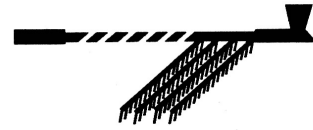


# CALUMET



Newsletter of the Indian Peaks Chapter of the Colorado Archaeological Society  
March, 2009

## CALENDAR OF EVENTS

Presentation (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](http://WWW.INDIANPEAKSARCHAEOLOGY.ORG)**

- March 5** Executive Board Meeting, 7:30PM, Tom Cree home  
**March 12** **Presentation Meeting**, Judy Cooper, Using GIS at Different Scales of Archaeological Investigation, See page 2
- April 2** Executive Board Meeting, 7:30PM, Tom Cree home  
**April 2-5** CCPA Annual Meeting, Alamosa, details at [www.coloradoarchaeologists.org](http://www.coloradoarchaeologists.org)  
**April 9** **Presentation Meeting**, Phil Williams, Pike Peaks Chapter, Topic: Macedonia Excavation, Boulder Public Library Meeting Room
- May 7** Executive Board Meeting, 7:30PM, Location to be determined  
**May 14** **Presentation Meeting**, Drs. Robert Brunswig / Frederic Sellet, UNC's North Park Cultural Landscapes Project  
**May 15-17** CRAA Annual Meeting, Cortez, details at [www.coloradorockart.org](http://www.coloradorockart.org)
- June 16-23** PAAC Summer Training Survey at Antelope Gulch, dates are tentative  
**June 22 to July 17** Volunteer opportunities excavating a site in North Park with Drs. Brunswig/Sellet. Additional information in future issues.
- September 3** Executive Board Meeting, 7:30  
**September 10** **Presentation Meeting**, Speaker and topic to be determined
- October 1** Executive Board Meeting, 7:30  
**October 2-4** CAS Annual Meeting, Pueblo, details available later  
**October 8** **Presentation Meeting**, Speaker and topic to be determined
- November 5** Executive Board Meeting, 7:30  
**November 12** **Presentation Meeting**, Speaker and topic to be determined
- December 3** Executive Board Meeting, 7:30  
**December 10** **Christmas Party**, Details to be determined

### Inside This CALUMET

Calendar of Events	1
March Topic	2
January Presentation Photos	2
February Presentation Photos	3
PAAC Summer Survey	5
Alice Hamilton Scholarship	6
New Egyptian Mummy	7
Red Springs Petroglyph	7
Neanderthal DNA Mapped	8
New Imaging Techniques	9
Dominguez-Roubideau	10
Ancient Wrecks Hunted	11
Officers/Board Members	12
Membership Application	12

## March Topic

**Title:** From Lithic Scatters to Bison Kills: Using GIS at Different Scales of Archaeological Investigation

**Summary:** Understanding the spatial relationships between artifacts or sites are fundamental to archaeological research. Geographic Information Systems (GIS) provides a set of computerized tools to map and evaluate these spatial relationships on a variety of scales. In this lecture Judith will discuss three examples where she used GIS to interpret the archaeological record. First, Judith will discuss a lithic scatter (5GN149) near Gunnison, CO, where GIS was used to explore ancient activities within the site. Next, she will discuss Bonfire Shelter, a bison kill in southwest Texas, where GIS helped gain a better understand of how a landscape feature was used to trap and kill bison in the past. Finally, Judith will shift to a much larger scale of analysis, and explore how GIS was used to investigate the variable role of bison in the human diet in the Late Prehistoric Great Plains.

**Bio:** Dr. Judith Cooper is an archaeologist for SWCA Environmental Consultants in Broomfield, Colorado. She earned her Ph.D. in Anthropology in 2008 from Southern Methodist University in Dallas, Texas. She studies prehistoric hunter-gatherers of the Great Plains and Rocky Mountains and has participated in field research projects in Colorado, Texas, and Pennsylvania.

## January Presentation Meeting

The Basketmaker Revisited...Again

Ann Phillips, Presenter



Getting that dang projector to work

The orderly transfer of the IPCAS Presidency



## February Presentation Meeting

Ancient Function of Mugs

Katy Putsavage, Presenter



Katy shows a mug to Gretchen, Maddy, and Bill



The presentation in progress

Award Ceremony at the February meeting



Kris presents Katherine with a Certificate of Achievement for Laboratory Work



The badge

## PAAC Summer Survey



Many prehistoric sites at Antelope Gulch are found on ridges

Each year the Office of the State Archaeologist of Colorado (OSAC) sponsors an archaeological inventory ("survey") on a parcel of state property, typically during the June-August period when few classes are scheduled. The purposes of the survey are to provide field training in surveying techniques for PAAC volunteers, applicable toward certification requirements, and to help OSAC meet its statutory obligations to inventory land within Colorado. Previously undocumented archaeological and historical sites are discovered during the inventory, and added to OSAC's database for use in future research.

