

ALL POINTS BULLETIN



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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BOARD ANNOUNCEMENTS:

Membership: The Board would like to extend a warm welcome to our new members, and to thank existing members for renewing their memberships. Your support means a lot! Should you have any questions, or you have ideas for speakers or activities, please be sure to contact the Board using the information listed on the last page of this newsletter or through our website (<https://www.cas-denver.org/contact>).

We very much welcome your active participation in the organization! Our past survey indicates that our membership would like to see more workshop and field trip activities. Our small volunteer Board would truly love nothing more than to offer these activities on a regular basis. However, board duties lessen our ability to do so without your assistance to help organize such events. All the experience you need is an interest in archaeology and a desire to have more member events. So, if you can set aside some time to help organize an event, please consider becoming a more active member and get involved. You contact the board via the website or email Stacy Greenwood at stacygreenwood@comcast.net.

Thank You: The Board would like to thank Jessica Erikson, Jasmine Saxon, Robert Yohe II, Erik Jurado, John (Jack) W. Ives, Beth Fisher, and Gordon Tucker Jr. for their most enjoyable and educational presentations this quarter. An appreciative thank-you is extended to History Colorado Center for their continued support, and for providing access to the Emery Archaeology Lab for our monthly meetings. As always, a big thank you goes out to Shawn Fausett, Emery Archaeology Lab Coordinator for his time and efforts to make our meetings accessible in person and virtually to our members and guests. We couldn't do it without you!

In Memoriam: It is with sadness that we announce the passing of two members of the Denver Chapter.

- In late August we were notified by family members of the passing of Lloyd Anderson on July 26th. Services were held at Fort Logan on September 5th. An email notification was sent out to membership.

- Also, we recently received word from Betty McCutcheon that long-time CAS member, Charlotte Bechtold passed away on December 16, 2023 at the age of 92. Services for Charlotte will take place at Mile Hi Church, 9077 W. Alameda Ave, Lakewood, CO 80226 (the northeast corner of Alameda Ave and Garrison St) at 1:30pm on Friday, February 2, 2024.

Betty provides the following remembrance of Charlotte's active participation in the Denver Chapter:

Charlotte was born in Sioux Falls, South Dakota in 1931. She attended the South Dakota School of Mines and after graduation, Charlotte came to work in Denver with the Bureau of Reclamation on concrete used in dams. Charlotte Bechtold was an unassuming person with a quick wit who freely and unselfishly shared her knowledge with others. As a member of the Colorado Archaeological Society (CAS), she donated an incredible amount of labor and personal time working on archaeological resources, especially the excavation of faunal remains from Swallow Site/5JF321 (1983-1998) in southwest Denver. The analytic process Charlotte followed included cleaning and labeling the animal bones found at the site, identifying their genus/species, body part, condition, and uses. Of special interest were those bones that had been modified for use as ornaments. Once the faunal analysis was completed, Charlotte helped fellow CAS member Shirley Rathbun list, draw and carefully described each item so that description of these unique artifacts could be included in the final site report. A Bone Lab was held at Charlotte's home once a week to identify, count, and record the bones recovered from the Swallow Site. This information was later used in the final site report. In the 1980s Charlotte worked closely with the late Anne Sands developing the Comparative Bone Collection. She also worked with the late Doctors Elmer Baltz (PhD) and Bill Hammond (MD) in mapping Swallow Site.

A survey of the APB archives shows that Charlotte had a lucky touch for winning door prizes during Denver CAS meetings. She also took 3rd Place in the Women's Atlatl Throwing competition at the 1991 CAS Encampment. As a regular excavation volunteer on the Swallow Site, she received the "Hang onto your hat Ma, I think we're going to Kansas" award from the Dig Foreman for continuing to work in her unit despite it being an extremely windy day. She also acted as a Belmar Field School leader with Ivor Hager. Finally, Charlotte contributed a humorous recipe she found for Elephant Stew to the APB newsletter (reproduced in Blast from the Past below). The Denver Chapter is most appreciative of the many valuable contributions made by Charlotte Bechtold over the years.

2024 Schedule for DC-CAS Board and General Meetings:

2024 Board Meetings (Virtual via Zoom at 7:00pm) – 1st Monday of the Month

Moves to Tuesday if the first Monday is a holiday. Zoom link will be sent out to Board Members by Craig Dengel. For members wishing to attend Board Meetings, please send a message to the Board through the website's Contact Us page (<https://www.cas-denver.org/contact>) to receive the Zoom link.

Dates: January 2nd (Tuesday), February 5th, March 4th, April 1st, May 6th, June 3rd, July – No Board Meeting Held, August 5th, September 3rd (Tuesday), October 7th, November 4th and December 2nd – Annual Board Dinner.

2024 General Meetings (Hybrid when possible at 7:00pm) – 2nd Monday of the Month

The Zoom link for the meeting will be sent out by Membership Secretary, Alix Douglas. Should you not receive the link, please contact us via the website's Contact Us page (<https://www.cas-denver.org/contact>) to receive the link.

Dates: January 8th, February 12th, March 11th, April 13th (Saturday) – Daytime joint meeting with Denver Chapter, Indian Peaks Chapter in Estes Park, and Northern Chapter, May 13th, June 10th, July – No General Meeting Held, August 12th – Annual Joint Meeting with the Egyptian Studies Society (ESS hosting), September 9th, October 14th, November 11th and December 9 – Annual Members Night Potluck.

2024 Schedule of State CAS Meetings: The following quarterly State CAS meetings have been scheduled for the upcoming year:

- The first Quarterly Meeting will be hosted by State CAS and held online on January 27, 2024 to avoid winter travel.
 - The second Quarterly Meeting will be hosted by the Indian Peaks Chapter in Boulder on April 20, 2024 (Hybrid).
 - The third Quarterly Meeting is scheduled for July 27, 2024. Location to be determined.
- The Grand Junction Chapter will host the 89th CAS Annual Meeting in September or October in Grand Junction. The date is still to be finalized. The 90th CAS Annual Meeting will be hosted by the Denver Chapter.

PAAC Classes: Sarah Allaun, Assistant State Archaeologist and PAAC State Coordinator has now listed upcoming Spring Classes. If you wish to become an avocational archaeologist, the PAAC program is a great way for CAS members to obtain skills in areas of interest to you. These skills can be applied to volunteer field opportunities. Please see the Opportunities/Classes section below for information on the PAAC program and upcoming class details.

International Archaeology Day 2023: This year's free public archaeology event was held at Red Rocks Park and Amphitheater in Morrison. Community Connections, LLC leaders, Jessica Erikson and Jasmine Saxon did a fantastic job in event planning, arranging off site archaeology tours, and providing logistics for exhibitors. There were over thirty exhibitors from all over the Denver Metro area and beyond. Jon Hedlund of ERO Resources, Ernest House Jr. of the Keystone Policy Center, and Camyrn Sample of the Amache Project provided engaging lectures to attendees. Over fifty volunteers were on hand to help vendors setup, to welcome visitors and answer questions. The event attracted nearly 1,000 visitors who enjoyed visiting exhibitor tables, participating in hands-on activities such as atlatl throwing (adults) and craft activities and mini excavations (kids). There were teepee construction and sand painting demonstrations provided by the Northern Arapaho Tribe as well as flintknapping demonstrations. Visitors also tried out culinary and beverage offerings from two food trucks and a beer garden.

CAS was well represented by several members. Denver members Stacy Greenwood and Jon Kent manned the CAS table while President Craig Dengel assisted in activities in the children's area. Denver Member Ziggy Rose and her friend, Ella Vail volunteered their time to help out at the event. Other exhibit tables were manned by Denver CAS members such as Justin Batista for ERO Resources, Shawn Fausett for History Colorado's Emery Archaeology Lab, Michael Kolb for Metro State University of Denver, Todd and Heidi McMahon for Interpret Site Inc., Gordie Tucker Jr. for the Israeli Tell Shimron Archaeological Project, and Jack Warner for Lamb Springs Archaeological Preserve. Indian Peaks Chapter was also represented by Christian Driver who joined in the flintknapping demonstrations at Red Rocks while Larry Beidel and Gretchen Acharya hosted an International Archaeology Day exhibit at the University of Colorado-Boulder Museum. The CAS table had numerous visitors who received information about the organization, pamphlets and bandana swag. They could also sign up to receive upcoming lecture announcements. New Denver members Cody Camp, Colin Hayward, Susan Sweeney, and David and Karen Woods were among the visitors. Denver Board Member Michele Giometti and Northern Chapter President Lori Vanagunas also came by the CAS table to say hello.



Lithophone Demonstration



Children's Activity Area



Northern Arapaho Teepee Construction Demonstration



Flintknapping Demonstration

Photographs Courtesy of Community Connections LLC

CAS Annual Meeting: The 88th CAS Annual Meeting took place in Colorado Springs on Friday, September 29th through Sunday, October 1st. The Pikes Peak Chapter were gracious hosts providing members with breakfast treats, snacks, coffee and beverages. Friday morning and afternoon featured thirteen speakers, including the new Assistant State Archaeologist, Sarah Allaun and the 2023 graduate student recipients of Alice Hamilton Scholarship Awards. Denver Chapter was represented by Jon Kent with a presentation, co-authored with Reid Farmer, on new data from the 1971 excavation of Cherokee Mountain Rock Shelter. Jack Warner also presented on the seasonal occupation and importance of the Lamb Spring Archaeological Preserve. The afternoon's proceedings concluded with the State CAS Business/Members Meeting. With the required quorum present, the 2022 Minutes were approved. The Executive Secretary and Treasurer presented their reports for 2023 to membership, followed by the various committee reports. The 2024 State CAS Board slate of nominees was presented and unanimously accepted via membership vote. After the meeting adjourned, a social hour cash bar followed.

The Annual Banquet was held on Saturday evening featuring Dr. Christopher T. Fisher was the Banquet Keynote Speaker. Dr. Fisher is a Professor of Anthropology at Colorado State University and the Director of The Earth Archive (TheEarthArchive.com). His presentation, *Ancient Cities and LiDAR: Angamuco and the Development of Empire* discussed recent LiDAR survey work and excavations of the previously unknown site of *Angamuco*. The recent

discoveries at the Mexican site have impacted theories on complex society development in the region. At the end of the Banquet, the winners of the Silent Auction benefiting the Alice Hamilton Scholarship Fund were announced. A total of \$1,533 was raised for the scholarship fund. The weekend concluded with Sunday field trips for CAS members to Blackfoot Cave, Coral Bluff and Jimmy Camp.

November DC-CAS Board Elections for 2024: The 2024 Board Elections were held online via the Zoom platform during the November 13, 2023 General Meeting after the speaker's presentation had concluded. The following candidate slate was unanimously accepted by all members in attendance:

President: Craig Dengel

Vice-President: Vacant

Secretary: Paris Cook

Treasurer: Michele Giometti

Membership Secretary: Alix Douglas

CAS Representative/PAAC Coordinator: Beth Fisher

Directors: Joe Garrett (2024-2026) and one director position vacant (2024-2026)*

* Note: Amy Gillaspie has generously offered to fill the open Director's position for the 2024-2026 term, if needed.

The Director positions currently held by Deb Bollig and Teresa Weedon will end on December 31, 2024, at which time both positions will be open for the 2025-2027 term.

The following Board Approved Non-Voting Appointments have been made for 2024:

Historian: Ken Andresen

APB Editor: Emily Seabold

APB Contributors: Meredith Avery and Stacy Greenwood

Archive Digitization Project: Monica Eckels and Stacy Greenwood

Media Coordination: Stacy Greenwood

Website Manager: Aiden Kent

December Members Night: This year's Members Night was held on Monday, December 11th in the Martin Family Room, 4th Floor, History Colorado Center, 1200 N. Broadway, Denver, CO 80224. Attending members brought some tasty entrees and desserts to be enjoyed by all. Beverages and service ware were provided by the Board. In-person and virtual attendees were treated to two presentations by fellow members, new Board Member Beth Fisher and former President Gordon Tucker Jr. Beth spoke on her participation in paleontological excavations at Porcupine Cave in South Park, Colorado. Gordon shared his experiences excavating at the site of Tell Shimron in Israel. Both presentations were very interesting and informative. The evening's event concluded with the introduction of the 2024 Board Members to membership. Due to time constraints, a full write-up of Beth's and Gordon's presentations will appear later in the March 2024 APB (Vol. 62, No. 1).

UPCOMING DC-CAS LECTURES:

All General Meetings are free and open to the public, and begin at 7:00pm MT in the Emery Archeology Lab, 3rd Floor, History Colorado Center, 1200 N. Broadway, Denver 80203. A virtual option will be offered when possible for those who wish to attend virtually. An email will be sent out to members with the speaker details which can also be found on the website under the Events/Upcoming Events tab (<https://www.cas-denver.org/upcoming-activities>).

For those attending in person, please enter the building through the Security/Employee Entrance located on Lincoln Street. Please also consider joining us for a pre-talk dinner between 5:00-5:15 pm at Stoney's Bar & Grill, 1111 Lincoln

Street (1/2 block south of History Colorado). Street parking is available on Lincoln St (free after 6:00pm). Paid garage parking is available at the Cultural Center Complex Garage, 65 W. 12th Ave, Denver 80204 (just west of the Art Hotel at 12th and Broadway).

JANUARY 8, 2024: Our first speaker of the year was to be Colorado Assistant State Archaeologist and PAAC State Coordinator, Sarah Allaun. However, due to unforeseen circumstances, Allaun has had to reschedule her presentation for May 13, 2024. Dr. Jayson Gill, Visiting Associate Professor at Boise State University has graciously agreed to present in Allaun's place. Dr. Gill will speak on his recent research of hominid occupation and behavior in the Armenian Highlands and southern Caucasus during the Middle and Late Pleistocene. The presentation will be centered upon technological and archaeological investigations in the Debed Gorge of northern Armenia as part of the Pleistocene Behavioral Landscapes of Northern Armenia Project. Note this will be a virtual presentation only. There will be no in-person meeting.

