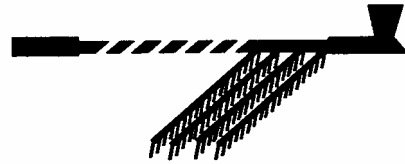


# CALUMET

CONSERVATION  
EDUCATION

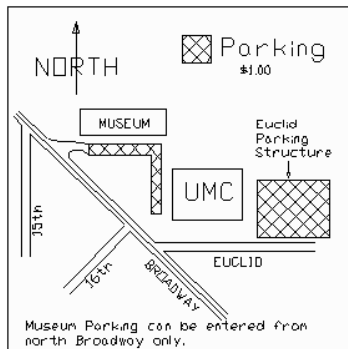
PRESERVATION  
EXPLORATION



Newsletter of the Indian Peaks Chapter of the Colorado Archaeological Society  
**February, 2004**

## CALENDAR OF EVENTS

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



The Museum parking lot 208 is **NOW AVAILABLE** to non-permit holders, even at night. Cost is \$2.00 per vehicle. Bring \$1 bills or quarters.

You can also park in the Euclid parking structure for \$2.00. The Euclid parking lot is east of the Museum on Euclid. After parking in the Euclid Parking Structure, walk west on Euclid toward Broadway. Prior to Broadway, take the sidewalk to the right to the Museum parking lot. It is only a few hundred yards.

## 2004 Event Calendar

### 2004 Presentations

- February 12** Doug Bamforth. Topic: Windy Ridge: Hunter-Gatherer Mining on the Continental Divide. Please see page 2.
- March 11** Tracy Sweely. Topic: The Invisible Maya: Locating Non-platform Dwellings Using Electromagnetic Induction.
- April 8** Calvin H. Jennings. Topic: Applied Archaeology: Crime Scene Investigation and Reconstruction.
- May 13** Mark D. Mitchell. Topic: To be determined.
- September 9** Linda Cummings. Topic: Prehistoric diets in the old and new worlds.
- October 14** Open
- November 11** Cherie Walth. Topic: How to recognize human bone (as distinguished from non-human bones).
- December 9** Holiday Party, Location to be determined.

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**February Presentation**  
**Windy Ridge: Hunter-Gatherer Mining on the Continental Divide**  
**Doug Bamforth**

Windy ridge is a large quartzite quarry up near Rabbit Ears Pass, at the north end of Middle Park. We mapped the site in detail, recording nearly 200 quarry pits, and excavated one of them. We can document intensive efforts to remove stone, including digging down through 3 to 5 feet of solid rock, but we cannot date these efforts with any precision (although we know that folks have been in the area at least since Folsom times and used the stone continuously).

I got my BA at the university of Pennsylvania and my MA and PhD at the University of California, Santa Barbara. I have field experience in Nevada, coastal California, the California desert, Nebraska, Texas, Colorado, and Germany. My major research interests are in the archaeology of the Great Plains, with a technical specialization in lithic analysis. However, I have also started doing collections research in Ireland. I taught at the University of Nebraska from 1987 through 1990 and I have been here (at CU) ever since.

