

# ALL POINTS BULLETIN



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...the past, through the....

## Colorado Archaeological Society - Denver Chapter

“...in the future, as in the past, the gathering of information will depend to a great extent on cooperation between avocational and professional archaeologists.” (H.M. Wormington, 1978)

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### **Rabbit Domestication: A “Tail” of Two Hemispheres** By: Lisa Yeager

All modern domestic rabbits are descended from the European Rabbit, *Oryctolagus cuniculus*, which is native to Spain, Portugal, Western France, Morocco, and Algeria (Carneiro et al. 2011 and 2014).

However, Europe is not the only place where rabbits were domesticated. A recent study (Sommerville et al. 2016) indicates that husbandry of rabbits took place at Teotihuacan, a bustling pre-Columbian city in the Valley of Mexico.

The process of rabbit domestication in Europe began during the Roman occupation of Iberia in the first century B.C., when rabbits were kept in pens and exploited for meat (Clutton-Brock 1999; quoted in Carneiro et al. 2011). A declaration by Pope Gregory I in the sixth century A.D. sparked renewed interest in the domestication of rabbits. Pope Gregory I made a pronouncement that laurices (fetal and new born rabbits) could be consumed, like seafood, during Lent, as laurices are not meat but marine animals.

Following this pronouncement, cuniculture (the agricultural practice of raising and breeding domestic rabbits) proliferated at monasteries in Southern France. A study of domestic rabbit DNA (Carneiro et al. 2014) illuminates the genetic mechanism of rabbit domestication. Rather than major changes at a few loci, many small changes have taken place across multiple loci in the domestic rabbit genome. The study also confirms that rabbits were fully domesticated in Europe by 1,500 years ago (Carneiro et al. 2014).

Leporid (rabbit and hare) remains dominate the animal bones recovered from across Teotihuacan, indicating that leporids were a vital food source for the inhabitants of the city (Sommerville et al. 2016).

One apartment block, Oztoyahualco 15B, that dates to approximately 350 – 550 A.D. provides evidence of specialization in animal management at Teotihuacan. At Oztoyahualco 15B a statue of a rabbit was found in a public courtyard along with an area containing hundreds of leporid bones and a butchering anvil near an enclosure. Evidence that rabbits were kept in the enclosure while alive comes in the form of fecal pellet residue in the soil. A total of six different leporid species from two genera *Sylvilagus* (cottontail rabbit) and *Lepus* (jackrabbit) were retrieved from the complex. Stable isotope analysis of the bones demonstrates that the leporids from Oztoyahualco ate a diet composed largely of plants that use the CAM and C4 photosynthetic pathways, as opposed to the plants that use the C3 photosynthetic pathway. The majority of domesticated plants in pre-Columbian Mesoamerica are CAM or C4, most notably maize, a C4 plant. The normal diet of a leporid is composed mostly of C3 plants. This points to human provisioning of leporids at Teotihuacan (Sommerville et al 2016).

The authors of the isotopic study (Sommerville et al. 2016) offer a plausible scenario by which husbandry of rabbits developed at Teotihuacan, which is supported by their stable isotope data. In the beginning, leporids would have been attracted to the crops surrounding the city. Farmers would then have been able to practice “garden hunting,” obtaining meat while eliminating pests in their fields. Next, farmers would have dedicated a part of their garden to the leporids in a deliberate attempt to keep their meat supply close at hand. Finally, the inhabitants of the city directly provisioned rabbits, with the people of Oztoyahualco overseeing the process. The amount of CAM and C4 plants in the diet of leporids at Teotihuacan gradually increases from about 1 AD to 500 A.D., then begins to decline along with the

population and prestige of the city (Sommerville et al 2016).

Although all modern domestic rabbits are descendants of the European Rabbit, Europe is not the only location where humans have managed leporids. What other independent instances of animal domestication are left to discover? It's impossible to say, but archaeological excavations, genetics and isotope studies are sure to provide the answer.

