

THE WYOMING ARCHAEOLOGIST VOLUME 48(2), FALL 2004

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THIS ISSUE PUBLISHED OCTOBER 2006

WYOMING ARCHAEOLOGICAL SOCIETY MEMORIAL GIFT or CONTRIBUTION FORM

Given by: N	Miss, Mrs., Mr., Ms	., Dr. \$(Amount)	
Name:	Last	First	Middle
Address:		City & State	Zip
Donor phone number()			
TYPE OF G	iFT:		
General Co	dress: City & State Zip nor phone number ()		
In Memory	of:		
	Name	City & S	State
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		your money to go (e.g., Mull haeologist, ???????)	oy or Frison Scholar-

Please make your check payable to THE WYOMING ARCHAEOLOGICAL SOCIETY and send to Carolyn Buff, Executive Secretary/Treasurer, 1617 Westridge Terrace, Casper, WY 82604

IN MEMORIUM

RAY JOSEPH NELSON

On May 4th, 2005, the Absaroka Chapter of the Wyoming Archaeological Society lost one of its most treasured members to a brain tumor. Ray Joseph Nelson, our very long-time member and friend, will be sorely missed.

Those of us who knew Ray, knew him to be a quiet man, yet someone who was eager to learn, participate, and share. We rarely heard Ray speak; however, he spoke volumes through his art, poetry, journals, and through his actions. Ray was an active member of the Absaroka Chapter for many years. Ray rarely missed a meeting; he enthusiastically participated in field trips, enjoyed the chapter's curation workshops, was the first in line for food and fun at our chapter's many social get-togethers, and freely shared his time and knowledge. Ray and his brother Walter spent many days working long hours at the Platt Site. Age was never a factor for Ray. His keen intellect and insatiable thirst for knowledge led him towards many archaeological adventures.

Ray's parents were the first settlers to move into and build on Diamond Basin of the Southfork of the Shoshone River. Born in 1925, Ray was one of four children. He and his brother Walter (also an active member in the Absaroka Chapter) never moved away from their childhood home. He was raised with love, humor, fun, and hard work.

Ray farmed, worked the land, raised sheep and cattle, gardened, cooked, traveled, wrote and published, drew, journaled and helped others whenever and wherever he could, until he died. His church, the archaeology club, and rock club were also an important part of his life. In addition, he enjoyed doing genealogical research, was always interested in anything relating to history, and chronicled each day, since he was a teenager, in a diary. Ray's excellent memory and sharp eye for detail made him an exceptional observer of people, things, and history,

Every archaeologist dreams of finding one rare treasure during his or her lifetime. Ray Nelson is the Absaroka Chapter's rare treasure, a kind man who lived life gently and enthusiastically. He deeply touched us all. The significance of one's life is often measured by the people he or she touches. Ray's life was truly significant! We are privileged to have known him and will miss him deeply.

The editors of the Wyoming Archaeologist encourage members and other readers of the journal to submit obituary information about WAS members to the editorial staff in Laramie when such notices appear in local papers. We will then recognize the accomplishments of these members in the journal. Thank you.

IN MEMORIUM

DOUG NELSON

POWELL, Wyo. — Longtime Northwest College professor Doug Nelson, 63, died of an apparent heart attack about midnight mountain daylight time on June 10 while in Israel leading a small group of Northwest College students on archaeological digs.

A professor of anthropology, Greek, Hebrew, and history at NWC, Nelson had taught at the college since 1983.

Early reports indicate Nelson had been playing basketball and collapsed afterward while talking with others at the court. CPR was administered at the scene, and an ambulance took him to the hospital. Nelson apparently died en route. He would have been 64 today.

Immediate family members, a daughter and son in California, have been notified.

"The Northwest College Community has been shocked by this tragic news," NWC President Miles LaRowe said. "Doug was loved both on campus by students, faculty and staff, as well as in the community.

"A perennial favorite of students, Doug's thoroughness, his wealth of knowledge in multiple subjects – especially middle east politics, language and culture – the rapport he had with students, and his dedication to their learning benefited hundreds and hundreds of students over more than two decades. He was a true scholar and the finest, most gentle colleague any one of us could have."

Nelson has led NWC students on archaeological tours – some in the United States and others to Israel – on an every-other-year basis for several years.

Nine students are enrolled in the May 28-June 30 credit class titled Archaeological Field Methods: Israel, and are participating in an archaeological dig. Not all of the nine students traveled to Israel at the same time. Some of the students are currently at Kibbutz Lotan where they are being cared for by members of the kibbutz. Other students were scheduled to join them June 19. NWC officials are in the process of contacting the students' families.

Arrangements have been made for return of Nelson's body to the United States. A small service was held for Nelson this morning in Israel. Funeral or memorial service arrangements are unknown at this time.

Nelson held bachelor of arts and master of divinity degrees from Abilene Christian College, as well as a master of arts and doctorate from the University of California at Los Angeles.

IN MEMORIUM

KEITH DUEHOLM

Keith Dueholm, 54, of McKinley, Wisconsin, died Wednesday, August 9, 2006 at Cumberland Memorial Hospital. He was born August 23, 1951 in Amery, WI to Henry and Jeannette (Eberlien) Dueholm. Keith was raised in the Bone Lake area and graduated from Luck High School in 1969 as valedictorian. He attended the UW-Superior and graduated from UW-River Falls in 1974. Keith lived and worked in Wyoming as a botanist and archeologist for many years. He moved to McKinley and lived there the past several years. Keith donated his extensive research library to the George Frison Institute of Archaeology and the University of Wyoming Rocky Mountain Herbarium.

He is survived by 2 sisters, JoAnn (Rick) Sellent of Cumberland and Rose Boettcher of Cumberland and aunts, uncles, nieces, nephews and cousins.

A gathering of family and friends will be held on Sunday, August 13, 2006 at 1:00 PM at the Rick and JoAnn Sellent residence, 481 235 Ave, Cumberland, WI.



WYOMING ARCHAEOLOGICAL SOCIETY, INC.

2006 ANNUAL MEETING MINUTES

8:25 a.m. – Plains Hotel, Cheyenne, WY Saturday, April 8, 2006

PRESIDING: Don Bailey, President **CALL TO ORDER:** 8:25 a.m.

Carolyn Buff introduced Phil Noble, Director of State Parks and Cultural Resources who welcomed the group to Cheyenne on behalf of the Governor. **ROLL CALL AND CERTIFICATION OF DELEGATES:** Secretary/Treasurer Carolyn Buff certified the voting delegates: Absaroka, Barbara Nahas-Keiry; Ancient Trails, Mary Capps and Alice Tratebas; Casper, John Albanese and Mavis Greer; Cherokee Trail, John Lund and Jan Soldin; Fremont, Don and Eva Peden; June Frison, Adam Weiwel and John Laughlin; Sheridan; Sweetwater, Bill Current.

Roll call showed eight chapters represented: Absaroka, Ancient Trails, Casper, Cherokee Trail, Fremont, June Frison, Sheridan and Sweetwater. Not represented at the meeting were Cheyenne, High Plains, Rawlins and Teton. Cheyenne, High Plains and Rawlins are inactive.

MINUTES OF LAST ANNUAL MEETING April **30, 2005:** Motion by Barbara Keiry, second by Eva Peden to approve as distributed. Carried.

TREASURER'S REPORT: Secretary/Treasurer Carolyn Buff gave the treasurer's report showing a total net worth as of March 31, 2006 of \$50,857.79, a net increase of \$4,623.22 over 2005.

AUDITOR'S REPORT: Sylvia Huber, Mark Miller and Danny Walker performed the annual audit and found the accounts to be in order. Motion by Dan Turnquist, second by Barbara Keiry to file for audit. Carried.

EDITOR'S REPORT: Danny Walker: The next issue of *The Wyoming Archaeologist* is at the printer. Manuscripts are still needed to get us caught up with publication.

LIBRARIAN'S REPORT: The library will be moved into the new building with the possibility of combining the libraries.

SCHOLARSHIP COMMITTEE: Carolyn Buff announced that the committee will meet at lunch in the hotel café to evaluate the scholarship applications.

SAA/COAS: Marcel Kornfeld: The Council of Affiliated Societies publishes two issues of the newsletter, the latest of which is on the way. It is also available on the SAA website, but a password is needed to access.

CHAPTER REPORTS: The chapter reports will be printed in *The Wyoming Archaeologist* if there is enough room. [ED. NOTE: Not enough room this issue.]

STATE ARCHAEOLOGIST'S REPORT: Mark Miller: reported on the update of the progress of the new anthropology building. Occupancy is scheduled for March 2007. All departments except survey will be housed under one roof: George Frison Institute, SHPO cultural records, curation, labs, repository, faunal collection, and the libraries.

A draft bill that didn't make it onto the floor was introduced in the Wyoming legislature this year dealing with fossil paleontological material that gave the state archaeologist authority to work with the State Parks and Cultural Resources Commission to purchase paleontological resources for public museums. It is a situation that is more appropriately handled through geology than anthropology/ archaeology.

Loss of members over the past year: Ray Gossett, Imogene Hanson, Bessie Brewer, and Jason Reher.

OLD BUSINESS: Wyoming Archaeology Awareness Month – Judy Wolf announced the new poster is of Devils Tower in recognition of the 100th anniversary of the Antiquities Act. Motion by Barbara Nahas-Keiry, second by Eva Peden to donate \$200. Carried.

Wyoming History Day: Danny Walker announced that May 1 is the contest and that he would be there to judge any archaeological presentations. People in some towns have volunteered to mentor students who may be interested in doing an archaeological project.

Friends of the George C. Frison Institute: Marcel Kornfeld: The endowment funds total \$50,000, to be matched by the state.

Wyoming Archaeological Foundation: Dewey Baars: Maintenance was done on the main building. Albert Martin has the lease. The well is 50 feet deep with the bottom two feet are in granite.

A directory of current members will be published in *The Wyoming Archaeologist* if there is room. If no room and if chapters want the directory, they can contact the secretary/treasurer and the information will be forwarded. [ED. NOTE: Not enough room this issue.]

NEW BUSINESS:

Fall Activities: Marcel Kornfeld – The fall workshop will be held September 21 in conjunction with the Institute Lecture, Dr. Gary Haynes from the University of Nevada-Reno. The lecture will be held at 3:00 p.m.

At Will Employee Contract (AWEC): The Survey Section of the Office of the Wyoming State Archaeologist (Dave Eckles) would like to hire, on a temporary basis, people who would like to work for small compensation to do survey, testing, and some excavation on an intermittent basis. Persons must be able to do physical labor and walk up to ten miles per day. It would be on a contract basis only, with no guarantees of continued employment and no benefits. There is no requirement that if you are called that you have to go at any particular time. There is a short interview and each person must apply for the position each fiscal year. Dave can be reached at 307-721-0882.

BLM: Don Bailey – South Pass Historic District. Will evaluate condition of trails and are looking for skilled volunteers in GPS, digital cameras, writing experience, etc. The activities will take place June 19-30, 2005. Interested persons should contact the Rock Springs Field Office of the BLM, Colleen Sievers at 307-352-0324 by May 1.

New Brochures: New membership brochures are available. Members are asked to take a handful and distribute them to rest areas, libraries, motels, or any other place where the public may browse.

ELECTION OF OFFICERS: Dale Wedel, chair: President, Don Bailey; 1st Vice President, Stuart Mackenzie; 2nd Vice President, Dale Wedel; and the three-year term on the Foundation, Judy Wolf (term expires 2009). Motion by Dale Wedel, second by Dewey Baars to cast a unanimous ballot. Carried.

2007 NOMINATING COMMITTEE: Dale
Wedel, chair, Dewey Baars, June Frison, Barbara
Nahas-Keiry, Absaroka, and Mavis Greer, Casper.
2006 SUMMER MEETING: Danny Walker invited

the membership to Sand Draw on June 24-25.

