

**GEORGE C. FRISON INSTITUTE
OF ARCHAEOLOGY AND ANTHROPOLOGY - GoFrI
UNIVERSITY OF WYOMING**



BULLETIN No. 15b

October 2006

Director: Marcel Kornfeld
Associate Director and Editor: Mary Lou Larson
George C. Frison Institute
University of Wyoming

Department of Anthropology
Dept. 3431
1000 East University Avenue
Laramie, WY 82071

Web: <http://uwacadweb.uwyo.edu/FRISONINSTITUTE/>

FRISON INSTITUTE ENDOWMENT - PAST AND FUTURE

On May 24th the Wyoming Archaeological Foundation (WAF) presented a check of \$50,000 to the University of Wyoming Foundation, for the establishment of the Frison Institute Endowment. This was two full years ahead of schedule! The check was presented to William B. Blalock III, VP for Institutional Advancement by Judy Wolf, President of the WAF. Numerous individuals contributed to the WAF for the establishment of this endowment. The endowment will yield income for the Institute in perpetuity and will allow the Institute to carry on its programs and mission. We thank the WAF for raising the funds and achieving our goal.



Judy Wolf, President of the WAF, presenting the check to Ben Blalock with Robert Kelly (acting Institute Director standing in for Marcel Kornfeld) looking on. The State Archaeologist, Mark Miller was also present

A most significant aspect of the endowment is that state matching for additional endowment gifts is now available. This means that any donation to the WAF for the Institute Endowment will be matched immediately once the gifts are received by the UW Foundation as long as the state matching lasts. The WAF will make another pledge to insure that all gifts up to the pledge amount will be matched through September 2011.

NEWS FROM THE FRISON INSTITUTE

Board of the Friends of the Frison Institute Meeting

The Board of the Friends of the Frison Institute met on September 21, 2006. The meeting followed a morning of research presentations. Drs. James Ahern, Todd Surovell, Julie Francis, and Marcel Kornfeld presented ongoing research by the Frison Institute and Department of Anthropology. The presentations included: hominid evolution-specifically Neandertals and their

relation to modern humans as seen from the Croatian evidence; the results of 2006 field season at Barger Gulch Locality B and its implications for Folsom demographics; the state of Wyoming rock art research; and an overview of Rocky Mountain rockshelter research.



Speakers at the morning of talks. From left to right: Ahern, Surovell, Francis, and Kornfeld

The meeting was one of the most vibrant ones yet with 19 Board members participating. Four new members joined the board, Bill Vasey of Rawlins, Wyoming, Mike Toft of Sterling, Colorado, Tom Young of Thermopolis, Wyoming, and Larry Amundson of Ocean Lake, Wyoming. The meeting opened with welcome statements by Dr. Audrey Shalinsky, Associate Dean of the College of Arts and Sciences (former anthropology chair) and Dr. Robert L. Kelly, anthropology chair. Both stressed the current growing state of the Department, Institute, and our facilities, specifically the construction of the new building. We will be in the new building by next year with the opening ceremonies sometime in the spring. Hope you can all be there. (cont'd on pg. 2)



New Anthropology building, future home of the Frison Institute, under construction

CONTENTS:

News from the Frison Institute (p. 1); News from the Anthropology Chair (p. 4); Office of Wyoming State Archaeologist News (p. 4); International Development (p. 4); Hi-Tech Field Training (p. 4); Institute Projects Results (p. 5); Other UW Project Results (p. 7) Feature Article (p. 7); Institute Needs (p. 9); Donors and Appreciations (p. 9); Other Thank Yous (p. 10)



(cont'd from pg. 1)

The Board discussed a range of issues including: 1) continued fundraising for the growth of the newly established Frison Institute Endowment; 2) continued development of promotional material, namely Institute pins for donors, volunteers, and friends; and 3) acquisition of major equipment for the Institute, namely tractor/backhoe, vehicles, and trailers.



Board of the Friends of the Frison Institute at the September meeting

Reports by the director and associate director stressed the establishment of the \$100,000 Frison Institute Endowment and the fiscal statement and status of the Institute funds. The director additionally noted that this was the 10th anniversary of the Board of Friends of the Frison Institute, with a name change from original Friends of the Frison Institute occurring several years ago. It is particularly appropriate and a happy situation that the Frison Institute endowment was inaugurated with our 10th anniversary! Other reports were given by Dale Walker, College of Arts and Sciences Director of Development and the vice-chairs (Rhoda O. Lewis and P. Jaye Rippley). Walker explained the ongoing state matching program for endowment, namely any additional amount of gifts raised for the Institute by the Wyoming Archaeological Foundation (WAF) will be matched as long as the state funding lasts. If a new pledge is made by the WAF the matching of that amount will be guaranteed if raised within five years of the pledge. Rhoda O. Lewis reported on the membership, while P. Jaye Ripley reported on the Board pins as well as the design and purchase of donor, volunteer, and Friends pins.



