

New Mexico Archaeology

THE NEWSLETTER OF THE FRIENDS OF ARCHAEOLOGY

MUSEUM OF NEW MEXICO FOUNDATION

WWW.NMARCHAEOLOGY.ORG

NOVEMBER 2021

FROM THE DIRECTOR WELL-DESERVED! AND A STUDY 85 YEARS LATE

ERIC BLINMAN, PH.D.
OAS DIRECTOR

I am an ex officio member of the Old Santa Fe Association (OSFA) Board of Directors, an assignment from the Department of Cultural Affairs. As a non-voting member, I learn more than I contribute, benefiting from the wisdom and perspectives of the working board members. Preservation decisions are always compromises, and OSFA's common purpose is often achieved through lively and intense debate. Every year OSFA contributes to Santa Fe's Heritage Preservation Awards, and two of this year's awards resonated with me.

The preservation community's focus is usually, but not exclusively, on architecture and the visual aspects of the historic environment. This year, recognition was given to Southwest Seminars (Connie Eichstaedt and Alan Osborne) for a quarter-century of public service programming. Connie and Alan have produced an annual calendar of 50 public lectures on local, regional, and even international topics related to culture, history, and the environment. Their knowledge, sensitivity, and responsibility have benefited Santa Fe, exploring the complex multicultural fabric of our community. Some of their lecture series have benefited the OAS Education Outreach program, and their programming has been an inspiration to both me and to the Friends of Archaeology.

Congratulations!

See **Director**, on Page 3.

NOW, EVERY DAY IS ARCHAEOLOGY DAY



Isaac Coan demonstrates flintknapping in an FOA video available online soon.

STORY AND PHOTOS
BY MELISSA MARTINEZ

Office of Archaeological Studies, the Archaeological Research Collections of the Museum of Indian Arts and Culture, and the Friends of Archaeology have been hard at work for the past several months turning this year's celebration of International Archaeology Day into an online extravaganza.

For the second year in a row, COVID-19 cases put a damper on face-to-face festivities, but this year's event could not be delayed.

This year, FOA/OAS increased their online presence as never before by hosting a series of talks, lectures, and question-and-answer sessions, which were broadcast live on Zoom on Saturday, Oct. 16.

See **Archaeology**, on Page 7.

FROM THE BOARD

HEY, WE MISS YOU GUYS!

At this time of year, the FOA Board always looks forward to our Annual Holiday Party and Auction just as we look forward to planning and implementing educational tours for members. But, as you know, Covid-19 has once again precluded our gathering. Despite the lapse, many of you have graciously donated items from your own collections for this year's auction party. As we began discussing plans for next year's tours (fingers crossed), we made the decision that, rather than completely forego our November event, we would experiment with a small, call-in auction to benefit OAS education and research, as well as to show respect for the generosity of our FOA donors.

We're using this as our kick-off for next year's return to regular tours, in-person Brown Bag lectures, an onsite celebration of Archaeology Day, and more times where FOA members can meet to share knowledge and conviviality. As board members, we continue to plan quality interactions and maintain a highly affordable stance toward our Friends members—no yearly dues, free Brown Bag discussions, inexpensive and quality lecture series, economical tours and, in this case, a small auction with all initial bids placed well below gallery prices.

The board requests that you take a look at these items and, during this holiday season, help us not only continue to encourage and support the very worthwhile education and research projects of the Office of Archaeological Studies, but also cross your fingers with us that next year we can again join up to learn and laugh together. Thank you all, very much, for belonging. ❖

LOOKING FOR US?

If you're planning a trip to CNMA, we're located at 7 Old Cochiti Road, just off Caja del Rio Road. We're the first building on the left, just before the animal shelter.



This Diné Wedding Basket (ca. 1940–1950) will be up for auction starting Nov. 29.