Field training involves hiking across undeveloped lands in search of artifacts and features more than fifty years old. When such sites are discovered, volunteers are instructed in the production of sketch maps, filling out standard recording forms, plotting site locations on topographic maps, artifact illustration, etc. Credit toward certification is earned for the days spent under professional supervision (Certified Surveyor I), and for each site form which volunteers complete following the inventory (Provisional Surveyor).

Final technical reports on the summer surveys held at Pike's Stockade in Conejos County and Hermit Park in Larimer County describe the training survey program in greater detail as well as providing interpretations of the results of the inventories.



Artifacts from the Antelope Gulch area



**ALICE HAMILTON SCHOLARSHIP FUND**

2009 Scholarships will be awarded by the Colorado Archaeological Society in memory of Alice Hamilton, who was a member of the C.A.S. Denver Chapter and avid supporter of Archaeology. *These competitive awards range from \$200 up to \$750 each. Awards are based on the merits of the application, rather than financial need.*

**REQUIREMENTS**

A. Applicant must be majoring in Anthropology or cross-discipline field, emphasis in Archaeology.

Applicant must be attending an accredited college or university in Colorado, and carrying at least a half-time course load.

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1. Include your permanent address, phone number and email address, as well as the name of the college or university at which you are enrolled on the "cover sheet". The cover sheet is available at the CAS website, <http://www.coloradoarchaeology.org> ; follow the Alice Hamilton link.
2. Indicate how you plan to use the money, including a proposed budget of your expenses. This award may be used for research projects, lab fees, field school, tuition, books, etc.
3. Provide a resume of your archaeological accomplishments (study and experience).
4. Include two (2) written references from current instructors or professionals in Anthropology/Archaeology. These should be sent directly to us, by email (preferred) or U. S. Mail. *Your application will not be complete without these.*

Applications and references may be submitted by e-mail (much preferred) or by U.S. Mail.

**All materials must be emailed or postmarked on or before March 16, 2009**

Mail to: *Alice Hamilton Scholarship Fund  
Colorado Archaeological Society  
c/o Phil Williams  
7230 Fleetwood Ct., Colorado Springs, CO 80919*

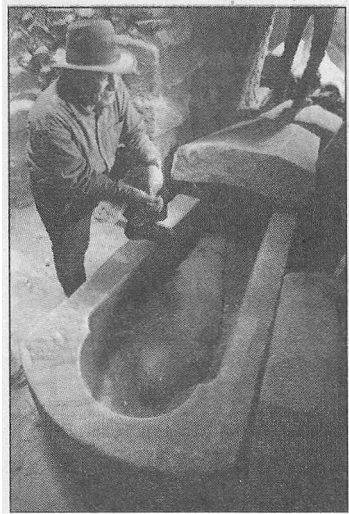
E-mail: [ahsfc@hotmail.com](mailto:ahsfc@hotmail.com)

A confirmation of materials received will be sent to you via email.

6. **Awards will be determined on April 4, 2009. Applicants will be notified by mid-April.**

## Egypt Shows Newly Found Mummy

Associated Press



Egypt's antiquities chief Zahi Hawass stands by one of eight revealed sarcophagi.

### SAQQARA, Egypt

Egypt's chief archaeologist has unveiled a completely preserved mummy inside a limestone sarcophagus sealed 2,600 years ago during pharaonic times. The mummy was exposed for the first time Wednesday. It lies in a narrow shaft 36 feet below ground at the ancient necropolis of Saqqara outside of Cairo. It is part of a burial chamber discovered three weeks ago that holds eight wooden and limestone sarcophagi, along with 22 other mummies from the 26th Dynasty Egypt's last independent kingdom.

Laborers used crowbars to lift the sarcophagus' lid and exposed the linen-wrapped mummy inside. Antiquities chief Zahi Hawass says the mummies are an important discovery and that much of Saqqara has yet to be unearthed.