#### Works Cited

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### CAS Annual Conference in Denver

The CAS annual meeting is coming up on October 27th, 28th and 29th at the History Colorado Center in Denver! Please join us to hear great speakers covering a wide range of topics, including keynote speaker Michael Waters and field trips including behind the scenes tours at museums to see artifacts rarely visible to the general public. For more information, including speakers, and well as to

register, please visit <http://cas-denver.org/annual-meeting>



## 2017 Annual Conference

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### Silent Auction Items

An important part of the CAS annual meeting at the end of October will be a silent auction and the money which is earned from the auction will be used by the Alice Hamilton Fund for scholarships to college students in archaeological fields. It is important that there be as many items as possible and your donation will make a difference. The event is at History Colorado at 1200 Broadway. Your donations can be dropped off there on Saturday morning, October 28 or on the Friday evening before. Items can also be delivered to 1961 S Marion St, Denver near Downing and Evans. You can call Betsy Weitkamp at 303-722-1656 for more information. Small or large, anything is appreciated. Archaeological items are welcome such as pottery, anything with rock art designs, books etc. Other donations are welcome too. One idea might be to lead a great field trip that people could bid on. Please have an idea of the value or the amount you think a starting bid should be. If you cannot deliver the items, a way will be found to get them to the museum. And be sure to plan on bidding on many other exciting items. Thanks so much.

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**October General Meeting:** Monday, October 9, at DMNS in Ricketson Auditorium at 7 PM.

**Speaker:** Reid Farmer

**Title:** Archaeology at Cherokee Ranch: 1971 to 2017

**Abstract:** This talk will cover the history of archaeological investigations at Cherokee Ranch, beginning with the excavations conducted at Cherokee Mountain Rock Shelter (5DA1001) in 1971 by Nelson and Stewart. The significant findings of this research, published in 1973 in *Plains Anthropologist*, will be placed in the context of what is known about the culture history of the region. After the discovery of the 1971 artifact collection at Cherokee Castle in 2014, research resumed at 5DA1001 conducted by the Cherokee Ranch Science Institute, Metropolitan State University Denver, and Community College of Denver. This work has been supported by the Cherokee Ranch and Castle Foundation, the two colleges, and the State Historical Fund. The preliminary results of this new research as well as a reanalysis of the 1971 collection will be described. Information will also be provided on new archaeological resources that have been discovered on the Ranch property by the college field schools and members of the Cherokee Ranch Science Institute.

**Speaker Bio:** Reid Farmer decided he was going to be an archaeologist when he was eight years old. His parents were convinced he would outgrow this, but he never did. He began volunteering on excavations with the Arkansas Archaeological Society when he was in high school. He has a BA in Anthropology from Tulane University, an MA in Anthropology from the University of Colorado – Boulder, and an MBA in Finance from Regis University. He has 40 years' experience in archaeological research, cultural resource management, and project management. He has directed and conducted research in 18 states under the review of a wide variety of federal, state and local government authorities. He currently serves as an affiliate professor with Metropolitan State University Denver and as archaeology director with the Cherokee Ranch Science Institute.

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**November General Meeting:** Monday, November 13, at DMNS in Ricketson Auditorium at 7 PM.

**Speaker:** Dr. Sarah Trabert

**Title:** Western Views on "Eastern Groups": Understanding the Dismal River (Plains Apache) Occupation of Colorado

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### **Minutes of the DC-CAS Board Meeting, September 5, 2017**

The DC-CAS Board meeting was held at the South Classroom Building/Cherry Creek Building, Room 241 at Metro State University Denver Tuesday, September 5. Attending were Linda Sand, Jon Kent,, Alex Rosa, Ken Andresen, Preston Niesen, Teresa Weedin, and Michele Giometti. The meeting was called to order by Linda at 7:04 pm.

**Speaker** Jon reported the November speaker will be Sarah Trabert; subject Dismal River archaeology.

**Membership** Cashell (email) reported four new memberships.

**PAAC** Preston said there will be PAAC classes in the Fall of 2017, correcting the report in last months Board Meeting minutes. Another correction in last month's minutes is the PAAC class in Dolores is Photogrammetry, not Photography.

**Treasurer** Michele had sent the August financial report to the board via email before this meeting. She also has paid an annual insurance premium of \$280.00.

**New Business** An offer from a different insurance company than before for the Officers and Directors policy was discussed. The premium would be lower; the board was agreeable with this.

**December Board Meeting** Michele made reservations at Gaetanos for December 5, 2017 board meeting. Menu details are forthcoming. The meeting was adjourned at 8:11 PM. Submitted by Ken Andresen

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### **Minutes of the DC-CAS General Meeting, September 11, 2017**

The meeting, held in the Ricketson Auditorium of the Denver Museum of Nature and Science, was called to order by Linda Sand at 7:04 pm. She announced the next meeting of the Annual Meeting planning meeting would be held in the ground floor lobby of the Cherry Creek Building insread of in Room 241. Jon Kent announced the Denver Chapter General Meeting speaker will be Reid Farmer talking on Cherokee Ranch archaeology. The featured speaker at the CAS Annual Meeting will be Dr. Michael Waters.

