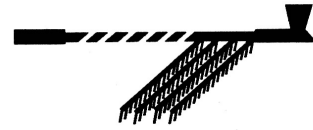


CALUMET



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

- February 4** IPCAS Executive Board Meeting, 7:30, Tom's House
February 11 **IPCAS Presentation Meeting**, Bob Rushforth,
Topic: "Aviation Archaeology"
February 22 CU Lecture Series, CU Museum, Nejbib ben Lazreg,
Topic: "The Mosaic of the Wrestlers from Thapsus"
- March 4** IPCAS Executive Board Meeting, 7:30
March 10 CU Lecture Series, CU Museum, 7:00, Beth Dusinberre,
Topic: "The Achaemenid Empire"
March 11 **IPCAS Presentation Meeting**, TBA
- April 1** IPCAS Executive Board Meeting, 7:30
April 15 **IPCAS Presentation Meeting**, Dr. Arthur Joyce,
Topic: Rio Viejo Site, Oaxaca, Mexico
>>>>>> **NOTE UNUSUAL MEETING DATE!**
- May 6** IPCAS Executive Board Meeting, 7:30
May 13 **IPCAS Presentation Meeting**, TBA
- September 2** IPCAS Executive Board Meeting, 7:30
September 9 **IPCAS Presentation Meeting**, TBA
- October 7** IPCAS Executive Board Meeting, 7:30
October 14 IPCAS Presentation Meeting, Alice Tratebas, BLM
Topic: Whoop-up Canyon - dating, fire damage, and finished photogrammetry.
- November 4** IPCAS Executive Board Meeting, 7:30
November 11 **IPCAS Presentation Meeting**, TBA
- December 2** IPCAS Executive Board Meeting, 7:30
December 9 **IPCAS Christmas Party**, TBA

Inside This CALUMET	
Calendar of Events	1
February Presentation	2
Dock Teegarden Tribute	3
Earliest American Migration	5
Earliest Egyptian Temple	6
Earliest Signs Of Corn	6
Earliest New World Writing	7
Earliest Jesus-era House	8
Earliest Maize In Mexico	9
Earliest Submerged Town	10
January Board Minutes	11
Officers/Board Members	12
Membership Application	12

ABSTRACT

“ARCHAEOLOGICAL SURVEY OF A 1929 COMMERCIAL AIRLINE, FORD TRI-MOTOR CRASH SITE IN NEW MEXICO”

By Robert J. Rushforth

Aviation Archaeology is a new and developing subdiscipline of historical archaeology. Many airplane crash sites exist in the western U.S., some of which qualify as Antiquities Act protected archaeological sites (>50 years old). One such site is a 1929 Ford Tri-Motor crash site on Mount Taylor in the Cibola N.F. (NW New Mexico). This crash site is historically significant. It was the first commercial airline disaster in the U.S. In June 2009, a Passport in Time project team, under the supervision of U.S. Forest Service archaeologists, surveyed and recorded the heavily salvaged site. In addition to the Ford Tri-Motor site, a preliminary survey of a 1943 B-24 crash site near the summit of Mt. Taylor also was conducted. Field trips also were taken to a 1945 PBY crash site in the rugged Malpais (lava flow) and a 1945 C-93 crash site on a beautiful mesa top. The illustrated presentation will describe the archaeological techniques used in the Ford Tri-Motor and B-24 surveys, as well as discuss the forensics involved in the interpretation of the four crash sites.

Biography

Currently: President Denver Chapter and State CAS Recording Secretary.

Hometown: Peekskill, NY

Employment: Retired senior engineer with Johns Manville (Chemical & Quality)

