Moray is an Inca site located about 30 miles northwest of Cuzco in Peru, and a similar distance from Machu Picchu. It is spectacular for its size and shape, intriguing for the evidently meticulous planning and design, and enigmatic for its unclear function. It consists of a series of deep excavations consisting of concentric circles in the form of terraces, with carefully constructed terrace walls and a well-thought-out water supply system. The largest of the basins is nearly 100 feet deep and some 1000 feet across. A fascinating aspect of these basins is that the temperature at the bottom of one of the might be nearly 30° F different from the temperature at the top. Since 1931, ar-archaeologists and engineers have wondered about the purpose of these features, with the prevailing explanation being that they represent an agricultural experiment station in which the suitability for different crops in different microclimates was tested, with terraces simulating the climate in different zones of the great Inca Empire.

Peter Foster will present an analysis of this enormous and mysterious feat of Inca engineering. As Vice President of Wright Water Engineering and Wright Paleo-hydrological Institute in Durango, Peter is uniquely suited to analyze this enormous terraced feature to determine how it functioned in ancient times. Wright Water Engineers has participated in many such studies of the science behind ancient construction features in places as diverse as Mesa Verde and Pompeii.
Our Speaker this Month

Peter Foster is Vice President of Wright Water Engineering (WWE) and Wright Paleo-hydrological Institute (WPI) in Durango, and is uniquely suited to analyzing this enormous terraced feature to determine how it functioned in ancient times. Wright Water Engineers has participated in many such studies of the science behind ancient construction features including Mesa Verde.

Peter is a native of Grand Junction, CO. He is married to Nancy Foster and they have two boys Liam and Nathan. He graduated from The Colorado College and went on to earn a Master’s degree in civil engineering (Colorado State University, 1994), specializing in water resources planning and management. He is a registered professional engineer in Colorado, New Mexico and Arizona. As Vice-President of WWE, Peter manages the firm’s Durango office and works as a Senior Project Engineer on water rights analyses, water supply feasibility studies, environmental permitting, and design and construction of water and wastewater facilities for ditch and canal companies, municipalities, Native American tribes, special districts, and private industry. He has over 20 years of water engineering experience.

He received gubernatorial appointments to serve on the boards of the Cumbres & Toltec Scenic Railroad (2007-2015) and the Southern Ute Indian Tribe Environmental Control Commission (2006-2012). He participates in Wright Paleohydrological Institute focusing on the Four Corners Area, Peru and Pompeii, Italy.

Ute Museum Reopening

The Ute Indian Museum will have its Grand Reopening on June 10, 2017. Artifacts from a local archaeological site will be in the exhibits. The chapter has donated $600 to the exhibit fund, and encourages members to donate on their own. Any donation of $100 or more will be recognized on the donor’s wall. To learn more and donate online, go to this website:

https://secure.historycolorado.org/ute-indian-museum/

To donate by check, make checks out to History Colorado. Include a memo that the donation is “restricted to Ute Indian Museum.” Indicate in a brief note that you are from the Chipeta Chapter, CAS. Send your donation to:

Susan Beyda
History Colorado
1200 Broadway
Denver, CO 80203

Want More?

Archaeology Southwest is a great link to find out about current issues and events relating to Southwest Archaeology.

The Squint and Juanita Moore Scholarship

We’d like to congratulate this year’s recipient:

Amanda Campbell

Created in honor of Chipeta Chapter founding member Carlyle “Squint” Moore and his wife, the scholarship is awarded each year to a deserving high school senior or college student intending to enroll or already enrolled in an Anthropology or Archaeology program.
Springtime has arrived and, hopefully, everyone is getting out to enjoy the on-again, off-again nice weather. The field trip season is off to a good start. George Decker has led a couple of trips to sites in the lower canyon country with the help of Ed Horton. The trip to the Harris site and Roatcap Gulch rock art panel was well-attended. Many of the participants hadn’t been to either site, so it was a great way to introduce those folks to some of the best sites western Colorado has to offer. Depending on the circumstances, our field trips are limited to 12 participants. Most of the trips fill up, so there is usually a waiting list. If you have signed up for a field trip, but for some reason can’t attend, please notify the trip leader, so those on the waiting list can be contacted.

**Site Stewards**

On April 8\(^\text{th}\), 13 more site stewards were trained by BLM archaeologist, Glade Hadden. Chipeta vice-president Leigh Ann Hunt has volunteered to help with organizing the program. Leigh Ann worked for the Forest Service as an archaeologist, so it’s great we have her talents to bear on the program. Site assignments are ongoing for the new stewards, so they should be out in the field soon. We now have 38 stewards monitoring 50 sites.

