



# Sacramento Archeological Society, Inc. Newsletter

[www.sacarcheology.org](http://www.sacarcheology.org)

September/October - 2016

## UPCOMING EVENTS

September 10, 2016, Saturday – 3:00 to 6:00 p.m. - Utah Rock Art Preview Potluck at Roger and Lydia Peake's home

September 10, 2016, Saturday – 6:00 to 7:30 p.m. - Board Meeting at Roger and Lydia Peake's home

September 27- October 8, 2016 – Utah Rock Art Tour

October 15, 2016, Saturday - 10:00 a.m. to 4:00 p.m. – “Paleo-Indians in California” workshop and lectures by archeologists: Gerrit Fenenga, Rick Fitzgerald, and Greg White, at Maidu Museum and Historical Site

December 3, 2016 – Scholar Presentations at Annual Meeting at Carolyn and Gordon McGregor's

### *Paleo-Indians in California*

Saturday, October 15, 2016

10:00 a.m. – 4:00 p.m.

Hosted by Maidu Museum & Historical Site

1970 Johnson Ranch Drive, Roseville, California 95661

**OPEN TO THE PUBLIC - DONATIONS welcome**

Archeologists present viewpoints on Paleo-Indians (the first people who entered and inhabited the Americas) with a focus on recent research, important sites and artifacts in California. Enjoy an informal viewing of a collection of modified Pleistocene animal bone, mineralized bone and wooden artifacts, Clovis blade technology, and examples of other lithic artifact types such as points and crescents.

#### **Program**

10:00 a.m. - Tour of Maidu Rock Art – Dan Foster

11:00 a.m. – Paleo-Indian Introduction – John Foster, “SAS Texas & Oregon Tour Insights”

11:30 a.m. to 1:00 p.m. – Lunch break (Bring your own lunch or get lunch in the area and enjoy museum)

1:00 to 1:45 p.m. - Gerrit Fenenga, “Witt Site – Tulare Lake”

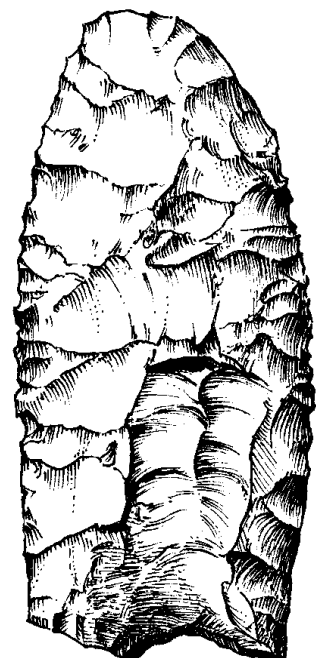
1:45 to 2:30 p.m. - Rick Fitzgerald, “Paleo-Coastal Tradition: Real or Imagined 30 years later”

2:30 to 2:45 p.m. - Break

2:45 to 3:30 p.m. - Greg White, “Borax Lake & Northern Sites”

3:30 to 4:00 p.m. - Closing

For more information contact Ruth McElhinney at 916-396-4945.



## **Distinguished Presenters**

### **Gerrit L. Fenenga, Senior State Archaeologist, Cal Fire**

Gerrit has been involved in California archaeology since 1967. He worked for the first private archaeological consulting firm in the United States (ARI), as well as with the BLM (Indio Resource Area), USFS (Sequoia NF), and California State Parks (Southern Region). He received his academic training at U.C. Berkeley, where he earned his Bachelor's, Master's, and Doctoral degrees. He taught archaeology and biological anthropology for 15 years in the UC and CSU systems. Since 1999, he has been an archaeologist for the California Department of Forestry and Fire Protection (Cal Fire) where he teaches at the CDF Academy and is involved in both regulating the timber industry and managing cultural resources during wildfire events.

His interests in archaeology are diverse, but most of his current research involves the Pleistocene and early Holocene prehistory of California. He has published articles on a variety of topics in California Archaeology, the JCGBA, the Proceedings of the SCA, the PCASQ, the Contribution Series of the TULARG, and elsewhere. Gerrit's research has primarily focused on the early prehistory of central California with particular interest in technological adaptations of the late Pleistocene and early Archaic transition. He is also the caretaker of his father's (Franklin Fenenga) extensive research library and continues to work with the archives. His work with the early sites in the Tulare Lake basin, and his expertise on lithics technology provides important insight into Paleo-Indians in California.