VISIT OUR HOLIDAY AUCTION ONLINE

A REQUEST FROM JERRY COOKE FOA BOARD CHAIR

I walked into the office of Melissa Martinez at OAS last week (Melissa, having many helpful skills, is the expert editor of this newsletter) and saw, for the first time, a table full of finely bound reports produced by OAS staff on projects completed by them on the archaeology of myriad sites in New Mexico. The variety, the depth, and the breadth of information was both amazing and gratifying to me.

You, as FOA members, have generously supported the dissemination of knowledge and information that has stemmed from years of OAS research. This research is most often shared through FOA's Education Outreach programs and through talks and lectures offered through the Friends of Archaeology group.

The 2021 FOA Holiday Auction Online is part of the FOA's effort to continue that important support. This will be a timed auction beginning Monday, Nov. 29, at 7 a.m., and ending

Tuesday, Dec. 7, at midnight.

To begin, please view the items by using your computer to visit www.facebook.com/friendsofarchaeology. Here, you can view photos, read descriptions of items, and check out estimated values and minimum bid amounts. The auction is small with only 10 items and, if any strike your fancy, bidding will be conducted by phone.

To bid, call (505) 982-7799, ext. 7, starting Nov. 29, 2021, at 7 a.m. State the item number, your name, your telephone number, and your bid amount.

You can bid on more than one item, and you can bid as many times as you like. We will post the most current bid, per item number, on our Facebook page each day at 12 noon for the duration of the auction. You can find our Facebook page at <https://www.facebook.com/FriendsofArchaeology>.

Winning bidders will be contacted within a week of the auction close and proximate pick-up times will be set up. If shipping is required, we will arrange this with the successful bidder, who will be asked to pay shipping and handling. ❖

Office of Archaeological Studies

The Office of Archaeological Studies (OAS) was the first museum program of its kind in the nation. OAS staff conducts international field and laboratory research, offers educational opportunities for school groups and civic organizations, and works to preserve, protect, and interpret prehistoric and historic sites throughout New Mexico.

Friends of Archaeology

The Friends of Archaeology is an interest group within the Museum of New Mexico Foundation that supports the OAS. To join the FOA, you need only become a member of the Museum of New Mexico Foundation and sign up. Visit www.nmarchaeology.org for information. We're also on Facebook; just search for "@FriendsofArchaeology."

Mission Statement

The mission of FOA is to support the OAS in the achievement of its archaeological services mandate from the State of New Mexico through participation in and funding of research and education projects.

Friends of Archaeology Board

Chair:
Jerry Cooke

Treasurer:
Jerry Sabloff

Board Members:
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Jerry Cooke
Pamela K. Misener
Kathleen Murphy
Richard Schmeal
Sherill Spaar
David Young
Eric Blinman (OAS Director)
Jennifer Kilbourn (Coordinator)

BROWN BAG TALK SET FOR NOON ON TUESDAY, DEC. 7

IT'S NOT ALWAYS A BLACK- AND-WHITE WORLD: A DISCUSSION OF OXIDIZED (ORANGE, RED, AND YELLOW) POTTERY IN THE NORTHERN SW

Offered by C. Dean Wilson, research associate and former director of the OAS Ceramics Analysis Laboratory, and Eric Blinman, OAS Director

The majority of decorated pottery produced by potters in the Four Corners region of the Ancestral Pueblo world consists of wares and types that use black paints against gray or white surfaces. The notable minority are distinctive oxidized wares and types that appear to reflect interrelated pottery technologies and styles. These include types associated with Northern San Juan Red Ware, Tsegi Orange Ware, and Jeddito Yellow Ware, as well as more recent Hopi Polychrome traditions (we don't include the

better-studied White Mountain Redware tradition trajectory to the south). This presentation will review these wares and will explore possible connections between them based on previous investigations and our recent struggles with the classification of whole pottery vessels in the Museum of Indian Arts and Culture collections. These challenges reflect changing resources, technologies, and stylistic traditions spanning a millennium, and the patterns provide clues about historic connections and models of causation.