## Red Springs Petroglyph Park, Nevada



An Indian Blanket Petroglyph

## Team Maps Neanderthal Genome

By Patrick McGroarty, AP

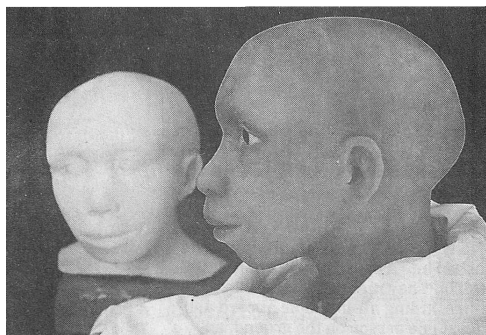
LEIPZIG, Germany - Researchers in Germany have completed the first draft of the Neanderthal genome, more than 3 billion genetic building blocks that will shed new light on the ancient hominid as well as the origins of its closest relation - modern humans. The draft covers about 63 percent of the roughly 3.2 billion base pairs in the Neanderthal genome. The team led by geneticist Svante Paabo has actually isolated 3.7 billion base pairs, but that includes many duplications. Paabo, of the Max Planck Institute for Evolutionary Anthropology, said the Neanderthal genome will be an important tool for researchers tracing hominid evolution, and for those probing the origins of the genetic traits that make humans so dominant.

"It will help show what the differences are between them and us that allowed us to develop technology, to colonize the planet," he told The Associated Press on Thursday before presenting his findings to attendees of an American Association for the Advancement of Science conference in Chicago by video uplink from Leipzig. The announcement was planned to coincide with the 200th anniversary of Charles Darwin's birth. Gene expert Edward Rubin of the Lawrence Berkeley National Laboratory in Berkeley, California, is leading a separate project to sequence targeted segments of the Neanderthal genome. His work has shown that the Neanderthal genome is as much as 99.5 percent the same as modern humans. He said Paabo's complete draft will let him compare segments and genes from his own research to a separate Neanderthal. "We'll look very carefully at the data they've generated, and it will tell us what areas we really want to look at," Rubin said.

Other researchers are already planning comparative studies with genes known to influence speech and brain aging in humans. That work could rekindle a debate over whether early humans simply replaced Neanderthals, or whether the two may have interbred while their ranges overlapped in Europe more than 30,000 years ago.

Paabo, who presented DNA evidence in 1997 that Neanderthals were cousins rather than direct ancestors of modern humans, said his research suggests that if there was mixing between Neanderthals and modern humans, it has left minuscule traces in our genome. But he believes the new Neanderthal genome might allow researchers to investigate whether earlier human genes were passed on to the Neanderthal. For 2 ½ years, Paabo ran minute samples of bone through hulking half-million-dollar machines that revealed DNA sequences. Much of the DNA in the bone had decayed over time, and it was difficult to distinguish what remained from the genetic material of bacteria that colonized the Neanderthal after death.

Paabo's team studied places in the bone where molecules most often broke down over the centuries and used that data to rule out DNA that didn't show similar degradation, meaning it probably belonged to bacteria. They sterilized their lab and attached a synthetic DNA tag to keep track of strands they believed to be genuine. Geneticists and DNA researchers said the project's success despite those challenges is its most significant achievement.



Two phases of the reconstruction of a Neanderthal child are displayed in 1999. At a news conference Thursday in Leipzig, Germany, scientists reported on the results of three years of research to sequence the Neanderthal genome.



## **New methods for scratching the surface are uncovering ancient secrets beneath**

By Randolph E. Schmid, AP

Modern X-ray and spectral imaging are allowing researchers to uncover ancient manuscripts, discover fossilized fish brains and differentiate between millennia old bronze vessels from China's oldest dynasties.

CHICAGO - Scholars are reconsidering what ancient Greek mathematician and inventor Archimedes knew of the concept of infinity, and archaeologists may have found a fossil brain millions of years old, thanks to new ways of looking beneath the surface of ancient objects.

► Using modern X-ray and spectral imaging, researchers are uncovering two ancient manuscripts by Archimedes, who lived in Sicily in the third century B.C., Uwe Bergmann of the Stanford Synchrotron Radiation Laboratory told a meeting of the American Association for the Advancement of Science on Sunday. In the 1300s, the texts were scraped off the parchment and written over to create a prayer book, Bergmann said. But now scholars have been able to discern the original writing of Archimedes' "The Method" and "The Stomachion," volumes that exist nowhere else. It emerges that Archimedes was far ahead of his time, using a form of calculus and devising ways to add an infinite number of sums, Bergmann said. What is known of Archimedes' concept of infinity is likely to have to change from this, he said at a symposium on using modern methods to uncover the secrets of the past.