**IPCAS Membership**

Name	Renewal Month	Name	Renewal Month
Adler, Patricia	2004/01	Million, Isadore	2003/11 <b>Please Renew</b>
Arnold, John and Patricia Ford	2004/03	Montgomery, Steve	2004/01 <b>Please Renew</b>
Arthur, Maureen	2003/10 <b>Please Renew</b>	Moorman, Monty	2004/02
Baker, Pamela and Quentin	2003/09 <b>Please Renew</b>	Morgan, Joanne	2004/04
Boslough, Norma L.	2004/04	Morrell, Jim	2003/11 <b>Please Renew</b>
Bowen, Kris and Ken	2004/11	Morris, Peggy	2003/12 <b>Please Renew</b>
Bradshaw, Warren	2004/03	Mutah, Anne and Bob	2004/04
Casserly, Tandra	2003/12 <b>Please Renew</b>	Novak, Elizabeth	2003/10 <b>Please Renew</b>
Cree, Tom and Ginny	2004/05	Nozik, Rhoda	2004/11
Damon, Cheryl	2004/10	O'Toole, Christine	2004/05
Eddy, Frank	2004/08	Owens, Richard E.	2004/08
Edwards, Paula	2003/12 <b>Please Renew</b>	Pitre, Rick	2004/05
Ellwood, Priscilla	2004/05	Prillaman, Piper	2005/01
Ferguson, Jeff and Susanna	2003/10 <b>Please Renew</b>	Palowoda, Marie and Brad Culp	2003/11 <b>Please Renew</b>
Gleichman, Pete	2005/01	Rosquist, William	2004/01 <b>Please Renew</b>
Goff, Sheila	2003/10 <b>Please Renew</b>	Sheets, Payson	2004/01 <b>Please Renew</b>
Goldhawk, Madeline	2004/01 <b>Please Renew</b>	Simmons, Karen	2004/05
Gorski, Jan	2004/01 <b>Please Renew</b>	Skinner, Craig	2004/02
Grigsby, R.J.	2003/11 <b>Please Renew</b>	Smith, Christy and Karl	2004/01 <b>Please Renew</b>
Hamilton, Jeannie	2004/05	Smith, Russell D.	2003/09 <b>Please Renew</b>
Hill, Elaine	2004/02	Stiltner, Barbara	2003/12 <b>Please Renew</b>
Hilty, Jill and Vann	2004/06	Stinson, Janet and Morey	2005/01
Hofmaier, Reginald	2004/12	Stoker, Karol	2004/12
Holien, Kris and Bernie	2004/03	Teegarden, Dock	2004/03
Hutchinson, Robert	2004/02	Turner, Joanne and Mort	2003/10 <b>Please Renew</b>
Jacobs, Muriel and Sanford	2004/03	Viola, Laura	2004/04
Kindig, Jean	2003/10 <b>Please Renew</b>	Volkman, Clay and Lynda	2004/06
Landem, Michael/Hal/Zack	2003/04 <b>Please Renew</b>	Wilson, John and Kathy	2003/12 <b>Please Renew</b>
Larson, Ken	2004/05	Phillips, Ann and Dave	2003/07 <b>Please Renew</b>
Lundy, Paul	2004/03		
Marshall, Jennifer	2004/03		
McComb, Katherine	2004/05		
Meier, Tom and Beverly	2003/10 <b>Please Renew</b>		
Michalsky, Randi	2004/05		

## **Book Review**

### **Historian Gavin Menzies on Pre-Columbus Voyage by Chinese**

British amateur historian Gavin Menzies received a book contract Tuesday for the publication of new theory that a Chinese admiral with a fleet of 100 ships beat Columbus to America and circumnavigated the globe almost a century before Magellan.

The book is based on 14 years of research that included secret maps, evidence of artifacts, and apparent proof of the voyage provided by the modern astronomy software program *Starry Night*. Menzies created a stir among historians last Friday when he presented the broad outlines of his theory, but not the fine points, during a lecture to the Royal Geographical Society in London.

In an exclusive telephone interview with *SPACE.com* Wednesday, the 64-year-old described how he used the software to help solidify his theory. *SPACE.com* publishes *Starry Night*.

As key evidence for a voyage that will remake history if the theory proves out, Menzies says he obtained ancient Chinese navigation charts associated with the travels of Zheng He, an admiral in the emperor's Navy. The journey ran from 1421 to 1423. Menzies maintains that the ships sailed around the Southern tips of both Africa and South America.

"I set *Starry Night* up for dates in 1421 for parts of the world where I thought the Chinese had sailed," explained Menzies, a navigation expert and former Royal Navy submarine commander. He found that in two separate locations of the voyage, easily recognizable stars were directly above Zheng He's fleet.

Those stars have since moved, due to changes in Earth's orientation in space. Earth's spin is slightly imperfect, and its axis carves a circle on the sky every 26,000 years. The phenomenon, called precession, means that each pole points to different stars as time progresses. Menzies used the software program to recreate the sky as it would have looked in 1421.

"I had Chinese star charts, and I needed to date the charts," he said. "By an incredible bit of luck, one of the courses they steered, between Sumatra and Dondra Head, Ceylon, was due west."

This part of the journey was very near the equator in the Indian Ocean. Both Polaris, the North Star, and the bright southern star Canopus, which was very nearly above the celestial south pole, were on the charts. "From that I was able to determine the apparent shift of Polaris (due to precession). I could therefore date the chart to 1421, plus or minus 30 years."

A scientific review of Menzies' research is not possible given the limited information being released. Phillip Sadler, a celestial navigation expert at the Harvard-Smithsonian Center for Astrophysics, says the estimation of a map's age based on star positions is possible. He said an estimate within 30 years, as Menzies claims, is possible. "It depends on how accurately a chart is drawn," Sadler said.

