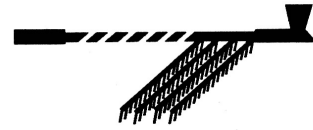


CALUMET



Newsletter of the Indian Peaks Chapter of the Colorado Archaeological Society
December, 2007

CALENDAR OF EVENTS

General (lecture) meetings are held in the University of Colorado Museum, Dinosaur Room on the Second Thursday of most Months, at 7:00 PM. The public is always welcome.

Web Site: WWW.INDIANPEAKSARCHAEOLOGY.ORG

- December 5** PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
December 6 Executive Board Meeting, 7:30PM at The Atrium
December 13 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
December 13 Christmas Party, see Page 2
December 14 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
December 18 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
December 19 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
December 21 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
December 22 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
- January 3** Executive Board Meeting, 7:30PM at The Atrium
January 10 Presentation Meeting, Kevin Black, Topic: Open
January 11,12 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
January 16,17 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
January 19 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
January 12,23 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
January 29 PAAC Lab at Lowry, 8:30AM to 4:30PM, see Page 3
- February 7** Executive Board Meeting, 7:30PM at The Atrium
February 14 Presentation Meeting, Sheila Goff, Topic: Mantle's Cave Site
- March 6** Executive Board Meeting, 7:30PM at The Atrium
March 13 Presentation Meeting, Dr. Nicole Branton, Topic: Tie-Hacking Camps
- April 3** Executive Board Meeting, 7:30PM at The Atrium
April 10 Presentation Meeting, Dr. Frederic Sellet / Dr. Bob Brunswig,
Topic: UNC's North Park Cultural Landscapes Project

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Membership Information

New Members:

Geoffrey Haymes, Eve Mastandrea, Sandra Moriarty, and Cody Newton

Renewing Members:

John Benedetti, Cheryl Damon, Priscilla Elwood, Sandy & Muriel Jacobs, Todd Marshall,
Joan Prebish, and Donna Shay

Glad you are with IPCAS.

Memberships that are expiring this month or have expired:

Paula Edwards, Mario Guzman, William W. Jones, Tom Meier, Joanne Morgan,
Brian & Teresa Oldham, Marie Palowoda & Brad Culp, Martha Patterson,
Dock Teegarden, and Loraine Yeatts

Annual Christmas Party

The IPCAS Christmas Party will begin at 6:00 PM Thursday, December 13, at The Atrium, southeast corner of 30th and Iris. Parking is available along Iris to the north and in the merchant parking lot across 30th. Our Christmas Party is a potluck dinner and fun get-together. The club provides the table service, utensils, and the beverages. Each person (or couple) attending brings one main dish and one salad/dessert to share. Bring your spouse, please. Plan on 25 people attending.

We also feature the White Mammoth Exchange. Each person brings a wrapped gift for exchange. Gifts should be something that you no longer need, no longer want, and are tired of looking at. Not-so-great gifts are the norm. The White Mammoth Exchange is very exciting and a fun end to our program year.



Denver Lab Project

The Office of Archaeology and Historic Preservation (OAHP) has archaeological collections that have yet to be completely processed for permanent curation. PAAC volunteers may receive credit toward certification at either the Laboratory Trainee or Laboratory Technician level by helping the State Training Coordinator in the cataloguing and analysis of these materials.

The lab work is held at the Colorado Historical Society's Museum Support Center in east Denver (MSCD), typically on intermittent days in December and January. **Dates and times are 8:30 am-4:30 pm on December 5, 13-14, 18-19, & 21-22, 2007; and January 11-12, 16-17, 19, 22-23, and 29, 2008. For lab dates in January 2008, prospective volunteers should contact the State Training Coordinator by December 17, 2007. For December 2007 dates, contact the coordinator ASAP on available space.** All supervised hours spent with specific materials in the collections apply toward the 40 hours of lab time required for certification. While the collection includes a variety of prehistoric and historical materials, a large majority of this is lithic (flaked stone and ground stone artifacts).

