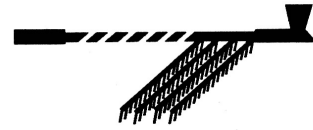


CALUMET



Newsletter of the Indian Peaks Chapter of the Colorado Archaeological Society
September, 2010

CALENDAR OF EVENTS

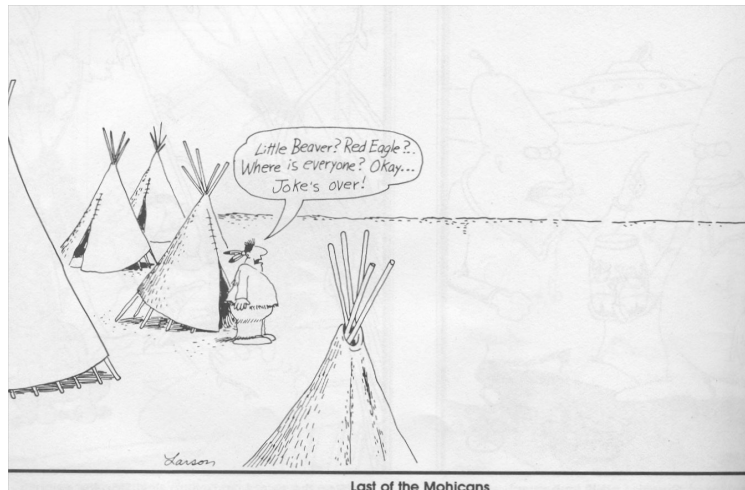
Presentation (lecture) meetings are held in the University of Colorado Museum, Dinosaur Room on the Second Thursday of most Months, at 7:00 PM. **The public is always welcome.**

Web Site: WWW.INDIANPEAKSARCHAEOLOGY.ORG

- September 2** IPCAS Executive Board Meeting, 7:30PM
September 9 **IPCAS Presentation Meeting**, Mark Owens,
Topic: Archaeological Evidence Supporting Apishapa Phase Warfare
September 26 Soapstone Prairie Natural Area Tour, Ft. Collins, 7:30AM – 3PM
- October 1-3** CAS Annual Meeting, Gunnison
October 6-9 Plains Anthropological Conference, Bismarck, ND
October 7 IPCAS Executive Board Meeting, 7:30PM
October 8-11 Utah Rock Art Research Association symposium, in Blanding, UT
October 14 **IPCAS Presentation Meeting**, Alice Tratebas, Newcastle, Wyoming BLM,
Topic: Whoop-up Canyon - dating, fire damage, and finished photogrammetry
October 20-23 Great Basin Anthropological Conference, Layton, UT
October 20 Boulder PAAC, Colorado Archaeology (start, 1 of 7)
October 27 Boulder PAAC, Colorado Archaeology (session 2)
- November 3** Boulder PAAC, Colorado Archaeology (session 3)
November 4 IPCAS Executive Board Meeting, 7:30PM
November 10 Boulder PAAC, Colorado Archaeology (session 4)
November 11 **IPCAS Presentation Meeting**, TBA
November 17 Boulder PAAC, Colorado Archaeology (session 5)
- December 1** Boulder PAAC, Colorado Archaeology (session 6)
December 2 IPCAS Executive Board Meeting, 7:30PM
December 8 Boulder PAAC, Colorado Archaeology (end, session 7)
December 9 **IPCAS Christmas Party**, TBA

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September Presentation

Mark Owens, Lead Archaeologist, ICI Services-LLC

Presentation Title: Archaeological Evidence Supporting Apishapa Phase Warfare

The topic of prehistoric warfare has received much attention by archaeologists over the last decade. Continuing this trend, this program explores Apishapa phase prehistoric conflict along the Purgatoire River in southeastern Colorado. Its focus is not to explain why this specific prehistoric culture resorted to conflict, but where and how they carried out engagements. Specifically, sites with fortified positions or site complexes utilizing defensible landforms will be examined.

Class Announcement

Good morning. My name is Dave Swinehart and I've become responsible for PAAC coordination for the N Colorado chapter of CAS. I'm happy to announce this fall's class. Please don't delay in registering if you intend to take the class. We don't have enough registered to hold the class right now, so it would really help in planning if you respond ASAP.