### **Rick Fitzgerald, Senior State Archaeologist**

Rick worked for the National Park Service at a variety of historic national parks and monuments after receiving a B.A. in Anthropology from San Francisco State University. Realizing that more education was important he entered graduate school at San Jose State University. During his graduate school years he gathered a great deal of field experience working for a variety of agencies including the NPS in Yosemite, California Department of Transportation (Caltrans) in the Bay Area, the U.S. Forest Service on the Mendocino National Forest, the anthropology lab at Sonoma State and many private firms. After receiving his master's degree from San Jose State he returned to NPS where he spent two years as the assistant Park archaeologist at four northern California national parks. After a four-year period of working and living on the central coast, where he has done his most important work and research, he returned to the Bay Area with Caltrans. After five and a half years at Caltrans he moved to the Cultural Heritage Section of California DPR (Department of Parks and Recreation) and was very excited about the opportunity to work for an organization whose stated purpose is to preserve California's invaluable, and irreplaceable, cultural resources.

There are few areas of California prehistory in which he does not find some kind of interest, but lately have now become more focused on the very earliest periods of California prehistory. His master's thesis on the early inhabitants of the Bay Area introduced him to this topic and over the years he has been fortunate to work on several important sites of great antiquity including Cross Creek (CA-SLO-1797), a 10,000 year old deposit on which he directed excavations for the Department of Water Resources. He is very interested in the Late Pleistocene/ Early Holocene Transition period and how the Californian archaeological record of this time articulates with the colonization of the New World.

## **Gregory G. White, Ph.D., Owner/Principal**

Greg White's archaeological career began four decades ago when he participated in excavations. Greg's academic training was at Sonoma State University where he obtained his B.A and University of California, Davis where he received his M.A. and Ph.D. in Anthropology. His extensive archaeological experience results from positions as project coordinator, field director and principal investigator experience at Sonoma State University, California State University, Chico and Pacific Legacy, Inc. Greg is currently principal/owner of SubTerra Consulting. SubTerra Consulting provides archaeological consultation services to private, tribal, federal, state, and local government clients. These services include prehistoric and historical archaeology, paleontology, identification, recovery, and analysis of human remains, Native American coordination, cultural resource management training, laboratory analysis, academic research, document review, and heritage resource regulatory compliance in Northern California and throughout the western states.

Greg has been involved in a multitude of archeological projects. One which highlights Paleo-Indians is in the Clearlake area. During the 1992–1996 period Greg was Co-Principal Investigator (with Dr. David A. Fredrickson) on the Anderson Flat Archaeological Data Recovery Project. This project was to perform data recovery investigations along the Hwy 29/53 corridor between the cities of Lower Lake and Clearlake, eastern Lake County, CA. As a result of this project Greg became very familiar with the area including the Borax Lake site.

## ***Utah Rock Art Tour Preview Potluck***

**Saturday, September 10, 2016**

3:00 – 6:00 p.m.

Roger Peake and Lydia Peake's home

2951 Redwood Avenue, West Sacramento, CA 95691

An informal pot luck dinner and Utah Rock Art Information Session will be held on Saturday, September 10 from 3:00 p.m. to 6:00 p.m. Bob Leach, a rock art enthusiast, will present a slide show of Barrier style rock art. Participants for the Utah Rock Art Tour will have the opportunity to receive more information on the tour clusters and have questions answered. Additional tour handouts will be distributed and release forms will be signed.

Please RSVP your attendance at this event to [rapeake@att.net](mailto:rapeake@att.net) or phone 916-371-6391.

This event is open to all members. All participants of the Utah Rock Art Tour are specifically invited.