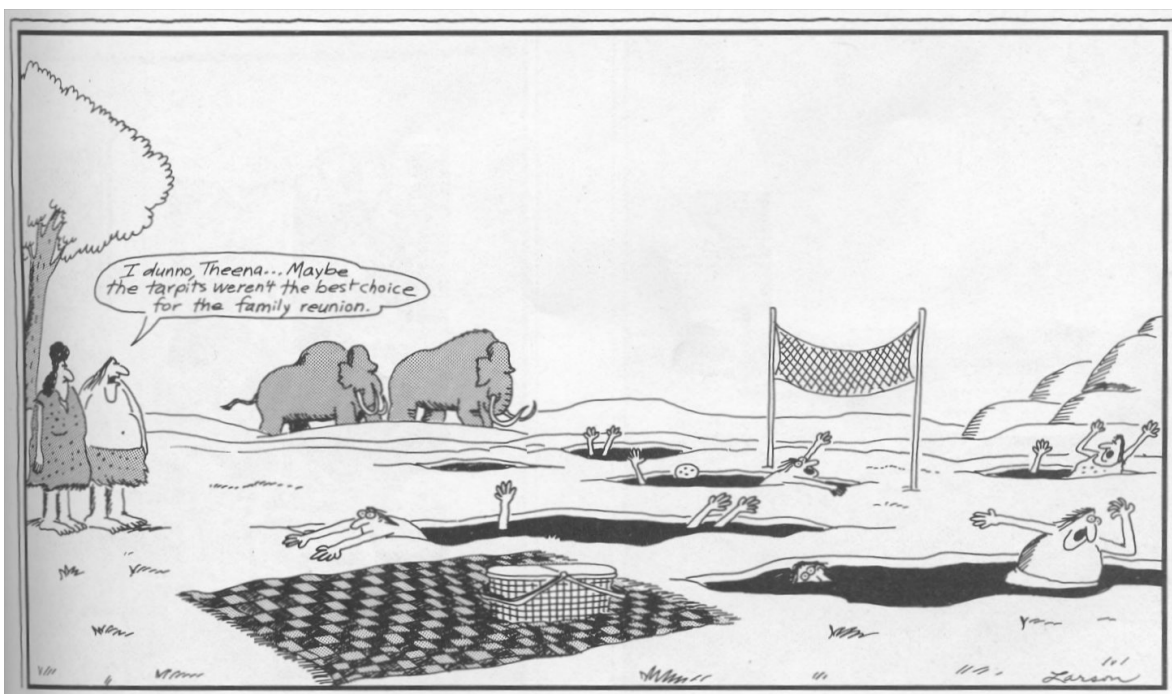
Education: BS Chemical Engineering, Lehigh Univ. (Bethlehem, PA), 1967

Awards: Past chairman of ASTM Technical Committee C16 Thermal Insulation, Receipt of ASTM Award of Merit, ASTM Fellow.

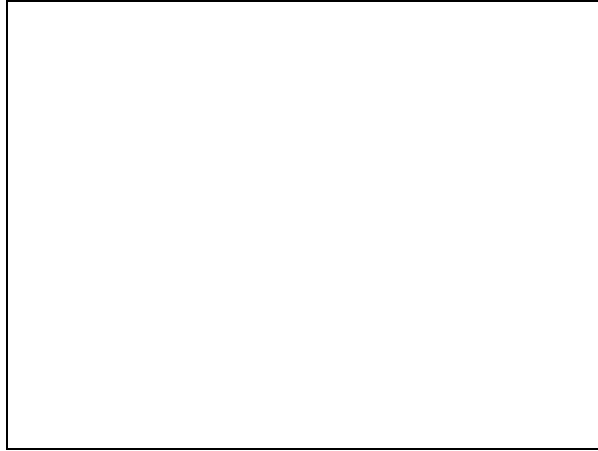
Memberships: Society for American Archaeology (SAA), Society of Vertebrate Paleontology (SVP), American Institute of Chemical Engineers (AIChE), American Society for Quality (ASQ), and American Society for Testing & Materials (ASTM).

Volunteer: Denver Museum of Nature & Science (Archaeology & Paleontology) and Wings Over the Rockies Air & Space Museum (Collections & Tour Guide)

2009 Fieldwork: Ford Tri-Motor Survey (Linda Popelish-NM), Bordeaux Trading Post Survey (Danny Walker-Wyoming), and Fort Garland Excavation (Dick Goddard).



Dock Teegarden



Dock Teegarden was 88 years old when he posed for this photograph, in 2007.

Longtime IPCAS stalwart Dock Teegarden has died at the age of 90. Dock hadn't been to IPCAS meetings lately, due to his failing hearing and eyesight.

20 years ago, when I was doing an archaeological survey of City of Boulder Open Space with Dock, I mentioned to him that I had turned 40. Dock, who was 70, told me "do all you can in the next 10 years, because you'll start to slow down". He then cruised on up the mountain, with me trying to keep up. I tried to keep up with him for the next 12 years, as we surveyed many acres in Boulder County and documented many sites.

Dock knew more about the historic sites in Boulder County than anyone else. He also knew about many prehistoric sites, including a game drive wall on the Dakota Hogback, which has been recorded as the "Teegarden Wall". Dock was one of the most intelligent and most curious people I have ever worked with. Every time I was with Dock, he asked me questions on archaeology that made me think. In 2005 Dock and I co-authored an article in *Southwestern Lore* entitled "Cartridges, Caps, and Flints: a Primer for Archaeologists". The technical expertise for the article came from Dock, who was also an expert gunsmith.

Dock was a giant in many ways ... the local archaeological community will miss him.
Pete Gleichman

I met Dock on a survey near the corner of Arapahoe Road and 63, east of Boulder. During the survey he talked about the history of the parcels of land that we were surveying. I also got to ride around in a car with him as he named the current and past owners of properties that we drove past and told stories about every family. Dock was a wealth of knowledge. I wanted to repeat the drive with a tape recorder running to capture all the stories but Dock was reluctant to do that – he was very busy with such a project for the Boulder Carnegie Branch Library. Those recordings exist as prized entries to the library's history of Boulder County.