Join us Dec. 7, 2021, at noon, on Zoom here: <https://us02web.zoom.us/j/85269676741?pwd=eWNEWGdDb0VnVUtNRllsSTZrdUVhZz09>

Meeting ID: 852 6967 6741

Passcode: 008670

This talk will also be broadcast live on Facebook at @FriendsofArchaeology. ❖

DIRECTOR

Continued from Page 1.

In the second award, Santa Fe County was recognized for their restoration of the 1939 John Gaw Meem Santa Fe County Courthouse. OAS conducted archaeological monitoring for the restoration project, but instead of reverence of one of Santa Fe's prominent architects, our attention was focused on what was lost when the courthouse was originally built.

At the corner of Grant and Johnson Streets, most of Meem's courthouse was built over the top of a large adobe compound that appears to have remained relatively unchanged from at least the early nineteenth century. The undocumented destruction of that history was a loss, but the historic maps of the property also include a church in the northwest corner.

Apparently constructed after 1883, the "Colored Church" first appears on the

1886 Sanborn Fire Insurance Map. It has been named the Rice Chapel of the AME Church on the 1921 Sanborn map, but it was vacant by 1930.

The New Mexico Colored Religious Society was established in Albuquerque in 1882, and in 1883 Reverend Spottswood (or Spottsworth) Rice came to minister to New Mexico. The Santa Fe church was contemporary with this early 1880s movement to serve the spiritual needs of the African American population of New Mexico, but the Santa Fe church may not have been given Rice's name until after his death.

As it turned out, no subsurface work of the Meem Courthouse restoration took place over the location of the AME Church, and we have no more observations to add to the historic map labels. If the City's archaeological ordinance had existed in 1939, courthouse construction would have been accompanied by a complete study of this underappreciated dimension of Santa Fe's multicultural past. ❖

EVERYBODY POOPS, EVEN INSECTS

INSECT WASTE USED TO DATE ANCIENT TEXTILE



The radiocarbon dating lab at OAS recently dated a small woven piece to Coptic times using tiny amounts of insect poop, which is seen here along the margin of the weaving.

BY MARVIN ROWE, ERIC BLINMAN,
AND S. JONES

Every animal poops. That's just a simple fact. Whether on land, in the air, or in water, it poops. Whether it's large or small, it poops. Elephants make large poop, elk make medium-sized poop, mice make tiny poop...enough said. And all that poop contains beautiful, wonderful, dateable carbon!

Using radiocarbon to date ancient poop (coprolites) is moderately common but is usually applied to human, packrat, or bat coprolites. In fact, the dating of human coprolites occurs fairly often in archaeological studies and serves as a time marker for the presence of humans in various situations. But radiocarbon dating of tiny amounts of insect poop...we appear to have been the first to do that!

Recently, we were asked to date a supposed Coptic textile that was surrounded by a halo of insect debris. Our task was straightforward: gently remove the weaving from its protective acrylic sheets, clean the insect debris away, and obtain the radiocarbon age of the textile



This single, two-ply warp thread served as the dated specimen.



The same warp thread is shown after four plasma oxidations runs.

to ascertain whether it was consistent with a Coptic origin. Simple. But our research imagination was sparked!

To us, the poop pellets represented a treasure trove of potential chronological

information and experimentation. We dated a thread of the fabric for the client, but we couldn't resist dating the insect poop as well. Would it date to the age of the textile since the insects had eaten the weaving? Would it be modern, like poop from living insects? Or would it date somewhere between ancient and modern?

Sometime after the weaving's placement within its acrylic mount, modern clothes moth larvae crawled into the tiny 1–2 mm space between the sheets.

Finding themselves isolated, the insects' diet was restricted to the only food source around – the weaving, which was composed of linen, wool, and the organic dyes used in the textile. The prominent dyes in the textile are dark blue (probably indigo) and one with an orange hue. Interestingly, the poop pellets were almost entirely those two colors, plus the beige of the undyed linen and wool.