# Utah Rock Art Tour

Tuesday, September 27, 2016 through Saturday, October 8, 2016

The Sacramento Archeological Society, Inc. is sponsoring a fall 2016 trip to Utah to explore rock art and native American pueblo culture. We will visit several of the spectacular rock art sites in **eastern Utah** that illustrate Archaic (Barrier Canyon Style) chronologically followed by Anasazi, Fremont, Formative and Ute. Rock art will be the focus of the tour but we also plan to visit cultural and historic sites, museums, dinosaur quarries, and enjoy the natural beauty of the area. In Colorado we will be introduced to pueblo culture.

The tour is scheduled during the two weeks in late September and early October (i.e. **Tuesday, September 27, 2016 through Saturday, October 8, 2016**). The Tour is organized into geographic “clusters” identified by a significant town in the area where we will find lodging.

**Tour Reservations:** The tour is fully booked at this time. For information contact **Roger and Lydia Peake** at [rapeake@att.net](mailto:rapeake@att.net).

## SAS Utah Rock Art Tour Schedule 2016

**Day**                      **Activity**                      **Lodging**

### Cluster 1 – Vernal and Price, Utah

Day 1 - 9/27/16, T	2:00 p.m. – Meet at Dinosaur National Monument, Vernal – McKee Springs Rock Art (for interested participants and if road conditions permit) Meet in Vernal and check into lodging 5:00 pm Preview Cluster 1	Days Inn, Vernal, UT 84078 (435) 789-0666 1092 West Highway 40
Day 2 - 9/28/16, W	9:00 a.m. Utah Field Museum of Natural History Guided Tour 498 E. Main, Vernal - McConkie Ranch Rock Art	Days Inn, Vernal, UT
Day 3 - 9/29/16, Th	9:00 am Guided Tour - Dinosaur National Monument, Vernal - Rock Art @ Dinosaur - Drive to Price 113 mi. - Utah State University Eastern Prehistoric Museum 155 East Main Street, Price	Legacy Inn, Price, UT 84501 (435) 637-2424 145 N. Carbonville Rd
Day 4 - 9/30/16, F	Nine Mile Canyon Rock Art & Historical 5:00 p.m. Preview Cluster 2	Legacy Inn, Price, UT

### Cluster 2 – Green River

Day 5 - 10/1/16, Sat	- Wedge overlook - Dinosaur foot print - Buckhorn Draw Rock Art - San Rafael River and geology view point beyond swinging bridge - Cleveland Dinosaur Quarry - Cedar Mountain Rock Art (if time permits)	Legacy Inn, Price, UT
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Day 6 - 10/2/16, Sun	- Rochester Rock Art - Moore Cutoff Road Rock Art - San Rafael Reef Viewpoint - Temple Mountain Rock Art & uranium history - Goblin Valley State Park (if time permits)	Super 8, Green River, UT 84525 (435) 564-8888 1248 E Main St
Day 7 - 10/3/16, M	- Black Dragon Rock Art - Tusher Canyon Rock Art - Thompson Wash Rock Art - Sego Canyon (if time permits) - John Wesley Powell Museum 1765 East Main St, Green River, UT 5:00 p.m. Preview Cluster 3	Super 8, Green River, UT

<b>Day</b>	<b>Activity</b>	<b>Lodging</b>
<b>Cluster 3 – Moab</b>		
Day 8 - 10/4/16, T	- Drive to Moab 52 mi. - Dead Horse Point - 279/Potash Road Rock Art	Riverside Inn, Moab, UT 84532 435-259-8848 988 N. Main St.
Day 9 - 10/5/16, W	- Moab Golf Course Rock Art - Kane Creek Rock Art Free time PM - Courthouse Wash Rock Art (if interested) - Arches Nat'l Mon. Rock Art (if interested) 5:00 p.m. Preview Cluster 4	Riverside Inn, Moab, UT
Day 10 - 10/6/16, Th	- Newspaper Rock Art - Drive to Dolores, CO ~85 mi.	