Dock was the first volunteer to serve on Boulder Open Space. He was active with IPCAS and CAS until recent health problems limited his activities. In 2005, Dock and Pete co-authored an article in *Southwestern Lore* – "Cartridges, Caps, and Flints: A Primer for Archaeologists". Dock often led discussions on the history and development of Boulder County roads, from early wagon trails, through stagecoach roads, railroads, and automobile roads. He often included information about many economic changes that stimulated their development, such as the gold rush, mines, sawmills, agriculture, and tourist lodges.

He was a friendly, helpful companion that wanted to give everyone an idea of the history of Boulder County. He did not hold information back and knew more stories about more people than anyone else I've ever met.

Dock was a tremendously nice guy and an important part of IPCAS in prior years.
Tom Cree

Boulder Daily Camera

Dorse M. Teegarden

Posted: 12/16/2009 01:00:00 AM MST

Dorse "Dock" M. Teegarden passed away on December 11, 2009, in Boulder, CO. He was 90. At his request, there will be no services.

Dock is survived by his wife Dorothy of Boulder, his brother Wayne Teegarden in Texas, and his niece Linda Brown of Loveland, CO.

Dock Teegarden's love of the West spanned nine decades

Silvia Pettem, for the Camera

Posted: 01/03/2010 09:22:56 AM MST

In 1984, at the age of 65, Dorse "Dock" Teegarden suffered a heart attack. When he recovered, his doctor told him he had to walk two miles a day. Instead of hitting the sidewalks around his south Boulder home, he headed for the open lands he had known and loved all his life. The walking gave Dock a new lease on life--a long life that spanned nine decades of Boulder history. He died on Dec. 11 at the age of 90.

"I've been something of a romanticist and always had an interest in the West," he told me, several years ago. "Sometimes I feel I was born fifty years too late. I would have liked to have seen the buffalo."

Born in Boulder in 1919, Dock was a Depression-era kid who grew up exploring the foothills. Although he had friends his own age, he preferred spending time with older people. He said that the old-timers tolerated him, took him hunting and fishing, and made life a lot more interesting.

Dock's father, Myron Teegarden, was a plumber but joined the Boulder Police Department after being out of work. Myron climbed the ladder to become police chief, taking office in 1949.

By then, Dock had served in the Army Air Corps during World War II. Upon his return to Boulder in the summer of 1945, he took a job with the Boulder County Sheriff's Office. At first, he worked the crowds at the Boulder Pow-Wow rodeo, then he assisted identification officer Ed Tangen.

Law-enforcement became a big part of the lives of both father and son. Myron, along with Sheriff Art Everson, started what was called the Boulder Crime School. In annual weeklong training sessions, officers from Colorado and surrounding states were taught the latest techniques in crime-scene investigation.

In the early 1950s, these classes included identification of evidence, blood and fingerprint collections, and ballistics and gunpowder tests, as well as analyses of hair, fiber, handwriting, and typewriting specimens. Class members also learned to organize, chart, draw, and photograph crime scenes. As a deputy, Dock attended the classes, and he also served as Boulder County's under-sheriff, from 1953 to 1955. Afterwards, he was hired by the U.S. Postal Service and worked for many years at the main post office and then the Hi Mar Station. (Myron remained police chief until 1967.)

During Dock's retirement, and after his heart attack, he worked as a City of Boulder Open Space Department volunteer, committed not only to protecting the land but also to preserving its past. Everything interested him, from weeds and wildlife to Indian artifacts and the still-visible routes of stagecoaches and railroads. During this time, Dock also volunteered at the Sheriff's Office, providing assistance with its firearms program and reviewing cold case files. At least two days a week, however, he could be found repairing fences, hanging signs, measuring trails, chasing cows, or documenting newly discovered historic sites.

One of his tasks was to hike with new trail guides. "If they're interested and asking questions, then I have the time," he stated. "I'm proud of this country, damn it, and I feel like passing on some of the heritage."

Rapid Sea Level Rise In The Arctic Ocean May Alter Views Of Human Migration

ScienceDaily (Oct. 12, 2006) — Scientists have found new evidence that the Bering Strait near Alaska flooded into the Arctic Ocean about 11,000 years ago, about 1,000 years earlier than widely believed, closing off the land bridge thought to be the major route for human migration from Asia to the Americas.

Knowledge of climate change and sea level rise in the Arctic Ocean has been limited because sediment cores collected from the floor of the Arctic Ocean have been taken from locations where sediment has accumulated only about one centimeter (less than one-half inch) every 1,000 years. Such slow rates make it impossible for scientists to distinguish between one millennium and the next.

