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THE WYOMING Archaeologist

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INFORMATION FOR CONTRIBUTORS

The Wyoming Archaeologist accepts papers from professional archaeologists, students, and avocational archaeologists. Subjects published in The Wyoming Archaeologist include, but are not limited to, archaeological reports on sites in Wyoming and adjacent areas, descriptive project summaries, preliminary results of

On the Cover:

Typical metate fragments from the Garrett-Allen Site. See Eckles, this issue.

significant studies, archaeological method and theory, ethnographic studies, regional history, and book reviews. Submissions by professional archaeologists will be sent for peer review before acceptance.

Authors submitting manuscripts for consideration should follow the style guidelines of the journal *AMERICAN ANTIQUITY* as revised in June 2017 and updated in July 2018. These guidelines can be found at www.SAA.org. Complete instructions for authors were published in *THE WYOMING ARCHAEOLOGIST*, Volume 62(1), 2018, and can also be found on the inside back cover of this issue. Deadline for submission of copy for spring issues is January 1 and for fall issues is July 1. Reports and articles received by the Editor after those dates will be held for a following issue.

The society membership period is from January 1 through December 31. All subscriptions expire with the Fall issue and renewals are due January 1 of each year. Continuing members whose dues are not paid by March 31 of the new year will receive back issues only upon payment of \$5.00 per issue. If you have a change of address, please notify the Executive Secretary/Treasurer. Your *WYOMING ARCHAEOLOGIST* will not be forwarded unless payment is received for return and forwarding postage. Back issues in print can be purchased for \$5.00 each, plus postage. Back issues out of print are available at \$0.25 per page plus postage.

Checks for chapter subscriptions and renewals should be sent to the chapter secretary involved. All other checks, subscriptions, and renewals should be addressed to the Executive Secretary/Treasurer. Correspondence and orders for back issues should be addressed to the Executive Secretary/Treasurer.

A list of chapters and their officers can be found at: <http://www.wyomingarchaeology.org/was-chapters.html>

Society yearly subscription rates are as follows:

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Institutional Member - \$30.00

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Other memberships may be available. Contact the Executive Secretary/Treasurer for information. Local chapter dues are in addition to state society dues. The Wyoming Archaeological Society is a Nonprofit Organization.

The Wyoming Archaeological Society, Inc. and its local chapters do not discriminate on the basis of age, gender, sexual orientation, gender identity, gender expression, ethnicity, disability, national origin, political affiliation, or religious belief.

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Please make your check payable to the WYOMING ARCHAEOLOGICAL FOUNDATION and mail to Marsha Peterson, WAF Treasurer, P.O. Box 2168, Laramie, WY, 82073; 307-766-5564.

Any funding for the George C. Frison Institute please contact Dr. Jason Toohey at University of Wyoming Anthropology, Dept. 3431, 1000 E. University Avenue, Laramie, WY 82071; or email jtoohey2@uwyo.edu.

IN MEMORIAM

CHARLES MATTESON LOVE
1944-2024

Charles Matteson Love passed away quietly in his sleep on May 8th after six months of deteriorating health. Born in Laramie, Wyoming, in 1944, Charles was a proud third-generation Wyomingite, grandson of a Scottish immigrant, the second of four children born to John David Love, longtime director of the Wyoming branch of the US Geological Survey, and his wife Jane (Matteson) Love, also a geologist. The story of his father and grandparents' ranch life was detailed in the 1986 book *Rising from the Plains* by Pulitzer Prize-winner, John McPhee, and in the 1996 PBS series *The West* by Ken Burns and Stephen Ives.

Charlie spent his childhood between Laramie and Jackson Hole where his father did summer field work. A 1962 graduate of Laramie Prep High School, he attended Bates College in Lewiston, Maine, where he was active in the Outdoor Club and played folk guitar and banjo with friends. In the summers, he worked as a park ranger in Yellowstone National Park, playing folk music on the weekends. There he met summer employee, Karen Lepisto, and the two married in 1969 and had two children.

Charlie received a BS in Geology from Bates College in 1966, an MS in Geology in 1968 from Montana State University in Bozeman, and a second

MA in Anthropology in 1972 from the University of Wyoming. His mentor at UW was William Mulloy, who had traveled with Thor Heyerdahl to Easter Island on the 1955 scientific expedition. Under Dr. Mulloy, Charlie developed an interest in Easter Island research. After graduation Charlie and Karen settled in Rock Springs, Wyoming, where he taught Geology and Anthropology at Western Wyoming Community College. He continued research on Easter Island, taking a research year with his family on the island in 1979-1980. They also traveled widely throughout the Pacific including New Guinea, the Solomon Islands, Tonga, Fiji, Tahiti, and the Marquesas.

Charlie's archaeological research included pollen analysis, stratigraphic studies of excavation pits, and analysis of cultural destruction and tidal wave effects on the platforms and moai statues. He also developed a theory for how the statues were moved from the quarry to the platforms, theorizing that they were moved upright, rolling on logs. In 1986, he and a team at WWCC created a nine-ton concrete replica moai to test his theory, with local volunteers helping to move the moai with ropes over a stretch of desert behind the college. A film crew from the BBC traveled from London to film

the project for NOVA. Today, both the replica and a smaller moai still stand on display on the WWCC lawn. As his work became widely known, he was granted a year-long research assistantship at the Smithsonian Institute in Washington, DC, as well as an invitation to lecture at the British Museum and the Royal Geographical Society in London.

In Wyoming, he also continued research in geology with his colleague and friend, Craig Thompson. The two conducted glacial fieldwork in the Wind River Mountains, measuring, mapping, and photographing the fast-melting glaciers. As early as the 1980s, Charlie realized that Wyoming was undergoing a major drought exacerbated by a warming climate that threatened the future of the state's water supply. He sounded the alarm at scientific conferences and to state politicians, frequently frustrated by their disbelief and inaction.

Charlie was known as an inspiring teacher at WWCC for nearly 40 years before retiring in 2011. He was mentor to many future geologists and anthropologists and awakened a passion for learning in his students. He was known for his field trips around Wyoming and Colorado. In 1989, frustrated that local students could not learn about Wyoming dinosaur bones because the skeletons were in far-flung museums, Charlie wrote grants and used his connections in paleontology to obtain life-size plaster casts. A *Tyrannosaurus rex*, a *Triceratops*, a *Stegosaurus*, a *Camptosaurus*, and a plesiosaur found at Como Bluff and Lance Creek are on display at WWCC for the benefit of the Sweetwater community. He also wrote grants for the purchase of a large fossil turtle, giant fossil palm leaf, and his favorite, a twelve-foot fossilized fish from local fossil beds.

His career allowed him to enjoy his love of the outdoors: hiking, camping, fishing, and skiing. In his twenties, he enjoyed rock climbing as well, but decided to give it up after a couple of close calls. In the 1970s he and Karen built a simple log cabin in the

mountains of Idaho by hand and enjoyed spending weekends there for decades. His career also enabled another great passion: traveling to exotic destinations and sharing his adventures with family and students. By the 1990s, he began to organize field trips for students and community members to Mayan and Aztec sites in Mexico, Inca sites in Peru, trips down the Amazon River, and visits to Easter Island. His children and other family members were lucky enough to join him on several of his adventures.

Charlie married a second time in 1989 to artist Sharon Dolan, who created many archaeological drawings to support his work. They divorced in 2002. He married a third time to the late Marilyn Fedrizzi in 2017. She cared for him after his dementia diagnosis until it became necessary to move him into Sage View Care Center. Marilyn passed away in 2018.

He is survived by his two children, M. Jordan Love (Matthew Loftus) of Charlottesville, Virginia, and Raleigh G. Love (Allison Yu) of Springfield, Illinois. He was a loving grandfather to John and Phoebe Loftus. He is also survived by his brother and sister-in-law, David and Jane Love; his sister and brother-in-law, Barbara Love and Steve Cutcliffe; his brother-in-law, Claude Froidevaux, and his former wife, Karen Love. He also leaves three stepchildren, numerous nieces, nephews, cousins, and hundreds of grateful former students and colleagues, many of whom have reached out to share his impact on their lives. He was predeceased by his parents, his sister Frances Love Froidevaux, and his third wife, Marilyn.

A memorial is being planned for early August. Donations can be made in his name to the Easter Island Foundation: <https://www.easterislandfoundation.org>

Submitted by M. Jordan Love

IN MEMORIUM**JUDYTH ELAINE REED
1948-2024**

Judyth Elaine Reed was born in Muscatine, Iowa on March 28, 1948, to Dale and Shirley (Thompson) Reed. She passed away on July 20, 2024 at the family home in Littleton, Massachusetts from Lewy Body Dementia. She graduated from Muscatine High School in 1966. She was the oldest of five siblings. They are Clayton Reed (Muchelle) of Muscatine, Iowa, Beverly Howard (Earl) of Cincinnati, Ohio, Sandy Anderson of Muscatine, Iowa, and David Reed of Des Moines, Iowa.

She married fellow archaeologist Russell Kaldenberg in Forest Falls, California in 1980. They travelled and moved extensively, living in eleven different locations and loved the Upper Mojave Desert with passion, spending 20 years in Ridgecrest and Trona, California.

She leaves her stepchildren, Casey (Jennifer) Kaldenberg of Littleton, MA, and Catherine (Chris) Ringlestetter from Barstow, CA, as well as step-grandchildren, Nicole, Tyler, Tristan, and Nolan. Cousins close to her were Linnie Stender and Mary Ellen Loncor of Muscatine, Brandon and Margarite Reed of Huntington Beach, California and Mike and Marianne Reed of Anaheim plus many nieces, and nephews, particularly Monica and Tim Hopkins Reed of Muscatine, and Saxon and Marie Lynn

Hutmacher of Westby, Wisconsin. Her Russian Blue Cat, Shado, misses “Mom” greatly.

She grew up reading about history and prehistory and was fascinated with Roy Chapman Andrews’ adventures as well as ancient Roman and Greek history. When her fatal disease hit her, we were in the midst of planning her dream trip to Greece. Luckily, she was able to spend her 25th wedding anniversary in London, visiting the historic sites and Stonehenge.

She graduated in Classic Literature from the University of Iowa and earned her MS from the University of California, Riverside, in Anthropology. She was an Archaeologist for the Bureau of Land Management and the United States Forest Service for 32 years, working in California and Wyoming.

She began her career as an archaeologist on the staff of the BLM Desert Planning Staff then was selected to become the first full time archaeologist for BLM in Indio, California. She was an archaeologist pioneer as she was the first female archaeologist hired to work in several locations in California. She mentored several young women archaeologists. She then moved to the Los Padres National Forest as their archaeologist in Santa Barbara, then on to the San Bernardino National Forest as an archaeologist and assistant Forest Ranger. Then it was on to the

Mendocino National Forest in Willows, CA as the archaeologist and Native American specialist. In 1997, she transferred to the Ridgecrest BLM office where she blossomed. She worked with Native Americans, created the California Archaeological Site Stewardship program where she welcomed the public to become archaeological site stewards, learning about cultural resources and actively protecting them. She made tremendous friends in Ridgecrest and Trona, those she kept friendship with the rest of her lives, including the late Bill Wight and Charlie, Bill and Barbara Gossett, Jerry and Mary Grimsley and the Gear Grinders, Louie and Corey Wincn, Sharon Hartley, Lit Brush, Sandy and Fran Rogers, and Mary Martin. She helped her husband and Bill Wight create the Friends of China Lake Archaeology and served on the Board of Directors of the Maturango Museum.

Some of her notable projects in the Ridgecrest area included protecting the ghost town of Reilly, stabilizing the Panamint Mountains Wickiup, protecting the last Panamint City Stage Station, surveying the southern Panamint Valley and documenting Native American geoglyphs, excavating Bedrock Springs, a looted archaeological site in the Lava Mountains, and then developing a protection plan for it and working closely with volunteers. She shared her knowledge and enthusiasm with the community.

She moved on to the BLM State Office in Cheyenne, Wyoming where she worked to coordinate the State of Wyoming Historic Preservation philosophy

with that of the BLM. It was a job she was passionate about. She made numerous lifelong friends there and helped organize the Cheyenne Chapter of the Wyoming Archaeological Society.

She was proud of her editing skills and report writing, and leaves volumes of cultural resources reports and archaeological papers she authored. The archaeological community will pay future homage to her in upcoming publications.

She was grateful for the final weeks of care to Casey and Jennifer Kaldenberg and their children and to Abbey Lorden of Littleton, MA and to Pinnacle Dementia Care along with close friends Amber Bishop, Chris and Katie from Muscatine, who travelled to Littleton to assist Judyth. 6 year old Katie read "Miss" Judyth Little Golden Books during her illness. It made her happy.

Internment will occur at the family plot at the Searles Valley Cemetery sometime this winter; all will be invited to pay homage to this wonderful person.

Any donations in her honor should be directed to an animal shelter, or to a local historical society such as the Wyoming Archaeological Society in Cheyenne, Wyoming, Maturango Museum, the Mojave Desert Historical and Cultural Association, in Goffs, CA, or the Searles Valley Historical Society in Trona where the Kaldenberg Reed Commemorative Library is located.

<https://news-ridgecrest.com/judyth-elaine-reed/>

IN MEMORIUM

WILLIAM “BILL” CURRENT 1964-2024



William “Bill” Current, 59, passed away peacefully surrounded by his family Tuesday, June 4, 2024 at Memorial Hospital of Sweetwater County. He was a longtime resident of Rock Springs, Wyoming and former resident of California. Bill died from a brief illness.

He was born November 13, 1964 in Oakland, California; the son of William Current and Jacqueline R. Davis. Bill attended schools in California and was a 1982 graduate of St. Mary’s High School. He received both his Bachelors and Master’s Degree in Archaeology from the University of Montana.