**Cluster 4 - Cortez (Ancient Puebloan Culture)**

Day 10 – 10/6/16 Th Continued	2:00 and 3:00 p.m. Guided Tour – at Anasazi Heritage Center and Escalante Pueblo, Dolores, CO - Drive to Cortez, 11 mi.	Super 8, Cortez, CO 81321 (970) 565-8888 505 East Main St.
Day 11 - 10/7/16, F	9:00 a.m. - Mitchell Springs Pueblo Excavation - Guided Tour by Dave Dove, Director/Landowner - Picnic lunch – Cortez City Park 12:45 p.m. - Crow Canyon Archaeological Center Guided Tour	Super 8, Cortez, CO
Day 12 - 10/8/16, Sat	- Mesa Verde Visitor and Research Center and Tours - Ute Mountain Tribal Park – rock art and pueblo – alternative	Super 8, Cortez, CO
Day 13 –10/9/16, Sun	Depart to drive or fly home	

# PAST ARCHEOLOGICAL ACTIVITIES

## *Oregon PaleoIndian Tour*

### “Some Personal Reflections on the Sacramento Archaeological Society Field Trip to Oregon”

Gerrit L. Fenenga, Ph.D.

Senior State Archaeologist

California Department of Forestry and Fire Protection (CAL FIRE)

My seventeen year old son Jacob and I were guests of the SAS on it recent expedition to visit archaeological and geological sites in southeastern Oregon. This was a most remarkable adventure and one that will stand out in our memories for a long time. We rode with Dennis and Marti Fenwick and Dan Foster and the car ride was as interesting and fun as any of the stops we made. Neither of us had ever been to southeastern Oregon and Jacob had never been north of Sacramento. Although I am a professional archaeologist and have spent much of my life doing fieldwork of one sort or another, he has only been with me a few times. This trip was quite an experience for him, not the least of which was removing him from his Play Station virtual reality world for nearly two weeks. He then was immersed in an endless barrage of intellectual discussions about the archaeological and geological sites we visited and other topics as we drove in the car. Aside from the geological phenomenon and the amazing series of archaeological locations he saw, Jacob experienced many “firsts” on this trip including seeing the Sutter Buttes, Mt. Lassen, Mt Shasta, the northern Sacramento and Klamath Rivers, the sage brush desert of the Northern Great Basin, pronghorn, bald eagles, geyser, petroglyphs, collecting gemstones (Oregon sun stones), finding Indian artifacts, visiting a rock shop, staying in hotels that still have actual keys to their rooms, and many other things. Dining was a great experience every night and also a source of new experiences for my teenage son. He ate in his first Japanese and Basque restaurants, his first micro-brew pub, and I think his first real steakhouse. We adults enjoyed a variety of adult beverages at dinner and I suspect he may have inadvertently experienced some of that as well. In retrospect, however, I suspect he was most impressed by Dennis’s driving which allowed him to achieve speeds he had never experienced outside of the race car simulator at the Daytona speedway or his Need For Speed computer games.



I have gone on about Jacob’s experiences because it was extraordinary for me to see him in a setting away from home and his normal home life. I am very proud of how he behaved and knowing how much he learned from all the things we did. I also am very pleased that Dennis took a liking and an interest in him and making sure that he enjoyed the trip and was well-taken care of. I personally found traveling with Dennis and Marti fascinating, as she has to be “the most interesting women in the world” and Dennis is like my long-lost brother. Dan, of course, is one of my closest friends. I have known and worked with for years and I cannot say enough good things about him. Without our friendship, I would never have had an opportunity to go on this trip.

I am a professional archaeologist with a particular interest in the original peopling of the New World and especially the earliest prehistory of western North American. My doctoral dissertation was a refutation of the “Western Pluvial Lakes Hypothesis” of Steven Bedwell based on his excavations at the Connley Caves site, so I was quite interested in seeing it, as well as other now well-known early archaeological sites in this region including the Paisley Caves and Fort Rock. Visiting these sites and

getting personal tours and presentations by the very scientists who are currently studying these sites was astounding. We were warmly welcomed by Dennis Jenkins at the Connley Caves where he is conducting excavations with students from the University of Oregon. He gave us a detailed presentation on past and present work at the site and we all learned a great deal about the work Bedwell did there and how it has influenced the scientific work being done there today. Patrick O'Grady, also from the University of Oregon, had another crew excavating at Rimrock Draw, a site which recently produced artifacts from a stratigraphic level below a volcanic ash layer sourced to Mount Saint Helens and dated to roughly 15,400 years ago. The SAS sponsored Rachael Davies' participation in the excavation here last year when this discovery was made. She gave us a short, but excellent introduction to the sites relationship to the early prehistory of the northern Great Basin. Patrick followed with a very long and thorough presentation on the site and the work being done there. We were very fortunate to also here a presentation on the radiocarbon dating work that is being done there by Thomas Stafford, who is probably the top expert in the world on the chemistry of radiocarbon dating and the dating of early human skeletal remains in the New World.