New gold color pins of the Board of the Friends of the Frison Institute

Gail Gossett: Voted in as an Honorary Lifetime Member

The Board unanimously voted to make Gail Gossett, who resigned for personal reasons, an honorary lifetime board member. Gail was one of the original members of the Friends of the Frison Institute (the original Board) and Ray Gossett's and her efforts towards the establishment of the Frison Institute Endowment were a significant contribution to its eventual establishment.



Gail Gossett

Volunteer of the Year

Many volunteers have worked with the Institute over the years and our success is closely tied with such public dedication to prehistory. Mr. Robert Godsoe, now of Woodland Park, CO has volunteered on numerous projects since the late 1990s. Most recently he has set up the screening system at the Hell Gap Site and along with his family has contributed to the excavation at Barger Gulch, Locality B.



Bob Godsoe on transit at Barger Gulch

Student of the Year

Student of the Year is Mr. Joe Gingerich. Joe is a second year MA student. He has worked with Institute projects at Barger Gulch and works on his own research material from the Shawnee-Minisink site in the Institute labs. He has been working with Don Klein, an



BULLETIN No. 15b

October 2006

avocational archaeologist from Maryland, on renewed investigations of the Shawnee-Minisink Clovis site. Joe's work with avocational is an excellent example of Institute's mission and we are pleased to name him Student of the Year!



Joe Gingerich visiting the Topper Site

8th Annual Frison Institute Lecture

The 8th Annual Frison Institute Lecture was held on September 21, 2006. As in the past several years, it was also the Wyoming Archaeology Awareness Month Speaker. The latter is supported by all the WAAM sponsors. Dr. Gary Haynes of the University of Nevada at Reno delivered the lecture. Professor Haynes discussed the role of rapid human dispersals in the extinction of animal species. Haynes' argues that while humans did not kill the animals in most instances, they created conditions where slight environmental or other perturbations acted in conjunction with human predators to cause extinction.



Gary Haynes with an atlatl and experimental spears

9th Annual Frison Institute Lecture

The 9th Annual Frison Institute Lecture will be presented by Professor Mark Aldenderfer of the University of Arizona. Professor Aldenderfer has written extensively about high altitude adaptations, especially in the altiplano of the South American Andes.

Board Member Jim Hageman Passed Away

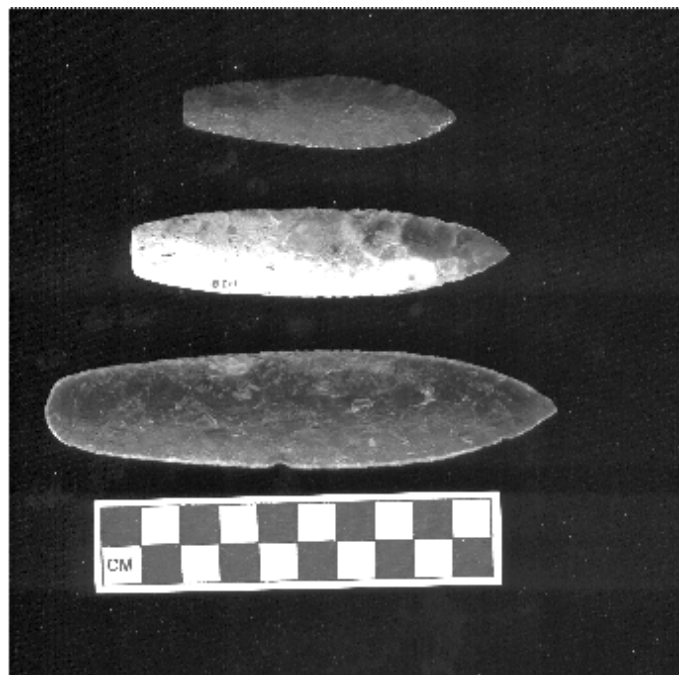
James (Jim) Hageman, one of the original members of the Friends of the Frison Institute passed away on August 23, 2006. Jim was a Wyoming State Senator from Fort Laramie and frequently visited our work at the nearby Hell Gap site in his district. Other than his interest in archaeology Jim was a significant asset to the University of Wyoming and Wyoming education system. He supported major funding for Wyoming education. In April Hageman was awarded an honorary doctor of laws degree, presented to him during the UW commencement ceremonies on Saturday, May 6, 2006.

Co-operative Agreement with the City of Cheyenne

Last spring the Institute signed a cooperative agreement with the City of Cheyenne to conduct archaeological research on Belvoir and Bighole ranches. The ranches were acquired by Cheyenne as open spaces for development of outdoor recreation activities. Several visits to the area showed that buried prehistoric and historic features and artifacts are present (in alluvial terrace contexts), as are stone circles, rockshelters, historic trails, and abandoned missile silos. Chert outcrops were also located, possibly significant to the occupation of nearby Lindenmeier Folsom site in Colorado, where some tools were manufactured of material from unknown source locations. Research on the property will begin in the next several years as a part of a field class at the University of Wyoming.

McGonigal Collection

Mike McGonigal donated 23 Agate Basin points from North Dakota to the Frison Institute. The donation was made with the understanding that they would be made available for study by qualified researchers. Most, if not all of the points are made of Knife River Flint and are heavily patinated. Thank you Mike!