Dave

Program for Avocational Archaeological Certification (PAAC)

Class Subject: HISTORICAL ARCHAEOLOGY

Dates: Seven sessions: September 14, 21, 28, October 5, 12, 19 & 26

Times: 6:30 – 9:30 pm

NEW Location: 1714 Topaz Dr., Suite 135

Farmers Insurance District office – 2nd floor conference room

(Near the intersection of East Eisenhower Blvd and Boise Rd in Loveland, CO)

To register for the class send a check for \$12, made payable to “Colorado Historical Society”. Mail to:

NCC-CAS/PAAC

P O Box 270738

Fort Collins CO 80527

Registration deadline: September 4, 2010

Please include your telephone number and e-mail address. Registration confirmation will be sent by e-mail. We need a minimum of ten people to hold the class. The \$12 fee covers all seven lecture sessions and course materials. No outside work is required. A final exam is optional unless the course is taken for college credit (contact me for information) or as part of the PAAC certification program.

Class participants must be at least fifteen years old and sign the PAAC Code of Ethics starting with the second class taken. Neither prior experience with archaeology nor membership in the Colorado Archaeological Society is required.

Course Description

The Historical Archaeology course offers important information on site types, a time framework for sites, and stresses the importance of research. Details on historical artifacts and materials are provided.

Course Outline

- A) Introduction, philosophy & methods
- B) Classification of historical sites; examples
- C) Survey of Colorado history, 1540 – 1940 and its relationship to historical archaeology
Including historical American Indian groups; Spanish and American exploration; Trappers and traders;
US Military; Mining; Railroads; Ranching; Logging; Water development; etc
- D) Research orientation and sources
- E) Information on historical artifacts and structures, such as... Trade items; construction tools; building
materials; Glass, metal, leather and ceramic artifacts, structures and buildings

More information on the Colorado Historical Society's PAAC program can be found at:

<http://coloradohistory-oahp.org/programareas/paac/paacindex.htm>

Or contact Dave Swinehart, PAAC Coordinator for the Northern Colorado Chapter of the Colorado
Archaeological Society. 970-397-7589 dave@developingsolutions.biz

PAAC Schedule: July–December 2010

August

13–15Glenwood Springs..... Rock Art Studies

September

10–12Pueblo Perishable Materials

14Ft. Collins/Loveland Historical Archaeology (session 1 of 7)

18–19Grand Junction..... Field & Laboratory Photography

21Ft. Collins/Loveland Historical Archaeology (continued, session 3)

23Denver..... Research Design & Report Writing (session 1 of 5)

28Ft. Collins/Loveland Historical Archaeology (continued, session 3)

October

1–2Gunnison PAAC Board meeting at CAS annual meeting

5Ft. Collins/Loveland Historical Archaeology (continued, session 4)

7Denver..... Research Design & Report Writing (contd., session 2)

12Ft. Collins/Loveland Historical Archaeology (continued, session 5)

14Denver..... Research Design & Report Writing (contd., session 3)

15–18Montrose Colorado Archaeology

19Ft. Collins/Loveland Historical Archaeology (continued, session 6)

20Boulder..... Colorado Archaeology (session 1 of 7)

21Denver..... Research Design & Report Writing (contd., session 4)

26Ft. Collins/Loveland Historical Archaeology (end, session 7)

27Boulder..... Colorado Archaeology (continued, session 2)

28Denver..... Research Design & Report Writing (end, session 5)

29–31Durango..... Prehistoric Ceramics Description & Analysis

November

3Boulder..... Colorado Archaeology (continued, session 3)

6–7Alamosa Introduction to Archaeology, CAS, & PAAC

10Boulder..... Colorado Archaeology (continued, session 4)

12–15Cortez..... Perishable Materials

17Boulder..... Colorado Archaeology (continued, session 5)

20–21Craig..... Introduction to Archaeology, CAS, & PAAC

December

1Boulder..... Colorado Archaeology (continued, session 6)

*2–21Denver..... PAAC Laboratory Project

4–5Colorado Springs Introduction to Laboratory Techniques

8Boulder..... Colorado Archaeology (end, session 7)

11–12Gunnison Introduction to Archaeology, CAS, & PAAC

*Lab project occurs on intermittent dates at the Museum Support Center in east Denver; call or e-mail for information

Rock Art in Grand Gulch, Utah

Article by John Slay

Photography by Tour Members

During the first week of May, we backpacked into Grand Gulch, Utah, via the Collins Springs trail. This leads into the lower portion of Grand Gulch, which is known for its numerous Basketmaker sites and rock art panels. In this area, there are almost no traces of the Anasazi, which is probably due to the lack of wide terraces, which would have been necessary for the growing of corn, beans and squash.