We isolated the dark blue pellets by sorting through the multicolored poop, cocoon silk, and molted larval exoskeletal elements. Then, utilizing OAS's unique

See **Insects**, on Page 5.

INSECTS

Continued from Page 4.

cold plasma oxidation approach, we prepared carbon dioxide for radiocarbon dating from both a single fiber of the textile and the poop. The sample ampules were then sent to the Swiss ETH-Zürich accelerator mass spectrometer (AMS) laboratory for dating.

This experiment was possible because OAS's system has several unique and advantageous qualities:

(1) Radiocarbon samples can be prepared from very small amounts of source material, 30–100 millionths of a gram of carbon! This was essential in dating both the fiber and poop.

(2) Multiple ampules of carbon dioxide can be collected from a single source material in a single sampling session, which improves the precision of our statistics; and

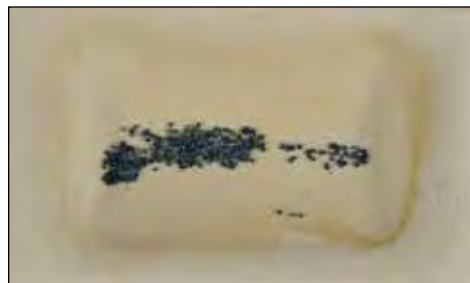
(3) Ampules of carbon dioxide may be collected virtually "nondestructively" from the target material since plasma extraction is a surface sampling technique that requires just a tiny amount of carbon removal. This was a special concern as the weaving is a religious relic and the majority of the weaving remains intact. In the end, the tiny two-ply warp thread removed for testing (see images on Page 4) remains available for future studies.

But back to the most fascinating part of this experiment, the poop! About 3 milligrams of hand-picked, dark blue poop pellets were isolated for study. The pellets were exposed to four carbon extraction plasma runs (just like the fiber). During each plasma exposure, the dark-blue color faded from intense to nearly beige, which almost matches the color of undyed linen and wool.

After waiting anxiously for the results from the AMS lab in Zürich, we learned that the tiny fiber of the textile (linen) was composed of carbon that was 1360 ± 70 years old. The average of the four dates on the dark blue poop pellets is 1348 ± 32 years old, nearly identical to the linen! Experiments are continuing and will include dating on other components of the Coptic textile collection: blue wool, chitin (from the



Marvin Rowe, seen here in the radiocarbon dating lab, at the Office of Archaeological Studies.



Dark blue bug poop pellets before plasma oxidation.



The same poop pellets after four plasma oxidation runs. Note the faded color.

moth larvae exoskeletons), orange-colored poop pellets, etc.

We were pleasantly surprised! Even though the clothes moths that ate dark blue dye (along with textile material)

were modern, the age of the carbon retained in the dark blue dye and textile material remained unchanged during digestion. The seventh- to eighth-century dates obtained for this textile, and for the poop pellets as well, date the weaving to well within the Coptic times, so its assignment as a Coptic textile was confirmed without question.

The congruence between the date of the textile and the poop pellets is astounding enough, but even more exciting is that, as far as we can determine, this is the first time that insect poop has been radiocarbon dated.

Despite the off-the-wall-idea that led to this poopy project, we were successful in our initial aim of the study: to determine whether the age of the textile was consistent with its Coptic style. Clearly it was.

But we also made the interesting discovery that the insect poop pellets were also the same age and could serve as a proxy for the dating of the textile, a finding that has potential future implications in the field of conservation. ❖

OAS IS NOW LOOKING FOR VOLUNTEERS

OAS occasionally has volunteer opportunities that vary in subject and duration. We are currently looking for volunteers who would like to participate in the following opportunities:

- Production and organization of kiddo activity kits.
- Yucca fiber processing for the education program.
- Ongoing organization of the archaeomagnetism laboratory.
- Landscaping maintenance including weeding and winterizing of plants.
- Landscape design and the implementation of the ethnobotanical garden.
- Acquisition of local plants, orchard trees, and seeds.