#### **A puzzling rose**

On another chart whose coastlines Menzies said he could firmly place, the Chinese had drawn a rose. Menzies puzzled over its significance.

"I then went to *Starry Night* and set it up for 52 degrees, 40 minutes south latitude, between the Falkland Islands and Patagonia." He set the timeframe to December 1421.

"Lo and behold, Canopus was right above."

The Chinese voyagers had drawn a rose on a map half a world away from Beijing, Menzies said.

Another chart showed the two leading stars of the Southern Cross, a prominent constellation, pointing due south. From this, Menzies figures Zheng He's fleet, which numbered more than 100 ships when it set sail, was skirting the ice of Antarctica.

He also uncovered documents in which the Chinese describe a warm-water lagoon nestled in the ice. Such a lagoon exists nowadays at Deception Island.

So Menzies went back to his home computer to do a little more celestial archeology. Again, he instructed Starry Night to go back in time, to reconstruct the sky above Deception Island in late 1421. "Lo and behold, the leading star of the Southern Cross was right above."

### **Logical analysis**

Sadler, like other navigation experts and historians, is eager to learn the full details from Menzies' book, to learn whether history must be rewritten to relegate Christopher Columbus and Ferdinand Magellan to second place in their respective endeavors.

"There's a definite logic to his analysis," Sadler said of these latest details provided by Menzies. He added that the fact that Menzies had found celestial clues in multiple charts was a good sign. "The more stuff that fits, the better."

But Sadler wonders exactly what the ancient Chinese maps look like; a secret Menzies has no plans to release prior to the book's publication.

"Everybody is waiting to see what this guy produces," Sadler said.

Menzies' book will be published by Transworld Publishing and is expected out in hardback in the United States and the United Kingdom in September. A separate publisher will handle the U.S. distribution and has not yet been announced. Rights for other countries are being negotiated.

### **Starry Night Charts Support Theory Chinese Beat Columbus to America**

A Chinese explorer reached America 72 years before Columbus and circled the globe a century before Magellan accomplished the feat, according to a review of star positions in the 15th Century along with secret maps and other evidence.

If proved true, the speculative new theory would force a rewriting of textbooks around the world. British amateur historian Gavin Menzies used *Starry Night* software, run on his home computer, to generate the locations of Southern Hemisphere stars in the 1420s and help support his suspicions about an epic Chinese voyage by an admiral named Zheng He.

Stars change location over long periods of time, relative to terrestrial vantage points, because of changes in Earth's axis of rotation. *Starry Night* software, published by *SPACE.com*, can be set forward or back in time to display the positions of stars and other celestial objects.

Menzies presented his new theory March 15 in a lecture to the Royal Geographical Society in London. It was received courteously but cautiously by historians, who have long thought the Zheng He venture ended near the southern tip of Africa.

### **Circumnavigating the globe**

Sent by the Chinese emperor, Zheng He led more than 100 ships, armed with weapons and loaded with treasure, to the Middle East and Asia. That much is widely agreed upon.

Menzies thinks the admiral continued on to South America and also explored the Caribbean and the Sea of Cortez, tucked inside Baja California. The journey ran from early 1421 to late 1423.

A navigation expert and retired Royal Navy submarine commander, Menzies says maps used by Columbus in 1492, Ferdinand Magellan in 1519, and other Europeans of the era were based on earlier Chinese charts. Menzies used these documents to recreate the Zheng He voyage, a path along which he then found other clues.

He also presented evidence to the Geographical Society of shipwrecks near Australia and in the Caribbean, as well as porcelain and stone Chinese artifacts found in various locations, all of which he said supports his view. A full account of his findings, however, is being withheld. Menzies, 64, and his publicist hope to get a contract for a book, which would divulge the entire body of evidence.

### **Guiding star**

Over centuries, the perceived locations of stars move because of changes in Earth's tilt on its axis. The phenomenon is called precession, and it works like this:

Earth is fatter at the equator than from pole to pole. The gravity of the Sun and Moon work on this so-called equatorial bulge and turn the planet into something like a spinning top. Earth's axis of rotation, if extended into space, would trace out a circle among the stars. It takes about 26,000 years for this imaginary extension of the pole to complete the circle, and along the way the pole points at different stars.