2007 ANNUAL MEETING SITE: Cherokee Trail, Saratoga

INTRODUCTION OF OFFICERS:

President – Don Bailey 1st Vice President – Stuart Mackenzie 2nd Vice President – Dale Wedel Wyoming Archaeological Foundation (term expires 2009) – Judy Wolf

ANNOUNCEMENTS: Papers to begin at 10:30. Carolyn Buff mentioned she has membership cards, brochures and stationery available.

The need for current names, addresses, phone numbers, and e-mail addresses from chapters was reiterated.

The Wyoming Archaeological Foundation will meet Sunday at 7:00 a.m. at the Capitol Grill.

The Steamship tour will begin at 10:00 a.m. on the Central Avenue side of the hotel.

The Mulloy Lecture will be held in Laramie April 21 at 3:00 p.m. by George Armelogas. He will discuss bioanthropology.

Dr. George Frison announced the death of Dr. Luna Leopold.

ADJOURN: 9:50 a.m.

BANQUET SPEAKER: Dr. Douglas Owsley speaking on the Kennewick Man case.

GOLDEN TROWEL AWARD: Wil Husted and Grant Willson

/s/ Carolyn M. Buff Executive Secretary/Treasurer /s/ Don Bailey President

WYOMING ARCHAEOLOGICAL SOCIETY, INC.

SCHOLARSHIP COMMITTEE

12:00 p.m. – Capitol Grill MINUTES – April 8, 2006

PRESIDING: Carolyn Buff, Chair

PRESENT: Dewey Baars, Don Bailey, Carolyn Buff, Bill Current, Barbara Nahas-Keiry, Mary Lou Larson, Stuart Mackenzie, Mark Miller

Motion by Mark Miller, second by Mary Lou Larson to award Bryon Schroeder the Mulloy Undergraduate Scholarship in the amount of \$500.00 Carried.

Motion by Mark Miller, second by Mary Lou Larson to award the Frison Graduate Scholarship to

Adam Wiewel in the amount of \$500.00 Carried.

Motion by Mark Miller, second by Mary Lou Larson to award the Jensen Traveling Scholarship to Rory Becker and Mary Prasciunas, each in the amount of \$375.00. Carried.

/s/ Carolyn M Buff, Chair

AUDITING COMMITTEE REPORT March 31, 2006

In compliance with the bylaws, the Auditing Committee has reviewed the Treasurer's books and records for the Wyoming Archaeological Society, Inc. for fiscal 2005.

AUDITING COMMITTEE SUMMARY March 31, 2006

The Wyoming Archaeological Society, Inc. owns a checking account, a savings account, a money market account, and a certificate of deposit account at the Reliant Federal Credit Union (formerly Natrona County School Employees Federal Credit Union), 900 Werner Ct, #100, Casper WY 82601.

Balance on hand March 31, 2005 - \$46,234.57

Receipts:

Interest Earned - \$1092.90 Deposits - \$9297.18 Disbursements - \$5766.86 Balance on hand March 31, 2006 -\$50,857.79

Includes 3 outstanding check(s) and and 4 outstanding deposits.

Audited and found correct.

/s/	Date April 8, 2006
/s/	Date April 8, 2006
/s/	Date April 8, 2006

WYOMING ARCHAEOLOGICAL SOCIETY, INC. Treasurer's Report for Fiscal Year Ending March 31, 2006

CHECKING ACCOUNT - NC SCHOOLEMPLOYEES FEDERAL CREDIT UNION

INCOME EXPENSES BALANCE Beginning Balance \$ 4,066.69 Deposits \$ 9.297.18 \$ Interest Earned 28.89 **TOTAL INCOME - CHECKING** \$ 13,392.76 **EXPENSES** \$ Bloedorn Lumber - Trowel 14.19 \$ Merback Awards - Trowel Engraving 26.80 Bill Scoggin - Reimbursement - Annual Meeting \$ 79.01 Wyoming Archaeological Foundation - Annual Payment 222.50 \$ Dan Eakin - Grant Request \$ 1,000.00 Wyoming Archaeological Foundation - Jensen Scholarship \$ 250.00 Wyoming Archaeological Awareness Month \$ 200.00 Dennis Stanford - Honorarium \$ 300.00 **Dennis Standord - Travel Expenses** \$ 451.45 \$ Katherine Strand 400.00 The Lodge - Annual Meeting Expenses \$ 2,045.83 \$ Casper College - Postage 37.00 Michael Page - Scholarship \$ 500.00 \$ Frison Institute - Ray Gosset Memorial 100.00 SAA - Annual Membership \$ 30.00 Casper College - Postage \$ 39.00 Bloedorn Lumber - Trowels \$ 29.98 Merback Awards - Trowel Engraving \$ 41.10 **TOTAL EXPENSES** \$ 5,766.86 7,625.90 **ENDING BALANCE - Checking Account** \$ SAVINGS ACCOUNT **BEGINNING BALANCE** \$ 122.30 \$ Interest Earned 0.65 **ENDING BALANCE** \$ 122.95 **MONEY MARKET ACCOUNT** \$ **BEGINNING BALANCE** 6.344.87 Interest Earned \$ 30.31 **ENDING BALANCE** \$ 6,375.18 **CERTIFICATE OF DEPOSIT ACCOUNT** \$ 35,700.71 **BEGINNING BALANCE** \$ Interest Earned 1,033.05 **ENDING BALANCE** \$ 36,733.76

TOTAL NET WORTH AS OF MARCH 31, 2004 Total Income Total Expenses Net Increase	\$ 56,624.65	\$ 5,766.86	\$50,857.79 \$ 4,623.22
SCHOLARSHIP ACCOUNT Beginning Balance Deposits Scholarships Awarded Balance ARCHAEOLOGY WEEK ACCOUNT Balance	\$ 1,200.00	\$ 1,150.00	(\$8,896.00) (\$7,396.00) (\$12.48)
/s/ Carolyn M Buff Executive Secretary/Treasurer			

GEORGE FRISON RECIEVES SOCIETY FOR AMERICAN ARCHAEOLOGY LIFETIME ACHIEVEMENT AWARD

The SAA Lifetime Achievement Award is presented annually to an archaeologist whose specific accomplishments are truly extraordinary, widely recognized as such, and of positive and lasting quality. George Carr Frison exemplifies these qualities through his extensive contributions to archaeological knowledge and for his remarkable service to his university, state, and the SAA of which he is a past President. His many books and articles include research on the first people of the Americas, historic forts, hunting and butchering sites and lithic studies. They have shaped hunter-gatherer archaeology and are as valuable today as when they were written. Professor Frison was the first head of the Department of Anthropology at the University of Wyoming and the first head of the office of state archaeology and historic preservation, two institutions that continue to advance our understanding of the Northwest Plains. He has mentored dozens of students, advised numerous museums, and has never forgotten the avocational archaeology societies from whose ranks he sprang. For his own research and

for his support of archaeology, SAA is proud to present the 2005 Lifetime Achievement Award to George Carr Frison.

LETTER OF NOMINATION

Dear Lifetime Achievement Award Committee,

With this letter we wish to nominate Professor George Carr Frison for the Lifetime Achievement Award. Dr. Frison has had an extraordinary career as a person and an archaeologist. He has devoted his life to the field of anthropology and anthropological archaeology. George has been an extraordinarily productive researcher, teacher of anthropology, spokesperson for our discipline, and in the process has strengthened the state and national archaeological infrastructure. He has participated in organizations from local to the international scale, has been an officer of some of the most prestigious organizations, and an editor/associate editor of several state of the art journals. In 1997 he was elected member of the National Academy of Sciences. In the following, we wish to summarize Professor Frison's accomplishments and contributions; his vita is attached as requested.

George Carr Frison was born in 1924 in the small town of Worland, Wyoming. An unremarkable childhood on the ranch outside of Tensleep, Wyoming, was punctuated by interest in remains



left behind by Native Americans. In particularly as he herded cattle through the basins, foothills, and mountains of the Bighorns, he frequently came across a variety of archaeological manifestations from chipped and ground stone tools, to rock shelters, rock art, scaffold burials, war lodges, and other prehistoric facilities. At the time, the Crow from the Crow Reservation just 100 miles to the north in Montana, would still occasionally visit the ranch and the surrounding area of the Bighorn Mountains, leaving a vivid picture of Native Americans in his mind. More than once his grandfather took him to the ongoing nearby dinosaur excavation of Barnum Brown, who encouraged him to pursue his interests. His destiny for the time being was, however, in the family business until attending the University of Wyoming in the fall of 1942. World War II cut his university training short and he joined the Navy in 1943 where he served in the amphibious forces of the South Pacific until his honorable discharge in 1946. Following WWII George continued ranching until 1962, when he returned to the University of Wyoming to continue his lifetime dream. However, even during his ranching years, Frison began his more serious interest in archaeology. He joined the Wyoming Archaeological Society and with them excavated some of the most significant rock shelters and other sites in the Bighorn region of the Rocky Mountains. Most importantly, Frison began as an amateur and never forgot his roots. Currently, Frison is the grand old man of the Wyoming Archaeological Society, never missing the annual statewide meeting, and still providing guidance and inspiration to the avocational and professional members. During his career he presented hundreds of programs to amateur societies and the public from Washington to California and from Texas to Montana. This is in the best spirit of the Society of American Archaeology, which has its roots in amateur interests in American prehistory. At the same time he also sought the advice from William Mulloy, then a young professor at the University of Wyoming regarding future research and educational possibilities.

The next half dozen years show the truly remarkable aspect of Frison's abilities. From 1962 to 1964 he attended the University of Wyoming and graduated with a B.S. in August of that year. He was awarded the Woodrow Wilson Fellowship for Graduate Study and attended the University of Michigan from 1964 to 1967 (MA 1965, Ph.D. 1967). Upon finishing his doctorate degree Frison was appointed head of the newly formed Anthropology Department at the University of Wyoming, a department he built from two to a half dozen faculty over the next several years. By 1968 he was further appointed the first Wyoming State Archaeologist and under his tutelage the Anthropology Department and the Office of Wyoming State Archaeologist's Office (OWSA, including in the beginning the State Historic Preservation Office-SHPO) were linked by state statue. Like the Anthropology Department the OWSA grew to a significant organization through the 1970s. Both the OWSA and SHPO are now major organizational components of Wyoming archaeology. The OWSA conducts archaeological projects throughout the state and maintains a repository of over five million artifacts, while SHPO contains records on nearly 80,000 archaeological sites. While research in Wyoming and in particularly at the University of Wyoming is enhanced by the close association of these three entities, they would not exist in their current form without George's dedication to strengthening the state and national archaeological infrastructure.

While in the position of department head and state archaeologist, Dr. Frison was elected to the board of the Plains Anthropological Society in 1972 and he served as the President of this society for one vear in 1974. In 1981 he was elected president of the Society for American Archaeology and served as president elect from 1981-1983 and president from 1983 to 1985. Those were particularly painful years as the society was forced to separate from the American Anthropological Association. He has been a recipient of many awards including: the Asa Hill Award of the Nebraska Historical Society, George Duke Humphrey Distinguished Faculty Award for research at the University of Wyoming, and the Distinguished Service Award of the Plains Anthropological Society. Most recently he has been elected member of the National Academy of Sciences, one of a few archaeologists given this honor. Among his many accomplishments are two visits to Russia and the organization of several Russian-American symposia, events which contributed a great deal to Russian-American archaeological co-operation, but also to closer ties between the two countries. Many American and Russian scholars have benefited as

a direct result of Frison's contribution to this cooperative spirit.

Also while in the position of department head and state archaeologist, George was able to carry on productive research throughout the state of Wyoming. The sites he excavated and published on are a veritable "who's who" of Northwest Plains prehistory. His investigations range from the first peoples of the Americas to the historic period forts, from open-air campsites to rock shelters, from domestic structures to hunting facilities, and much more. In addition his research has not only concentrated on the archaeological record, but has frequently included innovative experimental techniques. He is an expert flintknapper and has experimented with a variety of prehistoric stone tool replicas in butchering studies and projectile point penetration potential of bison and mammoth hide.