Other opportunities may become available during the quarter. If any of these catch your fancy, please email Eric Blinman at eric.blinman@state.nm.us ❖

EDUCATION STILL NEEDS SUPPORT

OAS and FOA are gratified by the response to our recent pleas for financial support for our education programs. We've heard from old and new members, and funds are building. Since OAS does not receive State funds for education, the level of private support determines how much we can do! For information, contact Lauren Paige at lauren@museumfoundation.org

ONLINE CLASS

SERIES TO FOCUS ON NM FROM ANCIENT TIMES TO RECONQUEST

Dr. Eric Blinman, OAS Director, will be offering a special class titled, "A History of New Mexico from Ancient Times to the Reconquest: An Evening Lecture Series on Southwestern Archaeology." Classes will be conducted via Zoom. This class, which will be aired live from the Center for New Mexico Archaeology, starts at 5:45 p.m. Wednesday evenings and will run from Jan. 5, 2022 to March 17, 2022. Sessions will NOT be recorded or rebroadcast, but images from the lectures will be distributed in PDF form to all participants. Eric has taught versions of this class for the Friends of Archaeology for the past several years. This class will include a slight updating of the most recent class content. The 5:45 p.m. start should allow most people get home from work or appointments, while allowing Eric to fit the class into his schedule with a slight break after work. Classes should end around 7 p.m.

CLASS SCHEDULE (8-10 CLASSES)

January 5: Conceptual and practical tools for understanding SW archaeology

January 12: The Destination: Modern peoples and cultures of the northern Southwest

January 19: Peopling of the Americas through the early Southwestern Archaic

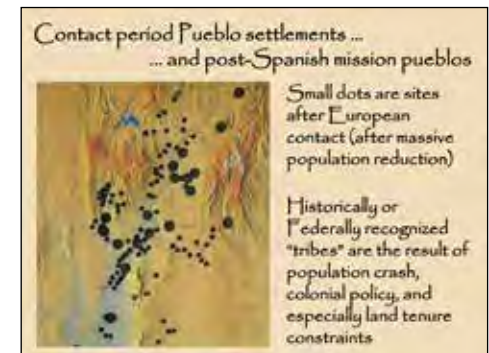
January 26: Agriculture, pottery, and the emergence of Formative culture

February 2: Villages, social complexity, ethnic diversity, and the foundations of Chaco

February 9: The Pueblo II period and the workings of the Chacoan system

February 16: The first migration, the Pueblo III communities, and the second migration

February 23: Puebloan communities at



Slides from one of Eric's recent classes.

the threshold of European Colonialism

March 2: New peoples and colonization

March 9: Topic overflow, if needed

March 17: Topic overflow, if needed

The "value" of the class has been set somewhere between \$120 and "priceless" by former participants. For all eight to 10 sessions, enrollment will be set at \$120 per Zoom portal. No refunds will be offered for individual missed classes. Proceeds support OAS education and research programs. Initial enrollment for the course will be conducted through the hotline on a first-come, first-served basis starting Friday, Dec. 10, 2021 at 7 a.m. Call (505) 982-7799, ext. 6, and leave your name and a call-back number. FOA will get back to you for confirmation and payment information. Minimum enrollment will be 12 but thanks to Zoom we won't have to limit class size. ❖

ARCHAEOLOGY

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If you were unable to "attend" this year's online celebration, don't worry. A wide variety of new and familiar talks, downloadable activities, and special events are currently posted on the Friends of Archaeology and Center for New Mexico Archaeology Facebook pages and YouTube channels.

In one video, Marvin Rowe, Ph.D., discusses "A Different Approach to Radiocarbon Sampling," a special dating method introduced to the Office of Archaeological Studies several years ago.