The relatively newly discovered early sites at Sage Hen Gap and Rimrock Draw really impressed me because these sites are situated in more upland settings away from the lacustrine environment of the adjacent Pleistocene lakes. Based on the diagnostic artifacts found in these sites and the radiometric age determinations that have already been published from these, it is clear these are contemporaneous with the lakeside occupations seen throughout the Great Basin and the Far West. The evidence from Rimrock Draw is profound and substantiates a human presence in this region in excess of 15,400 years ago. This date is older than any of the other dated early sites in this region and it clearly demonstrates the use of upland environments in some fashion at an earlier time than any of the known lake shore sites in this region. I should point out, however, that many of the early archaeological sites that have been discovered along the shores of Pleistocene lakes in the Great Basin and in California are especially difficult to accurately date because they are primarily surface manifestations. This is one of the things about the Rimrock Draw Site so exciting. It has both surface manifestations that suggest spatial organization associated with different temporal technologies, and a deep undisturbed stratigraphic deposit that can help sort out some of the current problems relating to these early archaeological manifestations.

In addition to the extraordinary archaeological sites we visited, we saw a number of natural wonders including several obsidian flows where we learned why a large number of woven sandals dating to about 9,000 years ago have been found at Fort Rock and other dry cave sites in this region. One of the most unusual experiences for me was staying in a motel in Lakeview Oregon that has an active geyser in the yard that erupts every 20-30 minutes or so. Another outstanding stop was our visit to the Favell Museum in Klamath Falls. This museum contains an enormous personal collection of archaeological specimens from the Great Basin and the Columbia River regions. This collection is overwhelming and includes some notable materials such as the Nicholerson cache, a preserved ancient knapper's kit that consists of an atlatl, a collection of hafted dart points and shafts, a knapping tool and a small collection of raw lithic materials contained in leather bags. The museum also contains a fantastic collection of western art that is itself worth visiting

In sum, this trip to Oregon was an extraordinary experience. We saw remarkable things and had a wonderful time. The SAS is an outstanding avocational group and it was an honor to be invited. The trip changed my understanding of early Great Basin prehistory and my son's understanding of what intelligent educated adults do for fun.

Photo of Gerrit and Jacob by Dennis Fenwick

For additional photos from Oregon Tour by Dan Foster please see

<http://sacarcheology.org/archaeology-activities/sas-archives/>

# MEMBER'S CORNER

## 2017 Board Members

It is time to think of the 2017 slate of officers. At our next board meeting on September 10<sup>th</sup> the selection of officers and board members will be on the agenda. If you would like to influence the direction of the organization and are willing to serve on the board as an officer or a board member at large, please contact [janjohansen@sbcglobal.net](mailto:janjohansen@sbcglobal.net) or any current board member. We want individuals interested in promoting archaeology to participate on the Sacramento Archeological Society's Board of Directors.

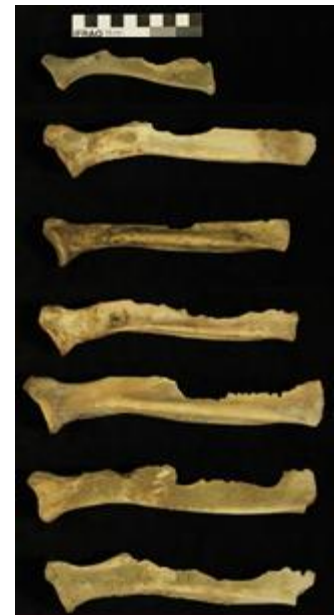
## Scapular Tools - More Research Needed

By Gloria Howat Brown  
[gloriabrown@csus.edu](mailto:gloriabrown@csus.edu)

David Robinson and Julienne Bernard have been conducting archaeological investigations on the Wind Wolves Preserve in Kern County for several years. For three of the last four years, they have been operating field schools on the preserve, investigating several sites, including a cache cave. This year's field school was operated in conjunction with the Institute for Field Research (IFR) <http://www.ifrglobal.org/programs/north-america/ca-windwolves-2016>.