Bill married the love of his life Cindy Cilensek August 22, 1987 in Pinedale, Wyoming. She preceded him in death November 21, 2023.

He co-owned and operated Current Properties for many years. Bill also co-owned and operated WyoData Security. He established and ran Current Archaeological Research for over 30 years.

He was known by family and friends for his generosity. Bill was an advocate for local business, a supporter of local charities, and willing to help however he could. Bill enjoyed being outdoors; working but most of all he enjoyed his daughters and his granddaughters.

He was a member of the Holy Spirit Catholic Community. Bill was an Eagle Boy Scout.

Survivors include his mother, Jacqueline Berton of Clovis, California; two daughters, Stephanie Current of Rock Springs, Wyoming; Jennifer Brehm and husband Chris of Rock Springs, Wyoming; one brother, Jesse Current of Clovis, California; two granddaughters, Ava and Abby; one aunt, Karen Hoffman; several cousins; nieces and nephews.

He is preceded in death by his father, William Current and wife, Cindy Current.

A Vigil Service with Rosary will be conducted at 5:00 P.M. Tuesday, June 11, 2024 at the Vase Funeral Chapel, 154 Elk Street, Rock Springs, Wyoming. A Mass of Christian Burial will be conducted 10:00 A.M. Wednesday, June 12, 2024 at the Our Lady of Sorrows Catholic Church, 116 Broadway, Rock Springs, Wyoming. Graveside Services and Interment will be in the Rock Springs Municipal Cemetery. Friends may call the church one hour prior to services.

The family respectfully requests donations be made in Bill’s memory to the Holy Spirit Catholic School. Condolences may be left at www.vasefuneralhomes.com

<https://www.vasefuneralhomes.com/obituary/william-bill-current>

IN MEMORIAM

RICHARD BERTRAM BLATCHLEY 1957-2023



Sudden death took the life of our beloved brother, Rick Blatchley, age 66, on December 24 2023. He was born Richard Betram Blatchley to Bets and Brer Blatchley on October 15 1957 in Vancouver, British Columbia, Canada, where he grew up. Due to family fractures, we did not meet our sweet gentle brother until he was 8 years old, and always treasured our times together. A dual citizen, he returned to the US for college, and graduated from the University of Wyoming in 1979 with a degree in anthropology. There he became a scion of the West, immersed in ancient cultures and adventures in the mountains with friends. After college he scoured the Wyoming landscape for indigenous artifacts as a crew chief in the Office of the Wyoming State Archeologist. Following 5 years in Knoxville as an archeologist for the University of Tennessee, he headed west as crew chief for Western Wyoming Community College in Rock Springs, Wyoming. In 2003 he settled in Fort Collins, Colorado, where he became the wise story-teller and counsellor to one

and all at Whole Foods and, since 2014, Wilbur's Total Beverage, "the best liquor store in Fort Collins". Rick's interests spanned the universe, from science fiction to keshis to healing with crystals. He collected coins, survival gear, and even black powder pistols from the 1800s. He had a loving and mellow touch with all his family. We cherished his quiet humor, myriad tales, and easy ways of blending into every scene. He will be dearly missed.

Rick is survived by his two half-sisters, Lynn Bickley (Randy Schiffer) and Ann Bickley, and nephews Chester Van Dellen (Mandy), Jeffrey Van Dellen (Catherine), Andrew Van Dellen (Mandi), Brenton Schiffer (Mallory), and Randolph T Schiffer, and by his Van Dellen great-nephews and nieces, Emmet and Hazel, Rae and Lily, and Cooper and Josephine. A family memorial is planned. Inquiries can be directed to lbick09@gmail.com

<https://www.coloradoan.com/obituaries/pcol0731914>

IN MEMORIAM

LARRY A. LAHREN 19xx-2024



Dr. Larry A. Lahren crossed over the great divide on April 18, 2024. Born and raised in Livingston, Montana, Larry was well known for his passion for the outdoors and his vast knowledge of the pre-history of the surrounding area.

He was an anthropologist, wilderness outfitter, researcher, writer, and fierce advocate for the preservation of the cultural history of the Upper Yellowstone Valley. He shared his knowledge of the archaeological record in the classroom on guided field trips and through his publication of *Homeland, An archaeologist's view of Yellowstone Country's Past*. Aside from all his accomplishments and contributions to his family, friends, and community, he just wanted to be known as "a kid from the east side of Livingston."

Larry was a Park County native who conducted archaeological research in Montana since 1966. He has Bachelor and Master's degrees from Montana State

University and a Ph.D. in North American Archaeology from the University of Calgary. He taught at colleges and universities in Montana and Canada. Since 1971, he has operated Anthro Research Inc., a private consulting firm. His book "*Homeland: An Archaeologist's View of Yellowstone Country's Past*" was published in 2006. In 2013 he received the Montana Governor's Award for the Humanities.

If desired, donations may be made to The Crazy Mountain Museum in Big Timber, MT.

Published by Livingston Enterprise from Apr. 27 to Apr. 28, 2024. <https://www.legacy.com/us/obituaries/livingstonenterprise/name/larry-lahren-obituary?id=54976679>

IN MEMORIAM

ROBIN CARLSON 1962-2024



Robin Lyn Carlson, 62, of Gillette, Wyoming, passed away Wednesday, July 31, 2024, at Campbell County Memorial Hospital from MDS/Acute Myeloid Leukemia. Robin was born Jan. 18, 1962, at Fairchild Air Force Base outside Spokane, Washington, to Thomas and Evelyn Carlson.

Robin's father was a veterinarian and rancher. He purchased and sold several ranches during her childhood which resulted in her attending several schools in several states. She attended schools in Salmon, Idaho, White Hall, Montana, Twin Bridges, Montana, and Greybull, Wyoming, where she graduated from high school. She attended the University of Wyoming, obtaining a Bachelor of Science Degree in Geology. She was a registered geologist in the state of Wyoming.

During her younger years she participated in competitive trail riding, receiving numerous awards. She was also a very competitive basketball and track participant in high school setting several school records. She continued her sports activities after college with scuba diving in Hawaii and the Caribbean, racquetball playing, hiking around the Western and Southwestern states, and rock climbing including climbing Devils Tower.

Before graduating from college Robin married Jon Kershner and moved to Gillette. They later divorced. She immersed herself in her work for the next 14 years. Robin worked for Amax Coal Co. spending time at both the Belle Ayr and Eagle Butte mines in environmental, engineering and mine planning positions. Upon leaving the Belle Ayr mine, she found employment with Powder

River Coal Co. spending the majority of her time as the Continuous Improvement Coordinator at both Rawhide and Caballo mines.

One day, Robin, showing off a picture of a large fish she had caught, interest of Leroy Dike. He talked her into taking him to that particular fishing spot and after a few more fishing trips a bond developed. The two married becoming "Forever Fishing Partners."

They both retired shortly after marriage. They spent their time traveling, gardening, haying at the family ranch, fishing, hunting and volunteering many hours to the Office of Wyoming State Archaeologist. They were fortunate to be included in excavations and surveys around the state and working with many talented people who became lifelong friends. They were awarded the "Golden Trowel Award" by the Wyoming Archaeology Society for their work, commitment and dedication to archaeology in 2022.

Robin had no children of her own but loved and enjoyed those of Leroy's. Robin is survived by her husband, Leroy Dike; brother, Tom (Maria) Carlson; nephew, Chase, and niece, Sage, of Vancouver, Washington; father, Thomas of Leadore, Idaho; and numerous aunts, uncles and cousins.

Robin was preceded in death by her mother, Evelyn Carlson; and both maternal and paternal grandparents. A memorial service will be scheduled at a later date.

https://www.gilletteneewsrecord.com/obituaries/article_8bb37b27-c799-5688-b300-18b6307b22cd.html

IN MEMORIAM

**CHARLES A. “CHUCK” REHER
1946-2024**

Chuck was born May 7, 1946, and passed on September 22, 2024. Chuck grew up in Pine Bluffs sparking his interest in Archaeology, his passion being Plains Tribal groups. He received his BA and MA from UW (1970, 1971) and a PhD from the University of New Mexico, 1978. He specialized in Late Prehistoric and Early Historic time periods, authoring many research articles and monographs. He generated 3 million dollars for archaeological research, public education programs and facilities. His teaching career started in 1976, teaching a diverse set of undergraduate and graduate classes until retirement in 2014, but we all know that was just retirement from the classroom. Some of his proudest accomplishments were developing and directing the High Plains Archaeology Museum, “Windows on The Past,” in his hometown. He was the Tribal Archaeologist for the Shoshone and Arapahoe Tribes on the Wind River Reservation for over 20 years. He had such a high respect for the elders as they did him, showing him places deep in the Owl Creek Mountains where ‘no white man has been before.’ He led excavations at the Vore Buffalo Jump as a graduate student and later was instrumental in promoting the development of the site which is now open to the public. He was chief scientist for the Vore Buffalo Jump foundation for decades. His career took him and his family to sites in the High Plains of southeast Wyoming and northeast Colorado. Sites in the Black Hills, Grand Teton National Park, the Wind River Basin and a sababatical in southwest Colorado.

He was director of the Archaeological Field School Program, Territorial Prison Archaeology project, University of Wyoming Anthropology Museum and the Dendrochronology Laboratory. Other professional responsibilities included Anthropology Department Graduate Program Committee, the Archaeology Subdiscipline Curriculum Committee, UW/State Parks-Cultural Resources Archaeology Repository, Governor’s appointee on nominations to the National Register of Historic Places and so many other professional advisory committees and subcommittees that not all can be listed. He presented papers at professional meetings over his extensive career throughout the US, Jamaica, Calgary and Puerto Rico.

He received the Wyoming Archaeology Golden Trowel Award in 1991, Excellence in advising award-University of Wyoming 2000, Mortar Board Honor Society, Top Professor Award-UW 2006, Wyoming Association of Professional Archaeologists Distinguished Service Award 2013. He served as President of both the Wyoming Association of Professional Archaeologists and the Plains Anthropological Association, and as Vice President of the Colorado/Wyoming Academy of Sciences.

His family and friends will remember him best for his story telling. He was passionate about his career and truly loved what he did. When stopping by the house, one would find themselves getting a tour of the basement which he had set up like a museum. “Everything has a story.” He had a great sense of humor, even with his academic career, bringing *The Simpsons* and *Beavis* and

Butthead to his lectures. He used a light saber as a pointer in his classroom. When something piqued his interest, he didn't mildly research it. He did the deep dive such as Tim McCoy and an old western filmed on the reservation. He found the location, marked all rifle cartridges with pin flags and made several charts, graphs, power points, and papers of his findings. Or his infatuation for the wild palomino Desert Dust when he met the man who captured him at a bar in Glenrock, WY. Anybody who entered his basement, office or lab heard the story. He was an avid science fiction reader and collector. He would say Indiana Jones wasn't accurate, yet he was in the back yard practicing with his new bull whip and hung a poster in his lab, perhaps even had a similar hat. His family will continue to use his quotes and share his stories.

He is survived by his Wife Sandy of 57 years who he drug all over the back country and only got stuck a 'few' times. Cross Country skiing to the Medicine Wheel, finding steps leading to it that were only a rumor at the time. Surveying in the Sun Light Basin and seeing how fast she could move to get in the truck when Feller, the German Shepherd growled and took off into the forest (he returned). The countless sleeves she cut off his western shirts and sewed them to prevent fraying into his

trademark sleeveless attire. Repairing holey jeans over and over because those were his favorites and generally just putting up with him! She was the foundation of his career and she will greatly miss his company.

Chuck is preceded in death by his son, Jason Charles Reher; and his parents, Virgil Reher and Patricia Heaton; and sister, Nina Lou.

He is survived by his wife, Sandra Reher; daughter, Arienna Reher; granddaughter, Brienna Culnan; grandson, Alex Culnan; his kitty, Thor also known as Merky; and siblings, Raphael (CJ) McAbee-Reher, Paul (Sally) Reher, Margaret (Dick) Rupke, Helen (Wayne) Reher-Werner, and Theresa Reher.

A Memorial Service will be held at 11:00 a.m. Saturday, September 28, 2024 at Montgomery-Stryker Funeral Home. Inurnment will follow at Greenhill Cemetery.

A reception will be held from 1-4 p.m. at LaPrele Park Shelter #1 following the burial.

Memorial donations may be made to the Jason C. Reher Memorial Fund and/or the Vore Buffalo Jump Foundation.

<https://www.montgomerystryker.com/charles-chuck-arthur-reher/>

NEWS AND INFORMATION

Wyoming Archaeological Society, Inc.
2023 Annual Meeting Minutes
8:14 a.m. Worland, WY
Saturday, Saturday, April 29, 2023

Presiding: John Laughlin, President

Call to Order: 8:14 a.m.

Report of Credentials Committee/Roll Call of Delegates: Executive Secretary/Treasurer Carolyn Buff certified the voting delegates: Absaroka – Mike Bies and Wes Huber; Ancient Trails – Cher Burgess and Alice Tratebas; Casper – John and Mavis Greer; Cheyenne – Richard Curritt and Roy (?) illegible; Fremont County – Ed McAuslan and Kathy Kowaik; June Frison – Carmen Clayton and Charles Koenig; Pumpkin Buttes – Robin Carlson and Leroy Dyke; Sheridan/Bufalo – Jennie Aiello; Sweetwater County – absent; Upper Green River Basin – Dave Vlcek; and Yellowstone – Bonnie Smith and Troy Fischer.

Roll Call showed nine chapters represented: Absaroka, Casper, Ancient Trails, Cheyenne, Fremont, June Frison, Pumpkin Buttes, Sheridan/Johnson County, Upper Green River Basin and Yellowstone.

Approval of Minutes of April 2

9, 2022: Motion by Bonnie Smith and second by Robin Carlson, to approve the minutes as published in Volume 65(1) issue of *The Wyoming Archaeologist*. Carried.