In a paper in the October issue of *Geology* magazine, lead author Lloyd Keigwin of the Woods Hole Oceanographic Institution (WHOI) and colleagues from WHOI, Neal Driscoll from Scripps Institution of Oceanography at UC San Diego and Julie Brigham-Grette of the University of Massachusetts, Amherst report results from three new core sites north and west of Alaska in the Chukchi Sea. At these locations, accumulation of sediment is more than 100 times greater than at previous sites, allowing identification of climate changes that were previously unseen. During the expeditions, the researchers extracted the longest piston core ever obtained from the Arctic region.

The Chukchi Sea in the Arctic Ocean covers part of the continental shelf exposed when sea level fell during the last glacial maximum, about 20,000 years ago. When sea level was low the climate in the area was more continental across a large area of the Arctic, and when sea level was high the flow of water from the North Pacific Ocean through the Bering Strait between Russia and Alaska, where the sill depth is 50 meters (165 feet), affected the freshwater and nutrient balance of the Arctic and the North Atlantic. The traditional view that humans and fauna migrated across the exposed shelf before flooding has been challenged by recent studies suggesting a maritime route for migration.

“Although we have only a few cores, this is the first evidence of flooding of the Chukchi Sea by 11,000 years ago, at least 1,000 years before previously thought,” Keigwin said. “The new data are also consistent with data from other recent studies, and show potential for developing ocean and climate histories of this region.”

Keigwin, a senior scientist in the WHOI Geology and Geophysics Department, and colleagues surveyed and collected cores from many locations in the Bering and Chukchi Seas in 2002 to study climate and sea level. Cores from these sites reveal that rising sea level flooded the Bering Strait about 12,000 years before present. Since 7,000 years ago, very little sediment has eroded from Alaska compared to before that time, and beginning about 4,000 years ago there has been a decline in biological productivity that may have resulted from increased sea ice or decreased nutrient supply from the Bering Strait.

“Our research suggests there was more ice present in the region during the last glacial period than previously thought,” said co-author Neal Driscoll, a professor in the Geosciences Research Division at Scripps Oceanography. “Evidence of an increased sedimentation rate, along with deep valleys cut into the continental shelf when sea level was rising rapidly during the deglaciation, helped guide us to that result. Additional ice in this region of the Arctic is an important discovery, and is significant in helping our understanding of climate models, circulation and precipitation during glacial periods.”

Cores from Hope Valley on the Chukchi shelf and Barrow Canyon off Point Barrow, Alaska contain high resolution records of climate, sea-level change and the history of the sediment source. The researchers sampled the cores to identify skeletons of animals, known as foraminifera, that can be traced to specific water and atmospheric temperatures. The samples were also radiocarbon dated at the National Ocean Sciences Accelerator Mass Spectrometry facility at WHOI.

The cores were collected during a cruise in 2002 on the U.S. Coast Guard Cutter Healy. The research was funded by the National Science Foundation and the Oak Foundation.

Dutch Archaeologists Uncover Earliest Egyptian Temple

ScienceDaily (Jan. 21, 2000) — During excavations at Tel Ibrahim Awad in the eastern Nile Delta, Dutch archaeologists discovered a large Middle Kingdom temple. Beneath this building, which dates from around 2000 BC, there were traces of five earlier temples, the earliest dating back to around 3100 BC. This is at least as old as the oldest temple previously discovered, namely at Hierakonpolis. Heavy-duty groundwater pumps had to be brought in to make it possible to reach the earliest remains. Financial support for the excavations was provided by the NWO's Council for the Humanities.

The ground plan of the earliest of these temples is unlike anything previously discovered in Egypt, and no other sites are known where a similar series of temples was built one on top of the other and which date back so far. The archaeologists do not yet know which gods were worshipped in the temples. In the third-earliest, they discovered about a thousand "disposable ritual objects", including statuettes of baboons and pottery. According to the laws of the ancient Egyptians, objects which had been used in religious worship must not be profaned and they therefore had to be preserved within the walls of the temple. The objects are currently being studied to see what they can tell us about temple rituals at this early date. No inscriptions were found to provide any clues. Alongside the temple, a burial ground was discovered containing 50 small-scale tombs from various periods. Excavation of a large First Dynasty tomb (about 3000 BC) uncovered rich finds of pottery and of stone and bronze vessels.

The archaeologists are collaborating under the auspices of the Netherlands Foundation for Archaeological Research in Egypt, linked to Amsterdam University (UvA). They chose the area to be excavated ten years ago on the basis of the remains of walls and fragments of pottery visible on the surface. Increasing population pressure in the Nile Delta is making archaeological investigations more difficult. Only five percent of Egypt is habitable, so that archaeological research has to compete with land cultivation, infrastructure and urban expansion.