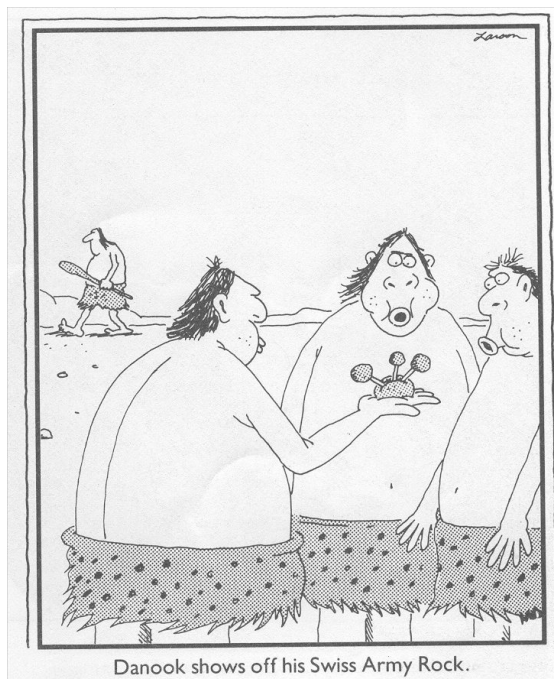
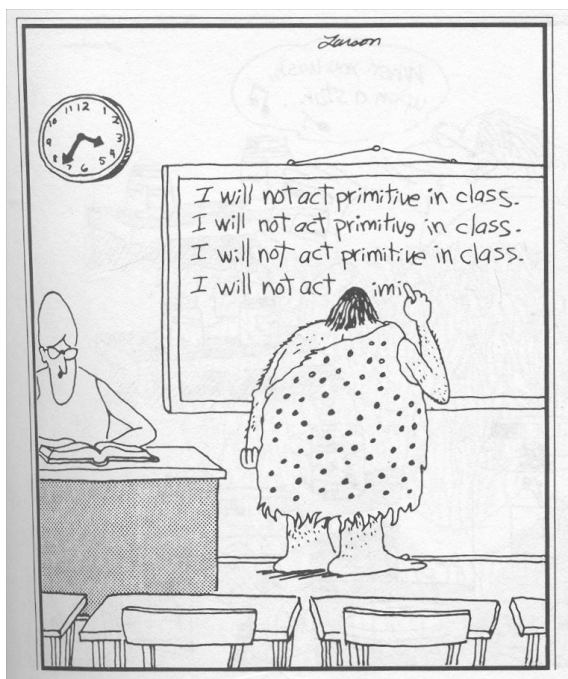
Prerequisite Courses:

No prior experience is required in most instances. However, lab space and equipment for volunteers is limited, so if too many PAAC participants wish to volunteer on a scheduled lab day, preference will be given to those volunteers who have already earned the Lab Trainee certificate and are working toward the Lab Technician certificate, and others who have completed one or more of the following courses:

- a. Introduction to Archaeology, CAS & PAAC
- b. Introduction to Laboratory Techniques
- c. Prehistoric Lithics Description and Analysis

Requirements:

Prospective volunteers must complete and submit the form found at the Lab Project Description at: <http://coloradohistory-oahp.org/programareas/paac/certreq/labcreditb.htm>. You should be prepared to participate in a minimum of two days. Contact the State PAAC Coordinator at 303-866-4671 or kevin.black@chs.state.co.us.



Woolly mammoth hair yields 'fantastic' DNA

By Ker Than, Staff Writer, MSNBC, September 27, 2007

Hair is a better source of ancient DNA than bone or muscle, a new study involving woolly mammoth hair suggests. "The main problem with things like bone is that it contains real DNA from the source, but also a load of DNA that is undesirable," said study team member Tom Gilbert of the University of Copenhagen. "For example, when a mammoth dies and the body starts putrefying, bacteria gets all throughout the body. Later, as it's buried in the ground, soil bacteria get into it."

