George C. Frison Institute of Archaeology and Anthropology

at the UNIVERSITY OF WYOMING





2008 Board Meeting. From left: Garrett Danburg, Dale Walker, Mike McGonigal, Larry Amundson, Mary Lou Larson, Janice Baars, Bill Scoggin, Carol Eckles, Dick Eckles, Mike Toft, Marcel Kornfeld, Mike Massie, Tom Young, Susan Bupp, George Frison, Jerry Baker, Darrel Wilson, Eva Peden, Ollie Walter, Terry Wilson, Don Peden, Willa Mullen, Jim Chase, and Michael Harkin.

Board Meeting of the Friends of the Frison Institute

The fall meeting of the Board of the Friends of the Frison Institute took place on September 29, 2008 from 10 am to 2:30 pm in the Alumni House at UW. After the welcoming remarks by Dr. Oliver Walter, Dean of the College of Arts and Sciences and the Anthropology Department Head Dr. Michael Harkin, the state of the Institute and the Institute Financial reports were presented by the Director, Dr. Marcel Kornfeld, and Associate Director Dr. Mary Lou Larson. Reports from the Vice-chairs followed. P. Jaye Rippley, Vice-chair of promotion, requested to relinguish her post due to her increased workload. She had served as a Vice-chair since 1999. The board thanks her for her exquisite service during which time P. Jaye spearheaded the production of the Frison Institute pins and new brochure and left us with a slew of promotional ideas, some of which may be enacted in the future. We therefore have three unfilled Vicechair spots: Promotion, Membership, and Vice-chair-at-large. Bill Scoggin volunteered to take on the Vice-chair-at-large position and be the liaison with WAS. Although the Promotion and Membership Vice-chairs were not filled, Janice Baars and Mike McGonigal are both acting in this capacity. Janice is producing the Institute insignia for hats and other clothing while Mike is spearheading the writing of an article for Prehistoric American along with Elmer Guerri. Jerry Baker was elected unanimously to the board. Jerry, who is from Iowa, beefs up our Midwest board contingent.

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Director: Marcel Kornfeld Associate Director/ Editor: Mary Lou Larson Production Editor: Willa Mullen

University of Wyoming George C. Frison Institute

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Painted buffalo robe with the Institute insignia donated by board member Mike McGonigal.

UNIVERSITY DEC OF WYOMING 2008

SUMMER FIELD PROJECT UPDATES

Mummy Cave, Paintrock V and other Shelters

by Robert L. Kelly

We continued research into Pleistocene/Holocene occupations of rockshelters and caves in the Bighorn Mountains. In 2008, I conducted new work at Mummy Cave – the first work there since 1967 – reopening the 1967 backhoe trench, re-recording the stratigraphy, collecting new radiocarbon and sediment samples. There is no evidence of occupation earlier than that established by Husted and Edgar in the 1960s, i.e., about 9000 BP. The earliest sediments in the site, however, are probably close to 14,000 years old.

I also returned to No Name Shelter, determining that previous work there indeed reached bedrock, and test excavated at Daugherty Cave to collect samples to determine the age of the sediments explored by Frison in the 1950s. I also worked at Wedding of the Waters, near Thermopolis, and, near Hyattville, Paint Rock V, and Torn and Frayed Shelters. Samples for radiocarbon dating have been submitted; it seems likely that none of these shelters contained significant pre-10,000 BP sediments. The question remains: where are the shelters with pre-10,000 BP sediments in them?

White Creek Canyon

by Marcel Kornfeld

The White Creek Canyon project continued in 2008 with recording of about 60 rockshelters. These were discovered two years ago, several were tested during the 2007 field season, but most were not systematically recorded. After the 2008 season and their recording, the shelters now form a part of our Rocky Mountain shelter database and expand this database to over 250 rock shelters. No testing was accomplished this year, leaving testing for next year. In addition, several previously undiscovered rockshelters were located in the canyon's tributaries.