Treasurer's Report: Executive Secretary/Treasurer Carolyn Buff gave the treasurer's report showing a total net worth of \$87,072.47, a decrease of \$3,479.36.

Motion and second to file the treasurer's report for audit. Carried.

Auditor's Report: Jason Bogstie, Cher Burgess and Christine Varah certified that the treasurer's report was in order.

Editor's Report: Danny Walker – Announced that addresses should be updated if members wanted to receive the journal. He said that we are caught up to 2021 and that manuscripts are needed.

Librarian's Report: Molly Herron - The library continues to receive materials into the inventory, and the materials are available for check-out. We receive newsletters and journals from other societies. If anyone has any materials to bring them to the library.

Danny Walker mentioned there are some issues with exchange journals; several had quit sending and we should not reciprocate those in the future.

Committee Reports: Scholarship: Carolyn Buff announced that the Reiss Field School scholarships had been awarded earlier so the students would have the money early enough to prepare for field school.

SAA/COAS: Marcel Kornfeld announced that SAA/COAS is in touch with people to get a replacement for his position to be appointed.

Chapter Reports: The chapter reports will be published in *The Wyoming Archaeologist*.

State Archaeologist's Report: Spencer Pelton announced that two new employees had been hired. He discussed Willow Springs and Hell Gap and asked for volunteers.

Old Business: John Laughlin announced that WAS had received \$6,000 from the Wyoming Cultural Trust Fund to catch up on the printing of the journal. Digitization of past journals is ongoing. Approximately 75% of members have requested the journal in pdf form, thereby, hopefully, cutting down the costs of printing the journal. John and Spencer Pelton have applied for a SHRAB grant to do some tDAR work.

John Laughlin proposed that an editorial board be formed.

John Laughlin continues to do an amazing job with the web site.

John Laughlin and Sarah Allaun reported that we need a new logo design and asked for ideas.

John also mentioned that the bylaws need revision. A committee off John Laughlin, Mike Bies, Leroy Dyke, Bonnie Smith, and Carolyn Buff was appointed to do the revisions.

John talked about the security of chapter finances due to the number of scams happening. Chapters were advised to beware.

Everyone needs to be marketing the Wyoming Archaeological Society. Suggestions included public radio, a media officer, maybe piggyback on the department, WAPA, and OWSA, and students.

Website: John Laughlin continues to maintain the web site and members can notify him of any information they may want on it.

Wyoming Archaeology Awareness Month: Amanda Castaneda requested \$250.00 for Archaeology Awareness Month in September and thanked the Society for the continued support. She announced that chapters could pick up posters and that t-shirts, caps and aprons were available for purchase.

Motion by Bonnie Smith, second by Charles Koenig to approve the expenditure of \$250.00 for WAAM. Carried.

Wyoming History Day: Rachel Shimick – The theme was Frontiers in History.

Frison Institute: Todd Surovell announced that the endowment was now over \$1,000,000 and that 17 students had been supported last year. John Branney pledged an estate of \$1.5 million dollars. September 21 has been scheduled for the Frison Institute lecture in Laramie.

Friends of the George C. Frison Institute: No report.

Wyoming Archaeological Foundation: Mavis Greer, President, reported that Ed Peterson had donated the remainder of the Hell Gap Locality 3 to the foundation. The property was in probate. Marcia Peterson, WAF treasurer, attended the service to show appreciation.

Michael Page reported on the Survey Section of the OWSA.

Spencer Pelton announced volunteer opportunities with OWSA.

Names, addresses, etc.: Carolyn Buff requested that names, addresses, phone numbers and emails be updated as soon as possible and to please provide zip +4s. Any piece of junk mail can provide that information. Just look at the address.

New Business

Funding Committee – Danny Walker, chair, Mike Bies, Carolyn Buff, Sylvia Huber, John Laughlin, Spencer Pelton have not met.

Dues Increase – John Laughlin reminded everyone that state dues had gone up to \$20.00 for an individual and \$25.00 for a family so chapters should up their dues accordingly.

State Parks, Historic Sites, and Trails Update – No report.

State Historic Preservation Office – Amanda Castaneda – WAS/WAAM merchandise is available. Read a thank-you from Judy Wolf, retired. She announced the new poster with the glyphs from the Sierra Madre Mountains.

Survey Section: No Report.

Brochures, Letterhead, Envelopes, and Membership Cards: are available by contacting Carolyn Buff.

Correspondence: None to report.

Election of Officers: Sarah Alluan, chair, June Frison Chapter nominated Hillary Jones, president, John Laughlin, 1st vice president, and Robin Carlson 2nd vice president. Moved by Danny Walker, second by Robin Carlson. Carried.

2024 Nominating Committee: Robin Carlson, 2nd vice president, chair, Pumpkin Buttes Chapter, Marcel Kornfeld, June Frison Chapter, and Bonnie Smith, Yellowstone Chapter.

Selection of Site for 2024 Annual Meeting: Laramie is scheduled to host the 2024 meeting and Sarah Allaun extended the invitation.

Selection of Site for 2024 Summer Meeting: Hell Gap was selected for the Summer Meeting July 7-9.

Announcements: Please update your chapter officers with the executive secretary/treasurer and send any pertinent chapter information to John Laughlin or Dan Bach for inclusion on the website.

Carolyn Buff announced that the WAS window clings and magnetic decals were available for sale here and from the website.

Other Business to Come Before the Body – None.

Adjourn: There being no further business, the meeting adjourned at 9:43 a.m.

/s/ Carolyn M Buff
Executive Secretary/Treasurer

Golden Trowel Award: 2023 – Marcel Kornfeld and Mary Lou Larson

Keynote Speaker: Spencer Pelton, Wyoming State Archaeologist

/s/ Carolyn M Buff
Executive Secretary/Treasurer

Treasurer's Report for Fiscal Year Ending March 31, 2023

RELIANT FEDERAL CREDIT UNION

CHECKING ACCOUNT	INCOME	EXPENSES	BALANCE
Beginning Balance	\$4,816.41		
Deposits	\$16,428.88		
Interest Earned	\$2.32		
TOTAL INCOME - Checking			\$21,247.61

EXPENSES			
Merback Awards - Trowel Printing		\$38.84	
Modern Printing		\$1,548.89	
WAPA - History Day		\$100.00	
Wyoming Archaeology Month and Fair	Outstanding	\$250.00	
WAPA - Zoom Fees	Outstanding	\$25.00	
Melissa Branson - Reiss Scholarship		\$400.00	
Baikkie Brandt - Reiss Scholarship		\$400.00	
Dakota uhlman - Reiss Scholarship		\$400.00	
Elin Moorman - Reiss Scholarship		\$400.00	
Nathan Davis - Reiss Scholarship		\$400.00	
Grace Sandford - Mulloy Scholarship		\$333.00	
Kaley Collens - Mulloy Scholarship		\$333.00	
David Koolena - Frison Scholarship		\$500.00	
Nick Bryant - Frison Scholarship		\$500.00	
Chase Mahan - Jenson Travel Award	Outstanding	\$375.00	
Charles Koenig - Jenson Travel Award	Outstanding	\$375.00	
Clifford White - Mulloy Scholarship		\$333.00	
WAAM - Wyoming Archaeology Fair	Outstanding	\$250.00	
Reliant Federal Credit Union - Visa Card		\$10.08	
Modern Printing - Journal Printing		\$1,785.76	
Modern Printing - Journal Printing		\$1,785.76	
USPS - Bulk Permit		\$500.00	
Danny Walker - Supplies		\$50.00	
Modern Printing - Journal Printing		\$4,469.53	
USPS - Mailing Postage		\$290.00	
Modern Printing - Journal Printing		\$2,484.16	
USPS - Mailing Postage		\$159.89	
Wyoming Archarological Foundation - Annual Dues	Outstanding	\$209.50	
TOTAL EXPENSES		\$17,221.91	
ENDING BALANCE - Checking Account			\$4,025.70

SAVINGS, MONEY MARKET, CERTIFICATES OF DEPOSIT

SAVINGS ACCOUNT		
BEGINNING BALANCE	\$126.06	
Interest Earned	\$0.01	
ENDING BALANCE		\$126.07

MONEY MARKET ACCOUNT - 0040		
BEGINNING BALANCE	\$7,884.15	
Interest Earned	\$9.58	
Transfer to Checking Account	\$(3,000.00)	
ENDING BALANCE		\$4,893.73
MONEY MARKET ACCOUNT - 0041 (BLM)		
BEGINNING BALANCE	\$9,397.10	
Inrest Earned	\$12.15	
ENDING BALANCE		\$9,409.25
Total available after March 31, 2023 = \$3,323.17 for Big Horn Basin projects, digitization, and report-writing		
CERTIFICATE OF DEPOSIT - 00100		
BEGINNING BALANCE	\$48,713.34	
Interest Earned	\$20.77	
ENDING BALANCE		\$48,937.32
CERTIFICATE OF DEPOSIT - 0101 - Reiss Account		
BEGINNING BALANCE	\$16,159.43	
Interest Earned	\$53.76	
ENDING BALANCE		\$16,213.19
TOTAL INCOME AND ASSETS 2023		\$83,609.63
Total Expenses		\$17,221.91
2023 NET		\$66,387.72
2022 Net Worth, Brought Forwatd		\$87,072.47
Net Increase (Decrease)		\$(3,462.84)
Carolyn M Buff		
Executive Secretary/Treasurer		

**Wyoming Archaeological Society, Inc.
2024 Annual Meeting Minutes
Saturday, May 4, 2024, 7:30-9:00am**

Presiding: Hillary Jones, President
Called to order at 7:37am.

Report of Credentials Committee/Roll Call of Delegates:

Executive Secretary/Treasurer Sylvia Huber certified the voting delegates: Absaroka -- Mike Bies, Larry Todd; Ancient Trails -- No delegates; Casper -- Carolyn Buff, Mavis Greer (via zoom); Cheyenne -- Dan Bach, Richard Currit; Fremont County -- Ed McAuslan, Bill Elder; June Frison -- Carmen Clayton, Connor Johnen; Pumpkin Buttes -- Jessica Baken-Bagwell, Cher Burgess; Sheridan/Bufalo -- Jenny Aiello; Upper Green River -- no delegates; Yellowstone -- Beth Horton. Roll call recognizes 14 voting delegates for 8 Chapters in attendance.

Approval of April 29, 2023 Minutes

Minutes were approved by membership present. They will be printed in *The Wyoming Archaeologist*.

Treasurer's Report

Sylvia Huber -- due to the transition of the secretary/treasurer position, there is not a current treasurer's report available at this time. The Audit Report for 2023 will be certified at a later date. Audit Committee -- Kristen Campbell, Mike Bies, and Jenny Aiello.

Editor's Report

Danny Walker -- One issue of *The Wyoming Archaeologist* was printed this year, one is ready to go to press, and one is half completed.

Librarian's Report

Cassidee Thornhill -- There have been no additions to the Library. Currently there are 7-8 journal exchanges in place. Danny noted that we have not

received any journals in return for several years. Exchange agreements need to be checked for further discussion.

Committee Reports

Scholarship

Carolyn Buff -- The Committee will meet today at noon. Two applications for the George C. Frison Undergraduate Scholarship were received. Six applications for the David Reiss Memorial Field School Scholarship were received. Successful applicants will be announced at the evening banquet. The Frison scholarship recipients are Dakota Buhman and Fox Nelson. The Reiss scholarship recipients are Erin Walker, Lillian Barber, Seven Hake, Sofia Arios.

SAA/COAS

Marcel Kornfeld -- Marcel reminded the membership that at last year's annual meeting this committee position was to have been taken over by someone else. Tabled for later discussion.

Chapter Reports

Chapter reports will be published in the next issue of *The Wyoming Archaeologist*.

State Archaeologist Report

Spencer Pelton/Marcia Peterson -- Marcia introduced Cassidee Thornhill as the new Collections Manager.

Work will continue at Willow Springs in June in conjunction with the Field School.

A metal detecting class will also be offered at the same time and open to the public.

Spencer announced a work session is planned at Hell Gap July 1–10 to test Locality 4. This is also open to the public.

The Summer WAS meeting is planned for July 5-7 at Hell Gap.

****Danny received word that Richard Blatchley, OWSA, passed away December 24, 2023. He will publish the full obituary in the next issue of *The Wyoming Archaeologist* journal.**

OLD BUSINESS

Cultural Trust Fund Grant

John Laughlin announced that the \$6,000 grant was received. The funds were used to publish six (6) issues of *The Wyoming Archaeologist*. He submitted the final report last year.

SCHRAP Grant

Funds were used in conjunction with OWSA for the website set up. Spencer has posted everything available on the site. The terms of the grant have been completed.

Editorial Board

John Laughlin had suggested at the 2023 Annual Meeting to form an Editorial Board. There has been no follow through.

WAS LOGO Design

Discussion tabled. The Executive Committee will follow up on designs presented at the 2023 meeting.

By-laws Revision Committee

Committee -- John Laughlin, Mike Bies, Leroy Dyke, Bonnie Lawrence-Smith, Carolyn Buff
John reported that there has been no progress on the revision. The committee will meet this year and should have substantive changes ready for the 2025 annual meeting. A draft document will be ready in six months to be submitted to membership for reading prior to discussion at annual meeting.

Membership Contact Information Update

Hillary noted that all Chapter member information must be updated. She will send out an announcement to all Chapters requesting updated membership numbers, paid members, and whether printed or digital journal requested. The collected information will be directed to Sylvia Huber.

NEW BUSINESS

Website

John Laughlin will continue to maintain the WAS website. Contact John or Dan Bach to submit updates.

Wyoming Archaeology Awareness Month

Gwendolyn Kristy -- Wyoming won first place for the 2023 Wyoming Archaeology Awareness Month poster, *Archived in Aspen*.

The 2024 posters are available for Chapters to pick up before leaving the Conference.