Contamination from bacteria DNA generally make up 50 to more than 90 percent of the raw DNA extracted from the bone and muscles of ancient specimens, Gilbert said. In contrast, more than 90 percent of the DNA extracted from hairs taken from woolly mammoth specimens in the new study belonged to the extinct mega-mammals themselves. The finding could help overcome hurdles involved in cloning extinct animals



Genuine fossil mammoth hair.
This sample is 25,000 years old from the Indigirka River.

"The quality of the DNA was fantastic," Gilbert told *LivScience*. "It was way better than we ever imagined. There's both mitochondrial and nuclear DNA in there." The finding, detailed in the Sept. 28 issue of the journal *Science*, could simplify DNA extraction in taxonomy, forensics, anthropology, paleontology and other fields. It could also help overcome one of the major hurdles involved in potential attempts to clone extinct animals.

Years to weeks

The researchers obtained hair from 10 woolly mammoth fossils discovered in northern Siberia and that ranged in age from 50,000 to 12,000 years old. One of the samples came from the famous Adams mammoth discovered in 1799 and stored in a Russian museum for 200 years at room temperature — far from ideal conditions for DNA preservation. Before this study, only seven mitochondrial genomes from extinct animals had been published: four from ancient birds, two from mammoths and one from a mastodon. Mitochondria are the energy powerhouses of cells and carry their own separate DNA for reproduction. "They all represented a lot of work, years of work," Gilbert said. "Our method showed that in less than a week, you can get 10 of them."

The amount of mammoth hair used in the study ranged from 0.2 to 5 grams, but the team believes that even smaller samples could be used. "It's not inconceivable that in the very near future, you can get away with just a couple of hair shafts or even just one hair shaft," Gilbert said.

Key ingredient

The secret to hair's protective powers lies in keratin, the protein that hair is made of. "We realized that the keratin in hair could protect the DNA it contains from outside influences, and hence from the sorts of degradation that affect DNA in other parts of the body, such as bone," Gilbert said.

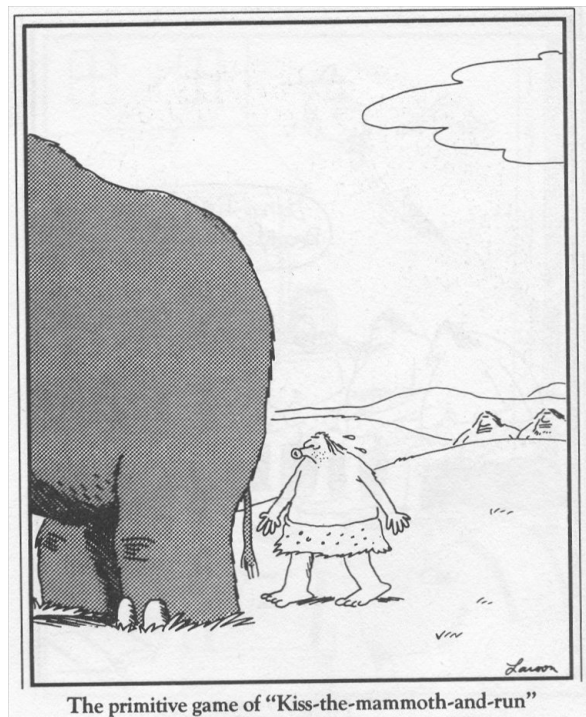
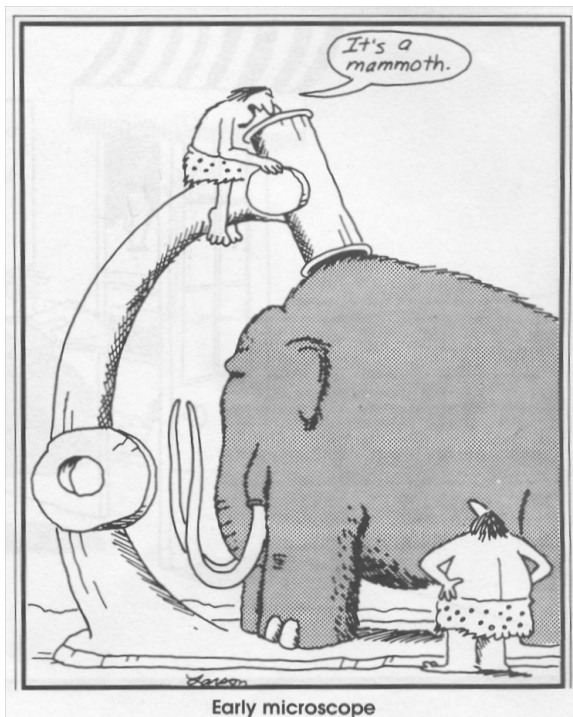
Hair is also easier to rid of bacterial DNA. Washing hair in a solution that kills and washes off external DNA still preserves the genetic material within, the researchers found.

