

# 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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### **The Cotton of Many Colors: Archaeological finds at Huaycán de Pariachi, central coastal Perú by Jonathan Kent**

The best-known archaeological culture of South America is that of the Inka. Using tried-and-proven ancient systems of irrigation technology, rapid communications, a road system that rivaled any other developed in the ancient world, and inexpensive and efficient modes of transportation of products from one ecological zone to others, the Inka (the spelling of this is in keeping with current archaeological practice) came to control the western Andean part of the continent in less than 100 years. Sometimes lost in the glare of their fabulous empire are the sophisticated, and often quite powerful cultures that came before, and the mechanisms by which the Inkas managed to exert their influence and incorporate these cultures into their state apparatus.

In the summer of 2014, a ten-year archaeological project began involving Peruvian archaeologists, the Peruvian Ministry of Culture, and students and faculty from Metropolitan State University of Denver, CSU, and CU. It is focusing on the ancient town of Huaycán de Pariachi located near the Central Andean coast just on the eastern outskirts of modern Lima. One goal of this joint Peruvian-North American project is to look at the transition between the once-dominant Ychma society (ca. A.D. 900 – 1476) and the subsequent Inka state (A.D. 1476 – 1533). How life was transformed by this shift in the political and economic spheres, and how local residents were affected by the change are some of the main issues.

Huaycán de Pariachi is situated on the left bank of the Río Rimac that rises 90 miles from the shore in the Andean highlands and flows westward to the Pacific. The site itself is about 25 miles from the shore in the lower portion of the mid-valley, or *chaupiyunga*, in an area characterized by a dry climate, mostly sunny days and fairly uniform temperatures during different parts of the year. The Rimac is a permanent stream that feeds numerous irrigation

canals, many of which pre-date the Inka by hundreds of years. With lots of sun, water available year-round and mineral-rich soils derived from the weathering of the volcanic rocks of the Andes, the area has been agriculturally quite productive. Archaeological floral and faunal data suggest that potatoes, other tubers, a variety of fruits and animal foods ranging from meat of llamas and alpacas to shell fish and terrestrial snails formed parts of the diet.

For both Ychma and Inka times, palynological (pollen) analyses of samples from artificial terraces and storage deposits suggest that the local production of major food crops consisted of maize (*Zea mays*) and chile peppers (*Capsicum* sp.). Pollen and seeds of coca (*Erythroxylum novogranatense*) and the rinds and seeds of bottle gourds (*Lagenaria siceraria*) tells us something about the production of these highly valued, non-food products. However, what stands out the most from an archaeological viewpoint, and the main point of this article, is the abundance of remains reflecting the production of cotton textiles.

Peruvian cotton is fairly well-known in the modern world, primarily because this species (*Gossypium barbadense*) differs from the other common species of cotton known from the Americas (*Gossypium hirsutum*) in terms of its long "staples" a term referring to the length of its fibers. The longer fibers of the Peruvian cotton are easier to spin and ply than the shorter Mexican variety. This makes it much favored by industrialized cotton cloth producers as well. According to James Vreeland, Jr. who has devoted his career to the archaeological, genetic, and cultural study of Peruvian cotton, the most ancient cotton grown in the Americas is from Oaxaca in southern México. The Peruvian variety was exported to the Old World aboard European and African slave ships (Vreeland 1999). The fine cotton grown in modern Egypt was derived from South America, for example (*ibid.*).

During our excavations at Huaycán de Pariachi, we were not terribly surprised to find hundreds of clumps of cotton

fiber mixed with unopened seeds and insect pupae casings throughout the deposits, both in workshop areas and in some funerary contexts. There is ample archaeological documentation of cotton being used in clothing and the production of nets extending back to more than 3800 years before present on the Peruvian coast. It has been abundant along the western Andean slopes of Perú since that time. What surprised us a bit more was the fact that little of the cotton was the white-colored strain we are so used to seeing in our own culture. Instead, brown, mauve, tan, and yellow seemed overwhelmingly common. These are naturally-colored, un-dyed fibers. According to Vreeland, colored cottons were abundant in the Andes but were not cultivated in México nor in pre-European North America. Vreeland and his colleagues have managed to rescue the Peruvian colored-cotton genome from almost certain extinction and they have created a successful indigenous enterprise in Perú specializing in the manufacture and export of high-end clothing made from naturally-colored (i.e., un-dyed) Peruvian cotton. Somewhat even more surprising to us were finds of a few good-sized cotton seeds from which bright crimson fibers were emerging, and there was one piece of also naturally-colored, very light green cotton wadding found. These colors are not so commonly reported, and we are in the process of investigating whether similar natural cotton colors have been found at other sites.

