

ALL POINTS BULLETIN



Make friends with... ..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)

Volume 54, No 11

November, 2016

Tepe Yunatsite and the World's Oldest Gold by Cashel McGloin

While on a dig in Central Bulgaria, I had the option to visit another site also run by the Balkan Heritage Foundation, Tepe Yunatsite. The Tepe (meaning hill in Bulgarian) or tell is one of the oldest cities in Europe and the oldest known layers are approximately 5,000 BP. It was once the fortified center of a large city and several important finds have been uncovered, including one just before I visited that was discovered by one of my colleagues on the dig. At 40 feet tall, it is one of the largest tells in Europe.



The last day of the 2016 field season. The deeper portion on the left is the 1939 trench. The higher levels with the unexcavated portion behind

Yunatsite has an extensive history of use. Most recently, there was a medieval cemetery, but beneath that there is a Roman fort, several Iron Age layers and 13 known chalcolithic layers. There may be Neolithic layers beneath, but the excavators have yet to reach that level to find out. Half the tell remains intact for future studies. The first excavation was in 1939 and was a trench that reached down to the middle Chalcolithic layers. Starting in 1976, excavators have slowly started to lower the rest of that half of the tell to the same layer as the 1939, while more slowly digging down within that layer. In addition there is a pit feature currently being excavated. It is not clear yet why the pit was created, but it is at least 20 feet deep. The pit became an impromptu midden and countless artifacts have washed in. There were also several skeletons, likely from a Chalcolithic burial that eroded and washed in quite some time ago.

During the Copper Age, the site was not only elevated, but also had solid fortifications. These came in the form of a huge ditch encircling the site. The dirt removed from the ditch was used to create a rammed earth wall, 15 feet wide at the base and 6 feet tall. Later, a second wall was built inside the first, indicating an increased need for



The deepest part of the pit is more than 20 feet below the surrounding area



Post holes delineating a wall from the later Chalcolithic Period

protection. The amount of time and effort it would have taken to encircle Yunatsite which has a diameter of 360 feet is massive, indicating that warfare with other groups was primary concern. The lowest level known is from the Maritsa I culture while the last Copper age settlement seems to be a mix of at least 5 cultures, perhaps indicating they were refugees to the fort for safety. During the Chalcolithic Period, the site would have been at roughly the same level as the surrounding countryside. After it was abandoned, much later settlers leveled the debris within the fortified walls, creating a raised site.

At the deepest part of the main site, they are currently at the 5th level of the Chalcolithic settlements, which was approximately 4,500-4,600 years ago. At that time, the site was mostly huts built out of closely set poles covered in wattle and daub. Despite the simple housing, the society was rich and complex for the period. In this field season, students discovered several bone and rock idols interpreted to be fertility figures. There were also small clay birds, but no figures of males yet found for the period.

The most important find came on the last day of the season. All soil was sent to a jerry-rigged flotation chamber. Nanding Chen, who found several of the bone idols, had the normally thankless task of doing the flotation that day. During the search, she found a single gold bead. Given the layer, this bead almost certainly represents the oldest gold artifact ever discovered. Tests are currently underway to confirm this little piece of history is at least 200 years older than the Varna Treasure, previously the oldest known gold artifacts.



Religious idols of females. The center one is stone, the side ones are bone



The oldest gold artifact ever discovered. The bead is smaller than a fingernail

November General Meeting: Monday, November 14, at DMNS in Ricketson Auditorium at 7 PM.

Speaker: Dr. Linda Scott Cummings, PaleoResearch Institute

Title: PaleoNutrition, Coprolites, Dental Calculus, and the Celtic Curse

Abstract: In the first study of coprolites and dental calculus from the same individuals, we examine and compare dietary reconstruction from these two proxies. A population of over 500 individuals from two Early and Late Christian cemeteries in Nubia provide a human osteological record against which to compare the dietary proxies. The skeletal remains yielded evidence of numerous anomalies including cribria orbitalia, suggesting the possibility of iron deficiency anemia, and spinal fusion typical of ankylosing spondylitis, which was rare.

Approximately 10% of the individuals yielded coprolites, which were examined for pollen, phytoliths, macrofloral remains, and faunal bone. The resulting dietary record was compared across males and females and by age group for both components of the diet and dietary breadth. Diet included a grain (sorghum), multiple vegetables and fruits indicating agriculture, and meat (crocodile, pig, and fish). Dental calculus analysis for approximately 50% of these individuals provides a dietary proxy to compare with that of the coprolites. As expected, the dental calculus record is severely limited in breadth. Comparison of these records by individual highlight those differences.