We stayed for six days, exploring the canyons north and south of Collins Spring, which was our main source of water. All water from the canyons must be purified or filtered.



Famous Bannister Ruin, Anasazi era

Grand Gulch is a seventy-mile-long series of canyons and contains many unexcavated Anasazi and Basketmaker sites; along with numerous rock art panels. Designated as a Primitive Area and administrated by the Bureau of Land Managemment, Grand Gulch requires a permit for overnight stays and travel is allowed only by foot. Horses and llamas are also allowed. There is no travel by motorized vehicles or mountain bikes.

None of the sites are marked or "signed" and this adds to the fun of exploring the area. Most of the areas around the sites are covered with lithics, pottery shards, corncobs, and other artifacts.



This panel is over 150 feet long - Happy People waving – from the Basketmaker period.



Folks in the photos who are trying to look like "waving Basketmaker" Rock Art figures:
L-R: John Slay (archaeologist, Grand Junction); Sharon Hull (archaeologist, Manitoba, Canada);
Joel Hurmence (archaeologist, Ft. Collins). Kneeling in front: Ulli Limpitlaw (geologist - Greeley).

IPCAS South Park Archaeology Project Field Trip

Article by Anne Robinson
Photographs by Dave Hawley

A small group of IPCAS members ventured out to South Park in late June to view the soon-to-be proposed Three-mile Gulch National Archaeological district.



The Group

Three-mile gulch is between Hartsel and Como on a state wildlife area in South Park. The area is covered by short-grass prairie with scattered bristlecone pine trees up on the ridges. In June, the short-grass prairie is beautiful with red Indian paint brush and other wildflowers. Sparse buffalo grass and blue grama grass makes walking relatively easy. The ground in many places is full of petrified wood and other lithic scatter. As we walked around the site we could see hundreds and hundreds of pieces of petrified wood scattered about. A large percentage is shatter, but we do see some utilized pieces.

South Park has a deep and fascinating archaeological record, encoding the activities of native peoples living in the area for at least 12,000 years. Two locations in Threemile Gulch have been identified as probable camps. One area was excavated and evidence of a successive habitations with dating ranging from 2,900 to 3080 years ago. This confirms the stratigraphy that the project has been reading and it tells us that the house floors are the result of relatively constant re-occupation of Threemile during the Middle/Late Archaic periods.

After touring the Threemile Gulch area and enjoying a picnic lunch, our group heads off to the curation facility, which is located in the Fairplay town hall. There we saw some of the artifacts collected over the years and learned more about the collection and the project.



Given the density and unique nature of this record, Professor Bender is partnering with Park County to nominate Threemile Gulch to the National Register of Historic Places. The South Park Archaeology project got a grant from the State Historic Preservation Fund to nominate Threemile Gulch as a National Archaeological District. This has been a goal both for the South Park Archaeological Project and Park County for a couple of years,

Learn more about the South Park Archaeology Project at <http://cms.skidmore.edu/anthropology/spark/index.cfm>

On the way back to Boulder, some of us did some research into the more modern road architecture and eating practices in the United States and enjoyed a hot dog on the delightful patio at the Boardwalk Coney Island Restaurant in Bailey, Colorado.



UNC Field School at Walden

Article and Photography by Tom Cree

Working with the UNC Field School has been an IPCAS tradition for nearly two decades. Dr. Robert Brunswig (Bob to everyone) leads the field school and makes provision for the assistance, and feeding, of volunteers. The field school has a camp cook who is also an archaeology enthusiast.

The location east of Walden is very scenic but is subject to some interesting(?) weather. The week before we arrived, a strong wind tore many of the student's tents from their pegs and rolled them down the hill and into a gully. But more about weather, later.



Bob is sinking a basement test pit at the bottom of a sterile test excavation. This was a promising site, based on surface discoveries, but proved to not have a single artifact in 20cm. Bob dug the additional hole to expose the profile and to check for artifacts farther down.

During this excavation, one of the volunteers (not IPCAS) got severely sunburned on her arms and back. By Thursday morning, it was apparent that she was getting blisters and needed to see a physician. She was transported back to Greeley on Thursday morning. She was very uncomfortable but not in any real danger. Isn't it great to be young and strong?



This is Kris Holien's hand. I am certain that you recognize it. She is holding the mid-section of a projectile point that was found during survey along the ridge mentioned on the prior page. Please notice the fine flaking pattern.