While it might seem counterintuitive that hair provides more protection for DNA than bone, "that's because a lot of people don't realize quite what bone is," Gilbert said. "Bone is really, really spongy. It's really full of air."

Fresh bone is about 8 percent air, while old bones might contain up to 50 percent air, Gilbert said. "What that means is that if you dump [bone] in soil and there's a lot of water around, the water will rush right in and carry bacteria into it," he said. "Hair, on the other hand, has this hydrophobic keratin. Water stays out of it."

The new study overturns previous assumptions about where in hair DNA could be harvested. "When people thought of sequencing DNA from hair, the usual assumption was that the material must come from the hair root, which contains recognizable cells, because the hair shaft appears to be dead," said study team member Webb Miller of Pennsylvania State University.

But the researchers found that a hair shaft encases DNA in a kind of "biologic plastic." Protected, the DNA can better resist damage from the elements and contamination from bacteria.



GLEN CANYON NATIONAL RECREATION AREA

Volunteers Find What's Thought To Be Historic Inscription

While cleaning graffiti from various locations around the park last year, members of the park's volunteer Graffiti Removal and Intervention Team (GRIT) came upon an inscription on a cliff that may have been inscribed by someone on the famed 1776 Dominguez-Escalante expedition.

Here's the story, as reported by Todd Glasenapp in the August 13th edition of the *Arizona Daily Sun*: In 1776, two Franciscan priests led a small party over present-day Lake Powell on an 1,800-mile trek, wading through waist-deep water of the Colorado River.

Some people in Page suspect "The Crossing of the Fathers" may have been recorded in an inscription on a sandstone wall. Last year volunteers for the Graffiti Removal and Intervention Team on Lake Powell found the words "paso por aqui" ("passed by here") carved into the wall along with the date 1776. They believe the inscription could have been left behind by the 14-member party led by Fathers Dominguez and Escalante on Nov. 6, 1776. The group was making its way back to New Mexico after trying to discover a land route to link Santa Fe with Monterey, Calif.

"Paso por aqui," was a favored phrase of Spanish explorers and missionaries and U.S. soldiers and pioneers at present-day El Morro National Monument near Grants, N.M. The inscription has yet to be authenticated, though instincts of the archaeologist for Glen Canyon National Recreation Area are that it is probably authentic.

Archaeologist Chris Kincaid based her review on the inscription's location, style and wording. "However, we don't have any definitive word on this yet," said Max King, Glen Canyon NRA branch chief for interpretation, in a comment to the Glen Canyon Natural History Association.

King and other members of the Armijo Chapter board of the Old Spanish Trail Association are working with the Western Mapping Company to ramp up authentication efforts. A night-time laser scan will be conducted that should date the inscription and compare it to modern graffiti, according to Paul Ostapuk, members of both the Glen Canyon NHA and the Old Spanish Trail Association boards.

The scan also should provide handwriting analysis. A journal of the 159-day Dominguez-Escalante party does not make reference to the inscription, and mentions only a carving on a cottonwood tree along the Green River in Utah on Sept. 14, 1776.

Follow-up to discovery of the inscription on Lake Powell was made possible by James Page, pilot of the boat used by the graffiti removal program. Page also is president of the Old Spanish Trail Association's Armijo Chapter.