The North Star, Polaris, is currently within 1 degree of the north celestial pole. But about 5,000 years ago it pointed at the star Thuban. In about 12,000 years, Vega will replace Polaris as the North Star.

The same phenomenon controls which stars appear directly above the South Pole. Menzies figures the Chinese explorer used the bright Southern Hemisphere star Canopus, as well as the Southern Cross, a prominent constellation, as navigational aids.

According to an article in *The New York Times*, Menzies used *Starry Night* to recreate the positions of the stars during Zheng He's voyage. Then while comparing the software's results to the maps, he drew a line from one of the stars in the Southern Cross, vertically to Deception Island, off the coast of South America.

"The maps suddenly line up with current coastlines to an uncanny degree," he said.

Menzies thinks the Portuguese had in 1428 a secret map that showed Australia, South America, and the Cape of Good Hope at the southern tip of Africa. The Portuguese would not sail around the cape until late in the century, however.

"What nobody has explained is why the European explorers had maps," Menzies told London's *Daily Telegraph*. "Who drew the maps? There are millions of square miles of ocean. It required huge fleets to chart them. If you say it wasn't the Chinese, with the biggest fleets and ships in the world, then who was it?"

### **Proof waits**

Other historians have documented Zheng He's travels through Malaysia, India, the Middle East and Africa. Along the way, the admiral captured the Sri Lankan king and waged military attacks along the African Coast. His multi-masted ships have been called marvels of technology for the time.

But there's been no evidence to suggest the Chinese voyages extended beyond the southern tip of Africa. Menzies spent 14 years putting his theory together. He holds that Italian explorer Nicolo da Conti, thought by others to have sailed with Zheng He, may have provided the charts to the Portuguese.

Gillian Hutchinson, curator of the history of cartography at the National Maritime Museum in London, is not sure there is a link to be made.

"It is possible that Chinese geographical knowledge had reached Europe before the Age of Discovery," Hutchinson said in the *Daily Telegraph*. "But Mr. Menzies is absolutely certain of it, and that makes it difficult to separate evidence from wishful thinking."

Zheng He returned to China and died in 1433, a decade after his emperor had lost the throne to Confucian mandarins, who refocused China on itself. In 1436, still more than five decades before Columbus set sail, an imperial ban was issued on the construction of oceangoing vessels, ending the country's era of discovery. Other historians said they could not review the theory until all of the evidence is presented.

## Celestial navigation

It would not have been beyond Zheng Hu and Chinese technology to make the trip. The knowledge required to navigate using stars goes back at least to the Ancient Greeks, says Phillip Sadler, a celestial navigation expert at the Harvard-Smithsonian Center for Astrophysics. Until the 18th Century, however, the art was limited to knowledge of latitude. Figuring longitude requires precise clocks that would display local time -- not possible even for Columbus and Magellan.

But that did not prevent trips around the world.

"I don't think you need much celestial navigation to go around the globe," Sadler said in a telephone interview. "You just start off, you go east or west, and if you hit something, you go left or right. Hopefully you get around things."

Sadler points out that if Zheng He had turned left each time he ran into a continent, he would have fared fairly well. "Columbus himself was a pretty terrible navigator," Sadler points out. "He was essentially just sailing due west."

It is also conceivable, Sadler said, that Gavin Menzies could mine the heavens for clues to Zheng He's journey. "It's possible to estimate the year a map was drawn based on information about how stars were positioned in the sky from a particular place," Sadler said. "The devil is in the details. How accurately can you do it? That's what I'd like to see."

Like the historians, Sadler said it won't be possible to evaluate the merits of Menzies' theory until all the maps and other data are on the table.

## Ancient Site Hints at First North American Settlers NewScientist.com news service

Stone-age people lived in the lands north of the Arctic Circle before the peak of the last Ice Age - much earlier than had been thought, suggests new findings.

The discovery of the site in eastern Siberia also hints that people might have moved from the Old World into the Americas at a much earlier date than believed.

The site along the Yanu River, carbon-dated as 30,000 years old, is twice the age of the oldest previously known Arctic settlement, report Vladimir Pitulko of the Institute for the History of Material Culture in Saint Petersburg, Russia, and colleagues.