Black Mountain Archaeological District (BMAD)

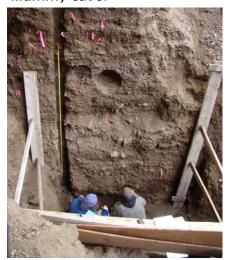
by Marcel Kornfeld and Mary Lou Larson

Investigations at BMAD continued at Two Moon Shelter, BA Cave and 48BH3694, a shelter adjacent to BA Cave. In BA cave we finally removed a large Early Archaic age roof fall that covered one entire test unit. The excavations around and below this roof fall event produced a large quantity of not only chipped stone, but bone, including some large elements. The removal will allow us to excavate lower levels where several fluted-like pieces were discovered in an adjoining test unit and thus evaluate whether early Paleoindian components are present.

At Two Moon shelter, excavation continued in two test units, one of which is in the Folsom Component and the other is a Mountain/Foothill component. The latter unit probably reached the top of the Folsom component at the end of the field season. Nearly 5 m² of the Folsom and Mountain/Foothill components are now ready for spatial and site formation analysis. We look forward to finally beginning to



Crew members working at Mummy Cave.



Excavations at Mummy Cave.



Amanda Davey excavating at Paint Rock V.

understand this important site, virtually the oldest rockshelter occupation in North America.

48BH3694, a rockshelter adjacent to BA Cave, was first tested during the 2006 season. The test unit was continued in 2008 with excellent results. This shelter appears as rich or richer in artifact content as BA Cave and may have as deep or deeper deposits.

At right: Bighorn Rockshelter crew at Pineapple Rock on Black Mountain.

Sheaman and Agate Basin Sites

by Marcel Kornfeld and George Frison

Work in the Agate Basin arroyo consisted of geoarchaeological investigations Sheaman site and continued recovery of backdirt fauna from Area 1. The Sheaman site investigation produced a few artifacts (chipped stone and bone), but a great deal of information about the potential extent of the site was gained. The Clovis age sediment appears to continue to the east and northeast and may include 100s m² of cultural deposits. Further testing will be required to demonstrate the presence of cultural material. The fauna recovered from Area 1 probably doubled the sample from the Agate Basin bone bed and will be a significant component of the zooarcheological analysis of only the 3rd known Agate Basin bone bed.





Removing back dirt at Sheaman.

Rockshelter Geoarchaeology in the Bighorn Mountains

by Judson Byrd Finley (Western GeoArch Research, LLC)

2008 saw the completion of the first major phase of geoarchaeological research of Bighorn Mountain rockshelters. This work has been ongoing since 2000 as part of Frison Institute projects at the Black Mountain Archaeological District and Paint Rock Canyon Archaeological Landscape District. We have also revisited numerous sites on Little Mountain, Medicine Lodge Creek, and other rockshelters excavated during the 1960s and 1970s. This study characterizes the geological formation processes, geochronology, and environmental history of 10 rockshelters. Bighorn Mountain rockshelters were accumulating sediment as early as 30,000 years ago and provide evidence of dry, windy environmental conditions in the Bighorn Basin during the late Pleistocene. Although we have not yet detected a signal for the Younger Dryas climatic event approximately 11,000-10,000 years ago, the rockshelter stratigraphy shows a shift towards moister conditions between 13,000-10,000 years ago. Holocene environmental conditions were highly variable with drought-like conditions most common during the early and middle Holocene from 10,000-6000 years ago. Although the Bighorn Basin was moister after 6000 years ago, drought-like conditions persisted at regular intervals approximately 6000, 4500-4000, 3000, 2000, and 1000 years ago.

The eastern Bighorn Basin is sensitive to climate change, and regional environmental conditions are directly related to the El Niño-Southern Climate Oscillation (ENSO). Based on tree-ring studies, plant fossils and pollen in packrat middens, and now rockshelter stratigraphy, we know that El Niño brings

moister conditions to the eastern Bighorn Basin and La Niña (the warm phase of ENSO) brings drought. Karina Bryan's work at BA Cave shows the prehistoric occupants of that site responded to drought by expanding their diets and using existing animal resources more intensively, although there was a lag time between the onset of drought and when people changed their diets. With completion of the first major phase of geoarchaeological research, we can begin to examine each rockshelter as a test case where environmental and archaeological data can be directly compared to understand the full range of human responses to past environmental change in the eastern Bighorn Basin.