McGonigal donation



INSTITUTE GRANTS AND VISITING FELLOWSHIPS

Mr. Matt E. Hill is the 2006 Frison Institute zooarchaeology grant recipient and a fellow. Matt, a Ph.D. candidate at the University of Arizona, is studying regional differences in Paleoindian procurement strategies with Plains bison assemblages. He analyzed several zooarchaeological collections during early October. Matt gave a talk entitled "Paleoindian Faunal Exploitation: The Myth and Reality of Big Game Hunters." The brown bag talk was presented in conjunction with the October meeting of the June Frison Chapter of the Wyoming Archaeological Society.

Chris Widga, the 2004 Frison Institute zooarchaeology grant recipient and a fellow, published an article in the Journal of Archaeological Science that includes his research while at the Institute. "Niche variability in late Holocene bison: a perspective from Big Bone Lick, KY" is in JAS 33:1237-1255.

DEPARTMENT OF ANTHROPOLOGY NEWS by *Robert L. Kelly*

The Anthropology department is looking forward to its major challenge for the year: moving to the new building. The hand-over date for the building is scheduled for late April, 2007 – and since demolition of the old anthropology building is scheduled to begin June 1, we will have a very busy May. Audrey Shalinsky has moved to the Dean's office for a three-year stint as Associate Dean; for this year, we've been able to hire a one-year replacement, Dr. Steven Thomson, to help cover our cultural anthropology courses. Last year was a very successful year for our graduate students, who published several papers. They also gave many presentations at regional and national conferences, and traveled abroad, made possible in large measure by a generous grant from Dr. Michael Stafford.

STATE ARCHAEOLOGISTS OFFICE by *Mark E. Miller*

Some activities I have been involved in include preparation of a National Register nomination for the Trappers Point Archaeological site (48SU1006). This is the Early Archaic pronghorn processing site near Pinedale that OWSA excavated in the early 1990s as part of a highway project. It is the earliest evidence I know of for a communal mass kill of pronghorn in the archaeological record of North America. We also help put on the 2006 Spring Meeting of the Wyoming Archaeological Society in April in Cheyenne with featured speaker Dr. Douglas Owsley who gave a great presentation on his work with the Kennewick study. I spent a couple weeks in the field with Dr. Walker, Assistant State Archaeologist, who finished excavations at the Sand Draw site near Riverton this summer. In addition to work on the Governor's select committee for historic contexts, I have begun to outline preparations for a new context for Military Sites in Wyoming prior to World War I. So much historical archaeology has been done on Indian Wars Period sites that a revision of the old context is in order.



Governor Dave Freudenthal signing the Wyoming Archaeology Awareness Month proclamation. Mark Miller, State Archaeologist standing to his right and Judy Wolf, organizer of WAAM standing to his left

INTERNATIONAL DEVELOPMENT

The Institute has been involved with international development since before its official establishment in 1998. In 1996, 1997, and 1998 the Institute hosted international scholars and enhanced UW student involvement in foreign archaeological field programs. Throughout the later 1990s and early 2000s the Institute continued to host international Fulbright and Wenner-Gren scholars. Within the last several years new cooperative agreements were established and student and faculty exchanges intensified. For the second year in the row the Institute enhanced a significant exchange of foreign students and faculty. Last year (2005) two Croatian, one Japanese, and one Russian student participated in field projects while one Japanese student also did his own research on Paleoindian assemblages. At the same time four UW students participated in field and laboratory analysis of archaeological materials in Russia and Croatia. In 2006 two French students and one Japanese student participated in our field projects while three UW students and one faculty member worked on projects with Croatian colleagues and the director and associate director participated in a project in France. Through the next series of bulletins we hope to chronicle some experiences of both UW and foreign students in this program.

HI-TECH FIELD TRAINING by *Mary Lou Larson*

Marcel Kornfeld and Mary Lou Larson spent three weeks in Carsac, France this summer with Harold Dibble and Shannon McPherron. Dibble and McPherron have pioneered the use of Electronic Distance Measurement Theodolite (EDM) total stations, computer mapping, and a complete flow through of data from excavation to EDM to laboratory processing and data analysis. Dibble and McPherron call their software programs EDMwin, NewPlot, and E4 (Kornfeld dubs the package ENE4). Kornfeld and Larson's visit was dedicated to a self-designed training program in the use of the ENE4 software. Kornfeld spent time working with the excavation mapping part of the software at Roc de Marsal, an 80,000 year old Middle Paleolithic site near Les Eyzies. (Much of the information that follows was obtained from The Old Stone Age web site URL <http://www.oldstoneage.com/rdm/index.htm> and through discussions this summer with



Harold Dibble, Shannon McPherron, and their able bodied crew.) Larson worked on the laboratory and analysis software at the Carsac laboratory.