Many colored cottons we found were clearly just emerging from their seeds while other wads had already been separated. Some were in the process of being spun. In fact, given the presence of spindle whorls and other spinning and weaving implements in the remains of certain structures, it seems reasonable to suggest that these buildings were used as places of, at least, part-time, if not full-time cotton fiber production.

Finally, the cotton being produced was almost all of the colored variety. The only white cotton items we found were pieces of plain-weave cloths whose ultimate function is still under investigation. It will be interesting to see if the white cotton fabrics belonged to or were worn by those producing the naturally-colored cloth for others, perhaps as a part of their local socio-economic obligations to *Ychma* or *Inka* rulers.

#### Reference:

Vreeland, James, Jr.  
1999 The Revival of Colored Cotton. *Scientific American* 280 (4): 112 – 118.

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#### Denver Chapter-CAS November 5, 2014, Board Meeting Minutes

The meeting was called to order by President Jack Warner at 7 PM in the Tivoli building at MSUD. A quorum was present.

**Vice President:** Linda Sand reported that speakers were scheduled thru the first quarter of 2015, including the December 8, 2014, members night meeting that will be held at DU Sturm Hall room 154 at 7 PM. The DMNS Ricketson Auditorium has

been reserved for the 2015 General Meetings January thru November.

**Scientific:** -Neil Hauser reported that the State Archaeologist's Office has approved our final report relating to the Blackfoot Cave research grant. Going forward in the upcoming months we will be focused on Blackfoot Cave artifact lab curation, analysis, and report preparation. Any CAS members interested in participating on this team should contact Neil via email.

**Treasurer:** Preston Niesen provided the financial report..

**APB:** Kathy Barzen, Bob Rushforth, and Ken Andresen reported that the November. APB went to Craig Banister on 11/5 to put on the website. Kathy introduced the new APB Editor, Cashel McGloin, who attended the meeting. They are working on the transition to the new editor and it should be complete after the January. APB.

**Website:** -Craig Banister reported that the APB will be up on the website November 6 and an email notice will be sent to all known DC-CAS emails. An updated version of the DC-CAS Bylaws is also on the website and reflects the new dues schedule where all renewals are on March 1 of the year.

The minutes of the October. DC-CAS Board meeting were approved.

**Election:** Jon Kent reviewed the plan for the election of 2015 Board members to be held at the November 10, 2014, General Meeting.

**Education:** Jon Kent outlined the work of the CCPA Education committee initiative to add archaeology to CO public school curriculums. He will follow-up with DC-CAS Education Chair Betsy Weitkamp.

Jack Warner reviewed plans for the DC-CAS Board annual Holiday meeting scheduled for December 2, 2014.

The meeting was adjourned at 7:45 PM.

Submitted: by Jack Warner for Secretary Kendra Elrod, November 6, 2014

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#### Denver Chapter November General Meeting

**The DC-CAS General Meeting was held at the Denver Museum of Nature and Science Ricketson Auditorium November 10, 2014.** Approximately 15 people attended. There was low attendance likely due to a snowstorm that brought more icy conditions from the south end of town. The DC-CAS General Meeting was called to order at 7:06PM by Jack Warner.

Jack W began the meeting by announcing and thanking the APB as always for their work.

**Scientific:** (Jack W for Neil Hauser) announced Neil has emailed everyone who has requested to be included in field and lab work notifications regarding the work scheduled for the remainder of the year.

**Members Night:** (Linda Sand) reminded everyone the **December general meeting will be Members Night to be held at Denver University, Sturm Hall Room 154 December 8, 2014. Speakers will be fellow members giving short**

## talks/presentations about anthropology-related information

gathered from trips, vacations, other related events. Anyone interested in giving a presentation need to coordinate with Linda S. Bring "goodies" to share with everyone.

**Speaker:** Linda S introduced and extended an extra thanks to the guest speaker for his willingness to give this presentation to DC-CAS with short notice. Thank you to Nathan Boyless, President and General Manager of Metcalf Archaeological Consultants, Inc. The presentation Mr Boyless titled: Cultural Resource Management: It's Not Just Archaeology Anymore!