Page immediately recognized the importance of the "paso por aqui" phrase. The inscription panel is 30 inches long and 12 inches tall. The faintly carved letters are about three inches tall in a style described by one calligrapher as "18th-century New World Spanish Cursive," according to the OSTA newsletter. The precise location of the inscription is being withheld out of security concerns. Part of the phrase has been vandalized by modern graffiti.

GRIT's three-year grant from the National Park Foundation expires at the end of the year. A leading program donor came to Wahweap Bay at Lake Powell last week to meet with GRIT organizers and Kitty Roberts, superintendent of Glen Canyon National Recreation Area. Noel Jordan, president of LaCrosse, Wisconsin-based SkipperLiner, has manufactured the boat used by GRIT, the True GRIT. Jordan also came to inspect his company's newest boat on the lake, the Canyon Princess.

Major Archaeological Find in Puerto Rico

By Laura N. Perez Sanchez, The Associated Press, October 28, 2007

SAN JUAN, Puerto Rico -- U.S. and Puerto Rican archaeologists say they have found the best-preserved pre-Columbian site in the Caribbean, which could shed light on virtually every aspect of Indian life in the region, from sacred rituals to eating habits.

The archaeologists believe the site in southern Puerto Rico may have belonged to the Taino or pre-Taino people that inhabited the island before European colonization, although other tribes are a possibility. It contains stones etched with ancient petroglyphs that form a large plaza measuring some 130 feet by 160 feet, which could have been used for ball games or ceremonial rites, said Aida Belen Rivera, director of the Puerto Rican Historic Conservation office.

The petroglyphs include the carving of a human figure with masculine features and frog legs.

Archaeologists also uncovered several graves with bodies buried face-down with the legs bent at the knees – a style never seen before in the region. The plaza may contain other artifacts dating from 600 A.D. to 1500 A.D., including piles of refuse from daily life, Rivera said.

"I have visited many sites and have never seen a plaza of that magnitude and of those dimensions and with such elaborate petroglyphs," said Miguel Rodriguez, member of the government's archaeological council and director of a graduate school in Puerto Rico that specializes in history and humanities. He is not involved in the excavation project.

Archeologists have known since 1985 that the area contained indigenous artifacts. But their extent and significance only became clear this month when the U.S. Army Corps of Engineers began work on removing them so the land could be used for a dam project.

Experts called for a halt to the excavation, saying the use of heavy machinery exposed the stones to the elements and may have destroyed important artifacts. The Corps of Engineers has said the site will be preserved.

The Tainos were a subgroup of the Arawak Indians, who migrated to the Caribbean from Mexico's Yucatan centuries before European colonizers arrived.

Jose Oliver, a Latin American archaeology lecturer at University College London, said that archeologists make discoveries of this significance every 50 or 100 years _ if they are lucky. "I'm convinced that a competent investigation of that site will offer us a rare perspective on our pre-Columbian and pre-colonial history,"

Oliver, who has overseen several high-profile digs in Puerto Rico, said by e-mail. But he warned that the contractor in charge of the excavation is not equipped to handle such a massive and complex job.

The lead investigator for Georgia-based New South Associates, the archaeological and historical consulting firm leading the excavation, said a backhoe that scrapes inches at a time did break some centuries-old bones, but that the same thing would have occurred during a manual excavation.

The company switched to slower and more detailed excavation methods after the site's significance became clear, investigator Chris Espenshade said.

South Platte Archaeological Project

Dr. Bob Brunswig

UNC's South Platte Archaeological Project is a multi-decadal research program emphasizing the systematic recovery of data related to all prehistoric and historic periods in northeastern and north central Colorado. The project's long-term goal is to make substantive contributions toward understanding those regions' culture history and processes, as related to cultural and environmental change of its earliest human inhabitants (about 11,300 years ago) to those of more recent historic times.

The project has been involved in intensive investigations of selected "research areas" in northeastern Colorado's plains, foothills, and mountains since 1985. Its primary research framework has emphasized integration of multi disciplinary studies, drawing from archaeology, history, geology, ecological biology, and ancient environments reconstruction into what is referred to as landscape archaeology. Results of such studies are then analyzed in computer models (or simulations) of cultural and environmental change through time using state-of-the-art Geographic Information Systems (GIS) technologies.