The document, called the Archimedes Palimpsest, came to light in 1997 when an anonymous collector purchased it at auction and sent it to the Walters Art Museum in Baltimore for study. The document was originally written in the 10th century, Bergmann said, and no earlier copies remain. Archimedes was a famed mathematician in his own time and is still studied today. Roman soldiers killed him when they conquered Syracuse in 212 B.C.

► Paul Tafforeau of the European Synchrotron Radiation Facility in France told the session that studies of fish from the Devonian period, 350 million to 400 million years ago, have disclosed the presence of an ancient fossilized brain. A first of its kind, Tafforeau said, the fossil brain is expected to be formally reported and described in the scientific literature within a few weeks.

► Francesca Casadio of the Art Institute of Chicago reported that radiation studies have allowed scholars to differentiate three bronze storage vessels from China. Two of the vessels were archaic, she said, while the third turned out to be a later copy. The study determined that a wine vessel made of bronze with tin and a little lead dated to China's oldest dynasty, the Shang, who ruled between 1600 B.C. and 1050 B.C. A grain container was cast in a copper-tin alloy with lead, and dated to the Zhou dynasty between 1015-B.C. and 771 B.C. But the third container turned out to be a copper-zinc alloy with lead and tin, made in the 12th century A.D. in the style of the earlier containers. Nonetheless, the testing does help scholars know more about what they are studying without damaging the art. "For a museum, that is very important," she said. And, Casadio added, "we learn how to protect and exhibit it so it will last another 4,000 years."

Jen Hiller of Diamond Light Source in the United Kingdom described the use of large radiation machines, originally built to check on jet engines, to study Egyptian statues. The Egyptians would sometimes place images or other items inside a statue, she said, and now that can be revealed without breaking things open. X-ray studies of mummies have been done for years, but not with the detail now available.

## Dominguez-Roubideau National Conservation Area

By Dick Kamp, Wick Communications Environmental Liaison

A rich history of petroglyphs and inscriptions is recorded in and around the Escalante-Dominguez National Conservation Area and the Roubideau Addition proposed for Congressional protection, said a specialist in cultural and historical ruins.

Carol Patterson, Ph.D., of Montrose has specialized in documenting and trying to preserve archaeological treasures of the Dominguez-Roubideau area and the southwestern U.S. for 30 years. She teaches cultural anthropology at Mesa State College, consults on archaeological relics and is author of a number of books on petroglyphs and Native American history in the region as well as interpretive brochures for the BLM on petroglyphs within Dominguez Canyon.

What Patterson sees in the canyons are the faces, visions and stories of ancient culture that can be seen in petroglyphs and inscriptions that go back perhaps 6,000 years and accompany Spanish colonial graffiti. “They are of exceptional value and deserve protection,” she said.



On the relatively recent historical scale, there was a visit to Roubideau Canyon by Spanish explorer Juan Marie Antonio de Rivera de Santa Fe in 1765 as he apparently searched for medicinal plants. The visit was probably a side jaunt since his general goals at that time were either to find gold or a route to California that could be claimed by Spain. In 2004, Patterson and colleagues verified that he carved his signature on the southeast wall of the canyon. There are also remnants of shelters left by early non-native settlers within Roubideau.

Patterson has spent excessive time in Roubideau and surrounding canyons, “Past the Rivera inscription panel upstream, on the right facing the stream is a beautiful petroglyph. The animals are facing upstream. I can’t tell you exactly where it is but I came down horseback from the top and rode for two hours to get there,” Patterson said.

“The oldest drawings that we find in Dominguez and Roubideau and the Escalante bridge are lighter gray

and can go back 6,000 years up to about 400 AD. These were archaic hunters and gatherers that had spears and hadn't developed bows and arrows," she said. "The spears have projectiles and the animals have fascinating large antlers and tapering legs. Later the lines grow darker. The more powerful the weapon as we move through time, the smaller the animal. Later pictures with bows and arrow have hunters waiting and animals come around rock edge. They are shorter and stubbier and the hunters get more powerful." "The later Ute drawings that have rifles are rabbit hunting. The big animals stop. The Ute pictures have horses in them".