During his career Professor Frison has published more than 10 books with major presses, 95 articles many in major national and international journals (including Science), and presented well over 60 papers at national and international conferences. The most remarkable aspect of Frison's career is in his retirement as Professor Emeritus he continues to be a productive member of the profession. The University of California Press is just now publishing his recently completed book on hunting. He has received over \$1 million in research grants and contracts from the National Science Foundation, National Geographic Society, The Leakey Foundation, National Endowment for the Humanities, Wyoming Council for the Humanities, and various state and federal agencies. His book publications are among the most important contributions to North American Paleoindian prehistory, Northwest Plains prehistory, and bison bone midden studies. To mention a few, the Colby Site is the only early Paleoindian site with evidence of Clovis period food storage, while Hanson is the only fully published Folsom locality of the Northern Plains region. A number of his publications report on state of the art excavation and analysis of bison bone middens (e.g., Glenrock, Agate Basin, Mill Iron stretching from the Late Prehistoric to early Paleoindian periods). His two editions (1978 and 1991) of Prehistoric Hunters of the High Plains, synthesizes what is know about regional prehistory.

The methods and theoretical concepts to which

Frison has contributed include two of the primary artifact classes of hunter-gatherer archaeology: chipped stone and bone. His contribution to the relation of artifact typology and function is summed up by his former teacher, Arthur Jelinek's naming of the "Frison effect," the change in artifact type through resharpening. The very simple concept has had profound influence on the way chipped stone tools are conceptualized and analyzed in both Old and New Worlds. Frison's contribution to stone tool analysis do not end there, he was a pioneer in experimental investigating of the effect of raw material on relative utility of tool edges, the interpretation of raw material nodules, as well as other aspects of stone tool methodology. Professor Frison's contribution to zooarchaeology is even more significant. He used both his personal knowledge of cattle growth cycles as well as paleontological studies to develop methods for interpreting season of bison mortality. In the process he collected hundreds of bison and cattle mandibles and skeletons which serve students as comparative specimens and for further refinement of zooarchaeological studies. These collections, along with others done in cooperation with the Wyoming Game and Fish Department and the US Fish and Wildlife Service, form the backbone of one of the best zooarchaeological comparative collections in the region, if not the nation, with hundreds of species represented. The use of these collections extends beyond archaeology, serving both wildlife biologists and regulatory agencies. Additionally, his interpretations of bison bone middens were the first to use ideas of bison populations and changes in population structure to understand when and how procurement of this resource would be most effective. His research resulted in more effective methods of studying one of the best known western Plains types of sites, bison bone middens. Significantly, these methods were adapted throughout the world by archaeologists confronted with similar problems. In addition, Frison's earlier studies and interpretations of bone middens spurred much of the recent research on taphonomy.

During his career Frison has taught thousands of undergraduate and graduate students. Many of them benefited simply by increasing their education and awareness of prehistory and Native Americans, however some went on to become professionals in anthropology and other disciplines. Perhaps several

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dozen of the latter currently teach in universities and some serve as department heads. Dozens of his master's degree students form the backbone of Plains archaeology, working for various federal and state agencies as well for private archaeology contractors. His influence has been enormous. Frison consults with museums throughout the state of Wyoming and in the Rocky Mountain region on their displays, ensuring that archaeology is accessible to the people from all walks of life.

In summary, George Carr Frison's accomplishments are exceptional, long lasting and far-reaching. This fact has already been acknowledged through his election to the National Academy of Sciences. His publication record, mentoring of students, service to the state (State Archaeologist), regional (President, Plains Anthropological Society), national (President, SAA), and international (Russian-US exchanges) levels, and belief in the value of anthropological archaeology deserve the recognition of the SAA through the Lifetime Achievement Award.

SMITHSONIAN HONORS UW GRAD WHO HAS MADE A DIFFERNCE

The November 2005 issue of Smithsonian magazine honored Lusk native and University of Wyoming graduate Douglas Owsley as one of "35 Who Made a Difference" for his contributions in the field of forensic anthropology.

Smithsonian marked its 35th anniversary thatmonth by revisiting scientists, artists and scholars who have enriched the pages of the magazine over the years.

"From either side of the byline, we take inspiration from such people -- explorers of the spirit, rebels with a cause, each doomed by his or her particular genius to show us the high road into new territory," wrote the magazine's editors.

Owsley joins Bill Gates, Maya Angelou, Yo-Yo Ma and Steven Spielberg and a host of other household names on the prestigious list. Smithsonian editors say the variety of the 35 featured people is a tribute both to the diversity of America and the wide-ranging interests of the magazine.

George Gill, Owsley's original mentor and UW

professor of anthropology, says, "I think Doug's inclusion in the 35 Who Made a Difference list is most likely a result of his courageous stand on the Kennewick Man case."

Kennewick Man is one of the earliest skeletons ever found in the Americas. The 9,500-year-old human remains became the focus of a controversial legal battle between anthropologists and the Army Corps of Engineers on behalf of the Northwest Native American tribes who claimed "the Ancient One" as an ancestor.

Backed by knowledge that Kennewick Man's skeletal features bore little similarity to those of modern Native Americans, Owsley led the effort to sue for the right to study the skeleton.

A federal court in Oregon ruled in 2002 in favor of Owsley and the seven other plaintiffs, citing that the defendant had failed to establish the requisite links to modern Native Americans. The U.S. Court of Appeals for the Ninth Circuit upheld the decision in 2004. The victory set a precedent that will help ensure the study of future discoveries of ancient human remains.

Owsley's current position as division head for physical anthropology at the Smithsonian's National Museum of Natural History has given him access to many high-profile forensic cases, according to Gill.

After the 9/11 attacks, Owsley was called on by the Pentagon to assist in the identification of victims and was also asked to name Confederate sailors on the CSS H. L. Hunley from skeletal remains found in the Civil War submarine. He was called to the Balkans after the Bosnian War, and to Guatemala after the murders of two American journalists. He was asked to do forensic work in Waco, Texas, after more than 80 Branch Davidians were killed there following a lengthy siege in 1993. By his own estimates, Owsley has examined more than 13,000 skeletons.

"The federal government relied on him like a special agent," Jeff Benedict writes in his biography about Owsley, "No Bone Unturned." "He sounded like the most famous person I had never heard of."

As Owsley continues to make significant contributions to the forensic anthropology field through his research of human remains, he continues to honor his own past by traveling back to Wyoming



Dr. Douglas Owsley at work

at least once a year to visit his family and work with Gill on a number of projects.

"Doug has done a great service to us in Wyoming because he's proud of his Wyoming roots, everyone seems to know he's had his beginning here," Gill says.

Owsley has accepted an invitation to speak about Kennewick Man and other cutting-edge research at the next meeting of the Wyoming Archeological Society in April, 2006.

DR. DOUGLAS OWSLEY RECEIVES UW DISTINGUISHED ALUMNI AWARD

Oct. 4, 2006 -- Three University of Wyoming graduates who became leaders in their respective fields will be honored with Distinguished Alumni Awards during UW Homecoming Oct. 13-14.

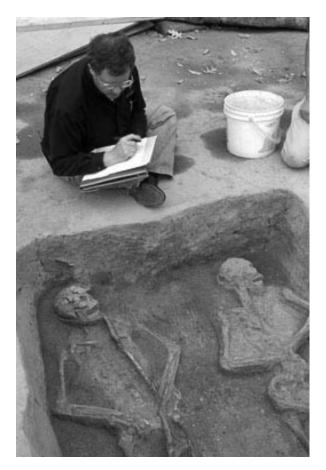
They are legendary Wyoming sports figure Keith Bloom of Powell (B.S. '50); renowned physical anthropologist Doug Owsley (B.S. '73), who grew up in Sheridan, Laramie and Lusk; and consultant and speaker Mary Ellen Smyth, (B.A. '56, 'MA '60) who was raised in Thermopolis and Laramie.

When Owsley was a boy, he didn't even know what a physical anthropologist was, let alone dream he'd become one of the most recognized experts in the field.

The son of a game warden, Owsley attended UW to pursue an undergraduate degree in zoology. In a UW introductory anthropology course, he discovered a passion and aptitude for the subject and changed his career path. He went on to earn master's and Ph.D. degrees from the University of Tennessee and then taught at the collegiate level.

Married to a woman he'd met as a child at a Lusk playground, Owlsey is now the curator and division head for physical anthropology at the Museum of Natural History at the Smithsonian Institution.

During his distinguished career, Owsley has been involved in nationally-recognized projects, including identifying the crew of the Civil War Confederate submarine CSS Hunley and determining



Dr. Doug Owsley still working.

whether Kennewick Man, a 9,600 year-old skeleton discovered in Washington state, was a direct ancestor of an existing Native American tribe.

He also has worked closely with law enforcement agencies to identify the remains of crime victims and those who died at the Branch Davidian complex in Waco, Texas, removed the anonymity of Croatian war victims, and identified the remains of U.S. service personnel serving in a variety of combat zones.

In November 2005, Smithsonian magazine included him, along with software pioneer Bill Gates, astronaut Sally Ride, and filmmaker Steven Spielberg, among "35 Who Made a Difference." The magazine recognized artists, scholars and scientists who have enriched American life.

GOVERNOR'S PROCLAMATION 2006 WYOMING ARCHAEOLOGY MONTH

WHEREAS, Archaeology is the scientific study of artifacts, features, and sites to help inform society about past human behavior. Archaeologists investigate unique aspects of different cultures that existed in Wyoming over the last 13,000 years, and the diverse landscapes where they lived.

WHEREAS, Wyoming Archaeology Awareness Month was created to acquaint the public with the discipline of archaeology and strengthen the enduring bond between past and present in the Equality State.

WHEREAS, This year marks the centennial celebration of the Antiquities Act, which was passed into law to protect areas of cultural and scientific importance to the entire nation.

WHEREAS, On September 24, 1906, President Theodore Roosevelt designated Devils Tower in Wyoming as America's first national monument under authority of the Antiquities Act, proclaiming it to be a "natural wonder and an object of historic and great scientific interest."

WHEREAS, the tower has been a significant landscape to diverse human groups for millennia, serving as a spiritual place for Native Americans, a beacon to generations of explorers and travelers, a target destination for recreational pursuits, and a focus of America's conservation ethic.

WHEREAS, the hundredth anniversary of this national monument motivates us to reflect on the abiding role that unique places have had in shaping human culture and tradition over time in the American West.

NOW, THEREFORE, I, DAVE FREUD-ENTHAL, Governor of the State of Wyoming, do hereby proclaim September 2006 to be

"WYOMING ARCHAEOLOGY AWARENESS MONTH"

in Wyoming, and urge the people of Wyoming to take part in the activities planned to enhance public awareness of archaeology. **IN WITNESS WHEREOF**, I have hereunto set my hand and caused the Executive Seal of the Governor of Wyoming to be affixed this 30th day of August, 2006.

2005 WYOMING ARCHAEOLOGY AWARENESS MONTH POSTER WINS SOCIETY FOR AMERICAN ARCHAEOLOGY AWARD

For the sixth time in nine years, the Wyoming Archaeology Awareness Month (WAAM) poster has been awarded first place in the Society for American Archaeology's (SAA) annual nationwide poster contest.

The announcement was made at the SAA's annual meeting held in San Juan, Puerto Rico.

Production of the poster was coordinated by Judy Wolf of the State Historic Preservation Office with Elizabeth Ono Rahel, of the University of Wyoming, providing the graphic design. Shannon Jaeger of the UW Public Relations Publication Services also aided in the poster's production.

Dr. Marcel Kornfeld, also of UW, authored the text of the interpretive brochure on the Hell Gap site that accompanied the poster.

To obtain a copy of the of the 2005 poster, send your

request to Judy Wolf, Wyoming State Historic Preservation Office, Dept. 3431, 1000 E. University Avenue, Laramie, WY 82071.