The present project grew out of the Sylvan Dale Archaeological Project, based on surveys and excavations of hogback valleys in the Front Range foothills near Loveland, Colorado. Begun in 1985, the Sylvan Dale Project was re-named the South Platte Archaeological Project in 1990 after documenting and test excavating more than a dozen foothills sites, including a major Plains Woodland pithouse site, Valley View.

During 1987, the project's research emphasis shifted to the piedmont and plains of the South Platte River Valley. In that year, the re-defined South Platte Project began a re-study of the Dent Mammoth site first excavated in 1932 and 1934, a study that was completed in 1997.

Since 1987, more than 1200 archaeological sites in the Colorado Plains, Foothills, and southern Rocky Mountains have been identified through the survey of more than 36,000 acres. More than fifty sites, ranging from 11,000+ years in age to the early 20th Century have been excavated or extensively tested. Funding for South Platte research has come from a variety of sources, including the U.S. Forest Service, the National Park Service, the Bureau of Land Management, the National Center for Preservation, Technology, and Training, the UNC Research Corporation, and UNC's Faculty Research and Publications Board.

The Anthropology Program conducted a five-year survey and testing project from 1998-2002, in Rocky Mountain National Park, funded under contract to the National Park Service. The university supported and contributed to the South Park Archaeology Project from 2001-2003 and continues mountain-based research with field studies in Rocky Mountain National Park and North Park, the latter research program supported by the Bureau of Land Management.

The South Platte Project has (and continues to be) a valuable training ground, providing "real-life" professional experience for UNC anthropology students. It not only allows students to practically apply their classroom knowledge, but those majoring in Anthropology (with an archaeology focus) use its resources and findings to develop research-based thesis projects.

The combination of professional-level thesis research and applied work experience prepares our students for successfully entering graduate programs and gaining entry-level jobs on graduation.

Executive Board Meeting - Thursday, October 4, 2007

Meeting called to order at 7:30 PM at The Atrium in Boulder.

Attendees: Cree, Damon, Hofmaier, Holien, Turner.

Secretary's Report: No minutes from September Board meeting.

Treasurer's Report (McComb): Account Balance is \$2,779.45 on 9/30/07. Dues received for 13 memberships: New -5, Renewal - 8. \$25.00 donation received.

Presidents' Report (Damon): No updates on possible field trips. A ceramics craft class is being considered.

Presidents' Report (Holien): USFS South Zone Archaeologist Paul Alford still on Family Leave for birth of a child, so site stewardship project is on hold until next year. Updates from CAS Annual Meeting in Denver on 9/28-30: 2008 CAS Quarterly meetings are set for January in Colorado Springs, April in Ft. Collins (possibly a joint meeting with CCPA), and July in Cortez. Annual Meeting will be held in Montrose. Holien elected to office of State Vice President for 2008. Michele Giometti from Denver has officially taken on State Treasurer duties. Indian Peaks Chapter membership records show 99 members as of September 27th.

Old Business: Speaker scorecard is full through April 2008. Cree will contact Piper about IPCAS Web site. Fall PAAC class is full. Cree will contact specific members about serving on the 2008 Executive Board. Election will be held at the November chapter meeting. Cree will make DVD's of Rock Creek video for each IPCAS member and for the Rock Creek educational trunks. Holien will contact The Atrium staff regarding making a donation.

New Business: A couple upcoming volunteer opportunities in October: with Sue Struthers for recording historic structures and mines near Hessie/Lost Lake Mining District, and with Nicole Branton for survey of historic homesteads on Pawnee National Grassland. Also the Denver Chapter continues with West Bijou Creek Survey and Blackfoot Cave excavation as long as the weather cooperates. Contact person is Neil Hauser.

Open Floor: Cree proposed sending a thank-you card to Michelle Stevens, for her tour at Picture Canyon, Comanche National Grassland, in September. Hofmaier offered a silver Eagle coin to include with the card. Board accepted their offers.