Earliest Signs Of Corn As Staple Food Found

ScienceDaily (Mar. 25, 2008) — Corn has long been known as the primary food crop in prehistoric North and Central America. Now it appears it may have been an important part of the South American diet for much longer than previously thought, according to new research by University of Calgary archaeologists who are cobbling together the ancient history of plant domestication in the New World.

In a paper published in the Proceedings of the National Academy of Sciences, U of C PhD student Sonia Zarrillo and archaeology professor Dr. Scott Raymond report that a new technique for examining ancient cooking pots has produced the earliest directly dated examples of domesticated corn (maize) being consumed on the South American continent. Their discovery shows the spread of maize out of Mexico more than 9,000 years ago occurred much faster than previously believed and provides evidence that corn was likely a vital food crop for villages in tropical Ecuador at least 5,000 years ago.

"The domestication and dispersal of maize has been a hot topic in archaeology for decades and these are the earliest indisputable dates for its presence in South America," Raymond said. "It has long been thought that maize may have been used south of Panama at this time for ritual purposes but this shows it was also being consumed as food."

Raymond led the excavation of tropical village sites in western Ecuador in the early 1980s, which are the oldest known villages in the Americas. Using pottery fragments recovered from the sites, Zarrillo obtained the charred remnants of prehistoric meals and found they contained starch granules from domesticated corn. "Plant material typically does not preserve very well in tropical sites but it turns out that microscopic starch grains do survive very well over the years and can be used to identify exact species of plants," Zarrillo said. "Analyzing starch from charred food residues is a new technique in archaeology and it is exciting because it will stimulate research around the world when people realize they can recover starch from cooking pots and use it to date and identify what people were using as food."

Starch analysis was also used by Zarrillo and Raymond for a study published in *Science* last year that traced the domestication and spread of chili peppers throughout South America, Central America and the Caribbean more than 6,000 years ago.

The paper "Directly dated starch residues document early formative maize (*Zea mays* L.) in tropical Ecuador" by Sonia Zarrillo, Deborah M. Pearsall (University of Missouri), J. Scott Raymond, Mary Ann Tisdale (Canadian Heritage, Government of Canada) and Dugane Quon (Canadian Food Inspection Agency) will be available in the March 24 online early edition of the *Proceedings of the National Academy of Sciences*

Researchers Find Evidence Of The Earliest Writing In The New World

ScienceDaily (Sep. 15, 2006) — New research published this week in *Science* details the discovery of a stone (serpentine) block in Veracruz, Mexico, containing a previously unknown system of writing, thought to be the earliest in the New World.

An international team of archaeologists, including Brown University's Stephen D. Houston, determined that the slab – named the "Cascajal block" – dates to the early first millennium B.C.E. and has features that indicate it comes from the Olmec civilization of Mesoamerica. They say the block and its ancient script "link the Olmec civilization to literacy, document an unsuspected writing system, and reveal a new complexity to this civilization."

"It's a tantalizing discovery. I think it could be the beginning of a new era of focus on Olmec civilization," said Houston, an expert on ancient writing systems and corresponding author for the *Science* article. "It's telling us that these records probably exist and that many remain to be found. If we can decode their content, these earliest voices of Mesoamerican civilization will speak to us today."

Road builders first discovered the Cascajal block in a pile of debris heaped to the side of a destroyed area in the community of Lomas de Tacamichapa in the late 1990s. Mexican archaeologists Carmen Rodríguez and Ponciano Ortíz, lead authors of the article in *Science*, were the first to recognize the importance of the find and to register it officially with the Government authority, the Instituto Nacional de Antropología e Historia of Mexico. Surrounding the piece were ceramic sherds, clay figurine fragments, and broken artifacts of ground stone, which, in addition to "internal clues" and "regional archaeology," have helped the team date the block and its text to the San Lorenzo phase, ending about 900 B.C.E. That's approximately 400 years before writing was thought to have first appeared in the Western hemisphere.

Carved of the mineral serpentine, the block weighs about 26 pounds and measures 36 cm long, 21 cm wide, and 13 cm thick. The incised text consists of 62 signs, some of which are repeated up to four times. Because of its distinct elements, patterns of sequencing, and consistent reading order, the team says the text "conforms to all expectations of writing."

"As products of a writing system, the sequences would, by definition, reflect patterns of language, with the probable presence of syntax and language-dependent word order," the article states.

Five sides on the block are convex, while the remaining surface containing the text appears concave; hence, the team believes the block has been carved repeatedly and erased – a discovery Houston calls "unprecedented." Several paired sequences of signs also lead the researchers to believe the text contains poetic couplets which would be the earliest known examples of this expression in Mesoamerica.