The new 2006 WAAM posters, celebrating the 100th anniversary of the Antiquities Act and featuring a photo of Devils' Tower, are currently available.

Posters can be picked up in person at SHPO, Barrett Building 3rd Floor, 2301 Central Avenue in Cheyenne; or in Laramie at the Education Annex Building, 3rd Floor, Room 351, 13th and Lewis.

The 2006 WAAM t-shirts and caps are also available at the State Museum Store or via <u>wyoshpo.state</u>. <u>wy.us/waamindx.htm</u>. This year's shirt and cap feature a grizzly bear design based on prehistoric rock art from a site near Big Piney, Wyoming. Short sleeve shirts are available in khaki at a cost of \$15. Shirts in sizes 2XL and 3XL are available for an additional \$1.50.

Long sleeve khaki mock turtle shirts are available for \$22. Add \$1.50 for size 2XL.

The Wyoming Archaeology caps are khaki cotton and also feature the grizzly bear design. They are available for \$15.

Proceeds from the sale of the caps and t-shirts are used to help fund Wyoming Archaeology Awareness Month activities.



DR. MARK MILLER, WYOMING STATE ARCHAEOLOGIST AND DR. DANNY WALKER, WYOMING ASSISTANT STATE ARCHAEOLOGIST RECEIVE LONGEVITY AWARDS FROM THE STATE OF WYOMING.

In 2006, both Dr. Mark Miller and Dr. Danny Walker received longevity awards for their service to the State of Wyoming. Dr. Miller received his award in September for having worked for the state, primarily in the Department of State Parks and Cultural Resources for 25 years, since 1984 as the Wyoming State Archaeologist.

Dr. Walker received his award in March for having worked for the state, primarily in the Department of State Parks and Cultural Resources for 35 years, since 1975 as the Wyoming Assistant State Archaeologist.





THE FOLLOWING IS REPRINTED FROM THE 2005 ISSUE OF THE AMERICAN COMMITTEE FOR THE PRESERVATION OF ARCHAEOLOGY COLLECTIONS NEWSLETTER, PUBLISHED IN WHITTIAR, CALIFORNIA

DECLINE IN ARCHAEOLOGY SOCIETIES

While the archaeological community is composed of both professionals and amateurs, the infra-structure has broken down and needs repair, according to Michael C Bouchard of Derby, CT in an article appearing in the North American Archaeologist (Vol. 25(3) 2004). This journal is edited by Roger W. Moeller, Baywood Publishing co. [Baywood also publishes abstracts in Anthropology and various journals (baywood@baywood.com).] the author berates himself for not writing this article ten years ago when he first noticed the phenomenon; however, thinking it was a "temporary slump" he held off until it became painfully clear this was not temporary.

Bouchard declares Connecticut needs more professional archaeologists to combat the number of projects "that have fallen by the wayside" because of their lack which, in turn, is caused by "less than competitive salaries."

In "The Current Decline in Archaeological Society Memberships in Connecticut: Causes, Effects and Possible Solutions," he faults the archaeological community, both professionals and amateurs, for not publishing their archaeological projects. He finds archaeological societies are disappearing and schools and historic societies are only interested in recent history. He also faults himself for not realizing that this trend in Connecticut was not "temporary."

In this article, Bouchard identifies weaknesses in the professional, amateur, and public archaeological organizations and suggests various solutions. He finds the professional sector most at fault for not wanting to share information with avocationals.

I {the writer} found this Connecticut view-

The Wyoming Archaeologist

point very interesting because of its variance with California. While the California statewide Society was begun by archaeological students and was initially made up only of professional archaeologists and students, it now embraces avocationals and native Americans. many of the former work for various government agencies. Talks at annual meetings cover a vast amount of information but little of it ends in published site reports which are interesting and available to the public.

Bouchard rightly notes that the amateurs have a very large base of archaeological information and it is a necessary component of a complete report. He also takes issue with professional reports that are very wordy and use words which are quite obscure.

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WOMEN AND CHILDREN IN THE EVANSTON CHINATOWN

BY

A. DUDLEY GARDNER, MARTIN LAMMERS, LAURA PASACRETA, AND SETH PANTER

INTRODUCTION

In the later part of the nineteenth century, Chinese communities in the northern Rocky Mountains and Plains could be characterized by one basic generalization: few Chinese women and children lived in these communities. Alberta, Canada, in 1891, had one Chinese woman living in the Province and by 1901, when the next census was taken; she had moved away (Alberta Census 1891, 1901). More typical of the interior west were places like Silver Bow County, Montana, or Rock Springs, Wyoming, where one or more women lived amidst a predominately male population (U.S. Census, Montana and Wyoming, 1880). In Rock Springs, for example, there were 335 Chinese men in 1880 and only one woman.¹ Having given these generalizations, there are some exceptions. Specifically, in the 1800s, in places like Helena, Montana and, Evanston, Wyoming, Chinese families and women made up at least a small portion of the population.

There are three generalizations that can be made about Chinese in Wyoming during the second

FOOTNOTE 1: In a few cases census records for western communities indicate many of the Chinese men were married and left their wives at home (e.g. United States Census 1870, 1880, Wyoming). Unfortunately in most cases, census takers recorded marital statistics in an uneven fashion. In cases where census takers did not enter marital status or listed all Chinese men as single, the lack of accurate data makes accurate comparisons impossible. Most men, however, never married in the United States. If they did marry, they married someone in China. By the turn of the century, when the accuracy of census records improves, the indication is many, if not most, Chinese immigrants had families in China (United States Census 1900, 1910, 1920, Wyoming; United States Census 1900, 1910, 1920). A cautionary note is needed. As with all primary sources, there are some discrepancies, and this is true of even the U.S. Census.

half of the nineteenth century. First, Chinese were a distinct minority in Wyoming. Second, the ratio of Chinese women to men was even less than the male to female ratio in most frontier communities in Wyoming. Third, very few Chinese children lived in Wyoming.

In this paper we will focus on the Chinese women who lived in Evanston, Wyoming from 1869 to 1900. We will look briefly at the historical record, then at material cultural remains that distinguish women's spaces from male spaces at the Evanston Chinatown. Specifically, we will look at jewelry pieces found in excavation and then show that in at least one case in the area excavated at the Evanston Chinatown one Chinese woman and children lived within a space belonging to a high-status family.

OVERVIEW

In 1869, when Chinese first arrived in Wyoming to stay, the special census reported one Chinese female in the territory. Yet since the population of Chinese in the territory was also small, the ratio of men to women was relatively high, seven to one (or 14%). Granted this data set is small and the ratio might not be significant or spurious. But the interesting thing is, for Evanston, as the number of Chinese increased and a Chinatown formed, the ratio of males to females remained at or near this 14% level.

The Evanston Chinatown grew from the need to maintain the railroad. Gradually, it expanded as a service center to provide food and merchandise for Chinese residents in the area. At Evanston, the Bear River, fed by the runoff from the Uinta Mountains to the south, literally flowed around Chinatown. Situated on a bench that jutted out into the river, the north, south, and east sides of town had boundaries marked by water. Chinese boys fished and swam in the river; women and girls used its waters to wash clothes. Using bamboo poles with wire nooses, the children in Chinatown added to the food supply by catching fish. Meanwhile, men hauled water to their wash tubs in the commercial laundries they owned and operated in Chinatown (Gardner 2000: 215)² Clearly for the Chinese, Bear River provided several basics of life. To the west lay the Union Pacific Railroad and the town of Evanston. With the Chinese community literally lying on "the other side of the tracks," segregation proved to be the norm.

Day laborers working for the Union Pacific Railroad built the Evanston Chinatown that emerged from 1869 to 1873. By 1873, six "Chinamen" lived and worked at Evanston (Uinta County Assessment Roll 1873). Few men made a fortune working as laborers on the railroad. Yet if one worked hard and managed well, a person could earn a living and save a little money for the future. By 1879, twenty-two men in the Evanston Chinatown had accrued \$4,750 in personal property. The wealthiest man, "Mr. Wah Chin," had \$750 in personal property, while the poorest man, Ah Yuk, had \$50. Yet even Ah Yuk had assets. In fact, he had fourteen hogs valued at \$100 (Uinta County Assessment Roll 1879). Owning a swine herd in a Chinese community was one path to success, as pork was one of the principal foods in a Chinese immigrant's diet.

Overall, Evanston Chinese entrepreneurs were involved in diverse activities. Restaurants, laundries, and vegetable stands marked the small town. Sign posts in Evanston advertised, in Chinese, that cooked chicken and oysters were available (Gardner 2000:216).³ The smell of fish and oysters mingled with the sounds of fresh vegetables being cut on chopping blocks. Elsewhere in town, other shops

FOOTNOTE 2: For a discussion of the various roles Chinese women took in the American West, see Annette White-Parks, "Beyond the Stereotype Chinese Pioneer Women," in Elizabeth Jameson and Susan Armitage, eds., *Writing the Range: Race, Class, and Culture in the Women's West* (Norman: University of Oklahoma Press, 1997): 258-273. A.D. Gardner Field Notes, July 8, 1996, oral interview of Lilac Wing, Celia Wing, and Li Wing, Evanston Chinatown Excavation, Field Notes, Archeological Services of Western Wyoming Community College, Rock Springs, 1. Sanborn Insurance May, 1895, Evanston, Ms on File Evanston City Hall, Evanston, appeared.

By the early 1880s, a variety of Chinese stores had opened in Evanston. One Chinese merchant, Chung Lee, built a "neat new store near the depot" in town, where he proposed to keep a stock of "Japanese goods" and, it was reported, "spring chickens" (Uinta County Chieftain, March 21, 1885: 3). Wealthy enough to hire a contractor, Lee had crossed the tracks to build his store near the depot in a part of town that European or American-born merchants traditionally occupied. By moving across the tracks to establish his store, the merchant integrated the business district of Evanston. Although Lee's move was not revealed in the news story about the building of his new store, his move appeared in an advertisement in the Uinta County Chieftain a week later: "City Laundry II, Chung Kee, Dealer in Chinese and Japanese Goods and Oriental Curiosities, New House near Railway Depot, Evanston Wyoming" (Uinta County Chieftain, March 28, 1885: 3; May 16, 1885: 3).

It is enlightening to look at the way the majority of the Chinese earned their livings. The Evanston Chinatown numbered 105 individuals. In Evanston, nearly 80 percent, or 80 men, worked as laborers for the railroad. Among the other occupations men in town held were druggists, clerks, and "superintendents of Chinese laborers." In addition to stores, the Evanston Chinatown also had houses of "ill repute," including gaming houses and "houses of prostitution." Evanston may have boasted the only Chinese brothels in Wyoming. The census of 1880 identified two such houses in Evanston (United States Census 1880, Wyoming). Fifteen of the territory's 18 Chinese women lived in Evanston. So as nearly 14 percent of Evanston's Chinese population, women there represented the highest percentage in the territory. Here four percent of the women worked as prostitutes and three percent as housekeepers. Meanwhile, another worked as a servant, whereas other females were children (United States Census

FOOTNOTE 3: "The white pole from the Chinese Vegetable Stand . . . ," Manuscript Collection, Uinta County Museum, Evanston. Written in Chinese, this "pole" has been translated by Yan Zaoxiang, Henan University, Kaifeng, Henan Province. Yan notes this post is actually an advertisement for cooked chicken and oysters sold in a nearby restaurant.

1880, Wyoming).

A notable development in Evanston lay with the formation of traditional families, complete with children and relatives. On the average, in 1880 a Chinese household in this Chinatown held 5.2 individuals. Evanston, where 15 females lived, reflects one of the more demographically diverse communities of the 1880s. In most Chinese communities of Wyoming, British Columbia, and Montana, women made up about one to three percent of the population (Gardner 2000). Because Evanston had a higher ratio of females to males, gender relations and family formation can be analyzed there. It also illustrates the complexity of Chinese household formation in the Intermountain West (*United States Census 1880*, Wyoming).