FEBRUARY 12, 2024: Our February speaker will be Deb Bollig. She will be presenting on the Bronze Age Minoan site of Akrotiri on the Island of Santorini, Greece. Deb will provide an in-depth look at Minoan culture and the latest archaeological work at Akrotiri, accompanied with photographs from her recent visit to the site. Deb is currently a DC-CAS Director, a world-traveling avocational archaeologist and teacher. She has taught classes on Stonehenge and Paleo-Americans for the Osher Life-Long Learning Institute in Denver as well as classes on weather and computers.

MARCH 11, 2024: Our March speaker will be Nicole M. Herzog, Assistant Professor of Archaeology at the University of Denver. Herzog is also currently in charge of the Department of Anthropology's Paleodiet Lab. Her interests lie in studying the link between diet, fire and human evolution. More information about her talk will be forthcoming.

APRIL 13, 2024: Our April Meeting will be a joint meeting between the Denver, Indian Peaks and the Northern Chapters to be held in Estes Park. The meeting will take place at 1:00pm MT at the American Legion-Post 119 located at 850 N. St. Vrain Ave, Estes Park 80517. The speaker for the joint meeting will be Kelly Dick, Cultural Resource Program Manager for Rocky Mountain National Park. She will be talking about archaeology sites following the East Troublesome fire in the Fall of 2020. After Dick's presentation, attendees will have the opportunity to visit the repository and/or the Rocky Mountain National Park Museum. More details will be forthcoming as well as the possibility for car pooling arrangements to attend the meeting. Many thanks should go to the Northern Chapter's President Lori Vanagunas for undertaking the legwork and making the arrangements.

MAY 13, 2024: In May, Sarah Allaun, Assistant State Archaeologist and PAAC State Coordinator will present in person her rescheduled talk, *Looking for Old Dirt: The Geomorphic History of the Patten Creek Valley in the Hartville Uplift, Wyoming*. Details will be forthcoming closer to the date.

UPCOMING LECTURES - OTHER ORGANIZATIONS:

FEBRUARY:

In Search of Ancient Israel (Virtual-\$): *February 3, 2024 (8:00am-4:00pm MST)*. Smithsonian Institute. In this illustrated all-day program, biblical scholar Gary Rendsburg presents an overview of new findings that illuminate the world of ancient Israel. For more information visit <https://smithsonianassociates.org/ticketing/tickets/search-of-ancient-israel> .

Archaeologies of Foodways and Cuisine (Hybrid-Free): *February 6, 2024 (6:00-7:00pm MST)*. Archaeology Southwest-Archaeology Cafe Series. Speaker Sarah Oas (Archaeology Southwest) will discuss the importance of food to our minds, bodies, and societies and will explore what archaeological approaches that center foodways and cuisine bring to the table in understanding life in the past. Drawing on several archaeological case studies from the Zuni/Cibola Region, this presentation will explore how the archaeology of kitchens, meals, and staple ingredients can expand our understanding of the importance of foods and foodways both in daily life and in processes of social change. For more information or to register, visit: <https://www.archaeologysouthwest.org/event/archaeologies-of-foodways-and-cuisine/> .

Why Corrugated Cooking Pots? (Virtual-Free): *February 8, 2024 (4:00pm MST)*, Crow Canyon Thursday Webinar Series. Speaker: Chris Pierce. Visit <https://crowcanyon.org/programs/why-corrugated-cooking-pots/> for more information and to register.

Imagining the Roman Empire Through Its Souvenirs (Virtual-Free): *February 9, 2024 (3:00-4:00pm MST)*, Archaeological Institute of America-Baltimore, Robert L. Scranton Lecture. Speaker: Dr. Maggie Popkin, Case Western Reserve University. For more information and to register, please visit: <https://www.archaeological.org/event/robert-l-scranton-lecture/> .

A Geologic Year in North America: Three Geologic Eras in 365 Days (Virtual-): *February 12, 2024 (5:00-6:30pm MST)*. Smithsonian Institution. The geologic time scale is one of the most difficult concepts in geology to grasp, yet is fundamental to our understanding of how Earth and life processes have changed the face of our planet over the past 4.6 billion years. In a program geared to the layperson, world traveler, or aspiring geology student in awe of deep time and the geologic record, geologist Kirt Kempter offers a unique approach to making the topic approachable: He condenses the last three geologic eras into a humanly comfortable time frame of a single calendar year. For more information visit: [https://smithsonianassociates.org/ticketing/tickets/geologic-year Smithsonian](https://smithsonianassociates.org/ticketing/tickets/geologic-year-Smithsonian) .

The Leupp Isolation Center and Japanese American Imprisonment on Diné (Navajo) Lands (Virtual-Free): *February 15, 2024 (5:00-6:00pm MST)*. The Archaeological Conservancy. Speaker: Davina Ruth Two Bears, Presidential Postdoctoral Fellow, School of Human Evolution and Social Change, Arizona State University. The Old Leupp Boarding School (OLBS), a historical archaeological site on the southwest Navajo reservation, is a significant place that is important to the Diné (Navajo) communities of Leupp and Birdsprings, Arizona. The U.S. federal government established this federal Indian boarding school to educate Navajo children from 1909 to 1942. After the start of World War II however, the U.S. War Department reutilized the OLBS as a Japanese Isolation Center, the Leupp Isolation Center, in 1943. This presentation will briefly explore the Leupp Isolation Center's history of oppression of Japanese American citizens on Indigenous lands by the U.S. government. To register, visit: <https://www.archaeologicalconservancy.org/virtual-lectures-2024/leupp-isolation-center-and-japanese-american-imprisonment/> .

Finding Solace in the Soil: The Archaeology of Gardens and Gardeners at Amache, Colorado's Japanese American Incarceration Camp (Hybrid-Free): *February 15, 2024 (7:00pm MST)*. San Juan Basin Archaeological Society. Speaker: Dr. Bonnie Clark. This presentation overviews the methods and results of six seasons of landscape archaeology at Amache in SE Colorado. For more information and Zoom link, visit - <https://www.sjbas.org/> .

Diné Being & Seeing Through Storytelling (Virtual-Free): *February 15, 2024 (4:00pm MST)*. Crow Canyon Thursday Webinar Series. Speaker: Raphael Begay. Visit <https://crowcanyon.org/programs/dine-being-seeing-through-storytelling/> for more information and to register.

Recent University of New Mexico Research at Chaco Canyon with Some Background and Future (Virtual-Free): Old Pueblo Thursday Food for Thought Series, *February 15, 2024 (7:00pm-8:30pm MST)*, Speaker: Dr. W.H. Wills, Professor of Anthropology and Regent's Lecturer, University of New Mexico. For more information and to register, visit - <https://www.oldpueblo.org/event/third-thursday-food-for-thought-presentation-recent-university-of-new-mexico-research-at-chaco-canyon-with-some-background-and-future/> .

Archaeology, Museums, And War In The 21st Century (Virtual-Free): *February 19, 2024 (4:00pm MST)*. Archaeological Institute of America, Minneapolis-St.Paul. Speaker: C. Brian Rose. For more information and to register, visit <https://www.archaeological.org/event/archaeology-museums-and-war-in-the-21st-century/> .

Road Signs and Walking Shoes: Sandal Imagery as Part and Parcel of the Chaco Road System (Hybrid-Free): *February 19, 2024 (7:00-8:30pm MST)*. Arizona Archaeological and Historical Society. Speaker: Benjamin A. Bellorado. The roads that crisscross the Chaco landscape have fascinated archaeologists and the public for over a century. Scholars have investigated these features within Chaco Canyon and more broadly across the Chaco World. Using newly developed

technologies and ethnographic insights to inform their interpretations, they have proposed that roads served several potential purposes, such as aiding resource procurement, facilitating exchange networks, or projecting religious power. For more information or to register (required), visit: <https://www.az-arch-and-hist.org/event/benjamin-bellorado-tbd/> .

Unearthing Painted Worlds: New Archaeological Discoveries of the Moche Culture of Peru (In Person Only-):

February 21, 2024 (7:00 pm MST). Denver Museum of Nature and Science. Speakers: Dr. Michele Koons, DMNS Curator and Megan Salas, Conservator will be presenting on the recent discovery of Moche paintings at the site of Pañamarca in the Nepeña Valley, Peru. For more information and to buy tickets, visit https://secure1.dmns.org/unearthing-painted-worlds-new-archaeological-discoveries-of-the-moche-culture-of-peru?_gl=1*z29d0r*_ga*MjA2MzExOTY2MC4xNzA2MzkwNDA5*_ga_HWBjMWW3PZ*MTcwNjc0ODc3OS40LjEuMTcwNjc0ODc4NS41NC4wLjA.

Con Men and Klansmen: Denver 100 Years Ago (In Person Only-): *February 21, 2024 (1:00pm and 7:00pm MST)*.

History Colorado Center. Rosenberry Lecture Series. Speaker: Alan Prendergast, Journalist. Prendergast will discuss the process for writing his book *Gangbuster: One Man's Battle Against Crime, Corruption, and the Klan*. The book is a narrative nonfiction account of Denver District Attorney Phillip Van Cise's fight against organized crime and the Ku Klux Klan (KKK). For more information please visit: <https://www.historycolorado.org/rosenberry-lecture-series-history-curious> .

Exploring Ancient Anatolia: A Turkish Odyssey (Virtual-): *Four Sessions - February 22, February 29, March 7 and*

March 14, 2024 (10:00-11:30am MST). Smithsonian Institute. Anatolia's colorful history has left a windfall of riches—ancient ruins, ornate Byzantine churches, supremely elegant mosques, and splendid Ottoman palaces. In an illustrated series, Serif Yenen, a Turkish-born tour guide and author, highlights the heritage and splendor of ancient Turkey through an examination of some of its cultural gems. For more information visit:

<https://smithsonianassociates.org/ticketing/tickets/exploring-anatolia> .

“Barbarians”, Bronzes and the Legendary Capital of Vietnam (Virtual-Free): *February 28, 2024 (6:00pm MST)*.

Archaeological Institute of America. Speaker: Nam C. Kim, University of Wisconsin-Madison. Vietnamese lore tells us that over two thousand years ago the Red River Valley of northern Vietnam was home to powerful indigenous kingdoms, fortified capitals, and exquisite bronze craftsmanship. In contrast, the neighboring Chinese Han Empire claimed the region was inhabited by unsophisticated “barbarians” in need of “civilizing”, prompting imperial annexation of the region. This lecture explores the region's archaeological record and what it means for scholarly debates, as well as for Vietnam's national imagination, cultural heritage, and descendant identities. To register please visit:

https://us02web.zoom.us/webinar/register/WN_VHxfCvN-Q4OHx7hdHYM2kA#/registration .

MARCH:

Tres Hornos: Experimental Archaeology of Earthen Ovens (Virtual-Free): *March 5, 2024 (6:00-7:00pm MST)*

Archaeology Southwest-Archaeology Cafe Series. Speaker: Jun Sunseri (University of California Berkeley). Everyone's ancestors cooked with earth in one form or another. As a participant-observer and experimental archaeologist, Jun Sunseri has found that the construction and use of such features are not only important aspects of his research, but also serve as the foci of social experiences that bring people together through labor and food. For more information visit:

<https://www.archaeologysouthwest.org/event/tres-hornos-experimental-archaeology-of-earthen-ovens/> .

Towards a History of American Indian-Jewish Relations (Virtual-Free): *March 7, 2024 (4:00pm MST)*. Crow Canyon

Thursday Webinar Series. Speaker: David Koffman. For more information and to register, visit

<https://crowcanyon.org/programs/towards-a-history-of-american-indian-jewish-relations/> .

Architectural Innovation at the Sanctuary of the Great Gods, Samothrace: The Engineering of the Stoa

(Hybrid-Free): *March 8, 2024 (3:00-4:00pm MST)*. Archaeological Institute of America-Baltimore Society. 2024 Ludlow

Hopkins Baldwin/Gladys Callahan Vocci Justice Lecture. Speaker: Dr. Sam Holman, Princeton University. For more information visit: <https://www.archaeological.org/event/ludlow-hopkins-baldwin-gladys-callahan-vocci-justice-lecture/> .

Feathered Serpents and Pole Climbing Clowns: the Paradox of the Southwest/Northwest and Mesoamerican Connection (Virtual-Free): *March 14, 2024 (4:00pm MST)*. Crow Canyon Thursday Webinar Series. Speaker: Randall McGuire. For more information and to register, visit:

<https://crowcanyon.org/programs/feathered-serpents-and-pole-climbing-clowns-the-paradox-of-the-southwest-northwest-and-mesoamerican-connection/> .

Archaeology and Conservation: The Tombs at Río Azul, a treasure in northeast Guatemala (Santa Fe, NM - In Person Only): *March 19, 2024 (7:00-8:00pm MST)*. Santa Fe Archaeological Society. Speaker: Liwy Grazioso Sierra, Current Director and Curator, Museo Miraflores-Guatemala and Professor of Maya Archaeology and Iconography, San Carlos University-Guatemala. Río Azul is an ancient Maya city located in NE Peten in Guatemala. In the late 70's the site was heavily looted and artifacts were being sold at the auction market around the world. In the 80's an Archaeological Project took place and they documented all the looter's excavations and the tombs they have emptied, most of them have beautiful mural paintings. The site gained notoriety and became quite famous. At the end of the project, they were closed for protection and with time they got forgotten. In the late 90's they were opened to take pictures to promote tourism and they became a target destination and tourists insisted on going in although the site wasn't open to the public and had no conditions to handle visitors. At that time there was no control and no protection, people went in and out without care and with time the murals were severely damaged. For more information visit:

<https://sfarchaeology.org/event/archaeology-and-conservation-the-tombs-at-rio-azul-a-treasure-in-northeast-guatemala/> .