Nutritional assessment of the diet included observations concerning iron, with emphasis on bio-availability. For instance, phytates, abundant in sorghum grains, inhibit iron absorption. HFE gene mutation sequesters iron in bodily tissues rather than eliminating it (hemochromatosis). Ancient DNA analysis that will include mapping the two alleles associated with this gene mutation is in progress. XRF analysis of dried human blood has detected elemental iron, suggesting this technique might provide preliminary data to assess relational iron loads in the tissues. First tier testing focuses on those skeletons and naturally mummified bodies from which coprolites were recovered. This analysis is ongoing and results will be reported.

In conclusion, this multi-disciplinary study compares human osteological results with dietary and nutritional studies that derive from coprolites and dental calculus. The dietary information is specific to individual, most of whom have been identified by age

and sex. These agriculturalists enjoyed a complex diet that encompassed grain, vegetables, fruit, and meat, some of which was represented in the dental calculus.

This study forms part of the base of a larger investigation into the Celtic Curse (Hemochromatosis). Today, northern Europeans (and those of northern European descent) carry the majority of the genes for hemochromatosis. This, and other studies of similar nature, cross the boundaries of scientific study to link genetics, human osteology, diet, and nutrition. We used coprolite and dental calculus to identify and evaluate the diet of individuals buried in two Early and Late Christian cemeteries.

Speaker Bio: Linda Scott Cummings, Ph.D., director-palynologist-phytolith-starch analyst, has been working with pollen since 1971. Her work includes paleoenvironmental, as well as subsistence and paleonutrition interpretations. In addition to analysis of archaeological pollen and phytoliths, her experience also includes the use of a Scanning Electron Microscope. The best diet studies involve paleofeces (coprolites). Linda examines pollen, starches, phytoliths, and parasite eggs contained in these paleofeces for evidence of diet, nutrition, and health. She has worked with remains from the American Southwest, the northern Great Basin, the west coast of South America, as well as from Nubia (Africa).

December Speaker: Member's Night

Titles of member's talks:

Cashel McGloin- Emporion Pistiros in Bulgaria

Reid Farmer-Olduvai Gorge

Jack Warner-Cozumel Mexico's Chankanaab

Archaeological Park-from the Olmecs to the Aztecs

Jon Kent (in partnership w/ Reid Farmer)-Cherokee Ranch fieldwork

Minutes of the DC-CAS Board Meeting, October 4, 2016

The DC-CAS Board Meeting was held at Metro State Cherry Creek Building Room 241 October 4, 2016 Meeting was called to order at 7:04 PM by Linda Sand Attending were Linda Sand, Jon Kent, Cashel McGloin, Michelle Giometti, Jack Warner, Teresa Weedon, Reid Farmer, Ken Andresen and Kendra Elrod Vice Pres/Speakers (Jon K) interim Vice President announced the upcoming DC-CAS General Meeting speakers: Cashel McGloin will be speaking October 10, Linda Scott Cummings will be speaking November 14, and the December meeting will be traditional Members Night

Minutes of the DC-CAS General Meeting, October 10, 2016

with several members giving their own short presentations of their adventures, Chris Johnston will be speaking at the first meeting of 2017. Jon K announced he is open to suggestions for future speakers. Through email Aaron T reported he had reached out to AIA to invite them for a joint December meeting

Scientific (Reid F) Reid reported work is currently ongoing at Cherokee Ranch and is working with students of Jon Kent's as field crews

Membership (Cashel M) Cashel reported no members were gained in September and aside from a resignation there has been no change with membership

CO-CAS (Teresa W) Teresa shared her experience attending the CAS Annual Meeting in Grand Junction. She said it was well attended with a great program

PAAC (Linda S for Preston N) check the website for updates

Treasurer (Michelle G) reported activity in treasury is down

Trips/Events (Teresa W) announced there are no upcoming trips planned, Jack W suggested looking into local field trips in the springtime

APB/e-APB Newsletter (Cashel M & Ken A) reported the October APB has been posted. With the recent resignation of Craig B as website webmaster Cashel and Aaron T have agreed to fill in

Old Business

Past minutes have been approved

Nominations for the 2017 DC-CAS board are open.