Although sojourners living in the Intermountain West often had wives in China,⁴ many of these married men never returned home. Others spent decades away from their families. That meant in Wyoming, as on the coast and in Montana, married men and single men often shared a common plight: loneliness. Although the creation of households and Chinese communities helped fill part of the void, the need for companionship still existed. Of course, marriage proved to be the solution for a few single men. Some single men found wives and established families.

Consider, however, the difficulties Chinese men faced in finding a mate. For single men living in a society that did not accept interracial marriages, and where, in 1860, Chinese men outnumbered Chinese women 1,858 to 100, the odds bordered the impossible. By 1880, the ratio of Chinese men to Chinese women in the United States improved to 2,106 to 800 but not necessarily in the Intermountain West (Xia 1993). For example, three hundred and forty-eight men lived in Rock Springs, but only one Chinese woman (*United States Census 1880*, Wyoming). The isolation of Mai Wing, married to the only Chinese doctor in Rock Springs, may never fully be appreciated. She and her husband, Fook San

FOOTNOTE 4: Where marital status statistics are available, it appears many sojourners in Alberta, Montana, and Wyoming had wives in China. The 1870 and 1880 Census records for Wyoming and Montana indicate most older men had wives, most likely living in China (*United States Census 1870, 1880, Wyoming*).

Tong, lived as a traditional Chinese family. Meanwhile, at Evanston Ah Say lived with his wife, Lux Shew, and possibly here the first Chinese children (both girls) were born in Wyoming, Quin Lux and Qua Kein (*United States Census 1880*, Wyoming). The odds against a Chinese man marrying in Wyoming, Alberta, and Montana helped encourage prostitution, but it also led to miscegenation.

As in other Chinese communities in the West, a small number of Chinese women and men in Wyoming married and began their families. In Uinta County, in the relatively isolated town of Evanston, while records of dating partners are absent, weddings are frequently recorded. In Evanston in 1876 Robert Gee married Mary Groo (Marriage Record, Book A, Uinta County Clerks Office:1876). Mary, although a shadowy figure in history, may not have been Chinese, and she would not be alone in marrying a man from the Middle Kingdom. In 1893, Mallia Wadman from Utah married Leo "Charley" Wong (Marriage Record, Book C, Uinta County Clerks Office:1893). In May 1901, Thomas Sing married Lenora Brien, also "from Zion" (The Wyoming Press, May 25, 1901:1). Until laws against such intermarriages were passed in Wyoming, Chinese residents in Utah came to Evanston to marry. The Wyoming Press noted Charles J. Wallace, a Scotch-Chinaman, and Miss Lillie Kelly of Stockton, Utah, married in Evanston on Thursday morning. "They had been refused license in Zion and hurried over here to consummate their happiness, having been informed that Wyoming's liberal marriage laws would permit any old combination of color when it came to marrying and giving in marriage"(The Wyoming Press, February 16, 1901:1). Even though intermarriage occurred, it was rare. Evanston seems to be one place in the Intermountain American West where households could form around interracial marriages.

More commonly, men in all adult households sought female companionship in brothels. Although the Chinese community in Rock Springs apparently lacked a brothel, the Evanston Chinatown hosted one house of "ill repute" staffed solely by Chinese women. Another house of prostitution contained two females and one male, who perhaps ran the brothel (*United States Census 1880*, Wyoming). The fact Chinese prostitution existed in the interior West lends itself to stereotypes suggesting most Chinese

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women worked in brothels as indentured slaves. There are instances where independent Chinese women did succeed in running their own businesses. China Mary, who apparently at one time worked as a prostitute, lived in Evanston and eventually owned property and possibly a small store north of Chinatown.

The three principal Chinese communities in Wyoming reflected similar lopsided male to female ratios. Generally, nineteenth-century Chinatowns in southwestern Wyoming were male dominated. In 1880, in the coal mining town of Almy, its Chinatown contained 192 men but no women (United States Census 1880, Wyoming). In the coal town of Rock Springs lived 348 men and one woman. Evanston, with its 105 Chinese residents, had the highest ratio of females to males. Here the first Chinese children born in the Wyoming Territory lived. In Evanston nine percent of the population were 18 years or younger; five percent were preteens, and 14 percent were females (United States Census 1880, Wyoming). The children and women who lived at Evanston would leave a distinctive archaeological signature (Gardner 1996:1-5). For example, they left toys, earrings, and jewelry; remnants of lives not left in written records but underground. In the interior West, Chinese families formed, with the best examples coming from Evanston, Wyoming.

CHINESE CHILDREN

In general, Chinese children began work at an early age. The 1870 census for Wyoming Territory indicates fourteen-year-old Ah Och worked as a "waiter in [an] eating house" at the railroad town of Carter (United States Census 1870, Wyoming). Fifteen-year-old Ah Li Ying worked as a railroad "laborer" at the town of Granger. At the tiny town of Red Desert, a ten-year-old You So worked as a laborer alongside men twice his age employed by the Union Pacific Railroad (United States Census 1870, Wyoming). In Evanston, Sun Foy, a fourteenyear-old girl, worked as a servant for the Ah Say family (United States Census 1880, Wyoming).⁵ The writing in the 1870s and 1880s census is difficult to read, but it appears that Sun Foy is the fourteenyear-old girl's name. Yan Toy, a fourteen-year-old servant girl in Evanston, worked for Ah Young and his wife, Maug Chung, in 1880 (United States Census 1880, Wyoming). In the 1880s, children under

seven years of age, however, remained at home in the Evanston Chinatown. North of the border in Montana, Chinese children lived with their parents in both Helena and Missoula (*United States Census 1880*, Montana). Where records of children's lives exist, it appears they fished, swam, and played like the other kids in the area.

The rare descriptions of children's lives provide small glimpses into an under-documented segment of nineteenth-century Chinese towns. One writer, Thomas Vivian, in the mid-1870s noted that in the San Francisco Chinatowns: "There has always been a sprinkling of . . . bright-eyed youngsters to enliven the streets with their gay parti-colored costumes .

..." (Vivian 1876: 866).⁶ He continues to note the "Chinese quarter is considerably" enhanced "by the costumes of children." Vivian observed in one case a boy and girl carried "a basket between them; he, in white and yellow shoes, green silk breeches, purple padded coat, maize silk 'paletot'... gold and scarlet cap; she, in green and gold shoes, loose lavender silk trousers, crimson 'paletot,' with flowers of every hue adorning her head." The streets of San Francisco's Chinatown had "hundreds of such wonderful patches of color" moving up and down the avenues (Vivian 1876: 866).

Children's and women's lives were tightly woven together. Nowhere was this more obvious than in a mining camp visited by Mary Hallock Foote. For women in the mining camps life could be particularly austere. Writer Mary Hallock Foote, in 1877, visited Chinatown at the California min-

FOOTNOTE 5: United States Census 1880, Wyoming. The writing in the 1870s and 1880s census is difficult to read, but it appears that Sun Foy is the fourteen-year-old girl's name.

FOOTNOTE 6: Thomas J. Vivian, "John Chinaman in San Francisco," *Scribner's Monthly* 12 (May-August 1876):866. Vivian holds strong anti-Chinese views, but his description of children and manufacturing in San Francisco in 1876 provides information others frequently overlook. Ronald H. Limbaugh, "The Chinese of Knight's Ferry, 1850-1920: A Preliminary Study," *California History* 72 (Summer 1993): 121. For Stanislaus County California, Limbaugh puts the percentage of Chinese children under 17 compared to adults at 12.8 percent in 1860; 4.4 percent in 1870; 4.3 percent in 1880; and 7.3 percent in 1900.

ing camp of "New Almaden," including the home of "China Sam." Never mentioning the name of Sam's wife, Foote writes that his wife "seemed not more than fourteen years old--a mere child with the smallest hands." Slung on "her back . . . she carried a baby . . . in the folds of a dark-red silk scarf . . ." Like Chinese children elsewhere the baby was dressed in lively colors. "A tiny black cap worked with embroidery" covered "its" head, and the infant swung from "side to side as the small mother" moved about in the house (Foote 1878: 488). Foote added: "She examined my dress, hands, and ornaments and, pointing to her baby, put her fingers on her under teeth and held up two fingers to tell me it had two teeth." Foote thought the mother to be "very delicately formed, her hands small as a child's and perfect in shape." This fourteen-year-old girl and her baby daughter lived together in a small home. Even though "China Sam" was a merchant, Mary Foote's description suggests the family lived in a small house (Foote 1878: 488).

In Evanston, life for Chinese children centered on the family and courtyard in Chinatown. Like kids anywhere, their family lives, the chores they performed, the schools they attended, and where they played were the things most often recalled about childhood. With the Bear River serving as the northern boundary of the Evanston Chinatown, children who grew up there and later returned recalled one of their favorite pastimes was fishing, swimming, or ice skating on the river or overflow pond nearby (Gardner 2000:224).7 The Wing family, which retained ties in Evanston well into the 1990s, noted, like most children in Wyoming, the outdoors served as their playground and, in writing her family history, Sandra Wing recalled life in the small town involved making their own entertainments (Wing 1982:31).

In 1880, Chinese women represented 14% of the population of Evanston. By 1900, Evanston women represented 9% of the population. By comparison, in 1880, in the much larger Chinatown at Rock Springs, only one woman lived. Expressed as

FOOTNOTE 7: A.D. Gardner Field Notes, July 8, 1996, oral interview of Lilac Wing, Lelia Wing, and Lily Wing, Ms on file, Evanston Chinatown Excavation, Field Notes, Archaeological Services Western Wyoming Community College, Rock Springs, 1.

a percentage, this would be .003 percent or 335 to 1. It appears in 1900 no Chinese women remained in Rock Springs. The difference is striking, but most Chinese villages along the southern tier of the state had no immigrant women from China living within the smaller mining and railroad communities. Many of the smaller villages ranged from six to 30 individuals in size. More importantly, some of the smaller railroad section camps, or towns, were made up almost entirely of Chinese immigrants (*United States Census*, Wyoming, 1870-1900).

At Evanston, some intriguing trends emerged. The average age of the females living in town was 18.45 in 1880 and 30.75 years of age in 1900. In 1870, no female children lived in Wyoming. In 1880, nearly half the town of Evanston's female population was under 14 years of age. Thirty-three percent of these females were born in the United States or Wyoming. Interestingly, where immigration data is available regarding the age females came to the United States and found their way to Wyoming, these women entered the country at the average age of 14 years 6 months. However, and this is important, data are available in the census records for only three females who emigrated to the United States and settled in Wyoming. Thus the small data sample precludes making any generalization regarding the age at which Chinese women living in Wyoming first immigrated into this nation. It is known, like the male population in Evanston, the average age in the census slowly rose, showing there were few births to Chinese women in Evanston after 1880, and also there were fewer younger female immigrants entering the area.

MATERIAL CULTURAL REMAINS

It is sometimes difficult to find material remains to support the presence of women and children at a historic site. The excavations in the Evanston Chinatown did contain artifacts tentatively assigned to women and children. There are, however, some difficulties in assigning some of the artifacts to males or females.