The Eyes of the Army: Indian Scouts and the Rise of Military Innovation during the Apache Wars (Virtual-Free): *March 21, 2024 (4:00pm MST)*. Crow Canyon Thursday Webinar Series. Speaker: Felicity Amaya Schaeffer. Visit

<https://crowcanyon.org/programs/the-eyes-of-the-army-indian-scouts-and-the-rise-of-military-innovation-during-the-apache-wars/> for more information and to register.

Finding the Children: Using Archaeology to Search for Unmarked Graves at Indian Residential Schools in Canada (Virtual-Free): *March 27, 2024 (6:00pm MST)*. Archaeological Institute of America, AIA Archaeology Hour Series.

Speaker: Kisha Supmant. In May 2021, the Tk'emlúps te Secwépemc First Nation in British Columbia, Canada, announced that 215 potential unmarked graves were located near the Kamloops Indian Residential School using ground-penetrating radar conducted by archaeologists. While this was not the first announcement of unmarked graves associated with Indian Residential Schools, it garnered national and international attention. The subsequent months saw significant commitments of funding from the government to support Indigenous communities who wanted to conduct their own searches. Many Indigenous communities turned to archaeologists to assist them in designing an approach to finding potential unmarked graves of their relatives. Supmant will provide an overview of how archaeologists have been working with Indigenous communities in Canada to locate potential grave sites and discuss the opportunities and challenges in this highly sensitive, deeply emotional work. To register please visit:

https://us02web.zoom.us/webinar/register/WN_RiVnj1urRy25POn73qrCEA#/registration .

APRIL:

A Lifelong Zuni Farmer's Authority and Influence (Virtual-Free): *April 2, 2024 (6:00-7:00pm MST)*. Archaeology Southwest-Archaeology Cafe Series. Speaker: Jim Enote ,Colorado Plateau Foundation. With experience planting crops for 67 consecutive years, Enote will share thoughts about traditional knowledge, climate change, economics, and life on the precipice. For more information visit:

<https://www.archaeologysouthwest.org/event/a-lifelong-zuni-farmers-authority-and-influence/> .

Leaving Traces: Fairy Houses, Kindness Stones and Constructed Heritage (Virtual-Free): *April 4, 2024 (4:00pm MST)*. Crow Canyon Thursday Webinar Series. Speakers: Michele Turner and Derek Turner. For more information and to register, visit <https://crowcanyon.org/programs/leaving-traces-fairy-houses-kindness-stones-and-constructed-heritage/> .

Crouching Tigers, Hidden Elephants (Hybrid- Denver): *April 13, 2024* by the Archaeological Institute of America. For further information/to register, visit: <https://www.archaeological.org/event/crouching-tigers-hidden-elephants/> .

Los Luceros – Revealing the Hidden Gem of New Mexico (In Person Only, Santa Fe, NM): *April 16, 2024 (7:00-8:00pm MST)*. Santa Fe Archaeological Society. Speaker: Rebecca Ward, Instructional Coordinator for the Los Luceros Historic Site. Los Luceros was designated a historic site in 2019 which preserved 148 acres of towering Cottonwood Trees, rolling agricultural fields, incredibly preserved historic buildings, a delightful apple orchard, four miles of traditional acequia ditches, and a bosque full of wildlife... all sitting on the bank of the beautiful Rio Grande. Carly hopes to demonstrate why this site is so special to so many people by covering the site's history through its present programs and projects. It is time to excavate this "hidden gem" and reveal its importance and beauty for all to admire! For more information or to register visit: (<https://sfarchaeology.org/event/los-luceros-new-mexicos-hidden-gem-rebecca-ward/>)

Excavating a Shipwrecked Marble Column Destined for the Temple of Apollo at Claros (Virtual-Free): *April 27, 2024 (6:00pm MST)*. Archaeological Institute of America, AIA Archaeology Hour Series. Speaker: Deborah Carlson. For more information/to register, visit: <https://www.archaeological.org/event/aia-archaeology-hour-with-deborah-carlson/> .

From Myth To Polis: Deciphering The Cultural Life Of Ancient Aphidna Using Multi Modal Landscape Analysis (Virtual): *April 18, 2024* by the Archaeological Institute of America. For more information and to register, please visit: <https://www.archaeological.org/event/from-myth-to-polis-deciphering-the-cultural-life-of-ancient-aphidna-using-multi-modal-landscape-analysis/> .

MAY:

Rematriating The Four Corners Potato (Virtual-Free): *May 7, 2024 (6:00-7:00pm MST)*. Archaeology Southwest-Archaeology Cafe Series. Speaker: Cynthia Wilson, University of California-Berkeley. For more information and to register, visit: (<https://www.archaeologysouthwest.org/event/rematriating-the-four-corners-potato/>) .

TOURS:

Guatemala Highlands and Copan (Guatemala-£): *March 10-20, 2024*. The Archaeological Conservancy. Tour led by Dr. Scott Hudson, Professor of Mesoamerican Archaeology, University of Kentucky. For more information, visit <https://www.archaeologicalconservancy.org/guatemala-highlands-and-copan-24/> .

Peoples of the Lower Mississippi Valley (U.S.-£): *March 23-30, 2024*. The Archaeological Conservancy. Tour travels through Tennessee, Arkansas, Louisiana and Mississippi. For more information and itinerary, visit <https://www.archaeologicalconservancy.org/peoples-of-the-lower-mississippi-valley-24/> .

The Pueblo World (Albuquerque, NM-£): *March 31, 2024 - April 6, 2024* . Crow Canyon Archaeological Center. Step into the Pueblo world and discover the depth and diversity of Pueblo communities in the Rio Grande Valley. Accompanied by extraordinary Pueblo educators, enjoy a unique opportunity to experience deeper dimensions of Pueblo lifeways: Attend a Corn Dance at Kewa Pueblo, visit talented jewelers and potters, and learn to visit ancestral places and sacred landscapes with respect. For more information or to register visit: <https://crowcanyon.org/programs/the-pueblo-world/> .

Archaeology and History of New England (U.S.-£): *May 4-11, 2024*. The Archaeology Conservancy. Tour led by Conservancy Staff and expert guide Dr. Donal Linebaugh and travels to New Hampshire, Massachusetts and Connecticut. For more information, visit <https://www.archaeologicalconservancy.org/archaeology-and-history-of-early-new-england/> .

San Juan River Trip (U.S.-£): *May 26-June 2, 2024*. The Archaeology Conservancy. Tour led by Utah archaeologist George Woodall. For more information, visit <https://www.archaeologicalconservancy.org/san-juan-river-trip-24/> .

Four Corners Learning Expedition (AZ/UT/CO/NM Region-£): *September 21-28, 2024 or September 20-27, 2025*. Arizona State Museum, University of Arizona. Tour led by Arizona State Museum Director Dr. Patrick D. Lyon and

Associate Director Dr. James T. Watson, both archaeologists. Tour will visit Wupatki National Monument, the Hopi Mesas, Navajo National Monument, Mesa Verde National Park, Chaco Cultural National Historical Park and Kinishba Ruins. For more information, visit <https://statemuseum.arizona.edu/events/travel-four-corners-learning-expedition> .

OPPORTUNITIES TO GET INVOLVED:

VOLUNTEERING

COLORADO -

Emery Archaeology Lab: If you have archaeological field or laboratory experience, please consider volunteering your time to work on various projects in the Emery Archaeology Lab at History Colorado. Contact Shawn Fausett, Emery Archaeology Lab Coordinator (shawn.fausett@state.co.us) for further information.

Colorado Council for Professional Archaeologists: The CCPA Education Committee is always interested in having new members working together to bring archaeology to students and the public everywhere. If you are interested in joining the CCPA and the CCPA Education Committee, or just have questions or ideas you would like to share, please contact Amy Gillaspie (amy.gillaspie@ucdenver.edu).

History Colorado: Volunteers play an important role in helping to tell Colorado's story. Whether it's greeting visitors at one of our many Community Museums, working behind the scenes of a new exhibit at the History Colorado Center, or inspiring school kids to explore our state's history, we have a variety of opportunities to use your special skills to bring Colorado's history to life. For more information visit [History Colorado](#) or to apply <https://www.volgistics.com/appform/1600584891> .

South Park Site Stewards: If you enjoy being outdoors and are interested in helping to monitor archaeological sites for environmental damage and vandalism, please consider volunteering with the South Park Site Stewards. More information about their program is available here - <https://www.southparksitestewards.org/> .

ELSEWHERE -

National Park Service: The National Park Service offers volunteer opportunities across the nation and its territories in parks, regional offices, and programs. Visit <https://www.nps.gov/subjects/citizenscience/be-a-citizen-scientist.htm> for more information.

- (Ongoing) Homestead National Historical Park (Nebraska) Black Homesteading Project. Online Transcribing Opportunity. Help to transcribe title documents for Black homesteaders from the General Land Office in the 1870s-1930s so they may be accessible digitally to researchers. For more information or to volunteer, visit the project listing via the link above.

Archaeology Southwest: (Arizona) Volunteers are part of our Preservation Archaeology mission. Whether cleaning sherds, entering data, or helping construct a pit house, our volunteers give their time and skills to get the job done—and we appreciate them! For more information visit: <https://www.archaeologysouthwest.org/volunteer/volunteer-interest-form/> .

Archaeology Volunteer Training Program: (California) An archaeology training class is conducted annually by the ABDSP archaeologist. The class is an introduction to archaeology and instruction in archaeology survey and excavation techniques will be taught. Additionally students learn about Site Stewardship. Upon completion of the course graduates are eligible to participate in the field and in the Begole Archaeological Research Lab. For more information visit the [Colorado Desert Archaeology](#) Society or contact through the website at: <https://www.anzaborregoarchaeo.org/contact/> .

CLASSES

History Colorado Museum Basic Classes: (Online Only) The Insights and In-Person program at History Colorado Center is offering fee-based classes for those who work or volunteer at cultural institutions such as museums, libraries and archives. Classes are also suitable for graduate students who are interested in pursuing this line of work. Individual Classes are \$25.00. Annual Passes for the entire class series are available for Individuals (\$125.00), Institutions (\$325) and Full-time College/University Students (\$60).

-Working with Military Collections -Wednesday, March 13, 2024, 5:00pm -7:00pm MT. For information/to register, visit <https://www.historycolorado.org/insights-inperson#event=museum-basics-working-with-military-collections-2:instance=20240313170000?popup=1> .

-Digitization and Digital Collections - Wednesday, May 8, 2024, 5:00pm-7:00pm MT. For information/to register, visit <https://www.historycolorado.org/insights-inperson#event=museum-basics-digitization-and-digital-collections:instance=20240508170000?popup=1> .

History Colorado PAAC Classes: A revamped PAAC Program is now up and running. For information and to apply to the program, please visit -<https://www.historycolorado.org/paac-program-introduction> . Information on the restructuring of the program can be found here -<https://www.historycolorado.org/paac-certification-information> . Please note, those who completed PAAC classes under the old format will receive credit for work already completed. Also, check out the frequently asked page - (<https://www.historycolorado.org/paac-frequently-asked-questions-faqs>) . If you have any questions, please contact your Denver Chapter PAAC Coordinator, Beth Fisher via the website contact page (<https://www.cas-denver.org/contact>) or talk to her in person at our monthly general meetings.

-Upcoming Spring PAAC Classes:

1. Introduction to Archaeology, Multi-Day Course - March 25-May 31, 2024, 6 credit hours.
2. State & National Register Nomination Workshop (Weekend Workshop), April 26 and 27, 2024, 2-4 credit hours. (dates subject to change).
3. Site Stewardship Workshop (Weekend Workshop), 2-4 credit hours - Date to be determined.

-Upcoming Summer PAAC Classes: Details will be forthcoming for the Archaeological Fieldwork, PAAC Field Experience, 8 credit hours.

Old Pueblo Archaeology Center Classes: (Arizona-Online)

- The Mogollon Culture of the US Southwest - A 14-session online adult education class. May 8-August 7, 2024, 6:30pm-8:30pm Arizona/MST. Requested donation is \$109 (\$90 for Arizona Archaeological Society members). Donation does not include the cost of optional AAS membership or AAS certification. For more information and to register, visit - <https://www.oldpueblo.org/event/the-mogollon-culture-of-the-us-southwest-14-session-online-adult-education-class/equisite> .

Society for American Anthropology Online Classes: Per their website - SAA Continuing Education offers free and fee-based online professional development opportunities designed for students and archaeologists seeking to enhance their skill sets or knowledge base. For further information, course description and to register, please visit <https://www.saa.org/career-practice/continuing-education/upcoming-events>.

- Underwater Drones? Using Remotely Operated Vehicles in Underwater Archaeology [Foundational Skills], February 9, 2024, 2:00-3:00 pm ET/12:00-1:00 MT. Cost: Free to SAA Members, \$69 for Non-Members.

- Oral History and Archaeology [Deeper Digs], February 29, 2024, 2:00-4:00pm ET/12:00-2:00pm MT. Cost: \$99 for SAA Members, \$149 for Non-Members.

- The Essential Drone Survey: Why, What, Where, When, and How to Become a Drone Pilot [Deeper Digs], March 5, 2024, 2:00-4:00pm/12:00-2:00pm MT. Cost is \$99 for SAA Members and \$139 for Non-Members.

- Exploring Applications of 3-D Printing in Archaeology for Education, Public Outreach, and Museum Exhibits [Deeper Digs], June 5, 2024, 1:00-3:00pm ET/11:00am-1:00pm MT. Cost is \$99 for SAA Members and \$139 for Non-Members.

Fee-Based, On-Demand Classes are also available here -

<https://www.saa.org/career-practice/continuing-education/seminars-on-demand>.

Please note you are purchasing a recording of a previously-held class. Cost: \$99 for SAA Members/\$149 for Non-Members.