Last Canyon Cave testing.

Last Canyon Cave

by Judson Byrd Finley and Marcel Kornfeld

During the fall of 2007 and again in 2008 we worked at Last Canyon Cave, a small rockshelter in the foothills of the Pryor Mountains northwest of Lovell, Wyoming. The site was recorded in the 1970s and at the time had been vandalized, evidenced by a large hole in the center of the rockshelter that might have recently been enlarged. Our goal was to assess the extent of damage to the site, and evaluate the potential of the site to contain archaeological materials. Our work recovered few artifacts and a faunal assemblage that included the remains of an extinct Pleistocene horse. The geological deposits at Last Canyon Cave are wind-blown sediments much like rockshelters of similar

age in the Bighorn Mountains, particularly Prospects Shelter on Little Mountain, which also contains late Pleistocene fauna. The stratigraphy at Last Canyon Cave includes a fire hearth near the surface and a series of stratified layers of packrat and bighorn sheep fecal pellets that we were able to radiocarbon date using accelerator mass spectrometry. The samples date the stratigraphy from 39,500 years ago to historic times. While we have not been able to recover artifacts that we can confidently associate with the hearth there is a strong possibility that this feature represents an early Paleoindian occupation. Although the early Paleoindian date associated with the hearth could be the result of "old wood problem." Regardless, Last Canyon Cave is an intriguing discovery that provides additional evidence of late Pleistocene environmental conditions and human occupation in the northern Bighorn Basin.

STUDENT OF THE YEAR

Caroline Cerise Charles, an undergraduate anthropology major at the University of Wyoming, has worked in the institute laboratories since 2006. Caroline has washed and picked matrix, catalogued artifacts, drafted and enhanced images, entered and corrected digital data, compiled and edited manuscript references, compiled and edited manuscript figures and tables, and perhaps most importantly reorganized ongoing research collections into coherent and logical system. Because of this last task, the Institute can continue to offer collections to students and visiting scholars. Her efforts have enabled us to complete a number of projects over the past 2 years.



Caroline visiting Little Canyon Creek Cave.

INSTITUTE NEWS

Loveland Stone Age Fair: Harry Walts Awards

Since 2005 the Loveland Stone Age Fair has provided the Harry Walts Scholarships to University of Wyoming graduate students, an award coordinated by the Institute. The following have received awards: 2005 James Beers, 2006 Mary Prasciunas and Norbert Wasilik, 2007 Joe Gingerich, and 2008 Geoff Smith. Accepting the award obligates the student to a presentation at the annual Loveland Stone Age Fair. This year Dr. Mary Prasciunas of Westland Resources in Tucson, Arizona presented 'The Archaeology of the Sheaman Clovis Site', the results of her dissertation research into the Clovis period.

UNIVERSITY DEC 2008

The 2008 Plains Anthropological Conference

The Plains Anthropological Conference was held in Laramie from October 1-4, 2008. The Frison Institute, along with the Anthropology Department, the Office of the Wyoming State



Archeologist, the Wyoming State Historic Preservation Office, the Wyoming Department of Transportation, and the University of Wvomina Graduate Students hosted organized the event. The conference was a huge success with over 180 presentations. At least 14 UW students presented papers, some on Institute projects and Jeremy Planteen, a cultural anthropology graduate student won the Plains Anthropological Society Graduate Student Paper Competition. Congratulations Jeremy! Many of the Department and Institute faculty also participated. Several highlights of the conference included: symposiums held in honor of Richard Reider and George Frison, an open house in the Anthropology building, and the banquet speaker, Gustavo Politis. The Frison and Reider sessions featured students and colleagues of retired Institute faculty, highlighting their contributions to Plains prehistory. The success of the conference was in no small part due to the support from the UW President's office (University of Wyoming Foundation Board), UW Academic Affairs, UW Office of Research and Economic Development, UW College of Arts and Sciences, UW Graduate School, UW Anthropology Department, a number of federal agencies, many private companies and the Wyoming Archaeological Society. Many thanks go to those who served on the conference committee including Julie Francis, Pam Innes, Robert L. Kelly, Marcel Kornfeld, Mary Lou Larson, Mark E. Miller, Patrick Mullen, Charles Reher, Dora Ridenour, Judy Wolf and Danny Walker.