2006 excavation at Roc de Marsal

Dibble and McPherron's excavations at Roc de Marsal are similar in many ways to Institute excavations at the Hell Gap site (among others), in that Dibble and McPherron are returning to a previously excavated site hoping to gain a much finer understanding of the site and its contents through the use of modern, high-resolution, archaeological excavation and analysis techniques. Roc de Marsal, like Hell Gap, holds many mysteries that are as yet unsolved. Roc de Marsal (RDM) was first excavated from 1953 - 1971 by Jean Laville, a local amateur. Laville excavated approximately half of the cave and exposed sediments that contained a series of Middle Paleolithic (Neandertal), Early Upper Paleolithic (Chatelperronian), and Medieval deposits. Most significantly Laville recovered a block of sediment contained the skeleton of "an almost complete 3.5 year old Neandertal child." Unfortunately, the skeleton and the block of sediment were lost after analysis of the skeleton in Paris. Excavations in 2005 at RDM have revealed three hominin (ancient human) teeth (http://www.oldstoneage.com/pdfs/rdm_2005_report.pdf - page 161) indicating the presence of three different aged individuals - one 9-10 year old, one adult, as well as the 3.5 year old skeleton from the earlier excavations. The teeth are being preserved for future DNA analysis. Additionally, Laville's excavations exposed a series of burning episodes in the lower levels at RDM. The burning exists within layers dating to the earlier Middle Paleolithic deposits in the cave. Such preserved burning is unusual in this age of deposits and relates to how we understand the daily lives of Neandertals. Paul Goldberg of Boston University (a collaborator on our excavations at Hell Gap) is conducting pioneering research on the sediment using the analysis of the micromorphology of the burned sediments to determine if the material is from a hearth, a natural burn, or some other origin. The new excavations at RDM are using a combination of faunal analysis, thermoluminescence (TL) dating, and other techniques to fully understand the deposits. Like most of the excavations conducted by Institute crews, knowing the exact provenience of all of the recovered remains is absolutely necessary to understanding the context within which



artifacts and other samples are recovered. It is through use of the ENE4 system that such fine techniques are possible. The new system virtually eliminates the need for writing field forms and drawing maps, as all of this is automated. Both maps and data tables may be viewed immediately on the field laptop after the laser transit takes a measurement. The ENE4 system was put to its first test in the Rocky Mountains during Institute excavations in August at Black Mountain and will be used in excavations at Hell Gap next May and June.



EDMwin in use at Roc de Marsal

INSTITUTE PROJECTS RESULTS

Bighorn Rockshelters by Robert L. Kelly

The Bighorn Rockshelter project continued this year with further excavations at Ditch Creek Shelter near Thermopolis, and new stratigraphic work at Little Canyon Creek, Rice, and Carter caves. With the help of geoarchaeologists Judson Finley and Gary Huckleberry we also examined the stratigraphies at Alm Shelter, Paint Rock V and Tumbling Dice, all in Paint Rock Canyon, several shelters on Little Mountain near Lovell, Southsider Shelter and Cutt Shelter near Ten Sleep, as well as Ditch Creek. With the submission of new radiocarbon samples we should be able to date the earliest occupation at Ditch Creek Shelter - a possible Clovis occupation, and at the other shelters as well. In addition, consultation with Finley and Huckleberry played an important role in understanding the formation of these shelters, and in determining which sites will merit further excavation next summer (pending funding).

Testing Bighorn Shelters by Jack Fenner

The Frison Institute continued its investigation of rockshelter occupation patterns in the foothills of the Bighorn Basin. Following up on survey work performed in previous years, graduate student Jack Fenner led a team that excavated test pits in a series of rockshelters within Paint Rock Canyon and along Shell Creek Canyon near Black Mountain. Several previously unknown subsurface prehistoric sites were located. These discoveries, along with the insight gained from rockshelters which did not produce evidence of occupation, will help in understanding the choices that prehistoric people made when deciding where to live.



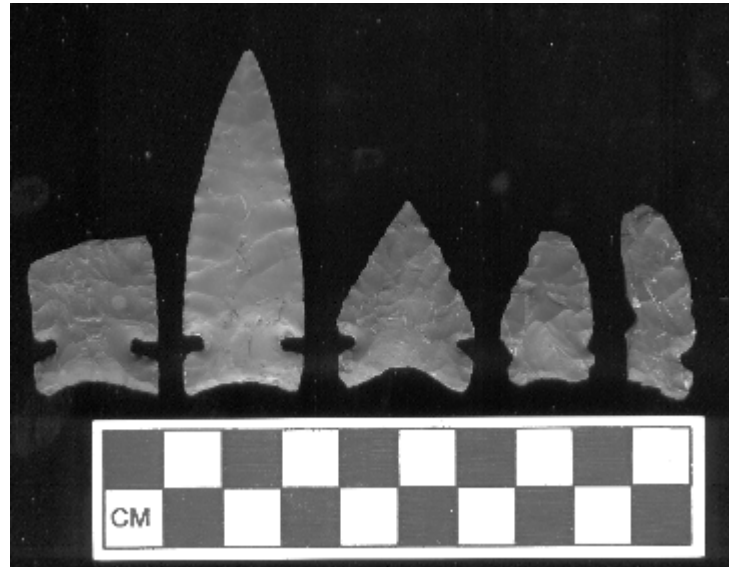
Jun Hashizume in one of the tested shelters