Current offerings are:

- *Reading Flake Scars to Understand Lithic Technologies and Past Human Behavior*
- *Assessing Significance and Integrity to Establish National Register Eligibility of Archaeology Sites*
- *Quantification in Zooarchaeology: Calculating and Critiquing NISP, MNI, and MNE*
- *Characterization of Obsidian and Coarse to Fine-Paste Ceramics with Handheld XRF*
- *Exploring Applications of 3-D Printing in Archaeology for Education, Public Outreach, and Museum Exhibits*
- *Step by Step: Section 106 of the National Historic Preservation Act and the National Environmental Policy Act*
- *Historic Ceramics Identification*

If you are an SAA Member, you have access to 30+ hours of free on-demand recordings in the Online Learning Archive by signing in via the link below: [Online Learning Archive](#)

FIELD SCHOOL OPPORTUNITIES

Zooarchaeology and Field Ecology Field School (Utah): May 6-31, 2024 with the University of Utah. **Tuition Deadline:** Early May 2024. No previous field experience or background in zooarchaeology is required and we welcome a wide range of academic backgrounds. Previous coursework in archaeology or related fields is recommended but not essential. There is a limit of eight people. Read more about this project through [The University of Utah](#) or contact Jack Broughton at jack.broughton@anthro.utah.edu for more information.

Paleoindian Survey and Land Use Study (Southwestern CO): May 13-June 21, 2024 with Fort Lewis College. No deadline given. For more information and to apply, visit: <https://www.fortlewis.edu/academics/schools-departments/departments/anthropology-department/field-schools/archaeological-field-school> .

College Field School (NM): May 20-July 6, 2024 with Crow Canyon Archaeological Center. **Application Deadline:** March 15, 2024. Led by Dr. Susan C. Ryan. Undergraduate credit available through Adams State University course Anthropology 379. For more information, visit <https://crowcanyon.org/college-field-school/> .

Field School and Laboratory (Tenn & CO): May 28-July 19, 2024 with Colorado State University. **Application Deadline:** March 31, 2024. Led by Edward Henry, Assistant Professor, Archaeology. Field work will be carried out at Pinson Mounds, Tennessee May 28-June 28, 2024. Laboratory work and analysis will be carried out at Colorado State University campus July 1-19, 2024. For more information, visit [https://anthgr.colostate.edu/departments-scholarship/field-schools/archaeology-field-school/#:~:text=Our%20Archaeology%20Field%20School%2C%20which,and%20apply%20archaeological%20field%20methods.&text=Earn%20credit%20for%20ANTH%20260.%2F660%20\(6%20cr.\)](https://anthgr.colostate.edu/departments-scholarship/field-schools/archaeology-field-school/#:~:text=Our%20Archaeology%20Field%20School%2C%20which,and%20apply%20archaeological%20field%20methods.&text=Earn%20credit%20for%20ANTH%20260.%2F660%20(6%20cr.)) .

Summer Archeological Field School 2024 (NM): *Summer of 2024* with University of Colorado-Boulder. No deadline given. Focus will be on the relationship between Hispano and Tewa Pueblo occupations at the village of Estaca in Northern New Mexico. For more information and prerequisites, visit <https://www.colorado.edu/anthropology/undergraduate/undergraduate-student-opportunities/archaeological-field-school> .

Range Creek Canyon Field School (East Central Utah): *Tentative Dates: June 10-July 21, 2024* with the University of Utah, Department of Anthropology and the Natural History Museum of Utah. **Application Deadline:** March 16, 2024. For more information, visit https://anthro.utah.edu/fieldschools/range_creek_fieldschool.php .

UPCOMING ARCHAEOLOGICAL CONFERENCES:

JANUARY 2024:

Society for Historical and Underwater Archaeology: *January 3-6, 2024*. Oakland, CA. For further information visit: <https://sha.org/conferences/> .

Joint Annual Meeting of the Archaeological Institute of America and the Society for Classical Studies: *January 4-7, 2024*, Chicago, IL. The meeting will not be fully hybrid, but will have in-person and virtual attendance options. For further information and to register, please visit: <https://www.archaeological.org/programs/professionals/annual-meeting/> .

MARCH 2024:

Colorado Council of Professional Archaeologists Conference: *March 7-10, 2024*. Sterling, CO. Registration is open. Early Registration (at a reduced rate) ends February 23rd. **Paper/Poster Submission Deadline:** February 16, 2024. For further information and to register, visit <https://coloradoarchaeologists.org/meetings-events/annual-meeting/2024-sterling/> .

Middle Atlantic Archaeological Conference: *March 7-10, 2024*. Ocean City, MD. For further information and to register, please visit: <https://maac10.wildapricot.org/Conference> .

Paleoanthropology Society 2024 Meeting: *March 19-20, 2024*, Los Angeles, CA. For further information and to register, please visit: <https://paleoanthro.org/meetings/2024/> .

93rd Annual Meeting of the American Association of Biological Anthropologists: *March 20-23, 2024*, Los Angeles, CA. For more information and to register, please visit: <https://bioanth.org/meetings-and-webinars/93rd-annual-meeting-los-angeles-california-2024/> .

APRIL 2024:

UK Archaeological Science Conference: *April 3-5, 2024*, University of York, UK. Conference will cover a wide of methods and techniques including: Biomolecular Archaeology, Zooarchaeology, Archaeobotany, Geoarchaeology, Osteoarchaeology and Paleopathology, Material Analysis, Heritage Science and Conservation, Archaeological Dating Techniques, and Spatial and Data Analysis. Visit: <https://conference-service.com/UKAS-2024/access.html> for further information and to register..

89th Annual Meeting of the Society for American Archaeology: *April 17-21, 2024*, New Orleans, LA. For further information, please visit (<https://www.saa.org/annual-meeting>)

56th Annual Meeting of the Canadian Archaeological Association: *April 30-May 5, 2024*, Saskatoon, Saskatchewan. For information updates, please visit <https://canadianarchaeology.com/caa/annual-meeting>

MAY 2024:

16th Annual Biennial Rocky Mountain Anthropological Conference: *May 2-5, 2024, Laramie, WY.* [Abstract Submission Deadline:](#) April 12, 2024. For information and updates, visit <https://rockymtnanthro.org/ConfRegistration/>

ASNM Annual Meeting 2024 (Las Vegas, NM): *May 3-5, 2024, Las Vegas, NM.* by the Site Steward Foundation. The 2024 ASNM annual volume honoree, John Roney, will be officially honored at the meeting. Presentations will focus on the archaeology of northeastern New Mexico and Plains-Pueblo interactions. Bandelier Lecture and other details TBA shortly. For more information visit <https://archaeologicalsocietynm.org/events/asnm-annual-meeting-2024/> .

The Archaeology Channel Conference on Cultural Heritage Media: *May 15-19, 2024, Eugene, OR.* Presenter submission deadline is January 31, 2024. Registration is \$100 before April 1, 2024 and \$130 after April 1, 2024. For more information, please visit <https://www.archaeologychannel.org/events-guide/tac-conference-on-cultural-heritage-media> .

Society for Industrial Archaeology Annual Conference: *May 16-19, 2024, Minneapolis, MN.* For information updates, please visit <https://www.sia-web.org/sia-2024-conference-twin-cities-minnesota/>

Foundation for Advancement in Conservation (FAIC) 2024 Annual Meeting in Salt Lake City, UT (Hybrid): *May 20-24, 2024.* For more information visit <https://www.culturalheritage.org/events/annual-meeting/current-meeting> .

BLAST FROM THE PAST:

A look at the rich history of the Denver Chapter, now in its 76th year.

This Quarter in DC-CAS History –

October: 1959 - The CAS Annual Meeting Keynote Speaker, Dr. Douglas Osborne presented on the Wetherill Mesa Project in Mesa Verde National Park. **1966** – The Stone Age Fair, first established in 1933 in Cornish, CO, was held on October 1st and 2nd in Loveland. Denver Chapter members were awarded two purple ribbons for their projectile point exhibits. **1977** – Members at the CAS Annual Meeting voted 40 to 7 to accept the proposed CAS Code of Ethics. **1984** – The CAS Annual Meeting was held in Canyon City on October 5th-7th. The meeting concluded with a Yugoslavian feast and a polka party. The following day was filled with visiting Fremont County rock art sites and a picnic.

November: 1958 – New member Jerry Chubbuck (Olsen-Chubbuck Site) held an open house at his ranch near Arriba. Fifteen members visited and enjoyed his large collection of Colorado artifacts. **1961** – Dr. Marie Wormington, Director of Anthropology at Denver Museum of Natural History presented on archaeology in the Soviet Union. She had recently returned from an extended visit to the Soviet Union, and shared slides of archaeological sites in Russia and Siberia. **1971** – It was reported at the November 17th General Meeting that the Patterson School PTA sent a thank you note to DC-CAS members Alicia Homer, Eva Matthews and Homer McGeorge for bringing archaeology displays to the school's Family Interest Night. **1986** – The APB thanked Bill Tate for getting King Soopers to put the CAS 50th Anniversary logo on their shopping bags the week of the CAS Annual Meeting.

December: 1960 – Members of the Denver and Loveland Chapters were invited by the Greeley Chapter to attend their December 20th meeting. **1967** – The APB highlighted the 77th Anniversary of the infamous Wounded Knee Massacre which took place on the Pine Ridge Reservation, South Dakota on December 29, 1890. **1973** – DC-CAS member Alice Hamilton wrote an article for the APB on her experience of encountering a wickiup during a hike at 10,200 feet. **1987** – The APB reprinted the October 19th testimony of Colorado State Archaeologist Leslie E. Wildesen given in Cortez before the House Committee on Interior and Insular Affairs: Subcommittee on General Oversight and Investigation. Wildesen stated the current federal laws did not go far enough to protect archaeological sites and only protected sites on federal land. She noted 65% of Colorado archaeological sites were located on private land. Wildesen advocated for "...a nationally-coordinated program of education, resource identification and protection that encompassed all archaeological resources, regardless of who 'owns' them", and to enforce existing civil penalties.

From the Vintage Recipe Corner: In honor of DC-CAS Member Charlotte Bechtold (1931-2023)

ELEPHANT STEW

Ingredients:

1 Large Elephant
Brown Gravy
Salt and Pepper to taste
2 Rabbits (optional)

Cut the elephant into bite size pieces. This should take about two months. Add brown gravy to cover. Salt and pepper to taste. Cook over a kerosene fire for four weeks at 465 degrees. This is sufficient to serve 3,000 people. If more guests are expected, two rabbits may be added but do this only if necessary as most people do not like to find hare in their stew.

Originally submitted by Mary Chambers to the Boulder Daily Camera, Food Section, Favorite Recipes from Louisville 3-9-89. Submitted by Charlotte Bechtold for inclusion in the April 1989 All Points Bulletin (Vol.26, No.4, page 10).

POETRY CORNER:

From the Vintage Poetry Corner:

Which one are you? -

ARE you an ACTIVE MEMBER, the kind that would be missed
Or are you just contented that your name be on the list:
DO you attend the meetings, mingle with the flock,
Or do you stay at home and criticize and knock?
DO you take an active part to help the work along,
Or are you satisfied to be the kind that just belongs?
DO you ever voluntarily help at the guiding stick,
or leave the work to just a few and talk about the clique?
COME out to the meetings often and help with hand and heart,
DON'T BE JUST A MEMBER, BUT TAKE AN ACTIVE PART
THINK this over, member, you know right from wrong,
ARE YOU AN ACTIVE MEMBER, OR DO YOU JUST BELONG????

Originally published in Mineral Notes, March 1967. Reprinted from "The Antique Bottle Club of Colorado" Bulletin (nd). Reprinted twice in the All Points Bulletin – March 1967 (Vol.4, No.3, page 6) and January 1985 (Vol.22, No.1, page 9, with alterations).

ARCHAEOLOGY IN THE NEWS:

COLORADO

Cotton pollen discovery at the Haynie Site: Crow Canyon's palynologist, Susie Smith, discovered a pollen grain of exotic origin at a Pueblo I site in northeastern Arizona.

<https://crowcanyon.org/news/cotton-pollen-discovery-at-the-haynie-site/>

Colorado University-Boulder anthropologists studies skeletal remains of 1918 Flu Pandemic victims: Did the 1918 influenza pandemic strike down lots of healthy young people in the prime of life? A new study from University of Colorado professor Sharon DeWitte says no. <https://coloradosun.com/2023/10/12/study-skeletons-1918-pandemic-myth/>

Pueblo astronomical carvings found at Mesa Verde: The findings, by a team from Poland working inside Mesa Verde National Park, add to our understanding of the 13th-century Pueblan communities.

<https://www.theartnewspaper.com/2023/12/23/ancient-pueblo-calendar-petroglyphs-mesa-verde-national-park-colorado> .

Western Colorado University archaeologists attempt to repatriate remains: Objects, including human skulls, sat in boxes at Western Colorado University for decades. Now a grant has fueled a renewed effort to find their proper home. <https://coloradosun.com/2023/11/08/western-colorado-university-native-remains/>

Crow Canyon Lab Intern tracks Ancestral Pueblo trade networks: Crow Canyon lab intern, Will Koehler, was thrilled at the opportunity to design and assemble a special artifact display for Crow Canyon's 40th Anniversary Conference and Celebration. <https://crowcanyon.org/news/traveling-artifacts-lab-intern-tracks-ancestral-pueblo-trade-networks/> .

Colorado University-Boulder archaeologist William Taylor helps to unearth one of the earliest known frame saddles: in a new study, researchers from Mongolia collaborating with CU Boulder archaeologist William Taylor have described the find. The team's radiocarbon dating pins the artifact to roughly the 4th century C.E., making it one of the earliest known frame saddles in the world. <https://www.colorado.edu/today/2023/12/12/archaeologists-unearth-one-earliest-known-frame-saddles> .