**Fort Crawford**

The final version of the new Ft. Crawford sign has been dropped off at In Design Signs (page 4). In a few weeks, we’ll be installing the sign with the help of Rocky Mountain Aggregate. The old sign, which has a history of its own, has been donated to the Montrose County Historical Museum for safekeeping. The new sign will have updated text, modern graphics and several photographs. Several chapter members contributed to the final rendition—thanks to Jon Horn for the updated text. Susan Dougherty did all the design work – she performs miracles with her computer and design skills. Chapter member, Sally Johnson, also the director of the Historical Museum, kindly allowed us access to the museum’s displays full of old Ft. Crawford artifacts. Thanks to the Montrose County Historical Museum for allowing the use of their photographs, and for the $250 donation. Thanks to Rocky Mountain Aggregate for their technical assistance and $250 donation. Finally, thanks to CDOT for their oversight of the road construction along highway 550 incorporating the relocation of the sign. The new sign will be located on the west side of the road that links Uncompahgre Road and Government Springs Road. It is easily accessed from highway 550.

**Scholarship**

The 2017 recipient of the Squint and Juanita Moore Scholarship is Amanda Campbell. Amanda is a junior at Western State University in Gunnison, Colorado. She is majoring in Anthropology, and plans to use the scholarship to do ethno-archaeological fieldwork in Ecuador this summer. Good luck to Amanda in her educational pursuits.
During the years 1880–1890, a U.S. military fort with over 32 buildings spread across the fields before you...

FORT CRAWFORD

THE CANTONMENT ON THE UNCOMPAGHE

1879 Tensions were high on the Western Slope of Colorado in 1879; white settlers had been trespassing on treaty-designated Ute land for years and the U.S. government demanded that the Ute Indians conform to white lifeways and culture. They wanted to make the Ute farmers, even though their sustenance and traditions had always come from hunting and gathering. This mishandling of the Western Slope's native population quickly led to an escalation of hostilities that culminated in the Merker Massacre of September 29, 1879 at the White River Agency in northeastern Colorado.

Although the Uncompahgre Utes played no part in the Merker uprising, white settlers and politicians in Colorado demanded that the "Utes must go." In May 1880, U.S. cavalry and infantry under the command of Colonel Ronald S. Mackenzie arrived in the valley to keep an eye on both the Utes and the white trespassers.

Mackenzie's initial camp at the cantonment was just a line of supply tents between the Los Pinos Agency at present Coloma and Chief Ouray's house on the southern end of what is now Montrose.

Negotiations with the Utes resulted in the removal of the White River Utes to the Uintah Reservation in Utah and an agreement with the Uncompahgre Utes on June 15, 1880 for their relocation to a smaller reservation, expected to be in the current Grand Junction area. In 1881, these Ute Commission commissioners were tasked with identifying the exact location of the new reservation. They concluded that the expected location did not contain sufficient agricultural land. Using a clause in the agreement that other suitable land could be substituted, the commissioners (J.J. Russell, Thomas McMorris, and leader Otto Mears) decided the new reservation, known as the Ouray Reservation, would also be in Utah. Unhappy with this decision, and no longer benefiting from the leadership of Chief Ouray, who died in August 1880, the Utes delayed their departure as long as possible. Finally, under threat of military action, 1,500 Utes departed under military escort to their new reservation in Utah on September 1, 1881.

After the Utes left, the fort was not necessary, but proved to be of economic benefit to area farmers and the new town of Montrose. In 1886, the post was renamed Fort Crawford after Captain Emmet Crawford, who had been killed by Apaches in Mexico. By 1890, the U.S. government could no longer justify the fort's maintenance. All troops were withdrawn by December and the buildings were auctioned off to local settlers. The land was acquired by James A. Fenlon, former postmaster and supply store owner at the fort.

James Fenlon

Late Resident and Businessman

James A. Fenlon began his career as a printer and commercial artist in Chicago, Illinois. In 1886, he was part of a group of investors who purchased the former Fort Crawford property near Montrose, Colorado. Fenlon, who had previously worked for the U.S. Mint, opened a printing business in the fort's old guardhouse. Later, he expanded into the business of printing money for various government agencies and banks. Fenlon also became involved in local politics, serving as a member of the Montrose City Council and as a member of the Colorado State Senate. He died in Montrose in 1924, leaving behind a legacy of both business and community leadership.

For more information about the history of the Ute Indians in Western Colorado and the treaties and events that led to their departure from the Uncompahgre Valley in 1881, visit the Ute Indian Museum located in Montrose, Colorado. The museum is open year-round and features exhibits on the Ute history, culture, and traditional arts.
Archaeology & Historic Preservation Month | May 2017

These three projectile points highlight the diversity of styles across 14,000 years of human presence in Colorado.