The Wyoming Archaeology Fair is scheduled for September 7, at the Territorial Prison in Laramie.

Frison Institute

Todd Surovell -- Frison Institute Endowment Fund stands at \$975,000, generating around \$45,000 per year which funds 15-20 projects per year.

This year's speaker for the Frison Institute on September 19 will be Jesse Casana, Department of Anthropology, Dartmouth.

ConnectGen Corporation contacted Todd, they are offering a \$200,000 grant to fund tribal and archaeology research in southern Wyoming as part of the mitigation for adverse effects from the Rail Tie wind project south of Laramie. Though not finalized as yet, the Frison Institute would administer the grant.

Wyoming Archaeology Foundation

Tyson Arnold -- No report available.

Funding Committee

Danny Walker, Chair, Mike Bies, Carolyn Buff, Sylvia Huber, John Laughlin, Spencer Pelton -- No report available.

Membership discussion of WAS finances and funding needs

Journal Printing Discussion

Danny reported the journal is two years behind in publishing. As reported earlier, the Cultural Trust Fund grant paid for the last six issues. We must now look for other means of financing journal printing. Printing costs continue to rise, five years ago the journal costs were \$1,700; the last issue printed was \$2,500.

To date he has only received 63 members out of 370 who request digital copies. This figure does not reduce the expense of printing. These numbers must be confirmed and include associate, institutional, lifetime, and journal exchange members.

Fixed costs for the journal include bulk mailing

permit and bulk mailing expenses.

Danny suggests creating a dedicated fund for printing *The Wyoming Archaeologist* that does not depend on Chapter membership dues.

WAS Finances Discussion

Carolyn noted that at present we have funds to either grant scholarships or print a journal. The Reiss family donates \$2,000 per year. \$1,500 is dedicated to the Reiss Scholarship leaving \$500 deposited to the WAS checking account. This amount with Chapter dues will not adequately fund both journal printing and scholarship awards.

Fixed costs for WAS include Secretary of State fee, annual meeting keynote speaker honorarium and expenses, student registration/banquet fees, golden trowel, supplies, and dues.

The announcement to all Chapters from Hillary requesting complete member information will also include an overview of the current and projected journal costs. Danny will supply these figures to Hillary. Chapters will then have the information needed to discuss a possible increase in Chapter dues to State. This information will be directed to Sylvia.

Suggestions/Questions – WAS Finances:

- Print one journal a year
- Would the membership feel slighted at not receiving two a year?
- Chapter Presidents discuss dues increase with members?
- Would one journal contain more content creating a larger publication so not significantly reducing the cost of printing?
- Program in place to allow only paid members to receive digital copy?
- Investigate Colorado Archaeology Society's program of collecting dues and link to access digital journal.
- How do other organizations fund their publications?
- Reach out to State Parks, Julie Greer, Commissioner?
- Highway Department?
- Increase membership dues?
- Reach out for local business support?
- Wyoming Cultural Trust Fund matching grant?

Rachel Shimek will set up a subcommittee with Kristen Campbell and Bill Elder. Goal is to seek new ways to solicit funding, new ways to raise money for the organization, and resolve the issue so as not have to revisit lack of funding every year.

Website and Zoom Payments – Gwendolyn Kristy

Website & Domain: AutoRenew payment on 12/17/2026 (we pay every 5 years). Domain price through GoDaddy is \$22.99/year plus Business Plus Website Builder Renewal is \$1,379.40/5 years totally \$1,494.34 for five years. Thirteen Chapters are currently listed. If the cost is divided between the Chapters and WAPA, each organization would owe \$106.74 at the end of calendar year 2024 for website maintenance. If a chapter chooses not to participate, their information will be removed for the website and the total due will have to be adjusted.

Zoom account: WAPA is currently paying for three professional Zoom accounts that all WAS chapters can use. If we reduce that to one account it would save \$300/year. We paid \$476.68 in April 2023 for the three accounts, with no contributions from any WAS chapters for this subscription. If WAS chapters would like to continue to use these accounts, we would like to split the cost equally across WAS Chapters using the account plus WAPA.

The cost split between Chapters and WAPA would be \$32.12 each. The account has auto renewed for 2024. After discussion, voting members present agreed to split the cost. Logins may be obtained from Gwendolyn or Mavis Greer.

ELECTION OF OFFICERS

There were no new nominations.

Danny moved to nominate the standing officers and to cease nominations. Carolyn seconded. Motion carried. Officers: Hillary Jones, president; John Laughlin, 1st VP; Robin Carlson, 2nd VP.

WAF MEMBER-AT-LARGE – This was Tyson Arnold's last year although he has offered to continue in the position. Carolyn moved to accept Tyson as WAF Member-at-large. Cher Burgess seconded. Motion carried.

WAS SUMMER MEETING

It was suggested to hold it at Hell Gap in conjunction with OWSA projects. Meeting to be July 5-7. Kristin so moved. Cher seconded. Motion carried.

2025 ANNUAL MEETING LOCATION

Cheyenne Chapter has agreed to host the WAS Annual meeting in 2025. Dan and John will meet next week to start planning.

EDITOR'S NOTE THE WYOMING ARCHAEOLOGIST VOLUME 8(3-4) 1965, PAGE 2

The reasons for the lateness of our publication is lack of material for each issue. It is becoming increasingly difficult for the few members of the Cheyenne Chapter involved to secure material for publication. I feel that the lack of support from the other Chapters has definitely affected the timeliness of our publication. The editorial people and I plead with any member or non-member to submit any manuscript they may care to write, to include drawings and pictures. I have been looking back thru some of the earlier issues of both THE ARCHAEOLOGIST and THE SMOKE SIGNAL and I find a great number of articles written by members of our Society. I am at a loss to try to explain why this type of article is no longer being submitted by the members. I wonder if it is not a case of "out of sight, out of mind" or "let's just let George do it". If the publication is not supported in this manner then we are wasting our time and money trying to keep it going. Presently, even with money in the publication budget, we do not have enough material for four issues each year. The Executive Committee has recommended that a state-wide Editorial Board be appointed on a continuing basis to report to the Executive-Secretary each quarter at least one month prior to publication date on any material they find available. This Editorial Board will be as follows:

ANNOUNCEMENTS

Carolyn made a motion to accept the appointment by the Executive Committee of Sylvia Huber as the new Secretary/Treasurer. Danny seconded. Motion carried.

There being no further business; the meeting was adjourned at 8:39am.

/s/ Sylvia Huber
Executive Secretary / Treasurer

Golden Trowel Award: 2024 – Carolyn Buff for her 38 years of service to WAS

Keynote Speaker: Dr. Kelly Graf, Anthropology Department, University of Kansas. Dr. Graf spoke about her work in the peopling of the Americas research.



**CAROLYN BUFF RETIRES AS WAS
EXECUTIVE SECRETARY/TREASURER**

(Photograph by John Laughlin)

TO: Wyoming Archaeological Society Executive Committee: Hillary Jones, John Laughlin, Robin Carlson, Danny Walker, and Molly Herron

FROM: Carolyn M Buff, Executive Secretary/
Treasurer

RE: Retirement

DATE: March 10, 2024

It's been an amazing ride for me over the last 38 years as the executive secretary/treasurer of the Wyoming Archaeological Society, Inc., but it's time to remove the spurs, hang up the chaps, and put the old mare out to pasture. Prior to 1986 I was a member of the Society, having served as President, 1st Vice President, and 2nd Vice President. Please accept this letter of retirement, effective March 31, 2024.

I would like to propose Sylvia Huber as my replacement. Not only has she gone through the "levels", but she has volunteered at a number of sites over the last several years. She is eager to accept the position and will serve the Society well.

I will work with Sylvia for as long as it takes her to learn what I have been doing over the years and to make it "hers". She and I will meet as much as she needs and she will need to come to Casper one time to become the primary signatory on the financial accounts.

After the Executive Committee agrees, the position replacement will need to be voted on by the voting delegates to confirm my retirement and the appointment of Sylvia as this needs to have a motion and second at the meeting and become a matter of record in the minutes. Sylvia will be taking the minutes at the spring meeting in Laramie. I will prepare the treasurer's report for the meeting since I will still be the signatory. After that Sylvia will take over.

I would like to remain as the Scholarship Committee chairman, if that is agreeable with the Executive Committee. If not, that position will also need to be replaced, but I would like to know the decision as soon as you can discuss this.

I hope you all will help Sylvia through this transition and allow her to decide what she wants the position to be.

Next to my family, archaeology is my second love. Not only have I learned more than I ever thought I could, but I have made life-long friends and met some of the most interesting people in the world. I have also been very fortunate to be allowed to volunteer at some of the most significant sites in North America: Casper, Agate Basin, La Prele, and River Bend to list only a few.

I'm not going away completely; I'm just going to sit back and enjoy the meetings and, if I am physically able, continue to volunteer in minor capacities.

Thanks so much to all of you!

TWO ADDITIONAL ARTIFACT TYPES FROM THE GARRETT ALLEN (ELK MOUNTAIN) SITE (48CR301)

by
David G. Eckles

The Garrett Allen (Elk Mountain) archaeological site (48CR301) is located in southeastern Carbon County, Wyoming at the northern end of the Medicine Bow Mountains and southern edge of the Hanna-Carbon Basin. It is within a homoclinal valley near the perennial Quealy Spring which forms an ephemeral drainage flowing to the north-northwest. Archaeological deposits are present just to the south, southwest and southeast of the spring. These deposits are about 10-12 feet above the spring, but their total depth is unknown.

Excavations at the site began in late 1968 and continued each year through 1980. Units were established from a north-south, east-west grid to the south of Quealy Spring. Most units were 5x5 feet blocks with some as large as 10x5 and 10x10 feet. Most units were excavated to 12 inches below surface with some units reaching 60 inches below surface. Introductory information, the history of investigations, the depth sequence, and radiocarbon dating are addressed in Eckles (2013).

Dating of the site deposits has been estimated from about 500 to over 3000 years before present. While no discrete components have been firmly established, there does appear to be comparative consistency in the artifact and faunal assemblages within the depth sequence to suggest the site was revisited several times for similar purposes (Eckles 2013, Eckles and Guinard 2015).

Several aspects of the archaeology of the Garrett Allen (Elk Mountain) site have been previously published (see Eckles 2013; Eckles and Guinard 2015; Eckles and Miller 2019; Eckles 2019; and Eckles 2020). Soil formational processes have also been presented by Hayter (1983) with a preliminary analysis of the pottery by Clauter (2015). Two typical artifact types found at the site have not been

previously discussed and are addressed here: ground stone and end scrapers. No detailed comparisons or analyses with similar artifacts are presented, but rather the intent of this article is to provide a basic description of these two artifact types so future analysts will be made aware of the collection for conducting such future studies.

GROUND STONE

Ground stone artifacts from the Garrett Allen excavations include manos, small metate fragments and shaft abrader fragments. There are 44 ground stone specimens in the collection, most of which are accompanied with provenience information. There are another 29 artifacts identified on catalog cards as manos, metate fragments or shaft abraders which are missing from the collection. It is difficult to determine how many total ground stone artifacts were found during the site excavations as there are several small round to oval stream pebbles and small cobbles which were originally cataloged as manos, but are either missing from the collection or are simply unmodified rocks, generally stream worn pebbles. Some of the missing specimens are indicated on original catalog cards which list multiple artifacts entries with a one- or two-word field identification of the item. It is not possible to accurately determine what artifact types these represent.

METATES

Data on the metate fragments are presented (Tables 1 and 2). It is notable all metate fragments in the collection are rather thin and there are no intact slabs (see Figure 1 for typical specimens). Little to no shaping of edges of the artifacts is evident. All are made on flat pieces of unconsolidated sandstone. Only one side of the sandstone was used. Wear is in

Table 1: Metate fragments in collection by depth (inches).

CATALOG #	UNIT	DEPTH (in. BS)	ROCK TYPE	COUNT	MEASUREMENTS (LxWxT in mm)
CR301-2188	10-20S 0-5E	3	Sandstone	2	43.1x39.9x11.9 46.2x38.1x15.8
CR301-350	0-5S 20-25W	6	Sandstone	4	108.8 x 57.8 x 18.6 64.6 x 54.6 x 21.6 58.9 x 40.1 x 17.4 48.8 x 35.3 x 20.9
CR301-486	South backhoe trench	8	Sandstone	1	95.3 x 95.1 x 18.6
CR301-1812	30-33S 35-40W	8	Sandstone	1	92.9 x 87.2 x 13.9
MS162	18N 93W	8	Sandstone	1	129.3 x 110.8 x 21.1
38039	0-5S 20-25W	15	Sandstone	1	96.0 x 67.8 x 27.3
CR301-349	0-5S 20-25W	15	Sandstone	1	78.8 x 54.5 x 19.3
CR301-456	20-30S 45-50W	24	Sandstone	1	77.1 x 68.9 x 22.9
CR301-457	20-30S 45-50W	24	Sandstone	1	71.1 x 55.7 x 23.2
CR301-321	0-10N 0-5W	48	Sandstone	3	66.6 x 37.2 x 22.5 27.5 x 26.2 x 23.1 30.1 x 24.2 x 18.4
38090	N/A	N/A	Sandstone- burned	1	70.1x54.2x31.7
38091	N/A	N/A	Sandstone- burned	1	69.9x34.9x29.1

Table 2. Metate fragments missing from collection (data from catalog cards).

Catalog #	Unit	Depth (in. BS)	Rock Type	Count	Measurements (LxWxT in mm)
MS8	5-10S 10-15E	6	Sandstone	1	N/A
MS178	18N 85W	8	N/A	1	N/A
MS127	86N 0W	19	N/A	1	248.0x124.0x7.0
M112	82N 15W	26	N/A	1	"Large"
MS114-115	86N 6W	31-32	N/A	2	N/A
MS43	78N 21W	32	N/A	1	N/A
MS149	26N 72W	36	N/A	1	N/A
MS49-51	70N 20W	48	N/A	6	N/A

the form of light to moderate smoothing covering 20-60 percent of the surface of the rock fragment. The four fragments from unit 0-5S 20-25W appear to be from the same larger slab, while all the other specimens are from separate artifacts.