SOUTHWEST

1,000 year-old Native American site found under Tempe, Arizona street during road improvement work: The City of Tempe is planning to resume work on redeveloping a section of Eighth Street after a significant archaeological discovery paused the project a couple of years ago. <https://www.12news.com/article/news/local/valley/tempe-continuing-street-project-prehistoric-archaeological-discovery/75-9faf4ce1-081f-4436-90ad-d0e126f881d3> .

Fossilized human footprints found in White Sands National Park, New Mexico Research Confirmed: New research confirms that fossil human footprints in New Mexico are probably the oldest direct evidence of human presence in the Americas, a finding that upends what many archaeologists thought they knew. <https://www.theguardian.com/science/2023/oct/06/footprints-humans-americas-oldest-sign-new-mexico> .

ELSEWHERE

Archaeologists discover numerous artifacts in the path made by receding glacial ice: Climate change hastens the melting of glaciers and the race to recovery of viking artifacts. <https://www.youtube.com/watch?v=IM3EL94UKDM>

Brazil's drought reveals ancient rock carvings of human faces: A drop in water levels of the Amazon has revealed rock carvings which had been mostly submerged since they were carved more than a thousand years ago. <https://www.bbc.com/news/world-latin-america-67204409>

Archaeologists reveal face of Peru's 'Ice Maiden' mummy: Archaeologists have revealed a model showing what Peru's most famous mummy would have looked like. <https://www.bbc.com/news/world-latin-america-67215649>

Skeletons discovered in "incredibly rare" 5,000-year-old tomb in Scotland: Archaeologists unearthed the ruins of a 5,000-year-old tomb on one of the Scottish Orkney Islands, National Museums Scotland said in a statement. <https://www.cbsnews.com/news/neolithic-tomb-skeletons-discovered-5000-years-old-orkney-islands-scotland/>

Archaeologists discover 7,000-year-old tiger shark-tooth knives in Indonesia: Excavations on the Indonesian island of Sulawesi have yielded an incredible find: two tiger shark teeth that were fashioned into knives and are thought to be approximately 7,000 years old. <https://arkeonews.net/archaeologists-discover-7000-year-old-tiger-shark-tooth-knives-in-indonesia/>

The 1st Americans were not who we thought they were: For decades, we thought the first humans to arrive in the Americas came across the Bering Land Bridge 13,000 years ago. New evidence is changing that picture. <https://www.livescience.com/archaeology/the-1st-americans-were-not-who-we-thought-they-were>

Archaeologists Excavating the Tomb of Egypt's First Female Pharaoh Found Hundreds of Jars Still Holding Remnants of Wine: The dig has also shed new light on the reign of the ancient queen.

<https://news.artnet.com/art-world/egypt-pharaoh-merneiths-2373062>

Laser mapping reveals hidden structures in Amazon—with hints at thousands more:

Model predicts where ancient people built ditches, wells, and geoglyphs throughout the rainforest region.

<https://www.science.org/content/article/laser-mapping-reveals-hidden-structures-in-amazon-hints-thousands-more>

Nuclear genetic diversity of head lice sheds light on human dispersal around the world: The genetics of the human louse holds the keys to dating many human milestones.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0293409>

First discovery of carbon-based cave art in France's Dordogne region could pave the way for precise radiocarbon dating: A new way to radiocarbon date rock art may change the human timeline we currently know.

<https://phys.org/news/2023-12-discovery-carbon-based-cave-art-france.html>

The Winter solstice at Newgrange: A brief account of the Winter solstice at Newgrange, the archaeological excavations at the site and some of the finds now stored in the National Museum of Ireland.

<https://www.museum.ie/en-IE/Collections-Research/Irish-Antiquities-Division-Collections/Irish-Antiquities-Articles/The-Winter-solstice-at-Newgrange>

Father and Daughter Discover 152-Year-old Shipwreck While Fishing in Green Bay: Tim and Henley Wollak found what is likely the wreck of the “George L. Newman,” which sank during the Great Peshtigo Fire of 1871.

<https://www.smithsonianmag.com/smart-news/father-and-daughter-discover-152-year-old-shipwreck-while-fishing-in-green-bay-180983468/>

Ancient rituals recorded on 2,000-year-old bamboo slips deciphered: Scholars of China's Tsinghua University have deciphered five documents recorded on bamboo slips dating back to the Warring States period more than 2,000 years ago. <https://arkeonews.net/ancient-rituals-recorded-on-2000-year-old-bamboo-slips-deciphered/>

DC-CAS BOARD MEETING MINUTES AND FINANCIAL STATEMENTS : Please note that the monthly Board Meeting Minutes and the quarterly Financial Statements are no longer published in the *All Points Bulletin*. These documents are available to all Chapter members upon request. Please contact us should you wish to receive them.

DC-CAS GENERAL MEETING MINUTES:

DC-CAS OCTOBER 9, 2023 GENERAL MEETING MINUTES

The October General Meeting was held on Monday, October 9, 2023 at 7:00 pm at the Emery Archaeology Lab, 3rd Floor, History Colorado Center, 1200 N. Broadway, Denver 80203. A virtual option was made available via the Zoom platform for those who wished to attend remotely.

Craig Dengel opened the meeting and announced that the DC-CAS Elections were coming up in November. He would be presenting a slate of candidates after the conclusion of the speaker's presentation. Craig then presented the 2023 CAS Chapter Achievement Award to Stacy Greenwood for her contributions to the Denver

Chapter. Stacy thanked those who had nominated her. She also reminded everyone about the upcoming 2023 International Archaeology Day at Red Rocks Park and Amphitheatre on Saturday, October 21st from 8:30am-1:30pm. Amy Gillaspie announced Dr. Jack Ives would be the speaker for the November 13th General Meeting. Dr. Ives would be presenting on his work at Franktown Cave. It was still to be determined if he would be presenting in person or virtually. She also noted the December 11th meeting was the annual Members Night where members come together for a potluck meal and to listen to member presentations. If anyone was interested in giving a 10 to 15 minute

presentation please contact her. A presentation program would be provided to membership soon.

Amy then introduced the evening's speaker, Erik Jurado, Ph.D. Candidate at University of Colorado-Boulder. Jurado received an Alice Hamilton Scholarship Award in 2019 and 2023 to support his work at the site of San Ignacio in Mexico. Jurado thanked CAS for its support, and he noted the importance of the Alice Hamilton Scholarship Awards to graduate students and their research. The title of Jurado's presentation was, *Beyond the Urban Center: Current Research at San Ignacio, A Regional Center in Teotihuacán's Rural Countryside*. Located northeast of the Basin of Mexico, where modern Mexico City is located, Teotihuacán was occupied from 100 BCE to 500 CE. At its height, the site had an occupation of 100,000 residents, making it the largest city in the Americas at the time, and the fifth or sixth largest city in the world. It was a multi-ethnic city with resident migrants from such areas as the Maya Region, Gulf Coast, West Mexico, Oaxaca and the southern highlands. Four to five languages were spoken at Teotihuacán, making it easily recognized today as a polyglot urban center.

Jurado noted that for the past forty to fifty years, Mesoamerican archaeologists viewed Teotihuacán as a really centralized urban center, much like a solar market or empire, with all models having Teotihuacán dominating Central America and Mexico. The city was thought to control the economy in key ways via trade routes, resource zones, and markets, whereby exchange occurred vertically with different settlements arranged in a hierarchy. In this arrangement, exchange would occur vertically between smaller centers and larger centers. No exchange was viewed to have occurred horizontally between smaller centers. Within a solar model, satellite centers would look to Teotihuacán for finished craft products as well as religious ideas and rituals. As a result, during the Classic Period, it was viewed that everything that happened in Central Mexico was dependent upon what Teotihuacán did.

Jurado pointed out that apart from investigations at Teotihuacán, very few Classic Period Central Mexican archaeological sites have been studied. As such, it was felt the traditionally held view of Teotihuacán's central position of influence was a distorted one. Interactions between Teotihuacán and other centers were not well understood nor were the interactions between smaller Central Mexico centers. As more archaeological studies take place, one gets the sense the interaction between sites is much more complicated than previously thought. Therefore, it is important to investigate Central Mexican sites and to place these sites under protection. While Teotihuacán has been given World Heritage status and is well protected, archaeological sites elsewhere do not

have any protection from looting, damage and development.

The site Jurado has been investigating is the site of San Ignacio, which is located near the modern town of Morelos, in the Amatzinac River Valley in the State of Morelos. The site is located two hours south of Mexico City, and two hours west of the city of Puebla. During the Classic Period, San Ignacio was the regional center, ideally located on the valley floor in the center of the Amatzinac River Valley. It is the largest archaeological site in Morelos, and is the third largest in the State. San Ignacio occupies approximately one hundred hectares near the Amatzinac River, and has over thirty monumental structures including pyramids, formal complexes and mounds. It is estimated to have had a population of 2,500 inhabitants during the Classic Period. San Ignacio was first registered and recorded in the 1970s during the Rio Amatzinac Survey. The survey sought to look at the valley as a whole to determine demographic and settlement patterns, and the site was viewed as a possible Teotihuacán administrative center based upon the presence of thin orange ceramics and green obsidian. It was also hypothesized that San Ignacio was possibly coordinating cotton production for the Teotihuacán State. San Ignacio and the Amatzinac Valley were at a lower elevation than the Basin of Mexico. Therefore, the area had a more suitable climate for growing cotton. Jurado stated one can't readily identify regional cotton production in the archaeological record, and thought this idea was based upon ethnographic records regarding the Aztec producing cotton for Tenochtitlán. Although it was possible San Ignacio was involved in cotton production, Jurado cautioned projecting the Aztec onto other time periods and to focus upon identifying evidence in the archaeological record.

Jurado identified the main problem to investigate which was to look at the nature of the Teotihuacán polity's urban-rural relationships and interactions. More specifically, Jurado wished to determine how San Ignacio was influenced by Teotihuacán. What was the relationship between the two centers? How did Teotihuacán impact (if at all) the social, religious and political-economic lives of the inhabitants of San Ignacio? Jurado did not wish to examine the relationship between the two sites from a perspective which placed Teotihuacán at the center of an empire. Rather he wanted to focus upon the local consequences of the influence of Teotihuacán. By using this approach, Jurado aimed to understand how San Ignacio related to Teotihuacán as an urban center or metropolis, to determine what were the consequences of living in the orbit of Teotihuacán, and to identify how it affected everyday life. Preliminary investigations during 2019 and 2023 focused upon understanding the timing and duration of occupation at San Ignacio to confirm the site was occupied during the Classic Period. Work was also

conducted to determine the site layout and to identify architecture. Evaluation of the material culture related to ritual and exchange. Once this was accomplished, there would be a better understanding of the complex issues and to formulate questions about the nature of Teotihuacán's influence on San Ignacio.

Prior to starting his fieldwork, Jurado had only a simple sketch of the site. Therefore, during the 2019 and 2023 field seasons, Jurado concentrated upon mapping the site, profile cleaning for stratigraphic profiling, test excavations and ceramic analysis. Drones were used for obtaining aerial views, and a total station was used for mapping the site core. This work would enable him to get a better sense for the site, its layout and chronological depth. There are three main areas at San Ignacio which have been designated as Complex A, Complex B and Complex C. The architecture is typical of Central Mexico consisting of paired pyramids, and not unique to Teotihuacán. The primary pyramid is west-facing on the eastern extreme and is paired with a secondary south-facing pyramid to the north. At Complex C, there is an area which has the potential to be a ball court. No ball courts have been found at Teotihuacán, however there are depictions of related ball games and players at the site. Overall, the architecture suggests that San Ignacio participated in the larger activities found elsewhere in Central Mexico. Today, Complex A is overgrown and used for grazing cattle by the local residents. It was one of the few areas never exposed to plowing so it has the best potential to be the most intact area of the site. At Complex B, structures designated as No. 14 and No. 15 are overgrown and the area is currently being used to cultivate corn. The modern town of San Ignacio has encroached upon the area containing Complex C and abuts a structure designated as No. 19. There is also additional pre-Hispanic architecture on the site still visible on the ground.

Test pits were carried out at Complex A and B during the 2019 field season. Profile cleaning was also completed east of Complex B. In 2023, additional test pits were undertaken in the eastern portion of Complex A and Complex B. A mound profile exposed during modern construction created an opportunity to clean the profile and to learn about monumental architectural techniques and construction sequences at San Ignacio. It was not known if construction of the monumental architecture at the site occurred in a single episode or if it had been modified over time. The material commonly used in construction was river stone. There is evidence that some of the monumental architecture was altered over time, but there is still more to learn through further investigation. Pyramid A of Complex B contains stucco fragments, and other structures have daub fragments with waddle impressions. Stone pavement was also found at Complex B, which may be present at the other complexes. Overall, there had been a substantial

investment in monumental architecture for civic and public ceremonial spaces. Below the cobblestones at Complex B, there is a half meter of fill consisting of small jagged stone approximately 3 to 4 centimeters in size which is thought not to be of river origin. It is believed to be *lahar*, a deposit of volcanic debris flow. San Ignacio is located south of the Popocatepetl volcano. The presence of the *lahar* brought up questions whether there had been a volcanic episode at San Ignacio, and did this have an impact on the occupation of the site. There was no evidence of volcanic activity in the other test pits. There was the possibility of a debris flow located elsewhere nearby, which could have traveled down the *barrancos* of the Amatzinac River Valley and fell away before reaching San Ignacio. The *lahar* likely was found and brought back to San Ignacio by the inhabitants to be used as construction fill. Jurado noted there was still more to learn about the source of the volcanic material.