In addition to Houston, the research team includes some of the world's top experts on Olmec civilization, ceramics, and imagery: Ma. del Carmen Rodríguez Martínez and Alfredo Delgado Calderón of the Centro del Instituto Nacional de Antropología e Historia of Mexico; Ponciano Ortíz Ceballos of the Instituto de Antropología de La Universidad Veracruzana; Michael D. Coe of Yale University; Richard A. Diehl of University of Alabama; and Karl A. Taube of University of California-Riverside.

•

First Jesus-era House Found in Nazareth

By Diaa Hadid The Associated Press

NAZARETH, Israel- Just in time for Christmas, archaeologists on Monday unveiled what may have been the home of one of Jesus' childhood neighbors. The humble dwelling is the first dating to the era of Jesus to be discovered in Nazareth, then a hamlet of around 50 impoverished Jewish families where Jesus spent his boyhood.

Archaeologists and present-day residents of Nazareth imagined Jesus as a youngster, playing with other children in the isolated village, not far from the spot where the Archangel Gabriel revealed to Mary that she would give birth to the boy.

Today the ornate Basilica of the Annunciation marks that spot, and Nazareth is the largest Arab city in northern Israel, with about 65,000 residents. Muslims now outnumber Christians two to one in the noisy, crowded city.

The archaeological find shows how different it was 2000 years ago: There were no Christians or Muslims; the Jewish Temple stood in Jerusalem; and tiny Nazareth stood near a battleground between Roman rulers and Jewish guerrillas.

The Jews of Nazareth dug camouflaged grottos to hide from Roman invaders, said archaeologist Yardena Alexandre, excavations director at the Israel Antiquities Authority. But the hamlet was so far off the beaten path that the caves were apparently not needed, she said.

Based on clay and chalk shards found at the site, the dwelling appeared to house a "simple Jewish family," Alexandre added, as workers carefully chipped away at mud with small pickaxes to reveal stone walls. "This may well have been a place that Jesus and his contemporaries were familiar with," Alexandre said. A young Jesus may have played around the house with his cousins and friends. "It's a logical suggestion."

The discovery so close to Christmas pleased local Christians. "They say if the people do not speak, the stones will speak," said the Rev. Jack Karam of the nearby basilica.

Archaeologist Stephen Pfann, president of the University of The Holy Land, noted: "It's the only witness that we have from that area that shows us what the walls and floors were like inside Nazareth in the first century." Pfann was not involved in the dig.

Alexandre said workers uncovered the first signs of the dwelling last summer, but it became clear only this month that it was a structure from the days of Jesus.

Alexandre's team found remains of a wall, a hideout, a courtyard and a water system that appeared to collect water from the roof and supply it to the home. The discovery was made when builders dug up the courtyard of a former convent to make room for a new Christian center, just yards from the Basilica.

It is not clear how big the dwelling is. Alexandre's team has uncovered about 900 square feet of the house, but it may have been for an extended family and could be much larger, she said.

Archaeologists also found a camouflaged entryway into a grotto, which Alexandre believes was used by Jews to hide from Roman soldiers who were battling Jewish rebels for control of the area.

The grotto could have hidden around six people for a few hours, she said. Archaeologists also found clay and chalk vessels likely used by Galilean Jews of the time.

Anthropologist Finds Earliest Evidence Of Maize Farming In Mexico

ScienceDaily (Apr. 10, 2007) — A Florida State University anthropologist has new evidence that ancient farmers in Mexico were cultivating an early form of maize, the forerunner of modern corn, about 7,300 years ago - 1,200 years earlier than scholars previously thought.

Professor Mary Pohl conducted an analysis of sediments in the Gulf Coast of Tabasco, Mexico, and concluded that people were planting crops in the "New World" of the Americas around 5,300 B.C. The analysis extends Pohl's previous work in this area and validates principles of microfossil data collection.

The results of Pohl's study, which she conducted along with Dolores R. Piperno of the National Museum of Natural History in Washington, D.C. and the Smithsonian Tropical Research Institute in the Republic of Panama, Kevin O. Pope of Geo Arc Research and John G. Jones of Washington State University, will be published in the April 9-13 edition of the journal *Proceedings of the National Academy of Sciences*.

"This research expands our knowledge on the transition to agriculture in Mesoamerica," Pohl said. "These are significant new findings that fill out knowledge of the patterns of early farming. It expands on research that demonstrates that maize spread quickly from its hearth of domestication in southwest Mexico to southeast Mexico and other tropical areas in the New World including Panama and South America."

The shift from foraging to the cultivation of food was a significant change in lifestyle for these ancient people and laid the foundation for the later development of complex society and the rise of the Olmec civilization, Pohl said. The Olmecs predated the better known Mayans by about 1,000 years.