Jon next introduced the evening's speaker, Lindsay Johannson, a PhD candidate at the University of Colorado, Boulder. The talk's title was *Who's in Charge Here? A Look At Fremont Community Layout, Organization, and Activities*. The Fremont culture ranged from about 200AD to 1400AD. The Aggregation Period from about 1100 to 1300AD was when farming became dominant over the hunting and gathering.

The many sites mentioned included Alkali Ridge, Big Mound, Wolf Village, Nawthis Village, Bradshaw Mound, Baker Village, Five Finger Ridge, Blue Trail House,, Huntington, Poplar Knob, and Garrison. The structures were of adobe surface construction. In the grouping of single family units there was often a central larger structure that was too large to be maintained by a single family. The large structure at Wolf Village had more than 20 rooms. Some of these multiroom structures could have been used for corn storage. One structure had no south wall; perhaps a setting for community viewing of happenings in the structure. Fremont society is more complex than previously thought.

After the talk, Linda described the new meeting schedules for the four organizations, Denver Chapter CAS is one of them, that meet at the DMNS beginning in January 2018. The new time for the Denver Chapter is 5:30 to 7 PM. This time is difficult for members who have jobs and must travel during rush hour to attend. Perhaps another venue can be located.

The meeting was adjourned at 8:19PM.

Submitted by Ken Andresen

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### **PAAC Classes**

#### **Prehistoric Ceramic Description and Analysis**

**Dates:** Tuesday evenings, 6:30-9:30, October 10, 17, 24, November 7, 14 (NOTE: NO CLASS ON October 31)

**Location:** Loveland (Medical Center of the Rockies)

**To sign up, contact:** Dave Swinehart

**Host CAS Chapter:** Northern Colorado

#### **Archaeological Practice in Colorado**

**Dates:** October 14, all day

**Location:** Durango (Center of Southwest Studies, Fort Lewis College)

**To sign up, contact:** Tish Varney

**Host CAS Chapter:** San Juan Basin

#### **Prehistoric Lithic Description and Analysis**

**Dates:** November 3rd (evening), 4th & 5th all day

**Location:** Pueblo (El Pueblo History Museum)

**To sign up, contact:** Barbara Sabo

**Host CAS Chapter:** Pueblo Archaeological and Historical Society

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### **Other Lectures**

**John Wagner** is presenting on "**Economic Change and Trade among the Teuchitlán**"

October 12, at 7 p.m. at the CU Museum, Dinosaur Room on the University of Colorado Boulder

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Campus. Sponsored by the Indian Peaks Chapter of the Colorado Archaeological Society. Free.

**Bill Cherf** will talk about "**Egyptian Magic-101**".

October 16, 7 pm. at the Ricketson Auditorium of the Denver Museum of Nature and Science. Sponsored by the Egyptian Studies Society. Members: Free. Others: \$3.00 suggested donation at the door.

**Dr. Kieran O'Connor**, American Institute of Archaeology

**AIA Lecture October 14, 2:00 PM, at Auraria**

**Campus, North Classroom Building, Room 1511**

**Abstract** Castles can be defined as the seriously-defended residences of people of lordly (and later gentry) rank. It is clear that Ireland was one of the most castellated parts of Europe by c.1600 and, even after this date, castles continued to be built there, with the final ones being erected in the 1640s. This illustrated lecture will outline the main types of castle constructed and inhabited in Ireland from the 12th century down to the 17th century. The architecture, dating, and functions of these different types of castle will be outlined in the talk. The ethnicity of the inhabitants of these places will also be discussed in the lecture and the somewhat debated question of when native Irish (ie Gaelic Irish) lords adopted fortifications that contemporaries and modern scholars would regard as castles will be addressed too. Lastly, the lecturer will try to answer the question of why up to 8000 castles were built in Ireland throughout the later medieval period and up to the mid-17th century.