With respect to artifacts, Jurado found a series of sequential offerings, in an unusual vertical alignment, in front of the main pyramid at Complex A. The vertical alignment was maintained over several strata. There was no material culture or architectural construction within the first meter of soil. This was not considered unusual as the area would have been swept clean on a regular basis. The vertical artifact arrangements appeared when Jurado reached the first floor surface. The offerings were of ground stones, manos and ceramic fragments, possibly from *incensarios*. Teotihuacán-style *incensarios* and cultural material are found at other places. However, San Ignacio materials were not reflective of Teotihuacán culture. Therefore, it suggests the meaning of the offerings was more related to agriculture and domestic activities. The offerings were found in the fill between floors, possibly as dedicatory offerings relating to the construction, alteration or elevation of the plaza. At present, Jurado was not sure of the relationship between the floors, the offerings and the monumental architecture on the Plaza. In the same test pit, he also found an offering of miniature pots (*ollas*) which were black, polished with vertical grooving similar to those found at Teotihuacán. This offering was a better candidate for a Teotihuacán connection, but the neck and rim are different and the body had minimal polishing. Better evidence for a connection to Teotihuacán are found amongst the smaller items found. Two smaller ritual *candelaros*, with one or two cavities with side perforations, were recovered. They are considered Classic Teotihuacán, and are very much associated with the city. The *candelaros* are not found in elite Teotihuacán households, but were more closely linked to commoner household domestic rituals there. Limb fragments of mold-made Teotihuacán articulated figurines have also been found at San Ignacio. Jurado notes these artifacts are found on the ground surface and in the fill, and he would very much like to find them in a less disturbed

context . It was too early to say how representative their presence at the site is. Nor is Jurado sure if the offerings are evidence of domestic ritual. There are still too many questions as to whether rituals were conducted within all households, at a community-level or at the local elite leadership households. Was there social differentiation? And, depending upon the visibility of the items, was there an association with status?

Jurado cautioned there needed to be care in attributing the same meaning to items found in San Ignacio as they had in Teotihuacán. He noted ceramics were a key line of evidence about the importance of relationships and exchange. Ceramics were also important to understanding relations with Teotihuacán. Classic Period ceramics known as Red Specular on Brown Burnished and Black Burnished are two Teotihuacán-style ceramics found at San Ignacio. Both types of ceramics are associated with Teotihuacán, but are also known to be produced at different communities around the Basin of Mexico. Their presence at San Ignacio may indicate a direct relationship with Teotihuacán or more broadly with the Basin of Mexico. One also has to consider other rural locations interacting with each other independent of Teotihuacán, and whether or not San Ignacio participated in these other exchange networks. In addition to these ceramic types, ten percent of total ceramics at San Ignacio are Thin Orange Ware, fifty percent of which are from the Classic Period. Thin Orange Ware was initially thought to be produced at Teotihuacán with distribution under strict control. However, Thin Orange Ware was actually made in South Puebla which is located directly east of San Ignacio. Therefore, their presence at San Ignacio is possibly more indicative of a relationship between San Ignacio and South Puebla rather than a relationship with Teotihuacán. Twenty percent of total ceramics at San Ignacio are Red on Cream Granular Wares which are typical of Morelos and Guerrero in the Southern Highlands. Red on Cream Granular Ware make up less than two percent of ceramics at Teotihuacán, and ninety-nine percent of it are amphoras. This suggests Teotihuacán was importing something which was stored in the amphoras. In addition to Red on Cream Granular Ware amphoras, San Ignacio also had bowls, cups, pots and jars. The variety may indicate that San Ignacio was tied into an exchange network for Red on Cream Granular Ware, thereby challenging the centralized models with Teotihuacán in the middle. Some trade networks focused upon the Basin of Mexico while others focused on other areas such as the Southern Highlands. Perhaps commodities (e.g. honey or fish) produced in San Ignacio and Guerrero played a key part in the exchange. At present, it is not known what was being exchanged in the Red on Cream Granular Ware found at San Ignacio.

The lithics recovered from San Ignacio indicate a likely interaction with Teotihuacán. There were ear spoons,

bloodletters, projectile points, scrapers and hammerstones. A single obsidian lunate eccentric was found at San Ignacio. The crescent-shaped lunate eccentric is the most common form found in rural areas and are thought to be produced in a workshop attached to the Pyramid of the Moon at Teotihuacán. The significance of their presence at San Ignacio is not clear, but the data points to a connection to Teotihuacán where they are produced and sent out to the region. The most common lithic at San Ignacio was green obsidian prismatic blades. The blades show very little use wear or retouching. No obsidian flakes or cores have been found at San Ignacio. The blades are often found in fill suggesting that they are not a scarce commodity and are being brought in as finished products, as opposed to bringing the raw material to San Ignacio to be worked. Plenty of chert flakes are also found in the same context, but it is being worked at San Ignacio.

In summary, San Ignacio's layout and monumental architecture is typical of Central Mexico and not unique to Teotihuacán. The dedicatory offerings found may reflect a more local meaning or significance. Small portable items of domestic ritual provide the best evidence for a relationship with Teotihuacán, but they must be found in a better context to be sure. The ceramics and lithics found at San Ignacio suggests the Basin of Mexico is important to San Ignacio's political economy, but San Ignacio is not dominated by Teotihuacán. Instead, San Ignacio participated in a broader Basin of Mexico religious traditions and exchange networks beyond Teotihuacán. The connections are diverse and complex relationships between smaller centers as well as with Teotihuacán.

Regarding future research, Jurado is planning to return to San Ignacio in the Spring of 2024. Complex A will be the primary focus of his work where he hopes to take a closer look at a heavily plowed area containing white stains possibly from stucco. The three white stained areas, which Jurado designated as Structures 7, 8 and 9, may be indicative of a possible patio group. It would be helpful to determine if there was residential occupation, possibly elite residences. In the 1960s, when an irrigation pond had been constructed west of Complex B, numerous burials, manos and metates, and ground stone were encountered. The area may have been the main residential area. As such, Jurado would like to put in a test pit to ascertain what is still present in the ground. Other objectives for the new field season include excavating in primary contexts which ideally would contain domestic structures. Jurado also plans to clean up additional mound profiles and looter pits to learn more about the monumental architecture structures and how they were modified over time. Such work would be useful to compare local mound reconstruction to that seen at Teotihuacán so as to ascertain if the changes occur at the same time. He would also continue investigations at Complex B, and start to

investigate Complex C and the ball court. There is also the need to gain a better understanding of the construction sequencing at San Ignacio to determine if the complexes were in use simultaneously or sequentially. So far, dating at the site has relied upon relative dating techniques. Jurado's long term goal is to obtain radiocarbon dates for absolute dating. This would be helpful to determine which time period San Ignacio was interacting with Teotihuacán, a city with over 600 years occupation. A closer look at the sourcing of ceramics and obsidian is also needed to better identify exchange networks.

In closing, Jurado discussed the collaborative relationships between the San Ignacio Project and local Mexican institutions and communities. Jurado worked with Proyecto Arqueológico Chalcatzingo (INAH Morelos) which is located thirty minutes from San Ignacio. The site has the earliest monumental architecture and stone carvings in Central Mexico which may have a potential Olmec connection. Jurado noted that most archaeological work in the Amatzinac River Valley has

focused upon the Early Formative at Chalcatzingo. The Mexican National Institute of Anthropology and History provided valuable support for his work at San Ignacio by way of equipment, personnel, mentoring, and access to their comparative ceramic collection. This was extremely helpful to Jurado as it allowed him to remain close to San Ignacio without him having to travel into the capital city for access to collections and needed resources. Finally, Jurado noted that he was able to involve eight Mexican undergraduate students so they could obtain valuable field experience and degree credit for skills acquired in excavation, drawing, laboratory work, registering archaeological materials and labeling. Jurado was pleased to say that two of the undergraduate students went on to full time employment after their graduation. The San Ignacio Project was also able to employ local residents for excavation and laboratory work. Community members who worked with Jurado have since gone on to be hired to work on other archaeological projects. As a result, the community at large has been generous in their support of Jurado's work at San Ignacio. Jurado concluded his presentation and answered several questions from the audience.

An introduction of the 2024 slate of candidates for the DC-CAS Board Elections was made at the conclusion of the presentation. Craig Dengel thanked the following Board Members who were leaving their positions for their service: Melissa Dolin, Amy Gillaspie, Stacy Greenwood and Gene Wheaton. Craig then announced that he would be seeking reelection for the President's position and introduced the following candidates for membership's consideration:

President: Craig Dengel (Incumbent)

Vice-President: Vacant

Secretary: Paris Cooke

Treasurer: Michele Giometti (Incumbent)

CAS Representative/PAAC Coordinator: Beth Fisher

Membership Secretary: Alex Douglas

Open Director #1 (2024-2026): Josef Garrett

Open Director #2 (2024-2026): Vacant

Elections will be held at the next General Meeting on Monday, November 13, 2024. Please note the term for the two other Director positions currently held by Deb Bollig and Teresa Weedon will conclude on December 31, 2024 and will be open for nomination in November 2024.

The meeting then adjourned at 8:25pm. Submitted by Stacy Greenwood, Secretary for DC-CAS.

DC-CAS NOVEMBER 13, 2023 GENERAL MEETING MINUTES

The November General Meeting was held virtually on Monday, November 13, 2023 at 7:00 pm via the Zoom platform. Craig Dengel opened the meeting with a welcome to all attendees. He thanked everyone who participated in International Archaeology Day events held at Red Rocks and other front range locations to make it a success. Craig then announced a joint meeting with the Northern and Indian Peaks Chapters would be taking place on April 13th up in Estes Park with possible tours of nearby facilities. More details would be

forthcoming. Stacy Greenwood announced a new exhibit at the Denver Museum of Nature and Science, called Explore the Ice Age. She also announced two tour dates of November 16th and 19th for the Shavano Valley Petroglyphs near Montrose, weather permitting. There would also be the San Juan Weavers Guild Annual Show at the Ute Indian Museum on November 18th. Further details and reservation information for both events was available on the Event Calendar on the History Colorado website. Finally, Craig announced the

upcoming December 11th Members Night Potluck and Presentations would be held at History Colorado. The January 8th General Meeting will have Sarah Allaun, Assistant State Archaeologist and State PAAC Coordinator as the speaker. She will be speaking on her Ph.D. work in Wyoming.

Craig introduced the evening's speaker, Dr. John (Jack) W. Ives. The title of his presentation was, *Apachean Origins and the Turbulent A.D. Thirteenth Century World*. Ives spoke of the extraordinary opportunity he had to learn about the extent of Dene-speaking populations across the western North America from Alaska to New Mexico. This interest in the Dene-speaking people first developed when Ives had completed his residency and comprehensive studies for his Ph.D. work at University of Michigan in 1979. While waiting for a reply on a job application with the Geological Survey of Alberta, Ives' advisor Dick Ford suggested Ives gain some experience in other regions. Ives joined the Black Mesa Project and spent six weeks working closely with Apache and Navajo people. One of these people had recounted to Ives how he had met a person from Canada at a gathering in California, and how he was surprised that he could almost understand that person when they spoke. This conversation lingered with Ives. He was intrigued by the problem of how Dene-speaking Subarctic peoples journeyed and adapted to a different world in the Southern Plains and the American Southwest. Ives wished to understand how a Subarctic people would become the ancestors to great Native American personages such as Geronimo and Cochise.

While working as a Provincial archaeologist with the Government of Alberta, Ives maintained his curiosity in the Dene phenomena due to his interest in kinship and languages. While contemplating the subject, Ives felt that what little literature was available about how the Dene could move about so widely in North America exhibited too much circular reasoning. Following an "Artifact Type/Culture/Phase/Tradition equals Athapaskan Archaeological Identity" approach resulted in the view that the presence of Avonlea and Kavik projectile points, microblades and microblade cores in the Plains were the defining signature of the Dene movement from the North. Ives noted the problem with this approach was there was no way to find out if the view was incorrect. For example, Ives believed the Dene utilized microblade technology while in the North. However, there is evidence suggesting Dene-speaking peoples were present in the far northern Yukon, but microblade technology was not utilized there. In British Columbia, others were using microblade technology, but they were not Dene-speakers. For Ives, the use of a multi-disciplinary approach was a way to reduce the circular logic. To do so, he recommended the use of independent lines of evidence for search images as means to control the circular reasoning. If clues from linguistics and genetic evidence were not lining up,

something was not right. If the evidence was converging, then headway was being made in understanding a phenomena.

To undertake such a study, Ives heeded the words of Science Philosopher Karl Popper, who noted that to solve problems, one must look across boundaries of disciplines. Ives tried to use a trans-discipline approach to understand the journey. This included the use of linguistics, genetics and archaeology as lines of inquiry. With the help of many colleagues, he began his investigation. First thing to consider was why did people leave the northern region? To answer this question, researchers looked at two volcanic eruption events on the Alaska/Yukon border known as the White River Eruptions, which covered an area of 600,000 kilometers² with ash. The first eruption known as the North Lobe (WRAn) occurred ca AD300 (1604-1805 BP), and resulted in ejecta over 15 kilometers³ being blown to the north along the Alaska-Yukon border. A second eruption known as the East Lobe (WRAe) occurred during the winter of AD852-853 (1102-1104 BP). It was a massive eruption with visible ash spreading out as far east as Great Slave Lake. There was 47 kilometers³ of ejecta which covered 1,000,000 kilometers². Cryptic ash was detected up to 7,000 kilometers away in Greenland (ice cores) and in Europe (Ireland and Germany). The East Lobe eruption would be considered a "Colossal" Plinian event in which its eruptive column would have had a height above 40 kilometers. The force of the eruption would have been equal to thirty to forty nuclear devices. Not only would it have been seen over a large area, it would have been heard even further away. The impact of the East Lobe eruption on the paleo-record was examined, and it was found that ash fall and debris, ranging from 5 to 20 centimeters in thickness, had fallen across watersheds. This would have had a major impact on salmon spawning as well as the winter habitat of caribou, and may have been the push for people to migrate southwest from high-impacted areas in the wake of the eruption. It was also possible southern Dene-speakers were separated from northern Dene-speakers due to ash fall thereby resulting in them moving southward.