- Dating to approximately 14,000 years ago, Clovis (Paleoindian) spear point, San Luis Valley (Courtesy Marilyn Martorana)
- Dating to approximately 5,000 years ago, Archaic dart point from the Wolf Creek Pictograph Site in Routt County (Courtesy Alpine Archaeological Consultants, Inc.)
- Dating to approximately 1,400 years ago, corner-notched arrow point, San Luis Valley/Saguache County (Courtesy Paleocultural Research Group)

Dating to 1875–1900, Ute coiled cottonwood basket with a split foundation, covered with pitch as water proofing (Courtesy History Colorado)

Dating to 1750–1925, San Juan Red-on-Tan and Tson Micaeous sherds associated with the Trujillo Trujillo Homestead, occupied 1865–1902 (Courtesy Great Sand Dunes National Park and Preserve)

Dating to 920–1180, Black-on-White vessel from Montezuma County, CO. Excavated from a Pueblo II roomblock (Courtesy Crow Canyon Archaeological Center)

Archaeology, History, Culture | Our Shared Heritage
Artifacts demonstrating cross-cultural use and trade in Colorado

#PreserveCO
President’s Corner

by Dan Elsner

I recently had the pleasure of taking part in the Projectile Point Recording Project. The process was exacting and tedious but being able to hold a projectile point in my hand and imagine the culture and craftsman was inspiring. We marveled at the uniqueness of each point as we admonished the maker for not conforming to our scripted descriptions! The points were not as perfect as the ones found in museums but we could hold, turn, feel the sharpness and put them up to the light for a better view. As we worked with this collection from two ranches and known provenance it reminded me of Craig Child's book Finders Keepers. The book provides an excellent discussion about collecting antiquities including quotes from our local federal field archaeologist Glade Hadden. More on this topic next month. There you have it.

From the editor

Under the Category, Highly Likely to Receive Intense Scrutiny

A new study published last week in Nature claims that humans were present in California around 130,000 years ago. The site was excavated back in the 1990s to mitigate disturbance from a highway expansion. Mastodon bones were found, some broken, some intact, along with some large battered cobbles. A recent reanalysis of the bones identified spiral fractures among the mastodon bones and suggests that the cobbles had been used to break the mastodon femur, perhaps for marrow, or perhaps to create bone tools. Meanwhile, they were able to get uranium-thorium dates on the bone, yielding the very ancient date. As part of their analysis, the authors procured some fresh elephant bones and used large rocks to break them up, thereby producing the same kinds of fractures in the bones and a similar distribution of bone fragments. The authors were sufficiently rigorous in their research to win over the editors at Nature, which is certainly no minor accomplishment. However, convincing the silverbacks of First-Americans research will not be as easy. Many have already spoken up to express their reservations.

Any time you approach the 13,000 year threshold, you must be sure that your excavation and analysis procedures are beyond reproach, because there will be intense scrutiny of your work. Three things must be certain: the date, the presence of human remains or artifacts, and the association between the date and the artifacts. The dating could be a problem here, as Th/U dating isn’t done on bone very often, but most attention is directed at the assertion that the bones were fractured by humans. The authors demonstrated that humans could cause spiral fractures in elephant bones, but they have not demonstrated that similar damage cannot result from natural causes. The authors indicate that they are prepared for the impending bloodbath.


Speaking of Scrutiny

The President has tasked the Interior Secretary to review all National Monuments created or expanded since 1996 that are larger than 100,000 acres, or that were created without adequate public outreach. If you are interested in this issue, please let your representatives know your opinion.
2017 Utah Archaeology Convention

Organized by the Uintah Basin Chapter of the Utah Statewide Archaeological Society

June 16th and 17th
Vernal, Utah

Join us for:
- Archaeology Presentations
- Rock Art Tours
- Dutch Oven Dinner

Uintah Conference Center
313 East 200 South, Vernal, UT 84078

Visit utaharchaeology.org to get your registration packet!
Membership Application

Date: ___________________
Name: ___________________
Street or RR Address: ___________________
City: ___________________ State: _______ Zip: _______
Telephone: ___________________
Email: ___________________

(email required to receive Chipeta & CAS newsletters & field trip info)

Check One: Check One: ** Annual Dues** (includes state CAS dues)

____ New
____ Renewal
____ Family with Southwest Lore* ........................................ $40
(Family = 2 or more members, same household)
____ Individual with Southwest Lore* ..................................... $35
____ Student with Southwest Lore* ...................................... $25
____ Senior/Disabled** no Southwest Lore ................... $25

*Southwest Lore is the journal of the Colorado Archaeological Society and is mailed quarterly.

** Senior is any person who is at least 65 years of age; Disabled is any person who is permanently disabled.

Code of Ethics

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

- Uphold local, state, and federal antiquities laws.
- Respect the property rights of landowners.
- Report vandalism to appropriate authorities.
- Support only scientifically and legally conducted archaeological activities.
- Conduct field and/or laboratory activities using professionally accepted standards.
- Not condone the sale, exchange, or purchase of artifacts obtained from illegal activities.
- Be sensitive to the cultural histories and spiritual practices of groups that are the subject of archaeological investigation.
- Accept the responsibility, if serving as principal investigator, to publish the results and make the collection available for further study.

Signature: ______________________ Other Family Signature: ______________________

Make checks payable to "Chipeta Chapter CAS" and mail the signed application to:

Dennis DeVore
353 Dakota Circle
Grand Junction, CO 81507
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For more information on upcoming field trips and to sign up, please contact the Field Trip Leader.

Masthead photo courtesy of Carol Patterson. All other unattributed photos are by the editor.