"Our study shows that these early maize cultivators located themselves on barrier islands between the sea and coastal lagoons, where they could continue to fish as well as grow crops," she said. During her field work in Tabasco seven years ago, Pohl found traces of pollen from primitive maize and evidence of forest clearing dating to about 5,100 B.C. Pohl's current study analyzed phytoliths, the silica structure of the plant, which puts the date of the introduction of maize in southeastern Mexico 200 years earlier than her pollen data indicated. It also shows that maize was present at least a couple hundred years before the major onset of forest clearing. Traces of charcoal found in the soil in 2000 indicated the ancient farmers used fire to clear the fields on beach ridges to grow the crops.

"This significant environmental impact of maize cultivation was surprisingly early," she said. "Scientists are still considering the impact of tropical agriculture and forest clearing, now in connection with global warming."

The phytolith study also was able to confirm that the plant was, in fact, domesticated maize as opposed to a form of its ancestor, a wild grass known as teosinte. Pohl and her colleagues were unable to make the distinction after the pollen study. Primitive maize was probably domesticated from teosinte and transported to the Gulf Coast lowlands where it was cultivated, according to Pohl.

The discovery of cultivated maize in Tabasco, a tropical lowland area of Mexico, challenges previously held ideas that Mesoamerican farming originated in the semi-arid highlands of Mexico and shows an early exchange of food plants.

Pohl's PNAS article also addresses misconceptions about the paleoecological method, which recovers microfossil evidence, such as pollen, starch grains, or phytoliths, as opposed to macrofossils or whole plant parts, such as maize cobs. Pohl and her colleagues argue that contamination of samples through the geological processes of sediment mixing is more likely to occur with macrofossils than microfossils.

The National Science Foundation and the Foundation for the Advancement of Mesoamerican Studies funded the research.

World's Oldest Submerged Town Dates Back 5,000 Years

ScienceDaily (Oct. 16, 2009) — Archaeologists surveying the world's oldest submerged town have found ceramics dating back to the Final Neolithic. Their discovery suggests that Pavlopetri, off the southern Laconia coast of Greece, was occupied some 5,000 years ago — at least 1,200 years earlier than originally thought.

These remarkable findings have been made public by the Greek government after the start of a five year collaborative project involving the Ephorate of Underwater Antiquities of the Hellenic Ministry of Culture and The University of Nottingham.

As a Mycenaean town the site offers potential new insights into the workings of Mycenaean society. Pavlopetri has added importance as it was a maritime settlement from which the inhabitants coordinated local and long distance trade.

The Pavlopetri Underwater Archaeology Project aims to establish exactly when the site was occupied, what it was used for and through a systematic study of the geomorphology of the area, how the town became submerged.

This summer the team carried out a detailed digital underwater survey and study of the structural remains, which until this year were thought to belong to the Mycenaean period — around 1600 to 1000 BC. The survey surpassed all their expectations. Their investigations revealed another 150 square metres of new buildings as well as ceramics that suggest the site was occupied throughout the Bronze Age — from at least 2800 BC to 1100 BC.

The work is being carried out by a multidisciplinary team led by Mr Elias Spondylis, Ephorate of Underwater Antiquities of the Hellenic Ministry of Culture in Greece and Dr Jon Henderson, an underwater archaeologist from the Department of Archaeology at The University of Nottingham.

Dr Jon Henderson said: “This site is unique in that we have almost the complete town plan, the main streets and domestic buildings, courtyards, rock-cut tombs and what appear to be religious buildings, clearly visible on the seabed. Equally as a harbour settlement, the study of the archaeological material we have recovered will be extremely important in terms of revealing how maritime trade was conducted and managed in the Bronze Age.”

Possibly one of the most important discoveries has been the identification of what could be a megaron — a large rectangular great hall — from the Early Bronze Age period. They have also found over 150 metres of new buildings including what could be the first example of a pillar crypt ever discovered on the Greek mainland. Two new stone built cist graves were also discovered alongside what appears to be a Middle Bronze Age pithos burial.

Mr Spondylis said: “It is a rare find and it is significant because as a submerged site it was never re-occupied and therefore represents a frozen moment of the past.”

The Archaeological Co-ordinator Dr Chrysanthi Gallou a postdoctoral research fellow at The University of Nottingham is an expert in Aegean Prehistory and the archaeology of Laconia.

Dr Gallou said: “The new ceramic finds form a complete and exceptional corpus of pottery covering all sub-phases from the Final Neolithic period (mid 4th millennium BC) to the end of the Late Bronze Age (1100 BC). In addition, the interest from the local community in Laconia has been fantastic. The investigation at Pavlopetri offers a great opportunity for them to be actively involved in the preservation and management of the site, and subsequently for the cultural and touristic development of the wider region.”

The team was joined by Dr Nicholas Flemming, a marine geo-archaeologist from the Institute of Oceanography at the University of Southampton, who discovered the site in 1967 and returned the following year with a team from Cambridge University to carry out the first ever survey of the submerged town. Using just snorkels and tape measures they produced a detail plan of the prehistoric town which consisted of at least 15 separate buildings, courtyards, streets, two chamber tombs and at least 37 cist graves. Despite the potential international importance of Pavlopetri no further work was carried out at the site until this year.