Bighorn Shelter Geoarchaeology by Judson Finley

Geoarchaeological analysis of Bighorn Mountain rockshelters continued this year with visits to Alm Shelter, Little Canyon Creek, and Southsider Shelter. Analysis of sediments from Eagle Shelter, BA Cave, and Alm Shelter is showing evidence of episodic, millennial-scale environmental change at many sites along the foothills of the Bighorn Mountains. Normally very gravelly, rockshelter deposits consistently show accumulation of discrete dust layers indicative of increasingly arid conditions in the Bighorn Basin. At Eagle Shelter and BA Cave, dust deposits occur approximately 9000, 8000, 4500-4000, 3000, and 2000 years ago. We are tentatively proposing that these events reflect decreasing precipitation regimes and increased erosion on floodplains at the margin of the Bighorn Basin. Wind erosion carries floodplain sediments to rockshelters situated in the foothills. These events also appear to correlate with Holocene regional records of greater forest fire frequency in the Yellowstone Plateau. Future work will examine whether dust deposition in Bighorn Mountain rockshelters correlates with other records of Holocene global climate changes.

Black Mountain Archaeological District (BMAD) by Marcel Kornfeld

Continuing field investigations at BMAD during 2006 included testing of several rock shelters (see Testing Bighorn Shelter by Fenner) and continuation of testing at BA Cave and Two Moon Shelter. At BA Cave testing was limited due to the small size of the field crew. Nevertheless, a few additional levels were excavated in both excavation units under investigation. Specifically, the surface of the roof fall was largely exposed by the end of the field season, leaving it ready for removal next season. We discovered the third Early Plains Archaic projectile point in the process. The side notched point has a deep basal notch reminiscent of Oxbow style, but probably represents a range of variation of Early Plains Archaic side notched varieties such as those found at the Lookingbill Site. Deeper levels, such as those that produced fluted bifaces last year were not tested further.



Recently recovered side notched Early Archaic points from BA Cave (right three) compared to the Lookingbill Site specimens (left two)

A new field recording system was initiated at BMAD that significantly improved the efficiency of excavation, especially at Two Moon Shelter (see International Development Section). The new system was introduced at Two Moon at the beginning of the season and despite early glitches, point provenienced nearly 2500 artifacts, about one third of the total recorded in the past 15 years of testing! Although this efficiency is significant, the real success of Two Moon investigations was the clear demonstration of three cultural components: Folsom, Agate Basin, and Pryor Stemmed. Previous seasons excavations yielded radiocarbon ages and chronologically diagnostic artifacts, but the diagnostic artifacts recovered during the 2006 field season demonstrated the cultural association of one component (Agate Basin) and confirmed another (Folsom). It is now clear that three components are present at Two Moon (Folsom, Agate Basin, and Pryor Stemmed), while the previously postulated Clovis component is probably not Clovis, but a part of the Folsom layer.



New projectile points recovered from Two Moon Shelter (Folsom, Folsom, and Agate Basin at bottom). And previously recovered points (top) White Creek Canyon Survey by Marcel Kornfeld

**BULLETIN No. 15b****October 2006**

A significant expansion of our Bighorn rockshelter study occurred with the initiation of the White Creek Canyon survey. White Canyon is adjacent to BMAD and some portions of it were examined during previous field seasons. An opportunity to examine several tributaries of the canyon presented itself with a BLM call for proposals to survey areas considered for fire abatement. Given its proximity to our other research areas, this is a perfect opportunity to locate, record, and test additional rockshelters. The field studies were only initiated the past season, but already nearly 50 shelters have been located.

Barger Gulch by *Todd Surovell and Nicole Waguespack*

We had another productive field season at Barger Gulch, during which we excavated almost 50 sq. m and recovered almost 10,000 artifacts. Our excavations were designed to expose artifact concentrations associated with hearths. We expanded the northeastern portion Main Excavation Block to create a 5 x 5 m exposure surrounding a hearth discovered in 2004. We also expanded the perimeter of East Block to find the edge of a high density cluster of artifacts associated with another hearth. Finally, we initiated excavations in a new area, which we call the "South Block," sitting approximately 30 m to the south of our previous excavations. Here, we also recovered additional Folsom archaeology including one projectile point fragment, channel flakes, bifaces, various flake tools, and a sandstone abrader.

OTHER UW PROJECT RESULTS by *Danny N. Walker* (*Assistant State Archaeologist*)

OWSA-Research, in partnership with Fort Laramie National Historic Site, the University of Wyoming, and the NPS Midwest Archaeological Center concluded the fourth field season of a three year project in 2005 at Fort Laramie designed to conduct as comprehensive a geophysical archaeological survey of the fort grounds as possible. Members of the Wyoming Archaeological Society played a vital role in the amount of investigations throughout the life of the project, providing several thousand hours of volunteer time.