**B Biography:** Kieran O'Connor is a graduate of University College, Dublin (UCD) and has a PhD from University College Cardiff, Wales. He worked during much of the 1990s for the Archaeological Survey Branch of the National Monuments Service ( Dúchas – The Heritage Service) in Counties Roscommon, Sligo, Longford, Westmeath and Wexford. In 1996 he excavated Carlow Castle as part of his work for the latter institution. Dr O'Connor has also taken part in excavations and field surveys in England, Wales, mainland Greece and Crete. He was appointed a research fellow at the Discovery Programme in 1997 and was then made director of Medieval Rural Settlement project there in early 1999. Dr. O'Connor joined the staff of NUI, Galway in September 2000. He has published widely on the subjects of castles, medieval rural settlement, elite settlement in high medieval Gaelic Ireland and medieval landscapes. Dr. O'Connor is English language editor of the international peer-reviewed journal Chateau Gaillard. He also has been very successful in linking his research to heritage tourism

initiatives in County Roscommon. O’Conor strongly believes in sharing his research with rural communities throughout the West of Ireland and the Midlands.

## Lamb Spring Archaeological Preserve Talks and Tours

The Lamb Spring Archaeological Preserve is offering talks and tours of this important Paleo-Indian archaeological preserve just south of Chatfield State Park (Littleton address) monthly from May, 2017 through October. Remains of extinct species of Columbian mammoths, camel, horse, and buffalo have been excavated from this prehistoric hunting site. Butchered mammoth remains have been dated older than 15,000 years ago (calibrated C14 years). Cody Paleo-Indian culture artifacts have been dated to about 10,000 years ago. For more information and to make a reservation see [lambspring.org](http://lambspring.org).

### COLORADO ARCHAEOLOGICAL SOCIETY DENVER CHAPTER Financial Report Prepared by Michele Giometti, Treasurer

#### Balance Sheet August 31, 2017

#### ASSETS

Current Assets	
Checking/Savings	
Key Bank Checking	2,638.34
1 <sup>st</sup> Bank CD 182 day 1/3/18 0.05%	5,700.93
1 <sup>st</sup> Bank CD 182 day 10/17/17 0.05%	4,811.77
1 <sup>st</sup> Bank CD 1 Yr 2/20/18 0.10%	<u>5,004.37</u>
Total Checking/Savings	<u>18,155.41</u>
<b>TOTAL ASSETS</b>	<b><u>18,155.41</u></b>

#### LIABILITIES & EQUITY

Current Liabilities	
State CAS Dues Payable	<u>0.00</u>
Total Checking/Savings	<u>0.00</u>
Temp. Restricted Net Assets	
Scientific Applications Fund	3,992.41
Swallow Report Project Fund	2,353.81
D Bucknam Memorial Speaker Fund	1,747.10
Blackfoot Cave Fund	0.00
Education Fund	52.40
Field Trips / Social Fund	483.01
Student Membership Fund	57.50
Speakers Meal Fund	<u>483.98</u>
Total Temp. Restricted Net Assets	9,170.21
General Fund	7,352.24
General Fund Net Income	<u>1,632.96</u>
Total Equity	<u>18,155.41</u>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b><u>18,155.41</u></b>

#### Income Statement

August 1 – 31, 2017

GENERAL FUND	MTD	YTD
Income		
Membership Dues	104.00	2,806.00
Interest-Savings, Short-Term CD		7.80
Donations Received	<u>10.00</u>	<u>618.00</u>
Total Income	114.00	3,431.80
Expenses		
Bank Service Charges		10.00
Dues Paid to State	48.00	1,276.00
Supplies		0.00
Insurance	280.00	280.00
PO Box Rental		0.00
Website		40.34
Transfer to Scientific Applications	7.00	192.50
DMNS Annual Membership		<u>0.00</u>
Total Expenses	335.00	1,798.84
Net General Fund Income	(221.00)	1,632.96

#### Scientific Applications Fund

Income		
Transfer from General Fund	7.00	192.50
Donations Received	<u>10.00</u>	<u>48.00</u>
Total Income	17.00	240.50
Net SAF Income	17.00	240.50

#### Speaker's Meals

Income		
Donations Received	<u>0.00</u>	<u>2.00</u>
Total Income	0.00	2.00
Expenses		
Speaker's Meals	<u>29.52</u>	<u>78.30</u>
Total Expenses	29.52	78.30
Net Speaker's Meals (Expense)	(29.52)	(76.30)

#### Swallow Report Project

Income		
Donations Received	<u>0.00</u>	<u>128.00</u>
Total Income	0.00	128.00
Expense		
Contract Services	<u>0.00</u>	<u>500.00</u>
Total Expenses	0.00	500.00
Net Swallow Report Income	0.00	(372.00)

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