DISCUSSION OF ARTIFACTS

To date we have recovered over 100,000 items in excavation at the Evanston Chinatown (Figure 1). The bulk of these items are metal and glass fragments. The assemblage from Evanston exhibits

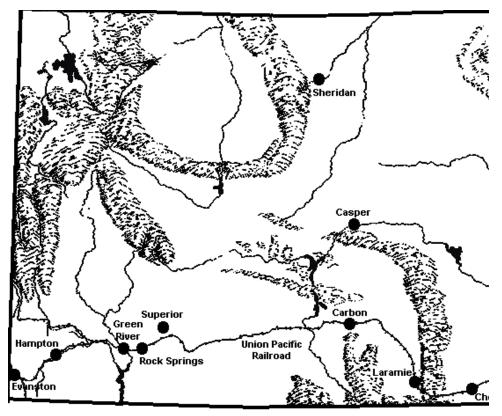


Figure 1: Location of the Evanston Chinatown.

the entire range of artifacts found at Chinatowns throughout the west (cf. Costello and Maniery 1988; Gardner 1995a:1-9; 1995b:1-5; 1997a:1-6; 1997b:1-11; 1998:1-13; 1999:1-9; Homer 1996; Voss 2004; Wegars 1993). Among the more diagnostic Chinese artifacts recovered from Evanston are ceramics. To date, we have cataloged 1,152 ceramics from the Evanston excavations, representing an estimated 300 vessels. Some artifacts can not be classified to gender. Items like ear rings from the nineteenth century can be attributed to gender. Three Chinese earrings were recovered during excavation. We feel confident classifying these as women's earrings. The marbles, which would normally be considered boys toys, in the context of Chinatown have to be also thought of as gaming pieces. We did find one piece that may be from a doll. Where there are children, there generally are women.

The earrings are the most distinct items found that can be directly associated with women (Figures 2, 3, and 4). They all exhibit floral motifs and at least one has humming birds engraved in the piece. They may all have been covered with gold. One of the earrings still has a thin layer of gold in between the floral patterns. This gilded earring only has gold on the outer side of the piece.

In terms of fasteners we found hook and eye pieces that may have been from women's clothing (Figure 3). The hook and eyes came from areas near the laundry and may have fallen off clothes as they were washed. Since this is a distinct possibility, we did not ascribe them to being part of Chinese women's clothing. Two other items (Table 1) may

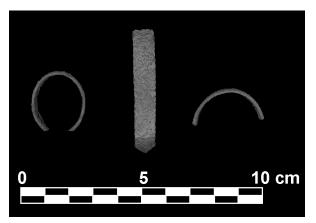


Figure 2: Earrings found during excavations.

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Figure 3: Side view of two of the earrings.



Figure 4: Detail of pattern on earrings.

have come from Chinese women's dresses. These items were classified as "ball with chain" but are more accurately a type of button used to hold a cape together. These items are found on Chinese women's clothing, but they are also found on Chinese men's coats. It is difficult to distinguish whether they came from men's or women's clothes (Figure 3).

Marbles can generally be characterized as being kid's toys. This is not the case in a Chinatown. While there is a debate about when Chinese Checkers was first played in the United States, this game serves as an example of a game that is played not just by children. Marbles are used as gaming pieces. The historical record indicates Chinese boys lived at the site, but to ascribe the marbles to an age group is not possible. Two of the marbles (Table 1) came from excavation units. The other four came from locals who had collected them from the surface of Chinatown over the years. We are only including those we feel date to the site's occupation period (1869-1922). The distinction is that most of the marbles are clay (Figure 5). They vary widely in color. The two found in excavation are not totally symmetrical. They could have been made from local clays and fired either at the Evanston Brick Kiln or in Chinatown itself. In essence, we can simply classify the marbles as gaming pieces.

Description	Provenience	Provenience	Elevation	Level	Length	Width	Thickness	Munsell
	N/S	W						
decorated silver oval	2.528	14.88W	-18		29mm	20mm	8mm	10YR 7/1
pendant religious medal	0N	15W		1	29mm	20mm	3mm	10YR 4/1
decorated copper	5.16S	16.23W	-37.5		50.1mm	9.1mm	.2mm	2.5Y 6/6 &
comb fragment (bone)	3N	12W		1	18.3mm	7.5mm	2mm	5Y 4/2 10YR 5/3
possible doll frag-	4S	13W		1	18.6mm	11.8mm	4.1mm	10YR 2/1
ball w/ chain	28	16W		2	15.5mm	6.9mm	6.9mm	10YR 4/1
ball w/ attached loop	28	16W		2	17.8mm	8.5mm	8.5mm	10YR 4/1
clay marble	2.71N	15.12W	-14		11.3mm	11.3mm	11.3mm	7.5YR 6/6
clay marble	0N	15W		1	14.3mm	14.3mm	14.3mm	7.5YR 5/4
brass Chinese earring fragment	1N	15W		1	63mm	9.1mm	1.7mm	2.5Y 6/6 & 5YR 4/2
brass Chinese earring	0N	15W		1	42mm	9.1mm	1.7mm	5YR 4/2 2.5Y 6/6 & 5YR 4/2
fragment blue glass Marble	donation	unknown		Nd ¹	13.7mm	13.7mm	13.7mm	5YR 4/2 10YR 8/1 & (Blue)
orange clay marble	donation	unknown		Nd	14.6mm	14.6mm	14.6mm	(Blue) 10YR 6/6
grey clay marble	donation	unknown		Nd	14.1mm	14.1mm	14.1mm	10YR 6/2
white clay marble fragment	donation	unknown		Nd	16.2mm	14.5mm	14.5mm	10YR 8/1

Table 1. Artifacts that are either gaming pieces, toys, decorative items, or jewelry.

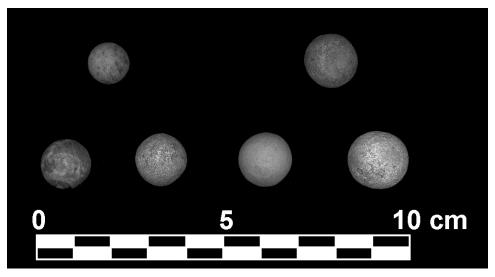


Figure 5: Marbles found at Evanston Chinatown (See Table 1). All but marble on lower left are from clay. The marble on the lower left is a blue glass marble.

We did find what appears to be a ceramic doll fragment (Figure 6 and 7). This is the best indicator of a child's toy that we have. While dolls are collected by adults, in nineteenth century occupation levels it is most likely they are girl's toys. This came from the Chinese occupation horizon and was either dropped by a passerby or left by one of the Chinese children after the item broke. The carbon on the outer edges of the piece suggests the doll broke before deposition.

Two pieces of jewelry were recovered (Figures 6 and 8). The "religious medallion" appears to have the Virgin Mary on the front of the piece. The other has an incised swan on the front and floral designs. Both are made from silver. The swan is similar to swans on Chinese paintings. It is difficult to assign the swan to one culture, but there is some correlation between the swan on this piece and traditional

Chinese swans. The "Catholic" medallion was found in the Chinese occupation horizon along with one piece of moss agate jewelry, and pieces of jade.

While not all the items described here can necessarily be attributed to just one gender, the earrings and doll fragment provide material evidence to support the ides women were a part of the Chinese Community in Evanston.

SUMMARY

The most distinctive pieces of jewelry recovered during excavations that can be attributed to women are earrings. Photographs of Chinese women in Evanston show women wearing earrings similar to the ones uncovered in excavation. Other jewelry items uncovered in excavation are less reliable as indicators of gender. However, the recovered earrings, as well as the other jewelry items, came

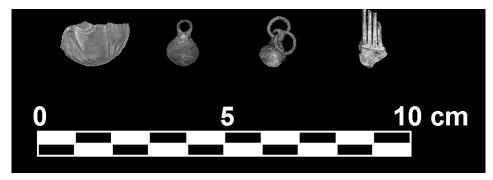


Figure 6: From left to right: ceramic doll fragment, two clothing fasteners and teeth from a broken bone comb.



Figure 7: Enlargement of doll fragment shown in Figure 6.

from one living space with an internal courtyard. Based on the gold, silver, Ming Dynasty ceramics, jade fragments, variety and number of coins recovered, and the shear quantity of artifacts found in this one area, we contend the occupants had a relatively high economic status -- especially when compared to the Chinese coal miner's quarters north of Evanston at Almy and even railroad laborers homes inside the Evanston Chinatown.

Based on the excavations conducted in the Evanston Chinatown, we do know at least one female lived in this higher status structure. If we could correlate the census and historic 1890 Sanborn maps together, we might state this more empirically. We do know in 1880 women in Evanston Chinatown lived in households consisting of two to four females. Unfortunately, the Sanborn maps do not correlate to the census records. They also were produced in the 1890s, thus creating a problem in correlating available census records to existing maps. We can, however, correspond the Sanborn maps to the archaeological excavation grids. The artifacts we can attribute as belonging to women came from one area. In this case, women lived within one of the larger structures in town. It also appears several entrepreneurial efforts were undertaken in the excavated structure. However, there are cases where it appears women may have been living in substandard housing even by nineteenth century standards.

In general, and this generalization could change or at least be refined with further excavation and research, at the Evanston Chinatown, it appears women with families were married to high-status males. The married women in the 1880 census lived with husbands who either were Chinese community leaders, merchants, or professional men. This pattern is seen throughout the West.

Conversely, at Evanston, based on historical records, there were smaller structures housing women Chinese prostitutes. It appears, from the historical records, Chinese women at Evanston did not always occupy the larger structures. The interesting thing is, by the turn of the century, one of the prostitutes succeeded in becoming an entrepreneur involved in several different businesses. "China Mary," as she was called, became the first woman to purchase property in Evanston. There is some indication she was the first Chinese person to own property north of



Figure 8: Jewelry pieces found in Chinatown. On left is a carved swan; on right is a religious medallion.

Chinatown. As indicated in historic photographs from the early twentieth century, "China Mary" at the time of her death lived in a relatively large house. China Mary's home and business have not been excavated, and archaeological excavations would go a long way in determining Mary's overall material wealth and the size of the space she controlled for her own use.

Much more needs to be done to document the use of space by Chinese women at Evanston. But, it is clear at least some Chinese women achieved a high degree of status earlier in nineteenth-century Wyoming than historians once thought. The amount, extent, and nature of upward mobility of women were initially limited by Chinese cultural norms and by the dominant American society. The successes the Chinese women in Evanston achieved were testaments to their abilities and is even more impressive in light of the dual problem of being born in a male dominated society. Moreover, these women lived on a frontier where in the words of one Chinese man: "As individuals our work ethic was admired, but we were collectively hated."

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"Bear Coming Out": A Distinctive Plains Shield Motif By James D. Keyser

ABSTRACT

Bear Gulch, an extensive rock art site in central Montana, has several examples of a distinctive shield design showing a bear emerging from its den. This design is known from both ethnographic shields and other rock art images across the Northwestern Plains, including two shields at the Castle Gardens site in Wyoming and one from Montana's Valley of the Shields site. The comparison of the designs from Bear Gulch with others from both ethnographic sources and other rock art sites illustrates part of the potential contained in the images recorded in Plains pictographs and petroglyphs.

INTRODUCTION

Plains Indian Shield heraldry was highly stylized and, among many tribes, closely reflected cosmological and supernatural belief systems (Nagy 1994a, 1994b, 1997). For many Plains tribes there are too few surviving shields to determine their inherent symbolism (one notable exception is the Cheyenne, see Nagy 1994a, 1994b), but fortunately in Late Prehistoric period Plains rock, art we have large numbers of painted and carved shield bearing warriors, many of whom show incredibly detailed shield heraldry (Keyser 1977, 2006; Loendorf 1990, 2000, 2004; Mulloy 1958). Study of some of these shield designs has revealed both ethnic and cosmological information not otherwise available (Cowdrey 1995; Keyser and Cowdrey 2006; Loendorf 1995, 2004; Sundstrom and Keyser 1998)

One site, Bear Gulch, located in central Montana in the heart of the Northwestern Plains (Figure 1), was fully recorded in July 2005. The site contains



Figure 1: The Northwestern Plains with locations of sites and tribes discussed in this article.

more than 750 shield bearing warriors-nearly twice the total recorded from all other currently known Plains rock art sites (cf., Keyser 2006). In addition, we recorded several dozen freestanding shields at the site — many of which have heraldic designs identical to those carried by shield bearing warriors. As yet these have not been completely tabulated and classified, although one example is reported here. In contrast to the broader sample of shield bearing warriors from across the Northwestern Plains, the Bear Gulch shield bearers show a relatively restricted constellation of heraldic designs with fewer than 15 basic meaningful combinations composing more than 60 percent of all decorated shields. Obviously, the potential research value of this corpus of data has not yet even been adequately approached, let alone realized, but preliminary analysis shows some of the possible avenues of research that might be addressed using these data. One example with direct relevance to Historic shield designs is a motif that I call the "Bear Coming Out."