The geophysical and archeological investigations undertaken as part of this project were designed to correct a major deficiency in the cultural resource data base for Fort Laramie. A traditional surface "Class 3" survey was felt to be non-effective for inventory and evaluation of such buried resources at Fort Laramie. At Fort Laramie, features not visible on the surface are known to exist and modern landscaping and activities have hidden them. The goal of the first year (2002) was to begin obtaining remote sensing data to produce geophysical maps of the subsurface. Anomalies on these maps identified buried historic resources related to the activities at Fort Laramie throughout the Military, Homestead, and Park Service Eras. In years two (2003), three (2004), and four (2005) remote sensing continued, but limited archeological testing also evaluated selected anomalies for their contributory nature to the National Register status of the fort. This testing was to evaluate unrecorded resources and collect data to permit a refined interpretation of the remote sensing maps. The survey and testing also identified remains of resources suggested to be present by

historic records and photographs, and evaluated those features relative to the remote sensing data.

OWSA-Research, in partnership with the University of Wyoming, Fremont County (Wyoming) Solid Waste Disposal District and the Wyoming Archaeological Society completed excavations at the Sand Draw Dump site (48FR3123) slated to be destroyed by landfill expansion. Members of the Wyoming Archaeological Society played a vital role in the amount of excavations conducted at the site over the 1997, 2000, and 2006 seasons, with several thousand hours of volunteer time.

Over 1900 square meters were either hand excavated or mechanically scraped during excavations in 1997, 2000, and 2006, resulting in the identification and recording of fifteen semi-subterranean occupation/living structures, twelve of which occur in a 20 by 35 meter area in a formal spatial arrangement. The arrangement of these structures is highly suggestive of a planned formal "village" site with a single band group occupying it and not a haphazard placement of the structures from a series of unrelated occupations. The site has been radiocarbon dated between 1000 and 1200 years B.P.

The presence of prehistoric living or other occupation structures in the region, both along the Beaver Creek floodplain and the divide suggests the prehistoric occupation in the region was not transitory, but part of a region wide occupation throughout the Wyoming Basin, centered on a broad spectrum hunting and gathering orientation. Locally, within the central part of the Wind River Basin, it appears an intensive human occupation was occurring around A.D. 1000. Radiocarbon data from regional sites show during this time period a widespread occupation over the area that would, historically, become Fremont County. These sites range from the central basin, to the foothills, and into the Wind River Mountains, adding further documentation on the seasonal and yearly round of these prehistoric peoples. We are just beginning to learn the basics of how they were subsisting and interacting culturally.

FEATURE ARTICLE**Slings and Slingstones: The Forgotten Weapon of Oceania and the Americas** by *Robert and Gigi York*

After the Sun (in the Inca pantheon) ranked Thunder, God of Weather, to whom prayers for rain were addressed. He was pictured as a man in the sky, and identified with a constellation. He held a war club in one hand and a sling in the other, and wore shining garments. The thunder was the crack of his sling, the lightning the flash of his garments as he turned, and the lightning bolt was his slingstone (Rowe 1946: 294 and 295).

Prevalent among the artifacts we cataloged for the Northern Mariana Islands Museum, Saipan, from 1998-2002, were objects that looked like miniature American footballs. These artifacts were mostly fashioned, through a combination of percussion and abrasion techniques, from various types of rock (coral, limestone, basalts), though some were of baked clay. Finish quality varied.

**BULLETIN No. 15b****October 2006**

We learned shortly that they were slingstones, an artifact type that we were totally unfamiliar with.



Slingstones

In 1957, Alexander Spoehr, the noted American archaeologist and anthropologist, observed: "Slingstones are to the Marianas as projectile points are to the United States." That is, they are numerous, ubiquitous, stylistically variable and possibly time and culturally sensitive.

We were curious to know if this phenomenon was unique to the Marianas. A Saipan friend, Curt Klemstein, answered that question by showing us a map from a 1973 *Scientific American* article on use of the sling and sling missiles, written by the eminent German archaeologist, Manfred Korfmann. The map accompanying Korfmann's article was peppered with dots indicating worldwide sling use; including the Americas, an area of the globe that we thought we kind of knew. How, we wondered, with together well over forty years of professional experience in archaeology had this escaped our attention? Perhaps, just perhaps, American archaeology has been a little too preoccupied with projectile points, to the exclusion of another very important aboriginal American weapon system.

While working on Saipan we also met Will Shapiro, an archaeologist from California. By the time we made Will's acquaintance, we had essentially begun our research into Marianas and Pacific slingstones and wondered if he had ever seen comparable artifacts on the U.S. mainland? His response convinced us we needed to expand our research to include the Americas: "Yes, as a matter of fact, virtually identical baked clay and stone artifacts are commonly found in Northern California. In California archaeology circles they are often called 'lemon stones', in reference to their shape. But their true function remains a mystery -- to California archaeologists anyway." Upon our return to the U.S. we not only confirmed Will's information but greatly expanded on it.

Our research continues apace. Here are just a few slingstone facts that we have uncovered, that the reader should find provocative, we certainly do.

- Before about 1960 use of the sling was a topic given some consideration in American archaeology. After that date, the long existence and importance of slings and slingstones in the

Americas and Oceania virtually disappears from the archaeology radar screen. We think this largely happened because this weapon system was too linked with diffusionism and warfare, subjects that became verboten in "respectable" American archaeology at around this time. These topics have only recently, hesitantly, reemerged as legitimate subjects for archaeological inquiry.