In Palmer Gulch, south of Dominguez Canyon there are petroglyphs of rabbit hunts but, "I've also been told by Ute medicine men that these are also healing sites. The petroglyphs are "interpreted" or read in concave rocks. When you are in these concave recesses where the drawings are, your body is supposed to take the form of the recess and the rocks draw the sickness out of you." "Understanding what body language and sign language represents is an amazing process. All of it is metaphoric; what do the lizard and bear really mean to those who drew them?"

For those interested in learning more about regional rock art, Patterson can be contacted at, [urracapro@aol.com](mailto:urracapro@aol.com).

## **Ancient Wrecks Hunted in Once-forbidden Ionian Sea**

Llazar Semini, The Associated Press

SARANDA, Albania — Once Europe's most forbidding coast, this sparkling stretch of the Ionian Sea is slowly revealing lost treasures that date back 2,500 years and shipwrecks from ancient times.

Over the past two summers, a research ship carrying U.S. and Albanian experts has combed the waters off southern Albania inch by inch, using scanning equipment and submersible robots. In what organizers say is the first archaeological survey of Albania's seabed, at least five sites were located, which could fill in blanks on ancient shipbuilding techniques.

The project would not have been even imaginable just 18 years ago, when the small Balkan country was still ruled by Communists, who banned contact with the outside. The brutal regime pockmarked the countryside with more than 700,000 bunkers - a foreign invasion that never came. "Albania is a tremendous untapped (archaeological) resource," said U.S. archaeologist Jeffrey G. Royal from the Key West, Florida, based RPM Nautical Foundation, a nonprofit group leading the underwater survey. "With what we've discovered until now, we may say that Albania is on a par with Italy and Greece."

The latest expedition has revealed traces of four sunken Greek ships dating from the 6th to the 3rd centuries B.C. while another three suspected sites have still to be verified. "The discoveries are very important because of the lack of properly documented objects from that period," said Andrej Gaspari, a leading Slovenian underwater archaeologist who was not involved in the project. During ancient times, Albania stood on an important trade route, receiving traffic from Greece, Italy, North Africa and the western Mediterranean. That history shows in what Albanian mission coordinator Auron Tare called "a real underwater treasure trove. "

A 20-inch long pottery jar, or amphora, used to transport wine and olive oil, and a smaller version found 260 feet deep were probably made in the southern Greek city of Corinth, in the 6th or early 5th centuries B.C. Both were recovered from a merchant ship that sank 1.8 miles off shore. Albanian archaeologist Adrian Anastasi said that if the 6th century B.C. dating is confirmed, it would be only the fifth of its kind found in the world.

Other highlights included a 4th century B.C. amphora and roof tiles, a north African jar from the 1st to 3rd centuries A.D. and a Roman stone ship's anchor of the 2nd or 1st century B.C.

## 2009 IPCAS Officers, Board Members, and major functions

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### MEMBERSHIP APPLICATION - INDIAN PEAKS CHAPTER

**Individual** \$28.50 / Year    
  **Family** \$33 / Year    
  **Student** \$14.25 / Year  
 **New**    
  **Renewal**

Tax-Exempt Donation  \$10,  \$25,  \$50, Other \_\_\_\_\_

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Please make check payable to: Indian Peaks Chapter, CAS  
 Mail to: PO Box 18301, Boulder, CO 80308-1301

I(We) give CAS permission to :

Yes  No  disclose phone numbers to other CAS members

Yes  No  publish name/contact information in chapter directory

Yes  No  publish name in newsletter (which may be sent to other chapters, published on the internet, etc.)

#### CODE OF ETHICS

As a member of the Colorado Archaeological Society, I pledge:

To uphold state and federal antiquities laws. To support policies and educational programs designed to protect our cultural heritage and our state's antiquities. To encourage protection and discourage exploitation of archaeological resources. To encourage the study and recording of Colorado's archaeology and cultural history. To take an active part by participating in field and laboratory work for the purpose of developing new and significant information about the past. To respect the property rights of landowners. To assist whenever possible in locating, mapping and recording archaeological sites within Colorado, using State Site Survey forms. To respect the dignity of peoples whose cultural histories and spiritual practices are the subject of any investigation. To support only scientifically conducted activities and never participate in conduct involving dishonesty, deceit or misrepresentation about archaeological matters. To report vandalism. To remember that cultural resources are non-renewable and do not belong to you or me, but are ours to respect, to study and to enjoy.

Signature: \_\_\_\_\_ Signature: \_\_\_\_\_

## CALUMET

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 of the Colorado Archaeological Society  
 P.O. Box 18301  
 Boulder, CO 80308-1301