Ives noted that people don't just need to know why they are leaving. They also need to know something about where they are going, what he calls a pull. Based upon many years of experience working on the Plains, Ives saw what he described as a Great Plains Cultural Vortex which encompasses many groups such as the Tsuu T'ina, Cree, Plains Apache, Kutenai, Flathead, Northern Shoshone, Comanche, Kiowa, Assiniboine, Metis, Crow/Hidatsa and Caddoan. If a language family got close to the Plains, they would send a representative ahead to make contact with other groups. The area would have been a draw to people due to the clan-based and bison hunting lifestyle, which could be economically effective and involved a rich ceremonial life. Some may

have chosen to engage in this lifestyle once it was learned about and made a decision to move southward. Next, Ives looked towards linguistics as a line of inquiry which might document such a move southward. Citing a 1936 article by Edward Sapir, Ives discussed the relatedness of words to suss out possible associations between groups. In the article, Sapir closely examined four words to determine the ancestry of the Navajo language and how it is related to those from the Far North: *nà·dà*, *'àdè*, *nà·sàs*, and *bił sićánáké·h*. Ives stated the word *nà·dà* was the best example of the relatedness as it means *maize* or *corn*. Looking more closely, the suffix *dà* means *food*, while the prefix *nà* means *enemy or alien*. Ives asks how did the Navajo become knowledgeable about corn, and how would the Dene know about corn? The word *'àdè* means *spoon*. In the southwest, gourd husks are used to make spoons. In the northwest, gourds are made from sheep horn. Therefore, the root meaning of the word for *spoon* is *horn*. The word *nà·sàs* means *I scatter/disperse the seed/snow*. Finally, the word *bił sićánáké·h* means *sleeplessness* as well as *glides* and *canoe* as in "sleep glides like a canoe in water". Ives briefly turned his attention to the work of Julian Steward at the Promontory Caves in Utah. Steward began his excavations at the caves due to looting activity. He found an abundance of perishable material culture primarily in Promontory Cave No. 1. Like Edward Sapir, Julian Steward believed the Promontory Caves material culture did not originate within the Great Lakes Basin. He surmised the material culture was associated with an Athabaskan-speaking people, who had established themselves in the area long enough to pick up southern and local traits. What convinced Steward of this was finding moccasins which were constructed in the manner typical of the Subarctic style with a puckered toe. This style consists of a lower leather piece folded over a vamp and joined with cord.

When one looks from a linguistic view, four phases of Apachean history can be identified. During the first phase, Dene-speaking ancestors in the south were at one time southern Subarctic foragers. During the second phase, southern Dene-speakers became northern plains bison hunters. The third phase is identified when southern Dene-speakers began to interact with the central plains peripheries. Finally, the fourth phase begins when southern Dene-speakers arrived in the southwest. Taking a look at new words, known as *neologisms*, Ives states that when leaving the Subarctic, Dene-speaking people would have encountered new items and dangers requiring the need to create new words. As Dene languages are very conservative and consist of an average of 1,200 to 1,500 stems with an extensive prefixing that inflects the meaning of the stem. Dene languages do not borrow words very often. Instead, Dene speakers, including the Navajo, use the internal creativity of their language to construct new words. For example, the Northern and Southern Dene words for *corn* differ in their reference. In

the North, Dene-speaking people encountered corn at relatively late time and the word they created refers to its appearance like horses teeth/incisors. In the South, Dene-speaking people use very closely related words to denote *corn* with a similar reference meaning of *alien* or *enemy food*. This would suggest they have the same underlying *neologism*, and it must have been a fairly compact speech community as groups on either side of the Rocky Mountains share similar words.

When genetics are considered, there are some key results which support a southern migration of Dene-speaking people. Researchers have looked at mitochondrial DNA (mtDNA), Y-chromosome DNA (Y-DNA), and nuclear autosomal DNA (autosomal DNA). Independent genetic indications show that the founding Apachean population was small and underwent a founder effect in mtDNA Haplogroup A with Haplogroup A variability. The A2a4 and A2a5 haplogroups moved southward from the north to develop into the Apachean and Navajo populations of today. A similar pattern is observed with Y-DNA movement. In mtDNA Haplogroups B and C, there was significant gene flow taking place between Apacheans and the nearest southwestern neighbors. These haplogroups make up a large portion of genetics in Apachean and Navajo populations by as much as 50% to 60% mtDNA. This indicates many people, primarily females, entered into Apachean society. It should be noted that Haplogroups B and C are no longer present in the Alaskan and Canadian North. Autosomal DNA analysis indicates these genetic migrations happened around 1,000 years ago and occurred post-Neo-Eskimo/Thule. Additional genetic research examined the migration of Palaeo-Eskimo and Neo-Eskimo/Thule in the High Arctic. It was found that Palaeo-Eskimo genetics expanded across the High Arctic early between 1200-1300 CE, while Neo-Eskimo/Thule genetics migrated across the High Arctic around 850 CE. This date coincides with the White River Ash distribution. There is also genetic evidence for interaction between Neo-Eskimo/Thule and Northern Athabaskan populations. That interaction was mostly hostile, but it did leave a genetic signature. It should be noted the Neo-Eskimo/Thule DNA signature is absent from Southern Athabaskan populations. This indicates that Dene-speakers left the North prior to Neo-Eskimo/Thule expansion in the 13th Century AD.

Next, Ives asked how one might construct a search image for Ancestral Apachean populations using a trans-disciplinary perspective? What should researchers look for? Based upon the linguistic and genetic studies, he suggested looking for a small and cohesive founding population at the beginning. Geographically, this population would have come out of the Foothills/Parkland Ecotone of Alberta, east of the Rocky Mountains at around 1,150 years ago. This population would have found it easy to transition from an economy

based upon wood bison, caribou and mountain sheep to an economy based upon Plains bison. If the adaptation was successful, one would expect to see growth and fissioning into smaller groups to create the dialect chain seen in the linguistics. Ives states there is plenty of evidence that show Dene-speakers were willing to adopt material and ceremonial culture of neighboring groups. For the Dene-speakers, identity was tied to their language. As such material or ceremonial cultures would be readily adopted if it was considered useful. With this flexibility, these smaller Dene-speaking groups were able to move along southward routes to reach a wide area from the Eastern Great Basin to the High Plains. As illustrated by genetic evidence, the Dene-speakers incorporated other people as they moved southward, especially women. Ives noted there would likely be very low visibility of these movements in the archaeological record. This was due to soil acidity in the North which results in poor preservation of organic materials. Hence preservation for lithic material such as stone tools and their production by-products dominate the archaeological record in this area. Therefore, it would be difficult to identify such movement unless the sphere of cultural material enlarges, which is what occurs at Promontory Caves, Utah. Caves 1 and 2 are the largest caves at the site, with Cave 2 containing a much deeper record than Cave 1. In Cave 2, the environmental preservation is excellent which resulted in a large and wide-ranging amount of cultural material. For example, there was a complete arrow with arrowhead, lashings and shaft. There was also a cane arrow with its feather fletching still attached as well as loose split feathers. The range of cultural material includes mats, cordage, personal adornments, and flattened porcupine quills for decorating clothing and footwear. Ives noted that with such a wide range of cultural materials available in a good temporal spread, researchers could now begin to ask more detailed questions about them.

One of the first tasks was to ascertain the age of the deposits. This was accomplished by obtaining approximately one hundred and fifty radiocarbon samples. And, it turns out that both Steward and Sapir had correctly figured out the occupation date. Bayesian modeling for Caves 1 and 2, comprised of ninety-five radiocarbon dates, indicated both caves were occupied for a very narrow time period between AD1245 and AD1295, equivalent to approximately one to two generations. This relatively brief occupation resulted in an intense accumulation of material culture. Ives stated the only source of fresh water for the caves' occupants would have been at the nearby Fremont site of Churnos Springs located 3.5-4 kilometers away. The site had a late occupation by the Fremont, thereby making its occupation contemporaneous with that of Promontory Caves. In their research, both Steward and Sapir spoke about northern and southern elements in the material culture. Using radiocarbon dates, researchers examined

the occurrence of both elements. Focusing upon northern elements exhibited in a particular style of moccasin, radiocarbon dates showed their presence starts earlier than southern elements, and they persist over the one to two generational occupation span. Looking more closely at southern elements, such as basketry in a Great Basin form, their appearance in the archaeological record occurs later. This matches the pattern argued by Steward and Sapir. With respect to climate data, the southwestern area experienced three periods of severe drought between AD1000 and AD1300. The last drought period was the most extreme and ended by AD1295. Occupation of Promontory Caves coincides with this last drought period.

The Promontory Caves occupants were engaged in a large game economy, likely bison. The deposits in the cave are very rich and give the sense of being at a bison kill. Items found included bison skull, and a bison tail rattle similar to those used by the Navajo. There were also horn spoons/scoops which bring back thoughts of the Navajo word, 'áde (gourd/spoon/horn). Ives spoke of a unique small patch feature believed to be a cleared hearth area containing burnt animal bones of twenty-five large animal bones, nine of which were bison. In total, thirty thousand whole and fragmentary faunal remains were recovered. Amongst these remains, it could be seen that accelerant fats and greases were still intact and went unused as a food resource. This differs from northern Dene-speakers who are very efficient in extracting these fats and greases. The presence of the fats and greases in the Promontory Caves faunal remains suggests the occupants were well fed and were not concerned about retrieving every bit of nutritional value from the bones. One or two maize kernels were recovered from the caves. Since there is good preservation of organic material, the lack of maize suggests that it was not being cultivated. This would be consistent with what is known of late Fremont times. Maize cultivation had ended in the Eastern Great Basin due to the lack of rainfall about a century before the Promontory Cave occupation. Taking a broader look at climate conditions, Ives asks what would continue to draw people southward despite the severe droughts of the 13th Century? During the Early Late Prehistoric (AD500-AD900), Alberta, southern Saskatchewan and Montana were the center of large, intensive communal bison hunting as can be seen at sites such as Head-Smashed-In in Alberta. During the Middle Late Prehistoric (AD900-AD1250), the time period concerned with Promontory Caves, there is evidence of large bison hunts occurring in the Central Plains. By the Late Late Prehistoric (AD1250-AD1700), bison hunts are not only occurring in the Central Plains, but also in the Southern Plains.

Next, Ives discussed in more detail the cultural material found at Promontory Caves. There is evidence for hide production as well as moccasin repair and

manufacturing. Ives noted that three hundred and forty moccasins have been recovered during Steward's original investigation and the current investigation by Ives and his colleagues as well as those held in avocational collections. Amongst Fremont cultural materials, there are two types of moccasins commonly found. The first type is the Hock Moccasin which is taken from the hock of a deer, an end is closed off, slipped on and worn with a tie. The second type of Fremont moccasin consists of three hide pieces of different sizes sewn together to fit around the foot. The Promontory Cave moccasins differ in that they consist of a lower hide piece which folds upward around the toes, a vamp and an ankle wrap. This moccasin style relates more closely to the northern style as demonstrated by examples from the Yukon Ice Patch in the Proto-Dene Homeland (1430 ± 40 ^{14}C yr BP) and an Ice Patch discovery in northwestern British Columbia. The similarity suggests a 1,500-year tradition of this type of moccasin sewing. Ives looked at archaeological moccasin styles from other areas such as western Utah, Nevada, Oklahoma and the Ozarks. These styles are constructed by placing holes in a lower hide piece or a vegetal base and threading a strap through the holes to draw over the foot. Ives noted there were five examples of this moccasin style found at Promontory Caves. A variety of sizes of moccasins were recovered from Promontory Cave. This prompted a study of modern population foot sizes in an attempt to correlate foot size to stature to gain insight into the age groups present at Promontory Caves. A relationship was found between modern foot sizes and stature up until age twelve or thirteen. When compared to known Western Apachean archaeological samples, from sites such as Franktown Cave, this correlation between foot size and stature continued. When applied to the Promontory Caves moccasins, it was found that more than eighty percent of moccasins were for children and sub-adults. This suggests the population was a growing one and was doing well.

Other cultural material discussed was hide processing tools, cordage, basketry, ceramics and gaming pieces. With regard to hide processing tools, Steward had noted that there was an unusually high number of scrapers for a Great Basin site. Ives stated this was true, but it was not to be considered highly diagnostic. There was a wide array of implements found to produce high quality leather. These implements included expedient bone tools for removing flesh as well as a fragmented bison scapula used as a beamer to remove hair. There were also a number of expedient lithic tools used for hide softening. Although easily produced, if they became a favored tool, they might become a heritage piece passed from mother to daughter. A number of them were found in the Steward collection, in recent excavations by Ives and his colleagues, and in the Pauli Collection from Promontory Point. These tools were typical of the North,

but were not used in the Great Basin. Another northern indicator was the use of Malad obsidian from Idaho. Amongst the cordage recovered was a unique artifact using a technique called Plat Sinnet Braiding. It is not found in the Great Basin, but was common in the north where the technique was used to produce handles for birch-bark baskets, mitten strands and gaiters to hold moccasins up. Within the Steward Collection, there was a caned basket remnant believed to be from a *travois* for dog transportation. Although *travois* can occasionally be found in the Great Basin, it is highly characteristic of the North. With respect to basketry, fourteen items were found in the Steward Collection and the current excavations. This included a fragment using a closed-coiled, one or half rod, non-interlocking stitch which has a Plains origin from the Great Basin. This distinct manufacturing technique is old as 8,000 BP, and its use ended with the Fremont. The Promontory Caves piece dates to 694 ± 24 ^{14}C yr BP making it the youngest known example. The second youngest example was recovered from Aztec Ruin in New Mexico. The appearance of this technique suggests that skilled women are present at Promontory Caves. Ceramics found in the Steward Collection likely have Uinta Fremont origins. There is no ceramic tradition for the Subarctic Dene, except in the far northwest where there was contact with coastal Inuit groups. The ceramics from Promontory Caves are thin, well-made and consist of high-mica tempered clay which is closest to Uinta Grey. Their quality do not fit with a population new to ceramic production. They are also similar to Dismal River ceramics and others found on the Plain. Finally, there were an extraordinary amount of gaming items recovered from Promontory Caves such as dice, the hoop and pole game, and sinewed bows. Many items were in the form of cane dice and playing slabs with patterning typical of the Hopi. There were porcupine and beaver teeth dies which were incised with zigzag designs. There were ice glider darts or shuttlecocks used to slide across the ice as well as various hoops and darts. A ball made of perishable material was also recovered.