Gustavo Politis, Plains 2008 banquet speaker, at a buffalo drive line near Split Rock.

FELLOWS AND VISITORS

Dr. Gustavo Politis's Visit

In the fall the 10th annual Frison Institute Speaker, Professor Gustavo Politis from the University of La Plata in Argentina, spent several days before his lecture traveling through Wyoming. During the visit we discussed possible cooperation and joint projects, including student, post-doctoral, and faculty exchanges. Dr. Politis and the Director visited Castle Gardens and Medicine Lodge Creek, both petroglyph sites. He also visited the Black Mountain Archaeological District, and Agate Basin and Hell Gap sites in eastern Wyoming.



Dr. Politis at Two Moon Shelter.

Dr. Andrei Tabarev's Visit

In February we are anticipating a visit to the Institute by Dr. Andrei Tabarev of Novosibirsk State University and Sergei Gladyshev of the Russian Academy of Sciences in Novosibirsk. Dr. Tabarev will present a special Institute lecture and we will discuss the continuation and enhancement of our cooperative programs, possibly beginning to do joint research.

Dr. Zhang Peiguo's Visit

This fall the Frison Institute hosted Dr. Zhang Peiguo from Shangai University, a visiting faculty in the Department of Sociology. Dr. Zhang is a rural historical sociologist, he presented two lectures in the Anthropology Department last semester.

Dr. Leila Monaghan's Visit

Dr. Leila Monaghan, a linguist, who was a visiting assistant professor in the Anthropology Department last year has been a Fellow at the Institute. She is continuing work on her research.







Dr. Ivor Karavanic and Dr. James Ahern in front of Dirty Annies in Shell, Wyoming.

Dr. Ivor Karavanic's Visit

We had an exciting year with our international programs with five foreign visitors. In the spring Professor Ivor Karavanic from the University of Zagreb visited Wyoming. During the visit he had the opportunity to discuss cooperation between UW and the University of Zagreb with the International Programs Office and visit archaeological sites where his students have worked or may work on in the future. Specifically we visited Medicine Lodge Creek, Hell Gap, Agate Basin, Spanish Diggings, and were rained out of the Black Mountain Archaeological District sites. He also had a chance to visit Yellowstone National Park, Devil's Tower National Monument, Bighorn Mountains and other scenic spots of Wyoming. Not bad for less than a week!

INTERNATIONALIZATION

Russian Students Participate in Fieldwork

During the summer three Russian students participated in our field projects at Agate Basin, Black Mountain, White Creek Canyon, and Last Canyon Cave. Their participation marks the continuation of our cooperative student exchange with Novosibirsk State University and Fareast State University in Vladivostok. In addition to fieldwork, Arina Khatsenovich, Anastaysia Kravtsova and Olga Popova had the opportunity to see some parts of Wyoming, visit a few other sites and meet several UW students.

Left to right:
Arina
Khatsenovich
at Sheaman,
Anastaysia
Kravtsova at
Agate Basin,
and Olga
Popova
excavating at
the Sheaman
Site.







Joe Gingerich Travels to France

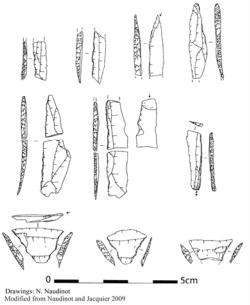
This summer, Archaeology doctoral student, Joe Gingerich, spent a month in western France conducting fieldwork with students and researchers from the University of Rennes 1. This project is part of a multiple-year research plan focused along the Mayenne River where French doctoral student, Nicolas Naudinot, is investigating La Fosse, a 10,000 BP site that has been assigned to the post-Azilian period. The post-Azilian period represents the latest Upper Paleolithic, before the onset of the Mesolithic period. Post-Azilian sites often contain long blades produced from standardized cores, and small straight-back micro-blades which are designed to manufacture straight-back truncated points.