One of the missing specimens (MS127) is notably larger than the others, with the catalog card for MS112 indicating it is "large." Whether this represent a complete grinding slab is unknown. Metate fragments were recovered from nearly all of the depth increments.

It appears the metates from the site were not extensively used for grinding activities. This likely relates to the type of grinding taking place. Given the relative thinness and unconsolidated nature of the parent rock, breakage during use was likely common and probably occurred early in the use-life of the artifact. One possible conclusion regarding the use of metates is relatively little grinding activity actually occurred at the site (compared to other activities). The type of grinding which occurred required only minimally prepared and thin sandstone pieces. If



Figure 1: Typical metate fragments, found at 6 inches below surface.

more intensive grinding activity were required, and presumably thicker, better made metates were desired, the sandstone outcrops nearby the site surely could have provided the requisite raw materials.

MANOS

Data on manos are shown (Tables 3 and 4), with a typical example illustrated (Figure 2). Most are made on stream cobbles of granite, metaquartzite, and consolidated silicified sandstone. In nearly half of the specimens in the collection, both sides of the mano were smoothed, indicating use wear. One specimen (K3431) also shows wear on its long edges as well as on both of the wide sides. Smoothing covers from 10-90 percent of the utilized surfaces, with most at or above 50 percent. It would appear manos were used more intensively than the metates, but this may be the result of use in multiple applications. Manos were not necessarily used only with metates for grinding. Wear on the edges could have come from use in hide preparation and processing other rough materials. Manos were recovered from 3-44 inches below surface.

SHAFT ABRADERS

Some small sandstone rocks recovered from the site have one or more linear grooves, generally on

the widest surfaces. These are most likely abraders for shaping, smoothing and tapering relatively thin shafts made of wood and bone. Shaft abraders vary in length from 29-59 mm, width from 27-51 mm, and thickness from 16-22 mm. Maximum groove width varies from 4.0-16.2 mm. Variable groove width likely suggests use in the preparation of a variety of tools such as bone awls, arrow and atlatl shafts, and other bone and wood tools. Summary data on these artifacts is presented (Table 5) and examples are shown (Figures 3-4). These artifacts were recovered from the surface to 36 inches below surface.

END SCRAPERS

A comparatively large number of end scrapers were recovered from the Garrett Allen site from all depth increments. Eckles and Guinard (2015) discussed the lithic raw materials used to make end scrapers. The analysis revealed end scrapers show a different use of raw materials compared to other lithic tools from the site. The range for relatively nearby cobble sources is 14-28 percent for the end scrapers compared to a range of about 32-38 percent for all tools. Thus, several of the more exotic raw materials appear to have been preferred in the manufacture of end scrapers. The highest percent-

Table 3: Manos in collection by depth (inches).

CATALOG #	UNIT	DEPTH (inches BS)	ROCK TYPE	NUMBER ABRADED SURFACES	PERCENT ABRADED	COUNT
CR301-2012	0-10N 10-15W	3	Metaquartzite, edge ground cobble	2	10, 10	1
CR301-1262	26S 38W	4	Silicified sandstone	2	30, 50	1
MS190	10N 68W	6	Silicified sandstone, stream cobble	2	80, 90	1
MS161	18N 91W	8	Metaquartzite, stream cobble	1	70	1
CR301-808	30-33S 35-40W	8	Granite, stream cobble fragment	1	40	1
38878	18N 85W	8	Silicified sandstone	1	50	1
K3431	21N 81W	12	Silicified sandstone	4	90	1
39881	23-30S 40-45W	17	Silicified sandstone	1	70	1
MS154	18N 82W	23	Granite, stream cobble fragment	1	50	1
MS152	18N 82W	23	Granite, stream cobble	2	50, 50	1
CR301-447	23-30S 45-50W	24	Silicified sandstone	1	60	1
CR301-373	89N 50W	24	Silicified sandstone, stream cobble fragment	1	80	1
38079	90-100N 85-90W	30	Metaquartzite, stream cobble	1	60	1
CR301-2180	10N 18W	44	Granite stream cobble	2	60	1
38088	N/A	N/A	Metaquartzite stream cobble	1	70	1

Table 4: Manos missing from collection (data from catalog cards).

CATALOG #	UNIT	DEPTH (inches BS)	COUNT
MS179	18N 85W	8	1
MS183-184	18N 85W	8	2
MS15	E-W Trench 40W	18	1
MS16	E-W Trench 35E	18	1
MS42	78N 21W	32	1
MS41	North across draw	34	1
MS150	26N 72W	36	1
MS129	86N 0W	37	1
MS173-174	86N 110W	42	2
MS178-179	86N 110W	42	1



Figure 2: Mano showing smoothed surface, found at 12 inches below surface.

Table 5: Shaft abraders with one groove unless specified, by unit and depth.

CATALOG #	UNIT	DEPTH (in inches BS)	ROCK TYPE	GROOVE WIDTH (mm)	COUNT
IN COLLECTION					
38192	Surface	0	Silicified sandstone	8.1	1
38063	0-5S 20-30W	6	Silicified sandstone	8.2	1
MS16	E-W Trench 32E	8	Sandstone (two grooves on one narrow side and one groove on one wide side)	8.0, 8.2, 4.0-6.5	1
CR301-962	Soil 3 A2	12	Sandstone	9.5, 15.1	2
39875	23-30S 45-50W	17	Silicified sandstone	9.3	1
38732 (MS52)	78N 30W	18	Sandstone, shaped rectangle	13.1	1
MS56	21N 62W	22	Sandstone	8.0	1
CR301-136	60-70N 100-105W	24	Sandstone	5.0	1
CR301-978	N/A	24	Silicified sandstone, shaped rectangle (grooves both sides)	9.3, 16.2	1
CR301-978	N/A	24	Silicified sandstone, shaped rectangle (grooves both wide sides)	10.2, 11.2	1
CR301-978	N/A	24	Silicified sandstone, shaped rectangle	8.8	1
38092	N/A	N/A	Sandstone	12.9	1
MISSING FROM COLLECTION*					
MS90	77N 6W	18	Sandstone	N/A	1
MS54	78N 44W	32	Sandstone (two grooves on one wide side)	N/A	1
MS88	78N 8W	36	Sandstone	N/A	1

*Information from catalog cards



Figure 3: Shaft abrader with two grooves (MS16).



Figure 4: Shaft abrader with one groove on shaped rectangular rock (38732).

ages are among the dendritic agates, Zebra flint (Tiger chert) and jaspers, all derived from sources relatively distant from the site.

A total of 254 end scrapers (with provenience information) were recovered from the site. This compares with over 400 projectile points and point fragments, 462 bifaces and biface fragments, 644 flake tools, 18 drills, and 111 cores/tested cobbles. Representative examples are shown in (Figures 5-9) with summary data presented (Table 6).

As can be seen from these figures, variation in end scraper sizes and configurations is high. There are rather huge specimens (long, wide and thick), all the way to diminutive “thumbnail” examples. Many exhibit retouch along the tapered proximal end most likely to facilitate hafting. Several have clearly manufactured haft elements; from one-half to two-thirds of the specimens have haft elements (Table 6).

Among the larger, thicker specimens, from 30 to nearly 48 percent (within the depth increments) have edge angles of 90 degrees (Table 6). These typically show extreme retouch or rejuvenation along the



Figure 5. Selected sample of end scrapers, 0-6 in. depth increment.



Figure 6. Selected sample of end scrapers, 7-12 in. depth increment.



Figure 7. Selected sample of end scrapers, 31-36 in. depth increment.

distal working edge and, in many cases, the flaking has undercut the working edge, making the tool essentially useless (examples shown in Figure 10).

THE ARTIFACT CACHE

(see Eckles and Guinard 2015)

In 1974, Garrett Allen excavated several units in the upper northwestern quadrant of the site. These included units along the grid axis at 78N and 20W.



Figure 8. Selected sample of end scrapers, 43-48 in. depth increment.



Figure 10. Ventral view of selected end scrapers with 90-degree edge angles (notice level of retouch/rejuvenation undercutting working edges of all specimens).

Table 6. Summary data, 48CR301 end scrapers.

DEPTH IN- CREMENT	EDGE ANGLE DEGREE RANGE (de- grees)	LENGTH RANGE (mm)	WIDTH RANGE (mm)	THICKNESS RANGE (mm)	PERCENT WITH HAFT ELEMENT	PERCENT WITH 90 DE- GREE EDGE ANGLE	COUNT BY DEPTH
0-6 in.	43-90	16-84	12-52	4-21	65.0%	45.0%	20
7-12 in.	40-90	14-78	15-55	5-25	61.7%	40.1%	47
13-18 in.	37-90	19-72	19-55	4-30	53.2%	40.4%	47
19-24 in.	46-90	22-62	15-46	4-25	60.9%	47.8%	23
25-30 in.	61-90	22-46	10-45	5-19	60.0%	30.0%	10
31-36 in.	54-90	19-63	10-46	5-19	65.4%	38.5%	26
37-42 in.	40-90	19-61	20-42	4-20	66.7%	42.9%	21
43-48 in.	53-90	13-66	16-40	3-17	53.3%	42.2%	45
49-54 in.	63-90	22-43	22-30	6-13	50.0%	42.9%	7
55-60 in.	65-90	23-56	21-41	6-14	50.0%	37.5%	8
Totals NISP							254

In one of the units, 78N/21W, a cache of relatively large, minimally modified or unmodified chipped stone artifacts was found. The catalog card filled out by Mr. Allen states a cache of 25 artifacts was found in one location within the unit at 18 inches

below surface. It turns out 34 artifacts were actually recovered at the location and cataloged under a single number representing the cache.

The cache contains 30 relatively large flakes and minimally chipped tools and four smaller flake



Figure 11. Examples of minimally chipped tools with probable incipient haft elements from artifact cache.

tools. Nine of the large tools exhibit flaking on both sides of the proximal end, possibly preparation for the creation of a hafting element (Figure 11). These artifacts are similar in form to large end scrapers.

DISCUSSION

Clearly, end scrapers were an important tool used throughout the known cultural sequence at the site. The variation in sizes is relatively consistent in all depth increments, suggesting similar uses of these tools occurred in all prehistoric time periods represented. The great variability in the size and configuration of the end scrapers also suggests different uses within the sample. It is reasonable to postulate these tools were used in hide, wood and bone working, and given the number of end scrapers, these were major activities at the site over the 2500+ years represented. Many of these tools have been extensively used and apparently retouched to a point where the tools are useless for further applications. This further suggests an intensity of use remarkably consistent through time.

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A SECTION 110 SURVEY OF THE CLOUD PEAK WILDERNESS' EDELMAN MINING DISTRICT

BY
BILL MATTHEWS

INTRODUCTION

For eleven days during the summer of 2012, a Class III Cultural Resource Inventory was conducted in the Edelman Creek drainage of the Cloud Peak Wilderness of the Tongue Ranger District, Bighorn National Forest. This inventory was conducted under the National Historic Preservation Act (16 U.S.C. 470-2), Section 110. Section 110 provides for federal agencies to ensure "...that historic properties under the jurisdiction or control of the agency, are identified, evaluated and nominated to the National Register." Inventories not project driven (e.g., Section 106) can be conducted under this provision. This portion of the Cloud Peak Wilderness has had no previous cultural surveys. This inventory was undertaken to add to the Bighorn National Forest cultural inventory and establish areas of concern in case of wildfires. This being a 110 endeavor, the intent of the project was to identify and evaluate sites to facilitate future management standards such as trail maintenance and wildfire. Four hundred and forty-five acres or 1,807,000 square meters were surveyed at the Class III level with 17 sites (four prehistoric and 13 historic) and six isolated prospects (historic mining tests) were recorded. Two of the sites (48JO4356 & 48JO4358) are recommended eligible under Criterion A.

SURVEY METHODS

The areas inventoried were surveyed doing a thorough Class III meandering foot survey of large polygons. The walking transects maintained the standard 30 meter grid pattern except where land formations and vegetation barriers were encountered. Using topographic maps, areas selected were high-use areas such as trails and heavily used recreation areas. To ensure the adequacy of the survey, cut banks, rodent piles, erosional cuts and

tree throws were carefully examined. Also inventoried were areas of high cultural probability. This includes prominent vistas, passes and margins of existing lakes and waterways. A site was defined as 15 or more artifacts or one or more features. All site boundaries were determined based on the distribution of surface artifacts or features. The heritage resources were mapped utilizing a compass, 100m tape and Garmin GPS unit.

INVENTORY RESULTS

Based on file search data and review of other CRM reports, the potential to find a full range of prehistoric sites in the wilderness considered high. The reason the site density is probably high is areas chosen to be evaluated are along main drainages and possible prehistoric corridors.

Following discussions with various Bighorn National Forest personnel and citizens of Johnson County, the survey area has reports of many early 20th century endeavors. A 1972 Geological Survey Bulletin "Mineral Resources of the Cloud Peak Primitive Area, Wyoming," mentions mining activity in the Edelman Creek drainage in the form of prospects or actual mining claims.

This report covers the fifth season of field research in the Cloud Peak Wilderness so the methodology was typical of our previous 110 Class III inventories. Prehistoric sites within the Bighorn Mountains sites have generally been found with lithic sources, along travel corridors, and at water sources. The Bighorn Mountains have many chert and quartzite quarries; these tend to be located where chert and quartzite bearing formations are at or near the surface. Travel corridors generally run along open ridges; many within the area have been in use for over 8500 years. Spring locations and flats along/fords across streams have frequently been reused as

campsites prehistorically.