Currently on the slate are

President – Linda Sand

Vice President – Jon Kent

Secretary – Kendra Elrod

Treasurer – Michelle Giometti

Member Chair – Cashel McGloin

Scientific Chair – Reid Farmer

PAAC Coordinator – Aaron Theis

Director – at least one position open

Discussion to find backup/interns for Member Chair and APB has been raised and will be explored

Location for the upcoming holiday dinner is being planned by Aaron T

New Business

Catherine Griffin has resigned her position as Vice President to take a job out of state, Jon Kent has stepped in to take over the Vice President duties

Craig Banister has resigned his position as website webmaster, Cashel McGloin and Aaron Theis have stepped in to take over the webmaster duties

There was discussion about the 2017 CAS Annual Meeting, to be hosted by the Denver Chapter. The meeting will be held at and will be co-sponsored by History Colorado. Ideas on catering and other co-sponsors were discussed, stay tuned.

Cashel M raised the idea of having a 'reserve' of APB articles ready for publication; this will be brought up in the General Meeting as well

Meeting was adjourned at 8:18 PM by Linda Sand

The DC-CAS General Meeting was held at the Denver Museum of Nature and Science Ricketson Auditorium October 10, 2016

Approximately 55 people attending

Linda S called the meeting to order at 7:03 PM

Linda announced the APB was late being posted due to personal schedules and suggested people check the website instead of waiting for the email to be sent when the APB is posted

Craig Banister has resigned as website webmaster, Cashel McGloin and Aaron Theis have taken over webmaster duties

Cashel McGloin has requested APB article submissions from anyone interested in submitting

Catherine Griffin has resigned as Vice President, Jon Kent has taken over the Vice President duties

Membership numbers are stable, anyone with questions is asked to talk with Cashel McGloin

PAAC announcement that due to changes coming to History Colorado there will be no PAAC courses offered Spring 2017 in the Denver area

CAS 2017 Annual Meeting preparations are underway, more information will be posted as information is finalized.

Request for suggestions for the Keynote Speaker has been made., Anyone with ideas is asked to reach out to Linda Sand .

Jon Kent took the floor to introduce the October Speaker Cashel McGloin. Cashel holds a Masters in BioArchaeology from Colorado State University. She currently serves in several positions with the Denver Chapter and volunteers for several departments at the Denver Museum of Nature and Science in addition to a recent field study in Bulgaria.

The title of her talk was "Crazy Bones: Insanity in the Skeletal Collection of the Colorado State Insane Asylum". Cashel introduced the study area which was the cemetery on the grounds of the former Colorado Insane Asylum, Pueblo, Colorado that was in operation from 1879-1899.

When the asylum closed the cemetery was left and forgotten. In 1992 the cemetery was rediscovered during a construction project to expand the current Colorado Mental Health Institute and work began to exhume the 155+/- skeletons buried there. During examination of the skeletons many of the bones showed abnormal traits including discoloration of the interior of the bones, thick skulls and unusual high concentration of metals.

After reviewing the history of the asylum Cashel explained the parts of the bone that were important to her study as well as the conditions, environment and common diseases that cause abnormalities in bones. After explaining these factors Cashel showed pictures of some of the bones in the collection and compared them to other known specimens with similar conditions and using the process elimination was able to determine what did or did not cause the abnormalities in the bones.

Cashel's conclusion of her lecture was there are more questions than answers at times. Though through her investigations she was able to eliminate many of the

common causes of abnormalities in the bones there is much more work to be done.

Jon Kent presented Cashel with the commemorative Speakers Coin and thanked her for sharing her experience with the group.

Jon Kent announced Linda Scott Cummings will be the November speaker and will be talking about the 'Paleo Nubian Diet'.

Old Business

Past meeting minutes were approved

The current slate for the 2017 DC-CAS officers were announced

President – Linda Sand

Vice President – Jon Kent

Secretary – Kendra Elrod

Treasurer – Michelle Giometti

Member Chair – Cashel McGloin

CO-CAS Representative – Teresa Weedon

PAAC Coordinator – none

Two Director positions: Reid Farmer and Aaron Theis

Anyone interested in serving as a CAS Denver Chapter officer is asked to contact the Nominating Committee

Voting for officers will be held at the November General Meeting

New Business

No new business was raised

Linda Sand adjourned the DC-CAS General Meeting at 8:13 PM

DMNS Talk:

Up Close and Personal with Otzi the Iceman

He was stalked, attacked, and left to die alone. Murdered more than 5,000 years ago, Otzi the Iceman is Europe's oldest known natural mummy. Miraculously preserved in glacial ice, his remarkably intact remains continue to provide scientists, historians, and archeologists with groundbreaking discoveries about a crucial time in human history. In order to protect him from contamination, this extraordinary body has been locked away, out of reach, in a frozen crypt—until now. Spend an evening with renowned artist and paleosculptor Gary Staab, who along with the NOVA television crew received rare access into Colorado Archaic, especially what he has defined as the Mountain Tradition.