Located in ethnographic Emigdiano Chumash territory, this cache cave, rich with prehistoric perishables, does not appear to be a habitation site but instead a place where visitors would cache raw materials and implements made of wood, stone, bone, and fibrous materials. Cordage, basketry, and matting are all represented, some only by fragments, others in their complete form. Last spring at the SAAs in San Francisco we reported on five artiodactyl scapular tools previously excavated from this cave. However, with the discovery of three more scapular tools last summer, we updated our findings at the SCA Southern Data Sharing meeting last October by making an experiment scapular tool blank and using it to cut tules, as this is one of the proposed functions of these tools. While our macroscopic results supported such a conclusion, they were not conclusive. However, Elisabeth Stone, an expert on microscopic bone tool use-wear, found that striations on some of the archaeological specimens were not likely from such large plant material.

This leaves us with more questions about these tools than ever. Most of the scapular tools we are aware of are from caves and rock shelters in the Great Basin or from open air sites in the San Francisco Bay Area and Delta, although we have seen a report of some from as far away as Bolivia. While a surprising amount of scapular tools were deposited in Cache Cave, we would like to continue to expand our knowledge of their distribution. We are gleaning both published reports and the gray literature for more of these tools. Please let me know if you know of any.





# ARCHAEOLOGICAL REFERENCES

## "A time capsule from Bronze Age Britain"

At Must Farm, a site 120 kilometers north of London archaeologists have uncovered a Bronze Age site dated via tree ring analysis to 1290 to 1250 B.C.E. "The scorched remains, perched on stilts, eventually collapsed into the river below. Buried in silt, the debris remained intact for 3000 years, preserving a remarkable record of ordinary life in the Late Bronze Age."

"Build over a wide river with access to the North Sea and inland farms, Bronze Age houses were well-positioned perches for people to trade grain, meat, and metal tools. Yet not long after they were built, the houses burned down and collapsed into the water, which preserved their contents."

"All the structures contain a similar set of ceramics—ranging from tiny cups to fine bowls and coarse storage jars, which may reveal areas for cooking eating, or storing food. Butchered lambs, cut in half along the spine, were found inside one quarter of a house, whereas the remains of wild pigs and deer had been dumping in the river. . . Many vessels and pots contain charred grains of barley, wheat and residues of cooked food. One bowl even sank with a spoon still lodged in the burnt crust of a stew... Must Farm's textiles are an especially precious find. The site has provided the largest collection of Bronze Age fibers and fabrics in the United Kingdom... Artifacts include balls of thread, hanks of yarn, and fine linen... The inhabitants apparently escaped, as no human skeletons have been found in the debris." (*Science*, V. 353, 2016-7-16, pp. 210-211)

## "Ancient surgery had ritual purpose"

"Between around 6,000 and 4,000 years ago, skilled surgeons in southwestern Russia cut holes, many the size of a silver dollar or larger, out of the backs of people's skulls. . . Skulls of 13 people previously excavated at seven ancient sites contain surgical holes in roughly the same spot, in the middle of the back of the head. That's a particularly dangerous location for this kind of skull surgery, known as trepanation. Trepanation may have been used in some ancient cultures as part of a rite of passage for people taking on new social roles. Eleven of 13 skull openings show signs of healing and bone regrowth, indicating that these individuals survived the operation and lived for years after. Analysis of bone surfaces showed no evidence of injuries or brain tumors that could have motivated surgery." (*Science News*, 2016-5-28, p. 12)

## "Florida inhabited surprisingly early"

"Stone tools discovered in an underwater sinkhole in the Aucilla River show that people were present at the once-dry Page-Ladson site in Florida about 14,550 years ago. . . A team led by geoscientists Jessi Halligan of Florida State University in Tallahassee and Michael Waters of Texas A&M University in College Station report the new findings May 13 in *Science Advances*. . . Five of the finds consist of thin pieces of stone hammered off chunks of rock. Divers also recovered part of a stone instrument for cutting." (*Science News*, 2016-5-28, p. 12)