For this survey, an isolated find is defined as being a man-made hole/depression or pit. These anomalies are test pits or prospects which could be precursors to full scale mining operations. In the case of the recorded remaining prospects, these tests turned up negative concerning the availability of metals with enough value to undergo a full scale mine operation. Prehistorically, an isolate is 15 or fewer artifacts, which in most cases represents a single cultural activity with no locus of patterned human behavior.

None of the sites were formally tested, but when soil development allowed, a shovel test would be undertaken. Generally, the shovel tests are around 50 cm in diameter. The test units are dug in controlled 10cm levels, screened and evaluated independently from other 10cm levels. The primary goals of shovel testing included: 1) to evaluate the potential for intact subsurface cultural materials (site evaluation), 2) to determine the depth and breadth of impacts, 3) to locate site boundaries, 4) to compare areas within the site for contributing attributes, and 5) simply to analyze soil type and deposition. Other techniques used in the pursuit of the five goals listed above included 1) examination of stream banks, rodent burrows, road cuts, eroded areas, etc., 2) probing depth with a pin flag, 3) digging small ten cm to 15 cm holes with a trowel, and 5) shovel probes to verify the existence of soil deposition.

Artifact analysis was conducted in the field and only obsidian was collected to be sent off for hydration dating and chemical sourcing. As a standard rule, artifacts were left in place. Artifacts were cataloged and photographed or drawn when pertinent.

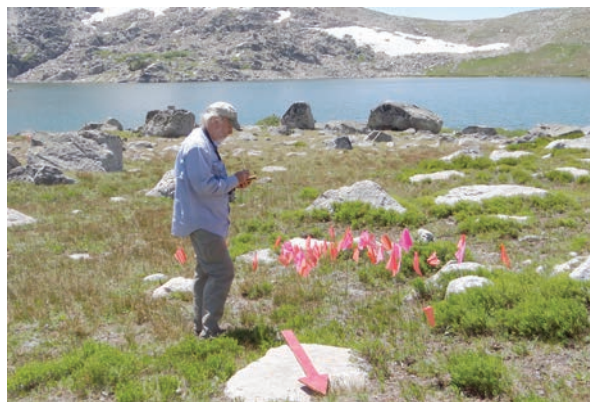
SITE DESCRIPTIONS AND EVALUATIONS

48JO4342

The site was defined as having three loci which are described below. The site is basically orientated NE x SW. The southern limit of the site (Locus 1) is east of Emerald Lake, while Locus 2 is situated on the pass saddle with the northern end (Locus 3) sloping downslope to the east. The topography slopes uphill on both sides of the site and is basically a rock field with sparse Alpine vegetation. With the site being along the trail, the likelihood much of the site's lithic artifacts were removed by the public is

high. No formal tools or utilized flake industry was noted and all artifacts were left in situ. The site has no deposition and no exploratory test pits were dug.

Locus 1: Locus 1 (Figure 1) is a dense to moderate lithic scatter. Located on the northwest corner of the locus is a dense (50+) lithic reduction/knapping station comprised of predominantly brown, semi-translucent chert. This activity area is small and tight, only 1.5x1.5 m in size. The reduction sequence is comprised of a small percentage of primary flakes, while most of the debitage is secondary and tertiary. The lithic assemblage in the rest of the locus is a light and loose (75-100) scatter of cherts, quartz and quartzite of predominantly primary and secondary flakes. The area of this locus is 1315 square meters.



Locus 2: Located north of Locus 1 is another lithic artifact scatter, situated on top of a pass. The locus is comprised of cherts, quartzite and quartz (both crystal and white). The reduction sequence is mostly tertiary in nature, but secondary and, to a still lesser degree, primary flakes are evident. The area of this locus is 687 square meters.

Locus 3: Located north of Locus 2, and on the east side of the pass as the trail starts downslope, is another lithic scatter. This area is comprised of a moderate concentration of cherts, and quartzite. The lithic assemblage is roughly 75% tertiary, 20% secondary and 5% primary. The area of this locus is 211 square meters. The site has no deposition and no exploratory test pits were dug. There is some soil disturbance along the hiking trail passing through Locus 2 and Locus 3, but Locus 1 is only undergoing natural weathering. Minor game trailing is evident.

48JO4343

Located on a fairly steep east facing hillside is a vertical mine shaft with a tailings pile (Figure 2).



This historic mine shaft opening is 17 feet east-west by ten feet north-south, and is about 13 feet deep. Because of the filled nature of the shaft, there is no telling how deep it originally was, but by the size of the existing tailings pile, it was probably much deeper. The shaft is backfilled with mined rock and structural timber/logs. Two remnant notches on the main support log, which are similar in size and shape, are around ten inches square and seemed to have supported two horizontal logs. All the logs have sawed off ends and, from their size, were hauled to the site. No milled lumber was noticed, but several medium sized metal wire nails were noticed. The tailings pile spreads out around 25 feet from shaft. No artifacts or structures indicating habitation of the site is evident. This mine was referred to in the 1972 Geological Survey Bulletin article *Miner Resources of the Cloud Peak Primitive Area*. As part of this survey, the selected samples taken from the front the tailings of pyritized rock and quartz indicate the mine does not contain anomalous metal values.

48JO4344

The site is along Edelman Creek and meadow. The site consists of the foundation of an old cabin (Feature #1) and two mining features (Features #2 and #3) located across the meadow. Feature #1 also has a tight, surface quartz lithic concentration.

Feature #1 is the remnant stone foundation of an old cabin (Figure 3), possibly the habitation location of the miner(s) working on Features #2 and #3. It could have also served the historic mine further up the trail (48JO4343). The cabin is 35 feet south of east flowing Edelman Creek. The back side of the cabin is against a north sloping heavily vegetated hillside. The cabin seems to have been burned down by the presence of burnt logs and oxidized artifacts.



The rock foundation is three courses high on the front and sides with a door opening in the center of the front (north) wall. Artifacts were noted in what would have been the interior of the cabin. These artifacts suggest the dwelling was used in the early 1900s based on presence of purple glass and soldered cans. No out-buildings such as a privy or shed were noted. Next to Feature #1, but not associated is a prehistoric surface lithic scatter of predominately quartz flaked debitage. This concentration of artifacts is 7x6 meters in size and located northwest of Feature #1 near Edelman Creek. 90% of the flake material is quartz with 10% chert. No formal tools or utilized flaked industry was noted.

Feature #2 is located across the meadow west of Feature #1 and consists of a remnant stone dugout. This feature is near Feature #3 and in all likelihood is contemporaneous. Sawed logs seemed to have served as a cover for the structure. Also recorded with this feature are 8 penny wire nails. No lumbered wood was noted. A four-foot opening is on the northwest side opposite the sloping granite covered hillside.

Feature #3 is the mine (Figure 4). Located on a northeast sloping granite hillside is the vertical mine



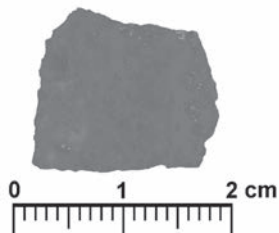
shaft and tailings pile. The opening of the shaft is 22 feet north-south and 18 feet east-west with the current depth around ten feet deep. The shaft has been filled with rock so the actual depth is unknown, but the amount of tailings suggests it should have been much larger. At least one “drill hole” is noted, which would indicate probable blasting. No structural logs or materials were recorded.

48JO4345

The site is situated on a slight north sloping terrace. The site is somewhat stepped and three individual lithic scatters (loci) are located on these land formations.

Locus 1 is the southernmost lithic scatter and the highest in elevation. The concentration is comprised of quartzite debitage with the exception of a single vascular glass flake. The scatter is around seven meters in diameter with 20+ flakes. No formal tools or utilized flake industry were noted.

Locus 2 is located downslope on the north side of Trail #25 and ten meters north of Locus 1. This scatter of debitage is more linear and is comprised of over 40 flakes of cherts and quartzite (Figure 5). A small single ceramic pot sherd (Figure 6) was found within this concentration. The sherd has a brown slip with medium-rounded sand tempering and places the site, during at least one occupation, as Late Prehistoric. This locus is covered by a major tree fall and recorded at 15m east/west and 7m north/south.



Locus 3 is located downslope and 15m north of Locus 2. Locus 3 is the smallest of the lithic concentrations, but has the highest yield of flaked debitage. This locus is about three meters in diameter, had over 50 chert flakes and was, in all probability, is a single occurrence knapping station. This locus is situated in a more conifer environment, but like the other two loci, it has no deposition to speak of and no test pits were dug. A few recreational impacts were noted, but nothing to significantly affect the site.

48JO4346

The site is situated on a flat, heavily wooded area along an intermittent tributary of Edelman Creek. The site consists of the remnant logs of an old cabin (Feature #1; Figure 7); the remnant of a log stabilized dugout (Feature #2); and a marginal remnant pit (Feature #3). The site area covers 600 square meters and is situated west of prehistoric lithic scatter 48JO4347. Feature #1 is what is left



of a log cabin. The structure was originally 24 feet long x 16 feet wide. The front of the cabin is on the east shorter side and a three-foot door opening is in the center. The back northwest corner has 14 axed notched logs remaining, while the front and side logs have two courses left. There is a possibility of more log courses buried below the forest duff. The logs were chinked with two inch slats and the cabin is in an advanced stage of decomposition with noticeable burnt logs. Rafter logs were evident in the interior of the cabin. Artifacts found with this structure are metal can fragments, various other metal scraps, metal wire nails and a remnant metal lard bucket.

Feature #2 is located 15 meters northwest of Feature #1 and is a three-foot deep, 9x7 foot dugout. Field analyses of the artifacts suggests the feature was a root cellar/food storage pit built over an old

stream channel. This could possibly be an old spring house. One side of this feature has a possible stone retaining wall. Artifacts included a Baldinger's "Delicatessen Corned Beef Cocktail Pate" can (Figure 8). There was no date on the can, but it has a bar code first used commercially in 1966; the Pate can is not part of the original habitation of the cabin.



Feature #3 is north of Feature #1 and northeast of Feature #2. This square dug feature is roughly 4x4 feet and is, in most likelihood, a remnant outhouse with no artifacts noted.

48JO4347

The site (Figure 9) is situated on a slight south sloping, sparsely vegetated terrace. The site is primarily a sparse lithic scatter with concentrations of dense flaked debitage. Cherts are the predominately lithic material with quartz noted and, to a still lesser



degree, quartzite. No utilized flake industry or formal tools noted. There is no real soil deposition on the site and no test units or probes were undertaken. The site is just east of 48JO4346, an historic cabin.

48JO4348

The site (Figure 10) is situated on a slight south sloping, sparsely vegetated terrace. Engelmann Spruce and various forbs and sedges are the main vegetation. The site is a sparse lithic scatter with a moderate flaked debitage concentration on the eastern portion of the site. Cherts are the predominant lithic material with quartzite to a lesser degree. A single, large secondary utilized flake industry was noted, but no formal tools were found. There is no real soil deposition on the site and no test units or probes were undertaken.



48JO4349

The site (Figure 11) is situated in a slight south sloping, sparsely vegetated, small localized valley.



The site is a rather small (± 100 square meters), but has a dense lithic concentration of primarily burgundy chert and a single quartz flake. There was no utilized flake industry or formal tools noted. There is no real soil deposition on the site and no test units or probes were undertaken.

48JO4350

48JO4350 is a mining operation defined by a

horizontal mine shaft, large tailings pile, remnant log structure and various mining support artifacts. The mine shaft (Feature #2) is dug into the eastern face of a large granite cliff face with the massive tailings pile running downslope toward Edelman Creek. Downslope and east of the mine shaft is the remnant of an old log structure (Feature #1) sitting on top of tailings. Where the mine tailings terminate at the creek edge, iron artifacts, most likely from one of the earliest occupations of the site, were recorded.

Feature #1 is the remnant of an old four-sided log structure (Figure 12). The feature is situated on top of a large tailings pile and in all actuality the tailings rocks were probably used as foundation



stones. This would strongly indicate this structure was built as a post-occupation of a previous mining endeavor. The structure looks to have been directly impacted, as in destroyed, by mining tailings from the nearby mining operation or another, later mining operation. None of the located artifacts were able to provide a time period suggesting when the mine was operational.

Feature #2 (the opening of the mine shaft) is located 60 feet west of Feature #1 in a steep granite face (Figure 13). The entrance is rather small: five-feet by 30 inches. By looking at interior log support cribbing, the original opening wouldn't have been much larger, if at all. The shaft about 30 feet deep with the opening being is seven feet high x 67 inches wide. It terminates at roughly 5x5 feet at the end. The log used to support the opening walls are situated on the south and north walls. The south cribbing is comprised of five logs with the north wall having three courses visible. Besides the opening, there are no structural or framed features within the mine shaft.



The mine tailings extend downhill and east for around 115 feet, terminating at the drainage. The tailings pile shows at least two episodes of mining activity. The remnant log structure is on top of tailings and the structure itself seems to have been destroyed by a latter deposited tailings pile. Downslope are artifacts cached among the rocks and tailings dating to around the 1970s. These artifacts include a degraded yellow polyurethane tarp, a two-gallon NAPA anti-freeze container with a childproof lid, a yellow waterproof "boat" plastic flashlight, glass baby food jar and a 110 pound (net weight) "Kraft Vegetable Shortening" can used as a container with a yellow plastic rope tied to it. These recent artifacts probably indicate a much more recent chapter of mining at this site.

The mining operation is large and complex, but there is no reason to think the site offers the opportunity to gain further understanding of the historic mining in the Bighorns.

48JO4351

The site is situated in a flat, heavily forested area, and consists of the remnants of three log structures, a reinforced stone dugout and historic artifacts. The site covers 2200 square meters, and is designated by the presence of artifacts and features. This site most likely represents the habitation/living quarters for the various mine operations around the site. A visual walkover did not identify an outhouse or privy.