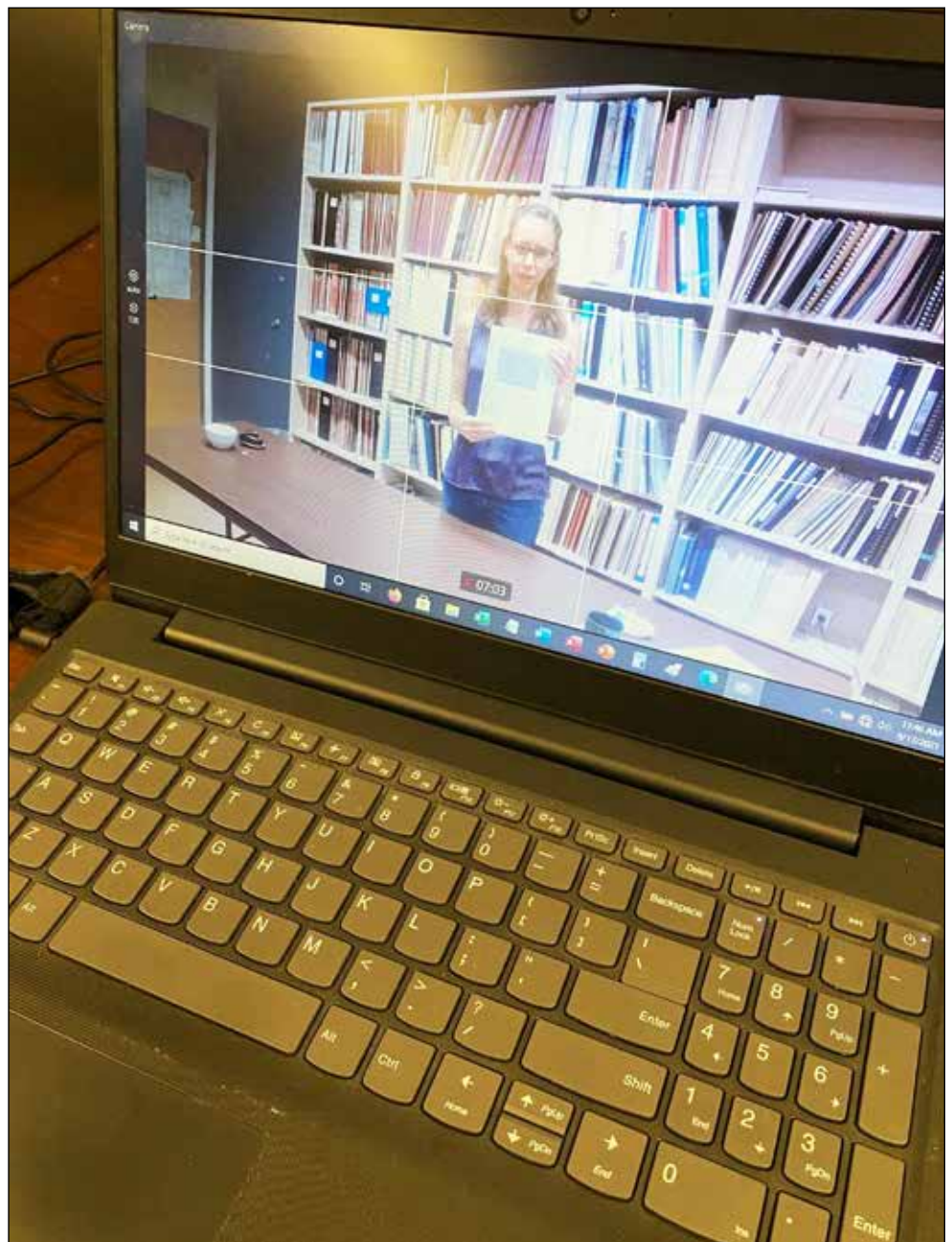
In another, OAS zooarchaeologist and faunal analyst Caitlin Ainsworth talks about identifying "mystery bones" by paying special attention to animal adaptations. Hansel the Rooster and a bearded dragon named Tad also appear.