- Except for some areas of Melanesia, the sling was the premier projectile weapon across Oceania with the bow and arrow widely viewed as no more than a "toy".
- The earliest modified "football like" slingstones so far identified in Oceania date to about 3100 years ago. They were found in *Lapita* context in the Reef-Santa Cruz Islands of Melanesia. Such slingstones did not become common across the Pacific until about 1000 years ago.
- To date, no antecedent slingstone technology has been identified in SE Asia -- the, not seriously questioned anymore, homeland area of the peoples of Oceania.
- In their 1957 landmark study of North American Indians, Driver and Massey noted, "the sling was used for hunting or warfare over most of the continent." The implications of this fact seem to have been lost on archaeologists, as even when "peculiar" spheroidal/sub-spheroidal, modified or manuport, rocks were discovered in archaeological context (as they more often are than you might think). Nearly without exception, the possibility that they might be sling missiles was not advanced.
- Lovelock Cave, Nevada, is the only known North American site where both slingstones and a sling were found. Though slings have likely been around for more than 10,000 years, the about 3200 year old Lovelock sling is the oldest known, surviving sling in the New World -- just possibly in the world. Surprisingly, its only serious competitor for this honor is an Egyptian sling.
- Bipointed stone and baked clay artifacts, identical to Marianas slingstones (though this remarkable similarity is not locally recognized -- with the exception of a few archaeologists like Will Shapiro and most interestingly, L.L. Loud in 1918), are commonly found on archaeological sites dating from about 10,000-3000 years ago in Northern California, Southern Oregon, and Northwest Nevada. After 3000 BP, native use of the sling in this region very much continued, but manufacture of specialized sling missiles appears to have ceased.
- Marianas type slingstones were also manufactured, from about 6000 – 1900 BP, on Venezuela's Peninsula de Araya and the adjacent Caribbean islands of Cubagua and Margarita. Curiously, though the sling was used over much of Meso and South America, these most effective, most lethal, of slingstone designs apparently never expands beyond this area.
- The sling was more than the warfare projectile weapon of the South American Andean states, it was an instrument of the gods. Curiously, though Andean slings were the most elaborate slings made in the Americas or Oceania, and still are, apparently only naturally occurring rocks were used for ammunition. As with virtually everything concerning use of the sling, however, this merits further investigation.



Sling and slingstones

We have much more to disclose, and hopefully we will in a major publication that if all goes well we'll have out in another year, well maybe two years. Meanwhile, we continue to excavate libraries, museum, and private collections for hidden gems of sling knowledge.

References

Driver, Harold E. and William C. Massey. 1957. *Comparative Studies of North American Indians*. Transactions of the American Philosophical Society, New Series 47(2). The American Philosophical Society, Philadelphia.

Korfmann, Manfred, 1973. The Sling as a Weapon. *Scientific American* 229(4): 35-42, 132.

Loud, L.L., 1918. *Ethnography and Archaeology of the Wiyot Territory*. University of California Publications in American Archaeology and Ethnology 14(3): 221-436, Berkeley.

Rowe, John Howard, 1946. Inca Culture at the Time of the Spanish Conquest. *Handbook of South American Indians: The Andean Civilizations* 2:183-330. Julian H. Steward, Editor. Smithsonian Institution-Bureau of American Ethnology Bulletin 143, Washington, D.C.

Spoehr, Alexander, 1957. *Marianas Prehistory, Archaeological Survey and Excavations on Saipan, Tinian, and Rota*. Fieldiana Anthropology 48. Chicago Natural History Museum.

INSTITUTE NEEDS

The Board of the Friends of the Frison Institute identified three equipment needs for the Institute:

1. Tractor and backhoe (around 30 hp), new or less than 10 years old with low usage
2. Transportation (4 wheel drives, suburban type or truck), with under 100,000 miles, late 1990s models
3. Travel trailers. Two of the current three travel trailers will need replacement within the next few years.

DONORS AND APPRECIATIONS

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BULLETIN No. 15b

October 2006

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OTHER THANK YOU'S

Our field programs would not be successful without the concerted effort of many individuals. Many of them are eventually acknowledged as field crews or otherwise afforded recognition. However, agency personnel, landowners, avocationalists providing information and many others often fall between the cracks and never receive any credit for their contributions to the success of the Institute programs. Over the past 10 years Stan and Mary Flintner of Shell, Wyoming, have been most helpful in providing access to Black Mountain Archaeological District. Although public access is provided over some of the access routes, bringing in all of the equipment over these roads would be impossible. Stan and Mary have allowed us to cross their lands and have in addition offered water and other services that have made our work at BMAD significantly easier. In addition they have been great neighbors. The Institute would also like to thank John and Carolyn Alm, and Chuck Lewtin for permitting access to several important sites this past summer. We also need to acknowledge Jim and Terry Wilson. Not only have they invited us to work on a rockshelter on their land in the southern Bighorns, a shelter that might have unequivocal evidence of a Clovis occupation, but Terry has been on the Board of the Friends of the Frison Institute and their contributions to the Institute have been significant. Last, but not least, Art and Roberta Brouchez of Kremmling, Colorado have allowed access across their land to the Locality B of the Barger Gulch Site. Although the site is reachable across public