Thursday November 10th, 2016, 7:00 PM

University of Colorado Museum of Natural History
(Henderson Building)

1030 Broadway

Boulder, CO 80309

The Rising Star Expedition: Excavating *Homo naledi* in the Cradle of Humankind, South Africa

Hannah Morris, archaeologist and PhD student at the University of Georgia, was one of the six women scientists and spelunkers who excavated Rising Star Cave in South Africa. The Rising Star Expedition recently made global news with the discovery of more than 1,500 bones that have been classified as a new species of human ancestor,

the Iceman's frozen lair. Staab was charged with creating an exact replica of the mummy for scientists and the public alike to study in detail. As we see the Iceman reborn from 3D printing, resin, clay, and paint, new revelations about Otzi's life and legacy come to light, including surprising secrets hidden in his genetic code.

Thursday, December 1, 2016, 7 PM

Phipps Theater, Denver Museum of Nature and Science
\$12 member, \$15 nonmember

CU Museum Lecture:

PAACing It In -- A Moon Dance in Archaeology

Kevin Black

At the request of someone who will remain nameless (the acronym is RHW for the crossword puzzle enthusiasts), I've been asked to do a program about my career thus far (I'm not done, I hope). The good news is that archaeologists look backwards for a living, so I should be able to provide a show that gets me at least a passing grade. The concept of a retrospective should be self-explanatory, so I'll just describe this presentation as an overview of the fun projects, good times, and great people I've met along many paths.

Kevin D. Black received his B.A. and M.A. in Anthropology from the University of Colorado, Boulder. For many years he was the Assistant State Archaeologist at History Colorado in Denver. As the Assistant State Archaeologist he handled many of the important administrative matters of the office such as overseeing the issuance of state archaeological permits, but his passion was the coordination and teaching of the thirteen courses in the office's Program for Avocational Archaeological Certification (PAAC). Previous to his long employment at the state office he worked for Centuries Research, Inc. (1979-81) and Metcalf Archaeological Consultants, Inc. (1981-88). His current research interests include hunter-gather studies, high altitude archaeology, lithic studies, and the Archaic period in Colorado. Other archaeologists regularly cite his publications and reports on the

Homo naledi. In addition to representing a new link between humans and our ape ancestors, *Homo naledi* is a significant fossil find because the species likely intentionally deposited its dead into a cave, which represents a level of cultural development previously thought to be unique to Neanderthals and humans. This groundbreaking excavation was unique because it took place deep underground in a narrow cave and never before has it been possible for so many researchers to instantly handle and study replicas of the bones, which are downloaded and 3-D-printed around the world.

Thursday, November 10 at 5:00pm at the University of Northern Colorado

Columbine Suites, University Center, Greeley. The event is free and open to the public

Correction

The financial report for the month of August, 2016 that appeared in the October APB contained the numbers that applied for the month of July 2016. The corrected report for August follows.

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

Balance Sheet
August 1-31, 2016

ASSETS

Current Assets

Checking/Savings

Key Bank Checking	2,299.97
1st Bank CD 182 day 1/3/17 0.05%	5,698.08
1st Bank CD 182 day 10/18/16 0.05%	4,809.37
1st Bank CD 1 Yr 2/17/17 0.15%	<u>4,999.33</u>
Total Checking/Savings	<u>17,806.75</u>

TOTAL ASSETS 17,806.75

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	3,744.91
Swallow Report Project Fund	2,725.81
D Bucknam Memorial Speaker Fund	1,747.10
Blackfoot Cave Fund	70.00
Library Fund	165.94
Education Fund	52.40
Field Trips / Social Fund	483.01
Student Membership Fund	57.50
Speakers Meal Fund	<u>660.44</u>
Total Temp. Restricted Net Assets	9,707.11

General Fund	7,268.40
General Fund Net Income	<u>831.24</u>
Total Equity	<u>17,806.75</u>