Archaeologist Isaac Coan demonstrates flintknapping and arrow-making techniques. OAS Education Outreach Coordinator Mollie Toll and OAS Research Associate and Educator S. Jones discuss the creation and contents of new learning kits made available this year to New Mexico children. OAS Director Eric Blinman hosts an "Ask-an-Archaeologist" session.

Videos previously created for OAS are also available. Sessions on historic archaeology and ancient lifeways, featuring Chuck Hannaford, are available online. Archaeologist Mary Weahkee discusses the importance of flotation samples in recovering ancient plant remains from archaeological features, demonstrates sandal-making techniques, and explains the process used to create a special turkey feather blanket.

Brown Bag lectures recorded during quarantine include talks on ancient pottery by C. Dean Wilson and on archaeology, history, and identity by Blinman.

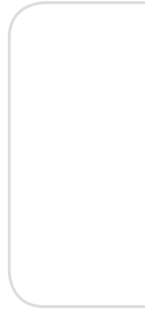
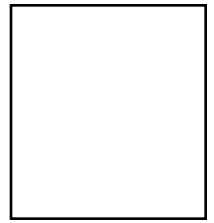
To find these videos visit the Friends of Archaeology page on Facebook or subscribe to the Friends of Archaeology New Mexico YouTube Channel at <https://m.youtube.com/channel/UC71Nvwch-5kIR4OxiW2nYSw>. Just type in www.youtube.com and search for "Friends of Archaeology New Mexico." There's no cost to subscribe. ❖



S. Jones, above, discusses the creation of new learning kits that will be distributed to NM children as part of the OAS educational outreach program. Isaac Coan, left, demonstrates arrow-making techniques on a new FOA video production. Both videos are available online at the "Friends of Archaeology New Mexico" YouTube page.



P.O. Box 2065
Santa Fe, NM 87504-2065



MUSEUM OF NEW MEXICO FOUNDATION **OAS DIRECTOR TO OFFER LECTURE ON ARCHAEOLOGY OF MULTICULTURAL NM**

Office of Archaeological Studies
Director Eric Blinman will offer a special talk, "The Path to the Present: An Archaeological Sketch of Multicultural New Mexico," on Wednesday, Dec. 1, 2021, at 5:30 p.m. The special MNMF Member Event will be brought to viewers online from the Zoom Studios of MNMF.

Archaeology is a means of constructing histories. Looking back in time, the history of northern New Mexico must account for a minimum of 10 distinct Native American cultural groups at Spanish contact. Linguistic models also suggest that this diversity arose from at least five distinct proto-languages or cultures at and before the advent of pottery. Archaeological textbooks haven't always done justice to the time and depth of this diversity, and streamlined archaeological models



Chaco Canyon.

have contributed to an overly simplified public perception of modern Native America. This illustrated lecture will be a sprint through the past 2,000 years of northern New Mexico history, laying the groundwork for a more accurate perception of the richness of Native American culture today.

MNMF members can register for this talk by visiting <https://www.museumfoundation.org/events/the-path-to-the-present> ❖

MAKE YOUR MARK ON NM ARCHAEOLOGY!

Please consider supporting the Office of Archaeological Studies by making a gift to education or research by check, credit, stock, IRA rollover, or planned gift this year.

Your tax-deductible donation through the Museum of New Mexico Foundation will have a lasting impact throughout the state. One hundred percent of your donation will be directed to the Office of Archaeological Studies. No administrative fees are charged.

Give online:
[www.museumfoundation.org/
support-archaeology](http://www.museumfoundation.org/support-archaeology).

For questions about giving, or to donate, contact Lauren Paige, at (505) 982-2282, or via e-mail at lauren@museumfoundation.org