BULLETIN No. 15b

October 2006

lands, getting equipment to the site would be impossible without access through private property. In addition Art, Roberta, Paul, Doug, and Lee have been fantastic neighbors, allowing us to use their drinking water for our crews and hosting numerous barbecues during long summer field sessions. We also acknowledge Gil and Jade Smith for allowing us to park some of the crew vehicles on their property. Most of our projects depend on landowning agencies, especially the Bureau of Land Management. In Kremmling, Colorado, Mr. Frank Rupp has been most helpful in application and processing of permits as well in direct BLM financing of our projects. In short, the Kremmling Field Office has provided over 17 years of logistical and financial support for the Middle Park Paleoindian project. For this we are most grateful. In the Bighorn Basin of north central Wyoming, the same situation occurs. Mr. Mike Bies of the Worland Field office of the BLM has enhanced and made possible nearly all of our work in the region. Mike has secured BLM funding for a variety of BLM projects, provided logistical support of numerous types, and ensured that the Bighorn rockshelters stay on the cutting edge of our Rocky Mountain research agenda. We would also like to once again thank Kathy and Dennis Fowler for their gas grill. Although they presented this gift several years ago, the exceedingly dry 2006 summer field season warranted its use more than during the previous seasons. Thank you again for keeping us legal and without fires during the last field season. These are not all the people that ensure success of our projects and programs and we hope to acknowledge others in future bulletins.

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Dear Friend or New Friend of the Frison Institute,

At the 2003 Board meeting of Friends of the Frison Institute it was decided to expand the "Friends of Frison" concept, to invite a greater number of individuals to become part of the "Friends" family and to enjoy the Institute facilities and programs, including receiving this newsletter, volunteer opportunities and archeo-tours. We are inviting you to become a friend of the Institute and would like to invite you to Laramie on September 20 and 21 to be a part of the activities at next year's 2007 "Friends of Frison" events. We are contacting you at this time to give you as much lead time as possible to plan to attend. The "Friends" meetings and festivities are scheduled during the week prior to the annual Stone Age Fair, which will be held in Loveland, Colorado on September 22-23, 2007.

The tentative schedule for the "Friends" activities in September 2007 is:

Thursday, September 20 ~

- morning reports by Frison Institute and Anthropology faculty and staff discussing 2007 field work
- mid-morning UW museums – on your own
- afternoon Frison Institute lecture –Mark Aldenderfer on High Altitude Archaeology
- afternoon – reception

Friday, September 21 ~

- "caravan" to the Hell Gap or other sites, then to Loveland for the Stone Age Fair.

Saturday, September 22 ~

- optional attendance to Stone Age Fair artifact show, demonstrations and afternoon lecture program

The entire "Friends" program is about archaeological people and things ~mostly Paleo!

We hope you will consider coming to Laramie in September 2007. We have enjoyed the time spent in past years visiting the Anthropology Department, making friends with the staff and other "Frison Friends" and hearing about ongoing archaeological activities first-hand from the very impressive students in the Department.

It is a great program!

A spring newsletter detailing summer field projects and volunteer opportunities, times and dates will be available around March or April, please sign up for it now by becoming a FRIEND.

Sincerely,

Board of Friends of the Frison Institute

If you sent this invitation in the last year, please do not send it again. If you have not sent it in and wish to continue receiving the bulletin, please check here _____

New FRIENDS please add your name here _____

STREET _____

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Please return to:

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Department 3431
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NO7AN

Pledge Agreement

Pledge Agreement or Contribution for the Frison Institute Endowment

I/we believe in the George C. Frison Institute of Archaeology and Anthropology's commitment to be premier research and outreach facility dedicated to the study of North American, High Plains and Rocky Mountain archaeology and culture. Because I/we support the Institute's vision and its goals for distinction, I/we am/are pleased to pledge and promise to make a gift to the **Wyoming Archaeological Foundation** (WAF) in the amount of \$ _____. The funds will be transferred to the University of Wyoming Foundation and matched by the State of Wyoming.

My/our commitment is designated for:

George Frison Institute Endowment

Please make check payable to the: Wyoming Archaeological Foundation

For purposed of recognition and acknowledgment, I/we wish my/our name(s) to be listed as follows:

I/We intend to make this contribution according to the following schedule:

Installment	Amount:	Date
Payment #1	\$	
Payment #2	\$	
Payment #3	\$	
Payment #4	\$	
Payment #5 (Sept. 1, 2011)	\$	

Please Mail to: Dr. M. Kornfeld
 George C. Frison Institute
 Department of Anthropology
 Dept. 3431
 1000 E. University
 Laramie, WY 82071

EXECUTED THIS _____ day of _____, 20_____.

 (Signature)

 (Signature)

University of Wyoming
George C. Frison Institute
Department of Anthropology
Dept. 3431
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