## "Likely hobbit ancestors lived 600,000 years earlier"

In 2014 specimens of a tiny hominin were found on the Indonesian island of Flores called Mata Menges, 74 kilometers from the hobbit's home in Liang Bua cave. The fragment of jaw and isolated teeth suggest they belong to the hobbit's species, *Homo floresiensis* or a precursor to it. They are securely dated to 700,000 years ago, hundreds of thousands of years earlier than the hobbit—and they are about 20% smaller." (Culotta, Elizabeth, *Science*, V. 352, 2016-6-10, pp. 1260-1261)

## “Stone circles show Neandertals’ skills”

“Jacques Jaubert of the University of Bordeaux in France as reported in the June 2 *Nature* found two ring-shaped formations and four smaller stalagmite arrangements situated 336 meters inside France’s Bruniquel Cave. The Jaubert’s team calculated the age of these creations to 176,500 years ago based on the decay of uranium variants in six stalagmites from the two circular structures. Since Neandertals inhabited Europe and Asia from around 400,000 to 40,000 years ago and *Homo sapiens* did not leave Africa until about 60,000 years ago, that leaves Neandertals as the builders of the circles.” (*Science News*, June 25, 2016, p. 7)

## “Huge statue suggests early rise for Buddhism”

Archaeologists directed by Abdul Samad excavated a Buddhist complex of Bhamala Stupa, north of Islamabad discovered the shattered remains of a massive statue—a monumental reclining Buddha that stretched more than 15 meter. “Radiocarbon dates on wood from the collapsed ceiling and supports within nearby statues were dated to 240 CE to 390 CE. That’s centuries before Buddhists were thought to have created the massive sculptures common in temples across Asia. ... Big statues have big implications, because they require wealthy patrons and rulers to fund their creation. Much of the power and wealth in that era came from the international trade on what is now called the Silk Road.” (*Science*, V. 353, 2016-7-22, p. 336)

## “Outburst flood at 1920 BCE supports historicity of China’s Great Flood and the Xia dynasty”

“China’s historiographical traditions tell of the successful control of a Great Flood leading to the establishment of the Xia dynasty and the beginning of civilization. However, the historicity of the flood and Xia remain controversial.” Qinglong Wu and al. reconstructed “an earthquake-induced landslide dam outburst flood on the Yellow River about 1920 BCE that ranks as one of the largest freshwater floods of the Holocene and could account for the Great Flood. This would place the beginning of Xia at ~1900 BCE, several centuries later than traditionally thought. This date coincides with major transition from the Neolithic to Bronze Age in the Yellow River Valley and supports hypotheses that the primary state-level society of the Erlitou culture is an archaeological manifestation of the Xia dynasty.” (Wu, Qinglong & al., *Science*, V. 353, 2016-8-5, pp. 579-582)

## “Lost Empire of the Maya”

“The story of the discovery of the Kaanul, or Snakes, and their effort to create an empire begins in Tikal, the city of their most hated enemy. Just as Tikal dominated the Maya lowlands for centuries, it has dominated Maya archaeology since the 1950s. The sprawling city once had a population approaching 60,000... It also had hundreds of beautifully carved tombstone-like blocks called stelae. Using the inscriptions on them, scientists reconstructed Tikal’s history until its fall in the ninth century. But there was an odd gap—roughly from 560 to 690—when no stelae were carved and little else was built... Archaeologists began filling in the gap in the 1960s, when they noticed an odd glyph scattered around various Classic sites—a snake head with a clownish grin and surrounded by markings associated with royalty. ... The mystery of the snakes prompted a young British researcher, Simon Martin, to assemble all the information he could about the snake glyphs from Calakmul and smaller sites. ... Eventually Martin and archaeologist Nikolai Grube published a book called *Chronicle of the Maya Kings and Queens*, which described the intertwining histories of the kingdoms of the ancient Maya world. At the center of that world for one shining century, were the Snakes.” (*National Geographic*, V. 353, September 2016, pp. 76-95)