Bi-truncated or trapezoid like-points have also been found at La Fosse, and wear patterns suggest they may be the earliest cutting points in western Europe. Post-Azilian sites also produce fan-shaped cores which are unique to this period. Naudinot's research has provided a better understanding of Post-Azilian lithic technology, suggesting that fan-shaped cores and other artifacts are diagnostic of the period. This research is helping to define a new culture in France that documents a technological change between the Azilian and Mesolithic period which may represent an adaptation to Younger Dryas cold interval.

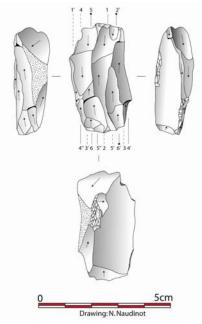
The George C. Frison Institute encourages scholars and students to participate in international anthropological research. In past field seasons, students from the University of Rennes 1 have traveled to Wyoming to take part in archaeological research. This particular trip was supported in part by the Frison Institute, and we hope to continue research exchange programs like this one.



Excavations at La Fosse in France.



Straight back points and Row 3: Bitruncatures recovered from La Fosse.



Fan-shaped core recovered from La Fosse.

Nobert Wasilik travels to Kamchatka

Between August and September of this year I visited the Ushki Lake sites in Kamchatka. In Kozerevsk, I met with Dr. Irina Ponkratova who was in charge of the excavations. After a 20 km drive I arrived at the site of an abandoned Soviet era settlement with only a few communal buildings left. One of the camp buildings, a large single story sleeping barrack where we spent 2 weeks, was converted for our field needs and was named "the five star hotel."

The expedition consisted mostly of field school students from Petropavlovsk Kamchatski and Magadan. The camp site was located at the edge of the Ushki Lake which is full of salmon and is fed by underwater springs. A large volcano towered over the site from a considerable distance.

This year the excavations occurred only at the Ushki Lake V site. Just as the other Ushki Lake sites, this site was located at the edge of the lake and was significantly threatened by the lake's erosion. Our first task was to clear the old (2007 and earlier) excavation areas by re-excavating a 2 by 3 meters block to a depth of 2.7 meters and several other, smaller, excavation areas.



Norbert working at the Ushki Lake V Site.





Excavations at the Ushki Lake V site.

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Afterwards, we began excavating newly demarcated areas, adjacent to those previously completed, giving me an opportunity to familiarize myself with Russian excavation techniques. During my participation, little was found in the excavations, mainly because the cultural levels were not reached. However, every day I made an excursion to the lake bed where many artifacts were eroding out of the Early Holocene and Late Pleistocene sediments. The discovered artifacts included microblades, microblade cores, stemmed projectile points, flakes and flake tools and flake cores. I also had the opportunity to look at a selected sample of Ushki artifacts including beads and other works of art and tools from previous excavations.

I was also in charge of organizing classes for the Russian students and gave presentations about the archaeology of Russia and North America.

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Paleoindian Sponsors (gifts under \$100)

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Tom Young



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New Colby Mammoth display in the Anthropology Museum.

New Books!

Medicine Lodge Creek Site, edited by George C. Frison and Danny N., Walker has been completed by Clovis Press and has been available at the University of Wyoming Bookstore since spring of 2008.

Hell Gap: A Stratified Paleoindian Camp at the Edge of the Rockies, edited by Mary Lou Larson, Marcel Kornfeld, and George C. Frison is in press at the University of Utah press and should be available by early spring 2009.

Prehistoric Hunter-Gatherers of the High Plains And Rockies (3rd edition of Prehistoric Hunters of the High Plains) by Marcel Kornfeld, George C. Frison, and Mary Lou Larson (with contributions by Bruce A. Bradley, Julie E. Francis, George W. Gill, and James C. Miller) is in press with Emerald Publishing Company and should be available late in 2009.

Purchase the books at the University of Wyoming Bookstore **www.uwyobookstore.com**

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