The area is about 2000 kilometers from the Bering Strait. This is important as archaeologists have long suspected that some of the earliest Americans may have crossed the Bering land bridge from northeastern Asia. However, scientists had little evidence of Arctic settlements in Asia older than 14,000 years - the age of the earliest Alaskan sites. The age of the Yanu River site shows that people learned to live in the Arctic much earlier, and might have reached Alaska earlier than has been recognized.

"Pitulko's find is exciting because it shows that people were living in an ecosystem that stretched continuously between Asia and North America. If they had wandered a little further eastward...bingo - they could have been the first Americans," Daniel Mann of the Institute of Arctic Biology at the University of Alaska in Fairbanks told **New Scientist**.

## Pompeii Archaeological Progress

One quick glance at the layout of the city and a fundamental fact immediately catches one's eye: Pompeii, unlike Herculaneum and ancient Naples, is not the fruit of an organic design of city planners. In the regular town design two atypical nuclei stand out: one, roughly quadrilateral, around the "*civil forum*" and the other around the tiny "*triangular forum*" next to the theatres district. To those nuclei is linked the rest of the city, which by contrast looks "*new*": all this enclosed within solid city walls.

This observation reveals the secret of the origins and development of Pompeii: its port on the mouth of the river Sarno is evidence of its Mediterranean vocation - from the earliest history - with respect to its vast hinterland which in time came to include Acerra, Nola, Nuceria, as the ancient historian Strabo attests.

On a bed of prehistoric lava, Pompeii is founded in the second half of the 7th century B.C. with an organization effort that presupposes objectives of lookout and defense connected to the nature of the relations between the Greeks and the natives.

The natives, peaceful when first colonized, later matured notions of armed action when the Chalcidenses, who held defensive posts along the sea-coast, threatened to cut off for ever the peoples of Campania from access to the sea. Despite the documented existence of a Doric temple dating from the second half of the 6th century B.C. on the terrace of the triangular forum, and other indications that were held valid until only a few years ago, Pompeii was not a Greek city, even though it had been influenced by Greek culture ever since the most archaic epoch. In the light of the results obtained from the stratigraphic researches carried out in these last years, it appears that Pompeii, at the time of its foundation and its first development, was much more conditioned, politically, by the Etruscans than by the Greeks.

There is also evidence that it was connected to an "*Etruscan territory*" centered on Capua (Santa Maria Capua Vetere), which comprised large portions of inland Campania and, through the Sarno valley, the Sorrento peninsula. Disconcerting evidence of this has been found at Vico Equense. Pompeii's commercial vocation upsets completely the former architectural and decorative order, transforms the habits of its inhabitants, and generates self-made entrepreneurs and exploiters.

A "*vertical section*" of the city in the last decades of its life before the 79 A.D. eruption of Vesuvius, would offer a picture - in contrast with the calm of former times - of roads, inns, taverns bustling with people, brothels in full activity, stall keepers in the forum, the amphitheater cram-full of people, slaves of an irrational passion for sport, always ready for a brawl, walls covered with election slogans in favor of this or that candidate, graffiti with names, quips, love messages everywhere.

House building in the meanwhile was capriciously spreading beyond the walls, it consolidated westwards in dismal phalansteries. Painting lost its capacity of perspective. The former articulation which can be seen in the vast cycles of paintings of the "*Villa of the Mysteries*" (Villa dei Misteri), is often reduced to nothing but commonplace and poor quality decoration.

In the last few years every possible effort has been concentrated on restoration but excavations have also been going on the city walls, bringing to light the walls from "*Porta di Sarno*" to "*Porta di Nola*" and beyond towards "*Porta Vesuvius*". Stratigraphic research work has also been given a substantial boost.

The four-story building that incorporates the walls, north of "*Porta Marina*", has been excavated while the diggings at the "*House of Julius Polybius*" (Casa di Giulio Polibio) have brought to light new and sensational discoveries.

The zones that still have to be excavated in the north-eastern area may hold some more unexpected surprises in store but at this point we can say that the "*picture*" of life in Pompeii, thanks also to stratigraphic research, has already been quite clearly defined.

**2004 IPCAS Officers, Board Members, and major functions**

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Please check the chapter web-site at: <http://www.indianpeaksarchaeology.org>

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___ <b>Student</b> \$14.25 / Year, with Calumet delivery by e-mail	
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When you join or renew you will receive the <i>Calumet</i> , our monthly newsletter, and <i>Southwestern Lore</i> , the quarterly publication of the Colorado Archaeological Society.	

**CALUMET**

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P.O. Box 18301  
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