BEAR POWER: OFFENSIVE AND DEFENSIVE

The bear (the region's most awesome carnivore) was the ultimate spirit helper and protector of warriors in many Historic period Plains Indian tribes. Ewers (1982:36) called the grizzly bear the ultimate symbol of strength and courage for Plains Indian warriors and hunters, and noted most tribes had special fraternal societies composed of members who had bear power. Important to this reputation is the sow grizzly's fiercely protective attitude when her cubs are threatened — a well known behavior even today among outdoorsmen trying to avoid confrontation with this animal.

Bear symbolism, both offensive and defensive, was a common element in Plains warfare, and included special headdresses and hairstyles, bear claw necklaces and other amulets, specialized weapons, and elaborate heraldic designs on tipis, shields, and clothing (Ewers 1982; Goble 1976:23; Maurer 1992:120-122; Rockwell 1991; Taylor 1994:188-191; Time-Life 1993:70, 99, 175).

Offensive symbolism was embodied by a variety of weapons either made from bear parts or with bear parts emblazoned on them. Probably the best known of these is the bear knife, whose handle was made from the jawbone of a grizzly (Ewers 1982:40; Rockwell 1991:97; Taylor 2001:54; Time Life 1993:175). These are found among upper Missouri tribes from the Mandan and Sioux all the way across the Northwestern Plains to the Blackfeet. Among the latter tribe, the transfer of ownership of a bear knife was accompanied by a dangerous ceremony verifying the recipient was up to the task of owning such a weapon (Rockwell 1991:97-99; Taylor 2001:43). Other offensive weapons occasionally were decorated with bear imagery — most commonly bear paws (Ewers 1982:40, 43).

Shield heraldry shows the most obvious defensive symbolism, due in large part to the function of the shield as a protective device. Such bear symbolism, represented in several ways, is especially common on Northern Plains shields (Figure 2). An Hidatsa (or Crow) shield shows a standing bear, emerging from a dark background on the bottom half of the shield and flanked by a bow and flintlock gun on each side (Goble 1976:23, Figure 4; Rockwell 1991:ii). An early (ca. 1820) shield from the upper Missouri River (probably collected from the Mandan, Hidatsa, Arikara, or Sioux) shows an outsized red bear's paw extending across the middle of a shield, which has more than 100 black dashes in its upper half and four smaller bear paws extending upward from the shield's lower edge (Figure 2a). The protective symbolism here is obvious and summarized by Ewers (1982:37, 42) who says:

> "The large red paw of a grizzly appears to be thrust out to ward off heavy enemy fire (designated by the numerous black dashes) and to protect other bears (represented by the smaller bear paws)."

Such an interpretation is consistent with the words of one Sioux warrior whose shield featured a bear paw at each of the four directions. He said that during a fight he felt as if he were "in the middle of the shield and the enemies were all around him, but the claws of the bear were on every side to protect him" (Densmore 1918:348).

Another protective bear image occurs as a rawhide cutout hung on a shield that originally belonged to Bull Snake, a renowned Crow warrior (Maurer 1992:120). The cutout is suspended horizontally at the shield's midpoint, just below a representation of a black storm cloud spitting lightning downward toward sixteen flying bullets that emerge from a red and green rainbow that forms the rim of the shield's bottom half. Two large white-painted circles in the cloud represent bear holes or dens. Cowdrey (1993) has observed that in use "the bear cutout would swing like a pendulum as the shield was moved about, the grizzly continually charging unscathed through the fusillade of bullets" coming from the shield's bottom arc.

THE BEAR COMING OUT

One specialized bear image found as protective symbolism on Plains shields is what I name the bear coming out. Versions of this motif are found on ethnographically known shields and a tipi, and on rock art shields from three different sites: Valley of the Shields, Castle Gardens, and Bear Gulch.

The ethnographic shields bearing these designs come from the Crow and Kiowa tribes. At least four Crow examples (Figure 2c, d) are known (Ewers 1982:43; Feder 1971:Figure 28; Goble 1976:23 illustration 9; Maurer 1992:120). A nearly identical motif is reported to be painted on a Kiowa shield (Maurer 1992:120). All of these show a bear indicated only by the head, shoulders, and front legs, emerging from a relatively small dark circle in the approximate center of the shield and beginning to charge into a hail of bullets emerging from the edge of the shield. Behind the bear in each case is a series of five or six tracks. Above and below the bear imagery, the shield is decorated with a linear

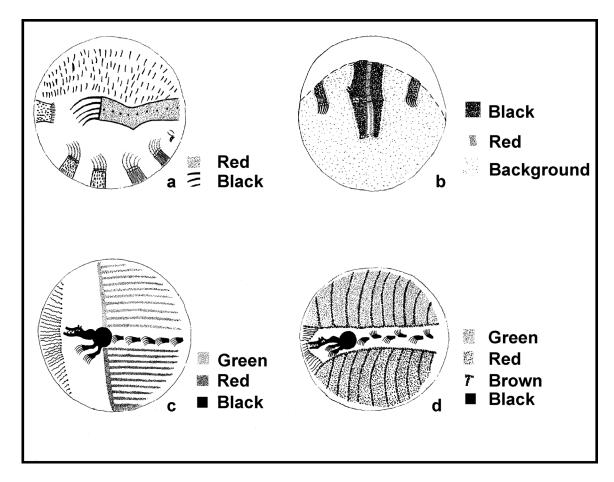


Figure 2: Bear symbolism on Historic period Plains Indian shields. a, Upper Missouri shield; b, Arikara shield; c, d Crow shields with nearly identical designs. The undecorated crescent at the top of b is a blanket drape in the only readily available published photograph of this specimen, but clearly the bear must be emerging from the shield arc. There are two other Crow examples similar to b and c (Federe 1971:Figure 28; Goble 1976:23 illustration 9).

geometric pattern. Ewers (1982:43) has best interpreted this motif as:

"A snarling bear standing at the entrance of its cave home and exerting its supernatural power to protect its family (represented by the bear paws behind it) from the fire of attacking enemies."

That the dark circle is best interpreted as the bear's den is supported by the same sort of circle/den painted at the top of a Kiowa tipi cover, which shows a bear that has emerged and walked away from its den, leaving a long path of 12 tracks (Rockwell 1991:22).

The bear coming out tipi design is Sioux, and it shows a very similar image in which a bear — represented by its front quarters only — emerges from a circle indicating its den (Laubin and Laubin 1977: Figure 48, Plate 19; Rockwell 1991:197). Although it faces no fusillade of enemy fire, the symbolic protective power of the bear emerging from its den is much like the shield designs. That Plains Indians were intimately familiar with the power and temperament of a bear emerging from its den is well illustrated by tales of hunting hibernating bears in their dens (Goble 1976:23; Schultz 2002:107-117). Successfully fighting (and killing) a bear was also recognized as a coup (war honor) among several tribes (Keyser 2004:101).

Before our recording at the Bear Gulch site, there were only two rock art shields known with examples of the bear coming out motif - one carved as a freestanding shield at Castle Gardens and another painted as a shield bearing warrior's heraldry at Valley of the Shields (Figure 3a, b). Both designs are very similar and show two bears emerging from a solid-colored (either painted or entirely ground out) central circle in the shield that represents the den. At Castle Gardens (Figure 3b), the two bears are each represented by front quarters with one leg. They emerge from different sides of the circle and rise to the top of the shield. At Valley of the Shields, the design is similar, although each bear is represented by only a detailed head emerging from opposite sides of the central green-painted circle and extending upward to the shield perimeter at about the 10 and 2 o'clock positions (Figure 3a). On both shields, the bear's two eyes are drawn on the same side of the head, the faces and foreheads have the pronounced dish shape characteristic of a grizzly bear, and teeth are shown as though the mouth were open. Each of the Castle Gardens bears has short upright ears and a pronounced hump.

At Bear Gulch, we have four examples of the

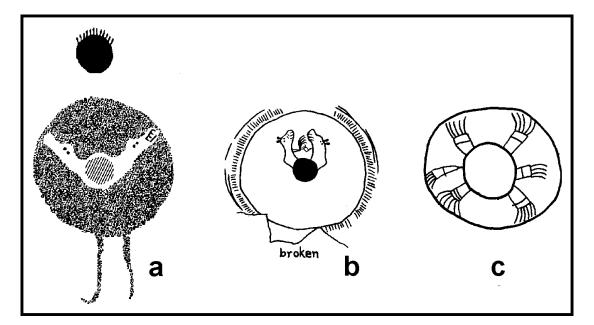


Figure 3: Bear coming out motifs on Castle Gardens style shields. a, Valley of the Shields; b, c Castle Gardens. Variable scale.

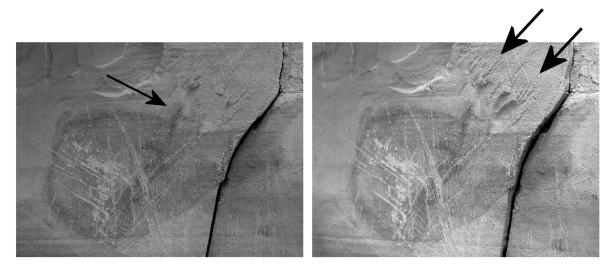


Figure 4: Bear coming out motif painted at Bear Gulch using natural features to indicate the lower legs and claws of the bear as it emerges from its den. On the left is a view enhanced to show the image without raking sunlight. The arrow indicates what were originally thought to be ears. On the right is a photograph with raking, midday light that shows naturally-occurring fracture lines that form legs and claws on both feet. Mike Taylor photographs.

bear coming out motif, one occurring as a freestanding pictograph image and three illustrated as shield heraldry. For the isolated pictograph (Figure 4), a large, solid-red-painted circle, with a darker red rim around almost three quarters of its perimeter, represents the den. Emerging from this circle to the right is the front quarters of a bear. When we first observed this image, we noted that its more-or-less horizontally-oriented, "pear" shape seemed to be a bear's head with short upright ears (Figure 4 left), but that the absence of teeth, legs, and eyes precluded positive identification. It was only verified as a bear when we saw this image at about midday, when the shadows from raking noonday sunlight highlighted the naturally-fractured rock directly above this image to clearly indicate the bear's legs and claws (Figure 4 right). Then the short upright stubs we had originally interpreted as ears could be better understood as the animal's painted upper legs, and the bear could be seen to be exiting its den upside down. Due to the morphology of the cliff in this area, painting the bear image in this inverted position was the only way the artist could take advantage of the naturally occurring bear claw forms. This image is one of several instances at Bear Gulch where prehistoric artists used natural features as part of the motif.

We found three other examples of the bear coming out motif illustrated as shield heraldry at Bear Gulch (Figure 5). One red pictograph of a shield bearing warrior shows a large bear that almost completely fills the round face of the shield (Figure 5c). The animal, with an open mouth and erect, stubby ears, looks back over its left shoulder as it emerges from the lower right quadrant of the shield. The claws of three feet are positioned along the shield's left edge. In this most lifelike portrayal, the bear appears to be undertaking a twisting motion to look directly at the viewer as it climbs out of the shield toward the viewer.

The other two bear coming out images are a lightly but firmly incised petroglyph and a combination incised and painted image. In both, the bear's head and front quarters appear to be emerging upward from the shield's bottom arc. Both bears have an open mouth (one with prominent teeth), two short, stubby, erect ears, a pronounced hump, exaggerated claws, and both eyes shown on the same side of the head.