Feature #1 is the remnant of a large four-sided log cabin 17x28 feet in size (Figure 14). This feature is larger than the other two remnant cabins (Features #2 and 3), and, by artifacts noted, probably the mess hall for the site. The cabin was built on a stone foundation and built by sawed logs with 2x10



inch wood exterior cleats attached to the four log corner junctions of the building. The logs were at least partially chinked with concrete. The height of the log walls is speculative at best. Roof poles were covered by black and red tar paper roofing. In the center of the east wall is a three-foot door opening with one piece of the door frame remaining. Artifacts found in the interior of the structure were indicative of a functioning mess hall or cook house.

Feature #3 is a slight but noticeable depression outside the south wall, which possibly could have been a sump for the cabin's grey water. Feature #2 is located about 20 meters northeast of Feature #1 and is the log foundation for what may have been a canvas wall tent. Only one course of notched logs remains, 11x14 feet in size, with a door opening on the south wall. Feature #3 is located about ten meters northwest of Feature #2 and 28 meters north of Feature #1. This is an axe cut log cabin with 16 log courses partially remaining. This structure is 15x20 feet in size with a door opening in the east wall. Various organics and soil were used as chinking. There are probable upright bedframe supports nailed to the interior walls, giving the suggestion this might be a bunkhouse. There is a noticeable lack of metal artifacts at this structure. On the exterior of the north wall, and directly along the wall, an exploratory hand trench was dug to determine the depth of the cabin walls. This trench showed at least three courses of logs are buried.

Feature #4 is located ten meters southeast of Feature #1 is a rock lined/supported dugout with an opening facing northwest. This stone structure is 14x18 feet in size and is slumping 4-5 feet deep. This feature might be an old food storage/cold house. No artifacts were found.

Feature #5 is a linear can dump about 14x4

meters in size. This trash dump is fairly thick with dozens of cans and can fragments. A partial listing of these artifacts include soldered topped cans with crimped edges, several rectangular "meat" cans, crimped seamed cans, pieces of a boot and blue, and purple and green glass. A single paper case shot gun shell was found ("Manton & Co." Eley, Calcutta No. 12).

This site gives us a good glimpse of a turn of the century operation in the Bighorns, but there is no reason to think the site offers the opportunity to gain further understanding of the historic mining in the Bighorns.

48JO4352

The site consists of a plugged bedrock mine shaft (Figure 15) with tailings and the marginal fragments of a burnt log structure. The site has an east by northeast orientation with the mine shaft



being at the top of a substantial tailings pile and up against the cliff. In this closed opening is a single 1½ inch pipe sticking out of the backfilled rock and a few pieces of broken milled lumber. Roughly 70 feet below the mine and at the terminus of the tailings is the fragmented remnants of a burnt log structure. This anomaly is so fragmented, burnt and non-identifiable, it was not given a feature number. No metal artifacts were noted. The tailings pile is so massive, any mining operation must have been large. The shaft was probably closed by a previous Forest Service undertaking.

48JO4353

The site consists of a notched, axe-cut log cabin with the door buck having sawed ends (Figure 16). The feature is roughly 12x12 feet square with a door opening on the west side. Five to six log courses



were remaining on most of the cabin with the chinking being mostly organic, but pieces of concrete chinking were evident. There is no indication of the structure being burnt. A trash dump south of the cabin had metal, ceramic, glass and wood artifacts. Because of the fairly close location of mining endeavors, this cabin has a strong possibility of being part of the complex, but no direct evidence was seen.

48JO4354

Located at the foot of a major granite cliff face is the remnant of an early 1900's mining operation including what's left of a log structure, remnant of a stone wall, mine shaft and a tailings pile (Figure 17). The site is in a stand of Engelmann Spruce and sub alpine fir on a rock slope.

Feature #1 is a remnant log structure with a flat stone footer. This is most likely an old 15x13 foot tool/storage shed. Ten courses of notched sawed end logs remain on the back west wall. Located on the north rock footer is a large granite door threshold stone and in the interior southwest corner there is a log powder box or cache. Located within this structure are soldered cans and a large metal bucket.

Feature #2 is located six meters north of Feature #1 and is a 13x2 foot stone footer of what was once a structure. There are six flat stones left in situ and follow the same bearing as Feature #1's east wall. There were no artifacts recorded with the feature.

Feature #3 is the actual mine shaft located in the granite face between Feature #1 and #2. The shaft is 63 feet deep with the opening being 7.5 feet high and 6.5 feet wide. The back or end of the shaft is 5¾ inches high and 4¼ inches wide. There are no structural timbers or boards within the shaft. The tailings pile in front of the three features flows downhill to the east for about 70 feet. No artifacts

were noticed around the shaft or tailings. Although the site is easily interpreted, it holds no real integrity, except for the shaft, and the site does not offer the opportunity to gain further understanding of the historic mining period in the Bighorns.

48JO4355

Located 25 meters west of FS Trail #25 is a substantial historic trash dump and the foundation berm and stones of an old structure. Feature #1 is a cabin foundation located on the western limit of the site on a flat terrace at the bottom of a moderately sloping southeast hillside. The feature is 30x19 feet in size, with some remnant foundation stones evident on the northern portion. The rest of the feature is a vague berm being overtaken by forest growth. No structural artifacts such as logs, milled lumber, nails or door openings were found in direct association, but roofing nails and milled lumbered boards were scattered across the site. Notable artifacts include what is left of cast iron stoves (Figure 18a). These were embossed "Michigan Stove Co. Detroit, Chicago and Buffalo" and "Excelsior Stove Repair Co.



Quincy Ill." The iron work on the stove(s) is ornate and original. The stoves date to the late 1800s to the early 1900s. A heavily weathered and battered wood and leather bellows with metal parts and nails and screws was present. This artifact is roughly 40x20 inches in size. The leather was tacked on with thin wooden strips around the edges.

Also found was a "Grey Spatter" graniteware, gooseneck enamel coffee pot 7 inches tall by 5½ inch diameter at the base (Figure 18b). Graniteware enameled metal coffee pots, colanders, salt-and-pepper shakers, cake molds, muffin pans, and skilleters were produced throughout the Midwestern



and Eastern United States from the 1870s until the end of World War II. Patented in 1848 by New York inventor Charles Stumer, graniteware was also known as agateware, enameled ware, and speckle ware. This style coffee pot dates to the late 1800s to the early 1900s.

Probably the most prevalent artifact types were a metal can/bucket remnants and fragments. “Milk” cans $2\frac{1}{2} \times 2\frac{1}{2}$ inches in size and various others ranging in size from $4\frac{3}{8} \times 3$ inches, $2\frac{3}{8} \times 4$ inches and 4.7×4 inches were recorded. Also found was a cone top screw top can $7\frac{5}{8} \times 3$ inches in diameter and a large can with a press steel handle solder to the side. Most cans were soldered “Hole-in Top” cans, which were manufactured until 1904 and to a lesser degree, crimped edged stamped top Sanitary cans established in 1904. The one diagnostic can which can be identified was a Dixie Queen Plug Cut Tobacco can (Figure 18c). From researching the can’s side panel information, the cans manufacturing date is from 1892 to 1901. A “lard” bucket ($6\frac{1}{4} \times 6\frac{1}{4}$ inches) was also present.



A large assortment of glass artifacts was recorded. These range in color from clear window glass to blue, green, purple and amethyst. Of note was an amethyst pint bottle with a “B” on the bottom and a purple bottle stopper. The shank of the glass stopper was molded to shape, but neither the shank nor the bore of the bottle were ground to mesh with each other. Instead, a cork sheath was placed around the stopper shank allowing for a tight seal of the bottle. The use of cork in combination with a simple glass stopper was much cheaper than hand ground glass stoppers. This type stopper has a flat, circular, horizontal top portion (finial) with a narrow tapered shank on the underside perpendicular to the finial; there is no neck between the finial and the shank. This conformation of stopper was also called a «flat hood» stopper (Whitall Tatum & Co. 1902). The site dates to the turn of the 20th century. Although the site is easily interpreted, it holds no real integrity, except for a few datable artifacts.

48JO4356

Located 25 meters south of a trail/old road is a large rectangular liner log structure (Feature #1) with artifacts and can dump. Two mining shafts (Feature #2 & #3) were recorded west of the structure across an intermittent drainage.

Feature #1 is predominantly located on an east sloping hillside. The main component of this feature is a long, log cribbed structure 61 feet long and seven feet wide. This feature is constructed by seven individual log “bays” and a non-attached framed concrete box located on the eastern end. The front of the feature (Bay #1) has eight logs remaining and overlooks a steep drop down to the drainage and the concrete box. The “bays” were numbered #1-#7, from east to west. Bay #1 is the easternmost bay and the most substantial. This “sub-feature” is roughly five foot two inches square and has eight courses of logs intact with nailed 1x10, 2x4 and 4x4 inch milled lumber. Bay #2 is butted against Bay #1 and is 5-foot 7-inch squared with five log courses remaining and a nailed 4x4 inch brace and milled 1x6 and 2x8 inch boards. Bay #3 is separated by a small space from Bay #2 and has six log courses remaining. This bay is $4\frac{3}{4}$ feet square with braced 4x4 inch and notched logs. Bay #4 is butted against Bay #3 and is 5-foot, 2-inches square and has four log courses remaining. Nailed to the feature are 2x12,

2x4 and 4x4 inch boards. Bay #5 is separated from Bay #4 by a wide gap (4 feet \pm) and is five-foot square with four log courses remaining. A 2x2 and 4x4 inch boards are nailed to it at right angles. Bay #6 is butted against Bay #5 and has three log courses remaining with 4x4, 2x8 and 2x12 inch boards. Bay #7 is the lone bay and is about five feet west of Bay #6. This is the most heavily weathered bay with two log courses remaining and roughly 5½ feet square. This bay could have possibly been a wood covered landing. It is speculative what Feature #1 was used for. Originally the feature was considered to be a flume support, but there is no water source to supply a flume. This appears to be a support for some type of hoist related to the mining operation (Features #2 and #3). The poured concrete box, mentioned above, is 32x76 inches and is 38 inches deep. The framed walls of the concrete box are eight inches in diameter. Directly east of the box is a noticeable depression, with historic trash deposited in it. Metal artifacts recorded are a graniteware enamel bucket, five one-gallon crimped cans with interface lids, quart tar cans with remnant tar still inside (4¼ x 6 inches), a crimped sanitary can (4 ½ x 3¼ inches), a Prince Albert tobacco can, and various metal fragments. Non-metal artifacts include one piece of possible radiator hose with cloth and rubber covering and one piece of ceramic white ware. Glass artifacts observed were clear glass. An oval clear glass container machine made with a seam has “54” embossed on the bottom. The glass bottom of a gallon container embossed with “Owens Corning Glassware” was present. This company was formed in 1935 as a partnership between two major American glassworks, Corning Glass Works and Owens-Illinois. The company was spun off as a separate entity on November 1, 1938. Near Feature #1 were five massive iron industrial parts. Artifact A is a cast iron turbine with a 34½ by 3-inch shaft with a concave base. The turbine 16 inches thick from the exposed shaft and 26 inches in diameter. Its total length is five feet. Artifact B is 20 feet east of Artifact A and is a cast iron transfer gear with sprockets. This artifact is two feet long x 8½ inches wide and 11 inches tall. Artifact C is an iron wheel turbine located 35 feet south of Artifact B. This iron tool is 33½ inches at its exterior diameter, 22 inches interior diameter and 13½ inches thick. The wheel has thirteen half inch iron blades or fans welded to

the wall. Artifact D is a cylinder drum type object with sixteen 1½ inch “teeth” on the open-end side. The drum is 19½ inches deep by 23½ inches in diameter with the bottom plate covering having a 3¼ inch center hole with two ¾ inch parallel holes on both sides. A flange runs around the diameter of the drum about half way down its length separating the exterior of the drum into two sections; one 11 inches wide and the other side is 8¾ inches. This flange has six ¾ inch holes drilled into it and two ¾ inch rods run down parallel sides and extend through holes on the flange. Artifact E, an iron spoke drum possible drive belt disc, is also down in the drainage. This tool is 30 inches outside diameter and 15 inches thick with the sidewall being half an inch thick. There are four 1-inch-thick welded spokes extending from a six-inch diameter center hub.

Located across the intermittent drainage from Feature #1 are two mine shafts, Features #2 and #3 with tailings (Figure 19). Feature #2 is 162° and 14 meters from Feature #1 datum and situated on a flat mine tailing covered stream bank. This feature is a log lined/cribbed rectangular vertical mine shaft seven feet long by five feet wide and currently six feet deep. The shaft has tailings, rocks and water at the bottom and original maximum is unknown. The sides are reinforced with log cribbing of which seven courses are currently visible. Up-right logs are reinforcing the interior corners. No other artifacts were recorded with this feature.



Feature #3 is 148° and 18 meters from Feature #1 datum and in a cliff face. Located seven meters east of Feature #2 and across a dense tailings pile, Feature #3 is a horizontal mine shaft with a vertical shaft in its interior (Figure 20). The horizontal shaft is six feet wide by ten feet tall and five feet wide



at the mouth. The shaft is nine feet deep. There is a notched 4x4 inch wood frame lying flat on the floor of the interior. The frame seems to be milled lumber with large wire nails holding it together. This frame is overlying the opening of the vertical shaft roughly four feet in diameter and is currently 14 feet deep. The shaft is full of water and the total depth is unknown. Located $5\frac{2}{3}$ feet inside the horizontal shaft and mounted in the ceiling of the shaft is the remnants of an iron pulley type contraption. This tool is located directly over the vertical shaft and is comprised of angle iron $2\frac{1}{2}$ feet long and 1 inch diameter with a heavy gauged, cloth warped electrical wire with it. On the ground in front of this mine is what is left of a corrugated metal sheet. There is also an old weathered sign of milled lumber between the Features #2 and #3, but the lettering is no longer readable.