When considering evidence for long-distance travel and interactions with other populations, gaming pieces can be indicative of these encounters by way of advanced scouting, migrations or return visits. To participate in games, a person would need to understand the rules of the games they participate in. As games are often a form of gambling, it was important to know the rules, particularly those with high risks as it could mean the loss of possessions, slavery or the loss of one's scalp. Unlike their Fremont neighbors, the Promontory Caves occupants were well versed in a variety of games from as far north as the Puget Sound in the Pacific Northwest, to the east and southwest, and southward to Mexico. Additional evidence of possible long-distance travel came from a radiocarbon date obtained from an ankle

wrap attached to a moccasin fragment recovered from Promontory Caves. The sample dated to $725 \pm 24 \delta^{13}\text{C} = -12.5$, which was a different $\delta^{13}\text{C}$ value than the rest of the moccasin samples. It was surmised the ankle wrap must have been an older piece of leather which had been reused. The $\delta^{13}\text{C}$ value of the ankle wrap indicated the bison it came from had foraged in the distant South or Southeast such as Eastern Colorado, Arizona or Texas. Therefore, its presence at Promontory Cave could be evidence of a scouting mission or a return visit. There was interest in finding out if the ankle wrap came from a male bison or a female bison. Male bison tended to wander some distance. As an example, the straight-line distance between eastern Colorado to Promontory Cave in Utah is 800 kilometers, which is quite a distance. Bison are typically matriarchal and if the bison was female, its presence at Promontory Cave could be less explained by wandering. Analysis found that eighty-five percent of the hides used for robes and, particularly, moccasins at Promontory Cave came from female bison. Ives noted that from a northern perspective, this was well known. If one wished to make something durable but thin enough to sew, the preference would be for a female hide.

Another line of evidence for long-distance journeys and interactions is rock art. In Grotto Canyon, Alberta, there is a pictograph rock art panel located around the bend of a stream which dries up seasonally. Close by is a waterfall and alpine tundra. The rock art has been known since the 1960s and is considered to be atypical for Alberta. It appears to have a connection to the Southwest, more specifically Fremont. The panel is covered with a calcite layer which makes the images difficult to see. Analysis using various forms of orthorectified imagery enabled hundreds of rock art images to become visible. There was a Kokopelli figure, other figures commonly seen in the Great Basin, a figure holding a bow or staff, a group of figures with Fremont-style wispy waists and regalia. Numerous elk are also depicted. The images are similar to those pictographs found at Clear Creek, Utah and by Steward at Promontory Point. The Grotto Canyon anthropomorphic figures are also similar to those found in the Promontory Caves. A least cost path analysis was conducted to determine the shortest distance between Grotto Canyon and Promontory Caves. This turned out to be a distance of 1,000 kilometers. The only other occurrence of Southwestern rock art is at Buffalo Eddy on the Snake River near the Washington/Idaho border. Ives noted the Southwestern world was under stress due to severe drought and was experiencing much cultural change. There is the collapse of Chaco Canyon between AD1000 and AD1300, and Hopi traditions speak of a journey to a land of ice and snow. Ives observed that whoever made the rock art in Grotto Canyon was aware of how Fremont rock art was produced. Its presence in Alberta could be reflective of interaction between people moving about at the end of the Fremont material culture.

Could it have been made by Fremont peoples in search of a new home or by Apachean ancestors on a return visit?

Density estimates were done for Promontory Caves to get a sense of how much more material remained in the caves. Having recovered 300,000 complete and fragmentary faunal remains, it was estimated that 1.7-1.8 million faunal remains remained unexcavated. It is estimated that 2,500 moccasins remain in the caves based upon the recovery of over 300 moccasins. When making estimates for the moccasins, the replacement rate per individual would have to be considered. Under normal circumstances that would be 3-4 pairs per year, and 5-6 pairs per year if conditions were wet. Ives felt this amount of deposition suggested the possibility of a larger Promontory phenomena. In search of evidence, Ives reexamined the artifacts recovered from Franktown Cave in Colorado, a site with equally good preservation as Promontory Caves. Based upon dating of preserved perishable materials, it was determined that occupation of Franktown Cave began about two decades before Promontory Cave with a very strong overlap during the 13th Century. Amongst the cave's artifacts were a hoop, a leg wrap, and a moccasin in northern Dene-style with a puckered toe, all of which were of a similar age to those found at Promontory Caves. Overall, it seemed that small Dene-speaking ancestral populations were moving into a number of environments, but the perishable archaeological evidence of such movements are rarely seen at other sites under normal conditions. However, Ives cites examples of possible evidence for Promontory phenomena elsewhere.

After AD1300, there was a population decline and re-organization all over North America. Big changes occurred especially after the collapse of Chaco Canyon which saw Puebloan communities coalesce into larger centers. In doing so, large areas became available and were later occupied by the Navajo, Apache, Utes and other groups. At Johnson Canyon near Mesa Verde, a Promontory-style puckered-toe moccasin and a cable-wrapped bow were found amongst burials. A hoop and Promontory-style puckered-toe moccasin with ochre were found at Spruce-Tree House in Mesa Verde. At Aztec Ruin in New Mexico, basketry and a Promontory-style moccasin with quill-work were found. Lastly, a Promontory-style puckered-toe moccasin was recovered from burnt debris at Montezuma Castle National Monument in Arizona. Interestingly, the context of the find matches Apache and Yavapai oral tradition about an attack against the Hopi. Hopi oral tradition speaks of being burnt out of Montezuma Castle prior to their move up to the Mesa. These artifacts may provide evidence of northern people moving into the area bringing leather footwear which replaces the traditional sandals. With respect to weaponry, Ives noted a sinew-backed Juniper bow fragment was recovered from

Promontory Caves which dated to 802 ± 24 ¹⁴C yr BP. It is the earliest known composite bow in the Southwest, and it was found in association with Subarctic-style moccasins dating to the 13th Century. Ives suggests these preserved perishable cultural materials provide evidence that nomadic hunters were in the greater Southwest prior to the final depopulation of the Mesa Verde region in the turbulent period of the 13th and 14th Centuries.

In closing, Ives stated the evidence showed that a sophisticated AD13th Century bison-hunting community was established in proximity of waning Fremont communities. Recovered artifact assemblages are clearly intrusive and distinct from nearby populations. There is also good evidence of ethnogenesis, but this was done creatively by absorbing people, ideas and material culture from neighboring populations. These actions would become foundational for later interactions which would characterize post-13th Century Plains-Puebloan relationships later seen by the Spanish. Apachean migration went against the grain with a Dene-speaking population moving from a wet environment to the most arid one. They shifted from hunting and gathering to horticulture, and did so during a very turbulent time across North America. Apachean

society transformed the Southwest and southern Plains as they filled interstitial areas of the landscape while establishing relationships with neighbors via both peaceful (trade/intermarriage) and violent (active raiding/warfare) means. Ives also noted they underwent a profound and creative ethnogenetic change largely fueled by women as active agents of change through their work in making ceramics, processing hides, and drying meat. The ability of Apachean society to adapt to differing environments and adopting ideas and practices of neighboring groups enabled them to succeed to become the largest Native American group today.

At the conclusion of his presentation, Ives took questions from the audience. Craig Dengel thanked Ives for an engaging and thought-provoking talk. Craig then presented the slate of candidates for the 2024 Board Elections to membership. Two positions were still vacant, that of Vice-President and Director. Craig stated Amy Gillaspie indicated that she could step into the Director position if needed. Stacy Greenwood provided a description of Vice-Presidential duties. No additional nominations were received from the floor. A voice-vote was taken and the candidate slate was accepted by membership. Stacy notified members details for December's Members Night would be finalized soon and forthcoming.

The meeting adjourned at 8:56 pm. Submitted by Stacy Greenwood, Secretary for DC-CAS.

Further Reading:

- For more on the recent work at Promontory Caves and its place in the Southwestern and southern Plains archaeology, see *Holes in Our Moccasins, Holes In Our Stories: Apachean Origins and the Promontory, Franktown and Dismal River Archaeological Records*. John W. Ives and Joel C. Janetski. University of Utah Press, Salt Lake City, 2022.-
<https://uofupress.lib.utah.edu/holes-in-our-moccasins-holes-in-our-stories/> .

- For more on Karl Popper, see the Stanford Encyclopedia of Philosophy -
<https://plato.stanford.edu/entries/popper/#pagetopright> and *Conjectures and Refutations: The Growth of Scientific Knowledge*. K.R. Popper. Routledge and Kegan Paul, New York, 1963. -
<https://www.routledge.com/Conjectures-and-Refutations-The-Growth-of-Scientific-Knowledge/Popper/p/book/9780415285940> .

- For more on the White River eruptions, see Todd Kristensen, Alwynne B. Beaudoin, and John W. Ives (2020). Environmental and Hunter-Gatherer Responses to the White River Ash East Volcanic Eruption in the Late Holocene Canadian Subarctic. *Arctic* 73(2):153-186, June 2020.
https://www.researchgate.net/publication/342716398_Environmental_and_Hunter-Gatherer_Responses_to_the_White_River_Ash_East_Volcanic_Eruption_in_the_Late_Holocene_Canadian_Subarctic .

- For more on Edward Sapir's 1936 article, see Internal Linguistic Evidence Suggestive of the Northern Origin of the Navaho. *American Anthropologist*, New Series 38(2):224-235, Apr-Jun 1936. <https://www.jstor.org/stable/662329> . Also available in *Selected Writings of Edward Sapir in Language, Culture and Personality*, David G. Mandelbaum (editor). 1949. University of California Press Ltd., Voices Revived Series, p213-224.
<https://www.ucpress.edu/book.php?isbn=9780520324060> .

- For more on Julian Steward's Promontory Caves article, see *Ancient Caves of the Great Salt Lakes*, U.S. Government Printing Office, Washington. 1937 at Archive.org - <https://archive.org/details/ancientcavesofgr00stew/mode/2up> .

- For more on DNA research studies, see Alessandro Achilli et al (2013). Reconciling Migration Models to the Americas With Variation of North American Native Mitogenomes, *PNAS* 110(35):14308-14313, 2013. <https://www.pnas.org/doi/10.1073/pnas.1306290110> & Pavel Flegnotov et al (2019). Palaeo-Eskimo Genetic Ancestry and Peopling of Chukotka and North America. *Nature* Journal 570:236-240, 2019. <https://www.nature.com/articles/s41586-019-1251-y> .

- For more on climate and the southward movement of large communal bison hunting during the Late Prehistoric Period, see Larry V. Benson et al. 2007. Possible Impacts of Early-11th, Middle -12th, and Late-13th Century Droughts on Western Native Americans and the Mississippian Cahokians. *Quaternary Science Review* 26(3-4):336-360, February 2007. - <https://www.sciencedirect.com/science/article/abs/pii/S0277379106002447> , and Judith R. Cooper. 2009. *Bison Hunting and Late Prehistoric Human Subsistence Economies in the Great Plains*, Ph.D. dissertation, Department of Anthropology, Southern Methodist University, Dallas, 2007. - <https://www.proquest.com/openview/e03534f4340febbcbaa31b8347ce9c1c/1?pq-origsite=gscholar&cbl=18750> .

- For more information on the correlation between foot size and stature, see Michael S. Billinger and John W. Ives. 2015. Inferring the Age Structure of 13th Century Promontory Point Populations from Moccasin Size Data. *American Journal of Physical Anthropology* 156(1):76-78, 2015. - <https://www.ualberta.ca/research/media-library/research-projects/44a3c631c0ee453da1f9b0e767e17dd8/42e4eb24bc854c6d8854754dae0edeb9/billingerivesajpa22629.pdf> .

- For more information on the DNA-based sexing of bison hides, see Sabrina Shirazi et al. 2022. Preferred Hunting of Cow-Calf Herds and Moccasin Manufacture, *in revision*, Ancient DNA-Based Sex Determination of Bison Hide Moccasins Provide Evidence for Selective Hunting Strategies by Promontory Cave Occupants. *Journal of Archaeological Science* 137(1):105533, January 2022 - https://www.researchgate.net/publication/357268888_Ancient_DNA-based_sex_determination_of_bison_hide_moccasins_indicates_Promontory_cave_occupants_selected_female_hides_for_footwear .

- For an explanation of orthorectified imagery, see this 2023 article by Rose Njambi - [https://up42.com/blog/introduction-to-orthorectification#:~:text=Orthorectification%20is%20the%20process%20of,\(i.e.%2C%20at%20nadir\).](https://up42.com/blog/introduction-to-orthorectification#:~:text=Orthorectification%20is%20the%20process%20of,(i.e.%2C%20at%20nadir).)

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(craig.dengel@usda.gov)

Vice President: Amy Gillaspie
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Secretary: Stacy Greenwood
(stacygreenwood@comcast.net)

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Membership Chair: Melissa Dolin
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CAS Representative/PAAC Coordinator: Gene Wheaton
(genewheaton7@hotmail.com)

Directors: Deb Bollig (debbollig@msn.com), Josef Garrett (josef.garrett@colostate.edu), Michael Kolb (mkolb5@msudenver.edu), and Teresa Weedon (weedon@comcast.net)

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APB Editor: Emily Seabold (callmedrem@gmail.com)

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