pictograph sites marking an access route. This paper will explore pictograph sites that are found in conjunction with some of these trails that are located in the southwest corner of Montana and eastern Idaho. Similarities between pictograph elements and styles will be evaluated and comparisons will be made that extend well beyond the initial proximity to the routes crossing the Divide.

**2:00 pm–2:20pm**

**Comparative Insights from Mongolia to Montana: Tracing Predator Synanthropism through Coprolite Analysis**

Catherine Grady, University of Colorado Boulder

Evaluation of the contents from dog coprolite (ca. 783-549 cal. BCE) recovered from Mongolia's Khoid Senkher Cave, one of the country's few well-stratified and well-preserved early pastoral sites, reveals that, upon contextualization within the surrounding archeological assemblage, the canid relied upon a mixed provisioning strategy of human refuse and opportunistic scavenging and foraging. Analogous to this early domesticate, modern predators inhabiting comparable high-altitude environments across the globe, such as the Greater Yellowstone Ecosystem, are provisioned to varying degrees. This presentation examines expected differences between the coprolite of an early first-millennium BCE domestic dog and that of contemporary wild predators inhabiting comparable ecosystems, assessing dietary signatures across a commensalism spectrum in which animals, under limited human control, have access to both anthropogenically-sourced and wild foods. Ongoing archaeological and ecological research in Montana on ancient and contemporary predator scats, when integrated with findings from this Mongolian coprolite, allows for the positioning of predators along a gradient of commensalism, habituation, and synanthropism. This approach can inform the history and future of human-predator relationships and how early domestic canine dietary patterns align with broader predator foraging strategies.

**2:20 pm–2:40 pm**

**Archaeozoology and the Pony Express: Preliminary findings from Boyd Station**

William T. Taylor, University of Colorado Museum of Natural History

Isaac Hart, University of Utah

Jenni DeGraffenreid, US Army Dugway Proving Ground

Will Grant, Independent Scholar

George Kamenov, University of Florida

John Krigbaum, University of Florida

The short-lived communication system known as the Pony Express helped link an emerging United States through a brief but impressive horseback relay system, stretching across hundreds of miles of western landscapes. In Utah's West Desert, the infrastructure surrounding the Pony Express and Overland/California Trail forms one of the most highly visible aspects of the cultural landscape, and feral horses retain a key influence on the area's ecology. Here, we present preliminary archaeozoological and biomolecular analysis of a horse metapodial recovered from the site of Boyd Station, a Pony Express station and homestead. Direct radiocarbon dating links this specimen to the 19th or early 20th century, while strontium isotope analysis is consistent with the animal being raised locally in the West Desert, and taphonomic traits include a postmortem fracture that could reflect consumption during a period of food scarcity. Ongoing genomic analysis and future excavation/archaeozoological study holds the potential to explore the complex and shifting population dynamics of 19th century horses, which likely merged animals of not only Native and American lineages but other managed and feral European lineages in this key emerging infrastructure of the American West.

**2:40 pm–3:00 pm BREAK**

**3:00 pm–4:00 pm**

**General Membership Meeting**

## **Saturday Evening April 11 BANQUET AND KEYNOTE**

### **Garden City Parlor AB—Banquet: 5:00 pm – 8:30 pm**

Drinks and Appetizers starting at 5:00 pm

**5:45 pm–6:00 pm:** President’s Notes and Awards

**6:00 pm–6:45pm: Keynote Address, “Tobacco and Pictograph and Petroglyph Sites in the American West”,** Dr. Larry Loendorf, Sacred Sites Research Inc.

**6:45 pm–7:45 pm:** Dinner

## **Sunday, April 12 Education Workshop**

**10:00 am- 12:00 am: University of Montana – Ethnobotany Garden at the Payne Family Native American Center.** This workshop will discuss the methods and practices for identifying Indigenous conservation and landscape-tending behaviors in the archaeological record. We provide an overview of how these methods enable archaeologists to observe the physical manifestation of these practices, providing multiple methodologies anthropologists can rely on to present the long, diverse histories of the landscape, particularly when surficial expressions of ‘artifacts’ are not present on a landform.

## **Sunday, April 12 Fort Owen Tour**

**10:00 am- 1:00 pm: Fort Owen State Park.** Fort Owen State Park, just outside Stevensville, contains the remains of a walled trading post established in 1850 that played a vital role in Salish history and was Montana’s first European-style settlement, including our first gristmill, sawmill, irrigation, cattle herds, and European-style school. From 2020-2024, in partnership with the Stevensville community, Montana Fish, Wildlife and Parks revitalized Fort Owen, developing all-new interpretive exhibits, and undertaking extensive historic preservation of the adobe East Barracks (1857). Join FWP Archaeologist Rachel Reckin for a tour of this remarkable place.

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