In each of these three instances, the circular form of the shield can be best interpreted as the mouth of the bear's den with the animal seeming to emerge outward from the shield/den toward the enemy viewer who faces it. That the shield itself

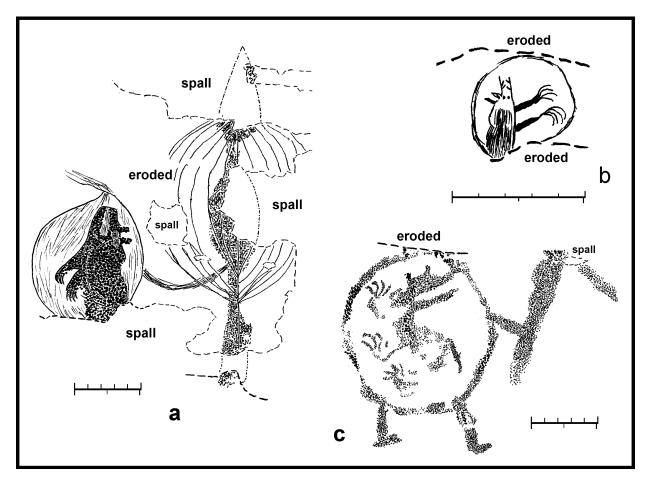


Figure 5: Bear coming out motifs found as rock art shield heraldry at Bear Gulch. Scale bars are 2 inches/5 centimeters. Note the prominent claws on all three examples and teeth on b. The warrior in a holds out to the right an outsized spear with an ovate "flag" shown by concentric lines. Such outsized weapons bearing a variety of flags are characteristic of Bear Gulch imagery.

would represent the mouth of the bear's den finds a parallel in the Crow Spring Boy shields where the circular shield actually represents the full moon (Cowdrey 1995:6-7). A shield bearing warrior in Pictograph Cave, with the Spring Boy image painted on it, documents that this concept of the shield itself representing an actual physical object extends back at least into the early Protohistoric period (Cowdrey 1995:9-10).

In any case, having the easily recognized, and widely feared bear actually seem to emerge from the shield to both attack the enemy and protect the shield bearer, would have been powerful symbolism in the mystic belief system that permeated Plains warfare.

Seeing the shield itself as the mouth of the bear's den allows us to more completely understand the

design of two historic period shields. The first is the previously interpreted upper Missouri shield (Figure 2a), which can now be further interpreted as a bear reaching one leg and paw out of its den to protect the other bears still inside (represented by the bear tracks drawn along the bottom arc). The fact the four smaller tracks are two pairs, each with a distinctive pattern, further suggests they represent a sow's two cubs she is protecting. This interpretation rounds out Ewers' original interpretation with just slightly more detail.

One other historic shield (Figure 2b) appears to be an ethnographic example — nearly identical to those at Bear Gulch — of the emergence of the bear out of the shield itself. Identified as an Arikara shield based on collection data (Feder 1971:Figure 25), this motif is drawn as the outsized head (with

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open mouth, red tongue and heartline, erect ears, and an eye with tear streak) and both front legs of a bear (with exaggerated claws) extending directly down from the upper arc of the shield (Feder 1971:figure 25; Goble 1976:23 illustration). This symbolism is nearly identical to two of the three examples at Bear Gulch.

One other rock art shield at Castle Gardens (Figure 3c) appears to be another variation of this motif. On the shield, six bear paws emerge from a large central circle to touch the outer margin of the shield. After identifying a central circle incorporated in both ethnographic and rock art examples as a den, the circle on this shield is best understood as the mouth of a den, and the paws are the synecdochical use of this image to represent the whole animal—much as they do on other ethnographic examples.

CONCLUSION

The more than 750 shield designs at Bear Gulch provide an unparalleled opportunity to study Plains Indian shield heraldry, and research is already underway on several aspects of this subject. Identification of four examples of the bear coming out motif is a small part of this research that adds significantly to our knowledge of this subject. In addition to demonstrating continuity from early shield bearing warriors to Historic period shield designs, it provides some indication of the possibilities that await further study at this site.

ACKNOWLEDGEMENTS

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A LATE PREHISTORIC BISON JUMP (48CK1281) CROOK COUNTY, WYOMING

by David Eckles

During the spring of 1995, the Office of the Wyoming State Archaeologist located an area containing bison (*Bison bison*) bone and chipped stone artifacts eroding from several locations in a colluvial deposit at the base of a high ridge (Figures 1-3). This site was found during a class III survey for a Wyoming Department of Transportation borrow area, which was subsequently not developed. It is on federal land administered by the Bureau of Land Management, Newcastle Field Office.

The site size is 55 m by 27 m, which includes only the limits of the visible bone bed and artifacts. Seven exposures of bone were observed (Figures 1-3), each consisting of bison long bones (humerus, radius-ulna, tibia, femur), ribs, vertebrae, skull fragments, and teeth. The depth from surface of the bone exposures ranges from 10 cm to 40 cm. The bone at the surface is highly weathered on the exposed side. In most cases, the surface exposed bone is deeply cracked with numerous exfoliation fragments nearby each element. The bone embedded in the sediments is less weathered and more intact, and individual bone elements are identifiable. No clear indications of butchering marks or impact fractures were observed.

Chipped stone artifacts include one complete



Figure 1: Overview of site 48CK1281, showing site area at base of ridge.



Figure 2: Close-up view of bone eroding from site surface at 48CK1281.



Figure 3: Close-up view of bone eroding from site surface at 48CK1281.

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projectile point of yellow quartzite that was collected (PP1, Figure 4, 5). This is a side notched arrow point, Late Prehistoric age, similar to side notched points from the Vore site which date to about 1550-1650 A.D. (Reher and Frison 1980). Other tools observed include a projectile point fragment of gray/blue quartzite (not collected; PP2, Figure 4, 5), a projectile point base of dark dray chert (not collected; PP3, Figure 4, 5), a projectile point midsection of red porcellanite (not collected; (PP4, Figure 4, 5), and a projectile point midsection of gray chert (not collected; PP5, Figure 4, 5). The projectile point fragments all appear to be arrow points similar to the complete specimen. Debitage noted on the site surface consisted of two gray chert tertiary flakes, one brown chert tertiary flake, and one gray quartzite tertiary flake.

The presence of bison bone and chipped stone tools and debitage at the base of a high ridge suggests this site may contain remnants of a buffalo jump and possible processing area. The initial site recording found the bone bed extends from the current ground surface to at least 40 cm below surface. The observable bone bed appears to be in one level from the surface to 40 cm below surface, but there is the possibility more than one level of bone is pres-

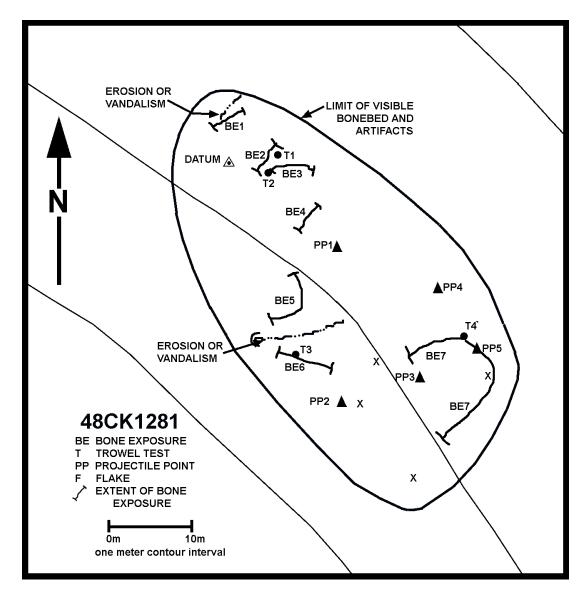


Figure 4: Site sketch map for 48CK1281, showing distribution of bone exposures, projectile points and other artifacts.

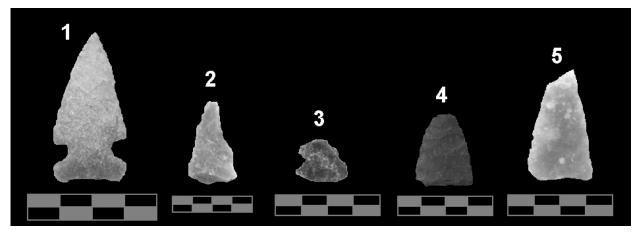


Figure 5: Projectile points from 48CK1281. Individual scales are one inch long.

ent. There is the potential for bone and artifacts to be present below 40 cm as the colluvial deposit at the base of the ridge contains up to two meters of sediments. In addition, there are colluvial deposits north of the exposed bone where cultural remains could be present. However, none were observed at the surface. The current site boundaries only indicate surface exposure and cultural materials could cover a much larger area.

The crest of the ridge to the southwest of the bone exposures is about twelve meters from the top of the crest to the area of the bone bed (Figure 6). Given this and the steepness of the slope, there would have been a sufficient drop over which bison could have been driven, immobilized, and then dispatched. There is also a swale before the ridge crest which is deep enough to mask the ridge crest; that is, from the bottom of the swale the ridge appears to continue to the horizon. Bison may have been moved into this swale and then driven over the ridge crest. Thus, this site may be similar to the Glenrock Buffalo Jump where bison were jumped off a nearly perpendicular precipice (Frison 1991:220). There was no evidence for drive lines of either stone (i.e., cairns) or other material on the top of the ridge.

Four trowel probes were excavated near several of the bone exposures to determine if subsurface bone and artifacts were present. The sediments in all trowel probes consisted of a gray/tan sandy silt. Trowel probe 1 was 20 cm in diameter and 10 cm deep with bone was exposed to ten cm below the ground surface (Figure 7). Trowel test 2 was 20 cm in diameter and 15 cm deep. Bone was found essentially from the surface to 15 cm where several long bone diaphysis fragments were encountered. Trowel test 3 was 30 cm in length and 40 cm deep; it was excavated more as a profile of an exposure of bone adjacent to a seep. Here bone was found continuously from 10 cm to 40 cm below surface (Figure 6). Trowel probe 4 was 20 cm in diameter and 20 cm deep. Bone fragments were found from 5 cm to 20 cm below surface in this probe. Further testing was not attempted in order not to disturb the bone bed; the trowel probes clearly indicated the presence of subsurface bone.

Site 48CK1281 is considered to be eligible for nomination to the National Register because this site clearly contains intact, buried and datable cultural remains. Artifacts and bone are present in a buried context in several places within the identified site area. There is a good chance for finding significant buried cultural remains at this site. This site may represent the remains of a small scale bison jump given its currently known size. Research into such small scale jumps would provide much needed information about bison procurement in the latter part of the Late Prehistoric Period.

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The OWSA crew involved in the location and recording of 48CK1281 included David Eckles, Carmen Clayton, Yvette Widman, and Dan Wolf. The site was inspected by WYDOT officials Dr. Julie Francis and Jim Miller with OWSA after its discovery. At that time, it was decided not to develop the proposed borrow area, thus avoiding any

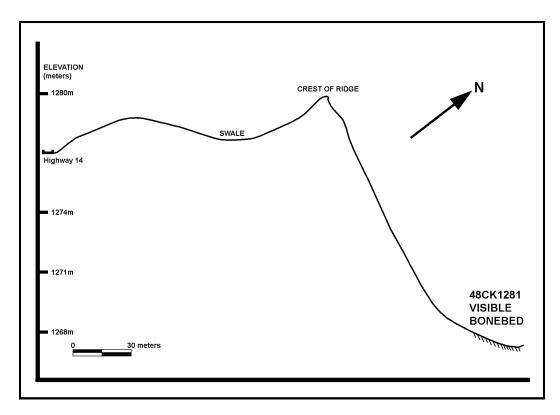


Figure 6: Schmatic cross-section of ridge at 48CK1281, showing relations between the bonebed, the ridge and the approach to the ridge.



Figure 7: Trowel test probe, showing intact bone below ground surface at 48CK1281.

direct impacts to the site. BLM-Newcastle Field Office was contacted before publication and Dr. Alice Tratebas reviewed a draft of this report.

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