Meeting adjourned at 8:55 PM. - Kris Holien, IPCAS Co-President, Secretary Pro Tem -

Executive Board Meeting - Thursday, Nov 1, 2007

Meeting called to order at 7:30 PM at The Atrium in Boulder.

Attendees: Damon, Hawley, Hofmaier, McComb, Robinson, Pitre, Turner

Secretary's Report: See Minutes from October 2007 provided by Holien. Approved as written.

Treasurer's Report (McComb): Account Balance is \$3118.85. Eight (8) Memberships received, including 2 new and 6 renewals.

Presidents' Report (Damon/Holien): Sue Struther's October site recording at Lost Lake postponed due to weather; Nicole Branton's survey/site recording at the Pawnee Grasslands went as planned. There will probably be additional opportunities for participation in Spring, or possibly this winter. Paul Alford participated at Pawnee – still plans opportunities for site stewardship program for IPCAS. Plans are in development.

Old Business: Speaker list filled through April. Still looking for May speaker – must be focused on Colorado Archaeology for grant eligibility.

November elections: Still need candidates for Vice President and Secretary. (Update: Cyndi Cree offered to assist with upgrading website and was added to slate of candidates; Pete Gleichman added as Professional Advisor with Bob Brunswig; Robinson and Fenio to share PAAC coordinator position). Damon to send summary of slate of officers and board members to Executive Board and will bring whiteboard for elections. Hofmaier volunteered to bring refreshments to chapter meeting. Damon will contact Holien to see if LCD projector required. Donation to Atrium – did not make fall donation of flowers – agreed on \$50.00 donation for Christmas after checking with The Atrium for suggestions.

New Business:

Pottery Class/Field trip: Researching opportunities for Pottery class and field trip to see clay in situ, with Bonnie Gibson of Centennial Archaeology. Bonnie may scout local areas and then take participants to see clay in field. Bonnie is helping to locate a potter to teach a class for IPCAS. No cost estimate or time designated yet. Spring PAAC Class will be Perishable Materials. Dates not yet set.

Open Floor: Steve Lekson speaking at CU Museum on Saturday at 10AM on the Anasazi mystery.

Meeting adjourned at 8:35 PM. - Cheryl Damon, IPCAS Co-President, Secretary Pro Tem -

2007 IPCAS Officers, Board Members, and major functions

President	Cheryl Damon	(303) 678-8076	cheryl_damon@msn.com
Vice-President	Open		
Secretary	Open		
Treasurer	Katherine McComb	(303) 666-7448	kmccomb@comcast.net
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PAAC Co-Coordinator	Anne Robinson	(720) 890-3944	annerco@yahoo.com
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Board Member	Rick Pitre	(303) 673-0272	rpitre9@yahoo.com
Board Member	Joanne Turner	(303) 494-7638	joanne.turner@colorado.edu

Web Site: WWW.INDIANPEAKSARCHAEOLOGY.ORG

MEMBERSHIP APPLICATION - INDIAN PEAKS CHAPTER	
<input type="checkbox"/> Individual \$28.50 / Year	<input type="checkbox"/> New _____ Date
<input type="checkbox"/> Family \$33 / Year	<input type="checkbox"/> Renewal
<input type="checkbox"/> Student \$14.25 / Year, with Calumet delivery by e-mail	
Tax-Exempt Donation <input type="checkbox"/> \$10, <input type="checkbox"/> \$25, <input type="checkbox"/> \$50, Other _____	
NAME _____	TELEPHONE (____) _____
ADDRESS _____	E-MAIL _____
CITY _____	STATE _____ ZIP _____
Please make check payable to: Indian Peaks Chapter, CAS Mail to: PO Box 18301 Boulder, CO 80308-1301	
When you join/renew you receive the <i>Calumet</i> and <i>Southwestern Lore</i> , the quarterly publication of the Colorado Archaeological Society.	

CALUMET

Newsletter of the Indian Peaks Chapter
 of the Colorado Archaeological Society
 P.O. Box 18301
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