In all probability, this mining operation is related to the large cabin complex (48JO4358) 100 meters upslope and west. It could also be related to the mining operation across the meadow, 48JO4357.

This site is recommended as eligible to the National Register of Historic Places under Criterion A.

48JO4357

East of a large meadow and at the foot of a west orientated granite cliff face is a mine shaft (Feature #1), remnant prospect pit (Feature #2) and a large tailings pile. The site is roughly 200 square meters in size without taking into account the mine shaft.

Feature #1 is the mine shaft (Figure 21). This shaft is located on the eastern limit of the site and is 33 feet deep with a right angle turn just inside the



opening, hence the name “Dogleg.” The opening of the mine is $5\frac{1}{2}$ feet high by 5.0 feet wide and the shaft terminates at three feet high and 6.5 feet wide. Located just inside the opening are two support logs set up like a T-Jack. The upright log is six inches in diameter and 58 inches tall with its bottom whittled flat to conform for the mines floor surface. The top “T” log is $3\frac{1}{4}$ feet long with the interior end sawed while the exterior end was chopped. Found in the door way, among the rock fall, is a heavily used and oxidized iron chisel with the tip snapped off. This mining octagon shaped tool is three inches long by one inch thick with the hammered business end being about 1.5 inches. Feature #2 is located about ten feet southwest of the mine opening and is a false start or prospect pit. This oval shaped pit is roughly 14-feet long by 7-feet wide and is a fluctuating, rock filled $4\frac{1}{2}$ feet at its deepest. No support stones or logs were noted. This mining operation may be related to the large cabin complex (48JO4358) west across the meadow or the mining operation across the meadow (48JO4356).

48JO4358

This historic site is located on the top of a large granite rock formation with steep cliff sides on the west and north portion of the site. The topography slopes moderately downhill to the east, while the southern portion rises gradually uphill. The site is broken down into seven different features and will be described as such.

Feature #1 is the northernmost feature and is the well-preserved remnant of a log cabin. This

structure is located on the top of a bare granite knob which drops off steeply in three directions. The four sides of the cabin are intact, but the roof is missing. The structure is orientated 14° West of North and is 34x16 feet in size. The walls are twelve log courses high with interior wood chinking, while the exterior is chinked with a poor man's concrete. The logs are held in place not by notching, but by nailed 2x7 inch right angle cleats with wire nails and spikes, typically called "false notching" (NPS, Technical Preservation Services, Preservation Brief #26). The cleats vary in length because of the supporting bedrocks uneven surface. The floor joists are placed two feet apart and extend at least two feet outside the cabin. These interior joists were covered by three-inch pine boards. The reason the joists extend so prominently outside the cabin is speculative, but it would stand to reason they were used not unlike a scaffold to construct the cabin because of the cabins steep sloping granite foundation. Another possibility is the floor joists could have been covered by boards and used as a deck, walkway or porch. The documented ridge logs were 19 feet long with a two-foot separation. There are six windows and a single door in this structure. There are no artifacts outside the cabin, but the interior had a metal bed frame foot and headboard, and board fragments and nails.

Feature #2 is located about 188 feet southwest (245°) of Feature #1 and is a three-room log structure situated on the eastern edge of a steep cliff. The feature is 35 feet long by 18 feet wide, outside dimensions and has ten log courses remaining. The structure is comprised of three individual units labeled (south to north): Rooms #1, #2 and #3. The interior walls are wood chinked while the exterior walls are a mix of mud dub and concrete. Room #1 is the southernmost room and is 9¾ x 15¼ feet square. It has a door located on the north end of the east wall, as are the doors in the other two units. This room was void of artifacts except for two pieces of a 24x1¼ inch window frame channeled for window glass. A few nails are spread across the floor. Room #2 is the center dwelling and the same size as Room #1. Structural artifacts were noted in the room and consist of board floor remnants, 8-16 penny nails and milled board fragments. Room #3 is the largest of the rooms. This room is 11¼x15¼ feet and has two windows, one on the east wall and west wall. A milled wood shelf, 30x17 inches, is nailed with finish

nails to the east wall, left of the window. The floor was constructed by 1x6 inch tongue-and-groove boards. Diagnostic artifacts include a single metal interior door clasp and, presumably out of context, a large metal windless bolted to a wooden frame 55x49 inches in size. The 31-inch iron wheel has teeth. The tooth gear on the 69-inch-long metal axle is five-inches in diameter with "Brunner & Lay Chicago" embossed on it. The company was originally started in 1882 by Edward Brunner and Severin Lay, Brunner & Lay, Inc. and still in business today.

"I have no idea what this is. I do know during that time period our company made tools for the stone industry. My guess is this part of some type of winch for hoisting or moving large sections of stone. I do know we have not made anything like this in at least the last 50 or 60 years" (Brunner & Lay, personal communication, telephone and e-mail April 15, 2013).

All of the rooms have two one-inch holes drilled into the north wall three inches deep. Room #3 has two such holes drilled into its exterior east wall. With the artifacts and type of rooms around this feature, this structure was in all probability a set of living quarters for the complex.

Feature #3, is a three-room log structure on the western edge of the granite land formation (Figure 22). The size is 55 feet long by 16 feet wide, outside dimensions, with ten log courses remaining. The structure is comprised of three individual units which are labeled: Rooms #1, #2 and #3, south to north.



The interior walls are wood chinked with some concrete, while the exterior walls are a mix of mud dub and concrete. Rooms #1 and #2 seem to have been constructed as one undertaking while Room #3 as a possible later addition. Room #1 is the southernmost room and is roughly 14 feet square.

There are two windows in this room, one on the west wall and one on the south wall. Both windows are framed by 2x6 inch boards. The exterior door is located on the east wall. All frame work around these openings was whitewash painted. Located in the floor of this room, and 5½ feet from the door, is a framed square opening to give access to the subfloor. This opening is 5x5 feet square, is two feet deep and framed by milled 2x8 inch boards. Written in scrip on one of the frame boards are “#2198” and “#21900.” Because of the amount of roof/floor fall the subsurface area was not evaluated extensively, but nothing indicates it was a basement. In this hole, a section of a ¾-inch galvanized pipe leads out the west wall and was most likely an outlet for grey water. An abundance of food type metal containers was recorded so a food storage area is most likely. This area has a dirt floor. The room’s remnant roof is tongue and groove boards, possibly taken from the floor of Room #3, and covered by corrugated metal and red tar shingles. 95% of the roof is down in the cabin mixed in with all the other structural artifacts. The log wall separating Room #1 and Room #2 and has an interior door 33x72 inches in size and framed by milled boards with cedar shims. This north wall was built as part of the original two room structure. This room is most likely what is left of a kitchen. Mixed in the historic scatter is what was once a heavily used wood countertop of milled 1x12 inch boards 7½ feet long and 22 inches. Stovepipe sections, cloth and rubber covered metal coiled pipes, cast iron stove parts, cans of every shape and size, nails and wire were also recorded. Parts of a cast iron cook stove and a large portion of a cast iron heating stove were outside this room.

Room #2 is located through the north interior door of Room #1. The room has a single window in the west wall. A remnant curtain rod holder is on floor below the window. Drilled into the walls of this room are ten one-inch holes with weathered antlers in most of them, most likely used as hangers. What seems to be a later addition to room, located in the north wall, is another door 33x74 inches in size and connects with Room #3. The logs around the door opening are held together with milled 2x6 foot boards with two metal door hinges still attached. Roof joists have fallen into the room along with fragments of red tar roofing material. This may be the dining room for the kitchen, Room #1. Artifacts

found in this room are one crimped pint metal can, a large bucket, lard pail and can fragments. Some metal seat cushion springs were also found.

Room #3 is a dwelling constructed independently from the other rooms and butts against the north wall of Room #2. This log room is the largest of the three and 24 feet by 14 feet five inches in size. This is the only room with log footers. This footer log is notched or modified in places so it can lay level over the granite bedrock. Floor joists are laid over this footer log with upright cut interior log rounds supporting these floor joists. The joists extend the exterior walls and spaced 28 inches apart and overlaid with tongue-and-groove boards, which were probably hydrated and reused at a later date as the Room #1 ceiling. The south wall has a large door connecting to Room #2. This room has three windows, one on the west wall and one on the east. All doors and window have been whitewash painted. One inch holes have been drilled into the walls; three on the interior and four on the exterior. The floor is basically gone. Artifacts around this dwelling are various size soldered cans, a galvanized stove jack, various metal fragments and pieces of milled lumber. Remnants of a probable oak table are also present.

Feature #4 is located southwest of Feature #3 and is the remnant logs of an old outhouse. Two courses of notched logs remain in situ, but 16 notched logs are tumbled in the area with pieces of milled 4x4 inch lumber. A few can fragments are also in close association.

Feature #5 is located 30 meters downhill from Feature #4 is another outhouse, although more intact. This northeast orientated log structure is a “two seater” with a wall separating the two throne rooms. The floor, door, seats and the roof are constructed of milled lumber with the roof having a red tar paper covering. The eastern door is missing except for a single upright 1x6 inch board with two metal hinges. The western door is intact with two metal hinges. A wood latch is on the outside of the door to keep it shut and a hook is on the inside for privacy.

Feature #6 was located 20 meters southwest of Feature #5 and is a dump area of soldered cans, dominated by milk cans, but also white and pink ceramic ware and butchered bones. This scatter covers 19 square meters.

Feature #7 was defined as two stone landscaping

features most likely related to Feature #3. Located roughly 15 feet east of the structure is a stone retaining wall which supports a flattened landscaped area in front of the log building. A stone-lined pathway slopes downhill to the east through the forest. This liner rock anomaly is three feet wide and about 100 feet long. These two rock features give argument this dwelling was used for more than a miner's camp. These non-essential undertakings, along with the refined cabin additions, give argument for a non-industrial use of the site. There is more than enough information to support at least two different occupations of the site. Minimally, at the least, one occupation was in support of the mining industry. From observed artifacts and structural refinements, the latest occupation seems to be one of a more leisurely context. Possible hunting camp or mountain retreat is the crew's interpretation.

The rest of the dump is comprised of cans, mostly soldered, of every type and size, glass, milled lumber and iron fragments. Diagnostic artifacts range from broken glass mason jars, broken milk bottles and purple, blue and brown glass fragments. Metal artifacts range from a 55-gallon drum, fancy cast iron stove parts and car pieces including the sidewall of a rubber tire with "30 x 5.50" embossed on the surface. Wooden artifacts range from various milled lumber pieces, furniture pieces including the turned leg of a table. Two embossed pieces of what we think are iron stove parts were noted, HAN 19 A 1897 and BAN8 FILOT RAN 8. No information has been obtained concerning these.

This site is recommended as eligible to the National Register of Historic Places under Criterion A.

CONCLUSIONS

This inventory was conducted under the National Historic Preservation Act (16 U.S.C. 470-2), Section 110. Section 110 requires federal agencies to ensure "that historic properties under the jurisdiction or control of the agency, are identified, evaluated and nominated to the National Register." Inventories not project driven (as under Section 106) can be conducted under this provision. This portion of the Cloud Peak Wilderness has not had

any previous cultural surveys. This inventory was undertaken to add to the Bighorn National Forest cultural inventory and establish areas of concern in case of wildfires. The intent of this project was to identify and evaluate sites to facilitate future management standards such as trail maintenance and wild fire. Four hundred and forty-five acres was surveyed at the Class III level as part of this project with 17 sites being recorded, of which four are prehistoric (48JO4342, 48JO4345, 48JO4347 and 48JO4349) and 13 historic. One site (48JO4344) has both a prehistoric and historic component. Two of the sites (48JO4356 & 48JO4358) are recommended eligible under Criteria A. There is no adverse effect occurring currently, but in case of a wildfire in the area, these two sites will need to be protected, if possible. Six mining prospects were located and referred to as isolates.

Based on the information gained from this inventory, the probability of unrecorded heritage resources in nearby drainages and unsurveyed areas remains high. Future 110 projects would undoubtedly locate indigenous occupation locations, possibly along prehistoric migration corridors and short-term habitation sites. The sites and artifacts found all represent cultural periods from the late archaic period back to the terminal paleo. There is a noticeable lack of prehistoric artifacts dating from the historical contact period to around 700 years ago. This is not unique to the wilderness, but is noticeable across the whole Bighorn National Forest. The historic turn of the 20th century mining operations are an established occurrence within the forest and this project addresses 13 of these mines or associated habitation locations. Reports of more historic mine sites are reported on the eastern slopes of the Bighorns and the likelihood of encountering more of these historic sites is high.

No formal government to government consultation was addressed on this project, but over the eight-year period of this project, tribal representatives were updated on the project at seasonal and yearly Medicine Wheel meetings. The primary tribal governments represented by the Medicine Wheel Coalition and the Medicine Wheel Alliance are the

Crow, Northern Cheyenne, Northern Arapahoe, Shoshone, Sioux, Blackfoot, Cherokee, and Southern Cheyenne.

In regard to evaluating sites for their traditional cultural values in this area, the Bighorn National Forest has been and continues to be highly involved in evaluating archaeological sites and ethnographic information in preparation of a National Historic Landmark nomination considering the traditional cultural practices of Native American Indians who inhabited the Bighorn Mountains.

Bill Matthews
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GUIDELINES FOR CONTRIBUTORS TO THE WYOMING ARCHAEOLOGIST

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If original line drawings are submitted on paper, larger is better to ensure the best reproduction, but no larger than 8.5x11 inches. Use only black ink on alba-nene, acetate, mylar, smooth Bristol paper, or smooth Bristol board. Hand-written labels and keys must be large enough to be legible when reduced. Do not use stick-on letters.

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