Mr Boyless began with a slide representing the state of archaeology as demonstrated by Calvin and Hobbes and reiterated why most people study archaeology: for the love of it.

Mr Boyless' presentation covered the main points of the Cultural Resource Management industry from the law that jumped started the industry, NRHP (National Register of Historic Places) Section 106, that requires Federal agencies to take into account the effects of their undertakings on historic properties, to what ultimately people who practice CRM are achieving. Mr Boyless was able to include his own personal experiences to help with perspective., When he graduated with a BA in Anthropology then years later graduated with an MBA. How those seemingly different directions really came together for him as a manager for CRM work, as well as reiterating what is typically learned as an undergraduate versus graduate, and how those are tied into the CRM industry and more importantly what additional courses he should have had.

Other points of discussion included but were not limited to Section 106 processes from defining the Area of Potential Effect (APE), determining site eligibility for protection or additional research and processes included in determining site integrity. Mr Boyless also delved into the conundrum of maintaining integrity within the archaeological realm while also trying to balance a for-profit industry. Those practicing CRM are really 'consultants' hired to 'help navigate waters' of Section 106 where some hope the information collected can still, at the very least, provide for future research for all.

Jack W and those attending thanked Nathan Boyless for his presentation and willingness to speak on short notice.

## Old Business

Officer nominations were approved. The new officer lineup is:  
President – Linda Sand  
Vice President – Catherine Griffin  
Secretary – Kendra Elrod  
Treasurer – Preston Niesen  
Membership Coordinator – Rosalie Hewins  
CAS Representative – Teresa Weedon  
PAAC Representative – Anne Winslow  
Directors: Reid Farmer, \*Aaron Theis, [Jon Kent and Craig Banister are already serving as Directors]  
APB Editors: Cashel McGloin, Ken Andresen

\*Aaron Theis, see note in New Business

Previous meeting minutes were approved

Reminder to those attending General Meetings, enter through North Entrance at Denver Museum of Nature and Science (Volunteers and After Hours door), walk through security and tell them you are here for CAS and they will direct you to the auditorium if you need directions

## New Business

\*Aaron Theis' nomination as DC-CAS Director was approved at the end of the DC-CAS General Meeting

Jack W adjourned the DC-CAS General Meeting at 8:40PM

The next DC-CAS meeting is scheduled for December 8, 2014 at University of Denver, Sturm Hall Room 154. Come for social gathering, food (bring treats to share) and fun.. Fellow members will provide short presentations!

Kendra Elrod, Secretary

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**The Denver Chapter Bylaws are now on the website.**  
<http://cas-denver.org>

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### DC/CAS October, 2014 Financial Report Prepared by Preston Niesen, Treasurer

<b>Assets</b>		
	September	October
Key Bank checking	\$ 3,527.77	\$ 3,152.19
TD 182 day to 07/03/14 @0.15%	\$ 5,686.67	\$ 5,686.67
TD 182 day to 10/23/13 @0.15%	\$ 4,802.17	\$ 4,804.57
TD 1 year to 5/14/14 @ 0.15%	\$ 4,986.29	\$ 4,986.29
<b>Total checking/savings</b>	<b>\$ 19,002.90</b>	<b>\$18,629.72</b>
<b>Liabilities &amp; Equity</b>		
<b>Current Liabilities</b>		
	September	October
AH Scholarship Fund payable		
State CAS Dues payable		
<b>Funds</b>		
Scientific Applications	\$ 5,143.32	\$ 5,166.07
Swallow Report Project	\$ 2,571.81	\$ 2,571.81
D Bucknam Memorial Speaker Fund	\$ 1,747.10	\$ 1,747.10
Blackfoot Cave	\$ 190.00	\$ 190.00
Library	\$ 302.45	\$ 302.45
Education	\$ 182.00	\$ 182.00
Field Trips/Social	\$ 483.01	\$ 483.01
Student Membership	\$ 47.50	\$ 47.50
Speakers Meal Fund	\$ 772.37	\$ 768.62
<b>Total Liabilities &amp; Funds</b>	<b>\$ 11,439.56</b>	<b>\$ 11,458.56</b>
General Fund	\$ 7,563.34	\$ 7,171.16
<b>Total L E F's</b>	<b>\$ 19,002.90</b>	<b>\$ 18,629.72</b>

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