It is time to talk about the weather. The wind always blows east of Walden, sometimes with aggression. The following photograph was taken Tuesday night. It shows a storm along the front range in Colorado. You can see the sun's shadow behind and to the right of the cloud, which was huge. This storm brought a lot of wind, rain, and hail to most of the cities on the plains near the foothills and in the first row of foothills. The dark area at the photograph bottom is a mountain ridge.

That storm was not where we were. But the twin brother showed up Wednesday night bringing wind, lightning and thunder, pounding rain, hail, and miserable conditions. Most of the students had water in their tents and sleeping bags. All the excavations were flooded. Anywhere there had been dirt, there was only mud. On Thursday, the humidity was very high (low lying clouds in the morning) and it was obvious that another session of bad weather was coming that night, too. Because of the difficult working conditions and the promise of more bad weather, the field school went home Thursday afternoon, to return the next Monday.



Was a Giant Comet Responsible for a North American Catastrophe in 11,000 BC?

ScienceDaily (Apr. 1, 2010) — Some 13,000 years ago the Earth was struck by thousands of Tunguska-sized cometary fragments over the course of an hour, leading to a dramatic cooling of the planet, according to astronomer Professor Bill Napier of the Cardiff University Astrobiology Centre.

He presents his new model in the journal *Monthly Notices of the Royal Astronomical Society*. The cooling, by as much as 8°C, interrupted the warming that was occurring at the end of the last ice age and caused glaciers to readvance.

Evidence has been found that this catastrophic change was associated with some extraordinary extraterrestrial event. The boundary is marked by the occurrence of a "black mat" layer a few centimeters thick found at many sites throughout the United States containing high levels of soot indicative of continental-scale wildfires, as well as microscopic hexagonal diamonds (nanodiamonds) which are produced by shocks and are only found in meteorites or impact craters.

These findings led to the suggestion that the catastrophic changes of that time were caused by the impact of an asteroid or comet 4 km across on the Laurentide ice sheet, which at that time covered what would become Canada and the northern part of the United States.

The cooling lasted over a thousand years, and its onset coincides with the rapid extinction of 35 genera of North American mammals, as well as the disruption of the Paleoindian culture. The chief objection to the idea of a big impact is that the odds against the Earth being struck by an asteroid this large only 13,000 years ago are a thousand to one against. And the heat generated by the rising fireball would be limited by the curvature of the horizon and could not explain the continent-wide occurrence of wildfires.

Professor Napier has now come up with an astronomical model that accounts for the major features of the catastrophe without involving such an improbable event. According to his model, the Earth ran into a dense trail of material from a large disintegrating comet. He points out that there is compelling evidence that such a comet entered the inner planetary system between 20,000 and 30,000 years ago and has been fragmenting ever since, giving rise to a number of closely related meteor streams and commoving asteroids known as the Taurid Complex.

In the course of the giant comet's disintegration, the environment of the interplanetary system would have been hazardous and the Earth would probably have run through at least one dense swarm of cometary material.

The new model indicates that such an encounter would last for about an hour during which thousands of impacts would take place over continental dimensions, each releasing the energy of a megaton-class nuclear bomb, generating the extensive wildfires that took place at that time. The nanodiamonds at the extinction boundary would then be explained as having come in with the comet swarm.

One recent meteorite is known which may have come from this giant comet progenitor: the Tagish Lake meteorite, which fell over Yukon Territory in January 2000. It has the highest abundance of nanodiamonds of any meteorite so far analyzed.

Professor Napier sums up his model: "A large comet has been disintegrating in the near-Earth environment for the past 20,000 to 30,000 years, and running into thousands of fragments from this comet is a much more likely event than a single large collision. It gives a convincing match to the major geophysical features at this boundary."

Absence of Evidence for a Meteorite Impact Event 13,000 Years Ago

[Editor's Note: After this article was written, scientists proposed that the meteorite may have struck the ice sheet, thus the impact crater "melted away". That proposal is being examined.]

ScienceDaily (Dec. 14, 2009) — An international team of scientists led by researchers at the University of Hawaii at Manoa has found no evidence supporting an extraterrestrial impact event at the onset of the Younger Dryas approximately 13,000 years ago.

The Younger Dryas is an abrupt cooling event in Earth's history. It coincided with the extinction of many large mammals including the woolly mammoth, the saber toothed jaguar and many sloth. This cooling period is generally considered to be the result of the complex global climate system, possibly spurred on by a reduction or slowdown of the thermohaline circulation in North America. This paradigm was challenged two years ago by a group of researchers that reported finding high iridium concentrations in terrestrial sediments dated during this time period, which led them to theorize that an impact event was instead the instigator of this climate shift.