This year, through a British School of Archaeology in Athens permit, The Pavlopetri Underwater Archaeology Project began its five year study of the site with the aim of defining the history and development of Pavlopetri. Four more fieldwork seasons are planned before their research is published in full in 2014.

Minutes – IPCAS Executive Board Meeting – January 7, 2009 – 7:30pm – 9:00pm:

Location: Boulder Main Library

Executive Board Member Attendees: Kris Holien, Carolyn Camell-Copin, Tom Cree, Cheryl Damon, Karen Kinnear, Joanne Turner, Dave Hawley, and Anne Robinson.

Secretary's Report (Hawley):

Minutes of the last Board meeting on December 4, 2009 were published in the December 2009 *Calumet* Newsletter.

Treasurer's Report (McComb):

End of Month Date	Beginning Balance	Ending Balance	Number of Renewals
December, 2009	\$2,537.01	\$2,561.91	1

- Three donations received totaling \$117
- \$100 donation sent to the Alice Hamilton Scholarship Fund
- An audit will be conducted in January 2010 associated with the transfer of Treasurer duties to Carolyn Camell-Copin (subject to confirmation of the 2010 slate of Officers during the meeting on January 14, 2010).
- Honoraria stipends will be coordinated between the outgoing and incoming Treasurers.
- The P.O. Box key has been transferred to Anne Robinson, our incoming President (subject to confirmation of the 2010 slate of Officers during the meeting on January 14, 2010).

President's Report (Holien):

- Kris will preside over the confirmation of the 2010 slate of Officers during the meeting on January 14, 2010 as well as announce the need for individuals to fill the open slots of CAS Representative and Membership Chair.
- The CAS Quarterly meeting will be held in CO Springs on January 23, 2010. Executive Committee members who plan to attend include Kris, Anne, Carolyn, and Joanne.

Old Business:

- IPCAS Website – Tom is still working technical issues associated with bringing the web site back on-line. The CAS website is also down based on virus issues.
- Speaker Scorecard:
 - January 2010 Meeting: Kevin Black will present on Lithic Sourcing, the 2010 slate of Officers will be confirmed, Tom will recruit for refreshments, Tom will ensure that a program notice is provided to the *Hale Herald*, and Tom will email the code for parking lot to the membership to be used on the evening of the January 14, 2010 meeting.
 - February 2010 Meeting: Bob Rushforth will present on Aviation Archeology.
 - March 2010 Meeting: Kris will seek to lock in a presenter for this meeting.
 - April 2010 Meeting: Dr. Arthur Joyce and grad students will present on the Rio Viejo Site, Oaxaca, Mexico.
 - May 2010 Meeting: Kris will seek to lock in presenter during this celebration of Colorado Archeology & Historical Preservation month.

New Business:

- PAAC – Dave shared that there will be no PAAC class in the Spring of 2010 because of the conflict with the physical move of CAS offices in Denver, but we are hoping to hold a PAAC class in the Fall of 2010. The 29th Street mall conference room has been reserved for the Fall dates.
- Consensus was achieved that the IPCAS dues period be changed to coincide with the calendar year. Our new Membership Chair will be asked to coordinate with the Treasurer during the first half of this calendar year to pro-rate dues payments so that all members will be paid through December 31, 2010. Thereafter dues will be collected from November through March for the following calendar years.
- Consensus was that IPCAS needs to establish a budget. Our new Treasurer will draft a budget for Board consideration.
- Re-establishing an IPCAS Library was viewed as low priority at this point, but if an individual is interested in becoming the Librarian, the Board will certainly entertain a proposal. Challenges to overcome include finding a storage location for the Library resources (storage may not be available in the Museum).

The next Board meeting on February 4, 2010 will be held at Tom's home in Longmont. Members are welcome to attend but must pre-coordinate with Tom.

2009 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-Copin	(303) 775-9206	cacc.co@live.com
Secretary	Dave Hawley	(303) 443-2332	dave_hawley@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	Kris Holien	(970) 586-8982	kjholien@aol.com
Internet Manager	Cyndi Cree	(310) 663-0656	c_cree@hotmail.com
Archivist/Librarian	Kris Holien	(970) 586-8982	kjholien@aol.com
Calumet Editor	Tom Cree	(303) 776-7004	tomcree@earthlink.net
Board Member	Maureen Arthur	(303) 823-5769	maureenfarthur@hotmail.com
Board Member	Kris Holien	(970) 586-8982	kjholien@aol.com
Board Member	Joanne Turner	(303) 494-7638	joanne.turner@colorado.edu
Board Member	Cheryl Damon	(303) 678-8076	cheryl_damon@msn.com

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** _____

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

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

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