TOTAL LIABILITIES & EQUITY 17,806.75

Income Statement

August 1 – 31, 2016

GENERAL FUND	MTD	YTD
Income		
Membership Dues	154.00	2,830.00
Interest-Savings, Short-Term CD		11.89
Donations Received	<u>0.00</u>	<u>993.00</u>
Total Income	154.00	3,834.89
Expenses		
Bank Service Charges	3.00	24.00
Dues Paid to State	62.00	1,292.00
Quarterly Meeting Host Expense		365.00
Supplies	43.63	74.15
Insurance	1,045.00	1,045.00
Transfer to Scientific Applications	<u>10.50</u>	<u>203.00</u>
Total Expenses	1,164.13	3,003.65
Net General Fund Income	1,010.13	831.24
Public Education		
Expenses		
Poster Printing – Blackfoot Cave		<u>129.60</u>
Total Expenses		129.60
Net Public Education Income (Expense)		(129.60)
Scientific Applications Fund		
Income		
Transfer from General Fund	10.50	203.00
Donations Received		<u>130.00</u>
Total Income	10.50	333.00
Net SAF Income	10.50	333.00
Speaker's Meals		
Expenses		
Speaker's Meals		<u>151.18</u>
Total Expenses		151.18
Net Speaker's Meals Income(Expense)		(151.18)
Swallow Report Project		
Income		
Donations Received		<u>44.00</u>
Total Income		44.00
Net Swallow Report Income		44.00
Library		
Expenses		
Supplies	<u>36.51</u>	<u>36.51</u>
Total Expenses	36.51	36.51
Net Library Expenses	(36.51)	(36.51)

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

**Income Statement
September 1 – 30, 2016**

**Balance Sheet
September 1-30, 2016**

ASSETS

Current Assets	
Checking/Savings	
Key Bank Checking	2,024.41
1 st Bank CD 182 day 1/3/17 0.05%	5,698.08
1 st Bank CD 182 day 10/18/16 0.05%	4,809.37
1 st Bank CD 1 Yr 2/17/17 0.15%	<u>4,999.33</u>
Total Checking/Savings	<u>17,531.19</u>
TOTAL ASSETS	<u>17,531.19</u>
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	3,744.91
Swallow Report Project Fund	2,725.81
D Bucknam Memorial Speaker Fund	1,747.10
Blackfoot Cave Fund	0.00
Library Fund	165.94
Education Fund	52.40
Field Trips / Social Fund	483.01
Student Membership Fund	57.50
Speakers Meal Fund	<u>592.88</u>
Total Temp. Restricted Net Assets	9,569.55
General Fund	7,268.40
General Fund Net Income	<u>.693.24</u>
Total Equity	<u>17,531.19</u>
TOTAL LIABILITIES & EQUITY	<u>17,531.19</u>

GENERAL FUND	MTD	YTD
Income		
Membership Dues	0.00	2,830.00
Interest-Savings, Short-Term CD		11.89
Donations Received	<u>0.00</u>	<u>993.00</u>
Total Income	0.00	3,834.89
Expenses		
Bank Service Charges	8.00	32.00
Dues Paid to State	0.00	1,292.00
Quarterly Meeting Host Expense		365.00
Supplies		74.15
Insurance		1,045.00
Blackfoot Cave Expenses	130.00	130.00
Transfer to Scientific Applications		<u>203.00</u>
Total Expenses	138.00	3,141.65
Net General Fund Income	(138.00)	693.24
Public Education		
Expenses		
Poster Printing – Blackfoot Cave		<u>129.60</u>
Total Expenses		129.60
Net Public Education Income (Expense)		(129.60)
Scientific Applications Fund		
Income		
Transfer from General Fund		203.00
Donations Received		<u>130.00</u>
Total Income		333.00
Net SAF Income		333.00
Speaker's Meals		
Expenses		
Speaker's Meals	67.56	<u>218.74</u>
Total Expenses	67.56	218.74
Net Speaker's Meals (Expense)		(218.74)
Swallow Report Project		
Income		
Donations Received		<u>44.00</u>
Total Income		44.00
Net Swallow Report Income		44.00
Library		
Expenses		
Supplies		<u>36.51</u>
Total Expenses		36.51
Net Library Expenses		(36.51)
Blackfoot Cave		
Expenses		
Pottery Analysis	<u>70.00</u>	<u>70.00</u>
Total Expenses	70.00	70.00
Net Blackfoot Cave Expense	(70.00)	(70.00)

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