A team led by François Paquay, a Doctoral graduate student in the Department of Geology and Geophysics at the University of Hawaii at Manoa (UHM) decided to also investigate this theory, to add more evidence to what they considered a conceptually appealing theory. However, not only were they unable to replicate the results found by the other researchers, but additional lines of evidence failed to support an impact theory for the onset of the Younger Dryas.

Their results will be published in the December 7th early online edition of the *Proceedings of the National Academy of Sciences*. The idea that an impact event may have been the instigator for this cooling period was appealing because of several alleged impact markers, especially the high iridium concentrations that the previous team reported. However, it is difficult for proponents of this theory to explain why no impact crater of this age is known. "There is a black mat layer across North America which is correlated to the Younger Dryas climatic shift seen in Greenland ice cores dated at 13,000 years ago by radio carbon," explains Paquay. "Initially I thought this type of layer could be associated with an impact event because concentration in the proxies of widespread wildfires are sky high. That plus very high levels of iridium (which is one indicator used to indicate extraterrestrial impact events). So the theory was conceptually appealing, but because of the missing impact site, the idea of one or multiple airburst arose."

To corroborate the theory, Paquay and his colleagues decided to take a three-pronged approach. The first was to replicate the original researchers data, the second step was to look for other tracers, specifically osmium isotopes, of extraterrestrial matter in those rocks, and the third step was to look for these concentrations in other settings. "Because there are so many aspects to the impact theory, we decided to just focus on geochemical evidence that was associated with it, like the concentration of iridium and other platinum group elements, and the osmium isotopes," says Paquay. "We also decided to look in very high resolution sediment cores across North America, and yet we could find nothing in our data to support their theory."

The team includes American, Belgian and Canadian researchers. Analysis of the sediments was done both at UHM and in Belgium, using the same sediments from the same interval and independently did the analysis work and got similar results. Both the marine and terrestrial sediment records do not indicate that an impact event was the trigger for the transition into the Younger Dryas cold period. "The marine and terrestrial record both complement each other to support this finding," concludes Paquay. "That's what makes the beauty of this study."

This project was supported by the Geological Society of America and the National Science Foundation. Sediment samples were provided by the Integrated Ocean Drilling Program.

The other authors from this paper are Greg Ravizza (also from UHM), Steven Goderis and Philippe Claeys from Vrije Universiteit Brussel, Frank Vanhaeck from the Universiteit Ghent, Matthew Boyd from Lakehead University, Todd A. Surovell from the University of Wyoming at Laramie, and Vance T. Holliday and C. Vance Haynes, Jr. from the University of Arizona at Tucson.

2010 IPCAS Officers, Board Members, and major functions

President	Anne Robinson	(720) 890-3944	annerco@yahoo.com
Vice-President	Karen Kinnear	(303) 516-9260	kinnearkaren@hotmail.com
Treasurer	Carolyn Camell-Coppin	(303) 775-9206	cacc.co@live.com
Secretary	Dave Hawley	(303) 443-2332	dave_hawley@comcast.net
Outreach Coordinator	Chris Strachan	(303) 485-5415	sduffy294@comcast.net
Professional Advisor	Dr. Robert Brunswig	(970) 351-2138	robert.brunswig@unco.edu
PAAC Coordinator	Dave Hawley	(303) 443-2332	dave_hawley@comcast.net
CAS Representative			
Internet Manager	Cyndi Cree	(310) 663-0656	c_cree@hotmail.com
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Calumet Editor	Tom Cree	(303) 776-7004	tomcree@earthlink.net
Board Member	Maureen Arthur	(303) 823-5769	maureenfarthur@hotmail.com
Board Member	Cheryl Damon	(303) 678-8076	cheryl_damon@msn.com
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Board Member	Joanne Turner	(303) 494-7638	joanne.turner@colorado.edu

MEMBERSHIP APPLICATION - INDIAN PEAKS CHAPTER

<u>Quarterly new member enrollment</u>	<u>Individual</u>	<u>Family</u>	<u>Student</u>
January-March	\$28.50	\$33.00	\$14.25
April-June	\$21.50	\$24.75	\$10.75
July-September	\$14.25	\$16.50	\$7.25
October-December	\$7.25	\$8.25	\$3.75

New **Renewal** **Tax-Exempt Donation** **\$10,** **\$25,** **\$50,** **Other** _____
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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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