

# New Mexico Archaeology

THE NEWSLETTER OF THE FRIENDS OF ARCHAEOLOGY

MUSEUM OF NEW MEXICO FOUNDATION

WWW.NMARCHAEOLOGY.ORG

MAY 2022

## FROM THE DIRECTOR

# THE BEST LAID PLANS

ERIC BLINMAN, PH.D.  
OAS DIRECTOR

Archaeology is destructive, and we bear a heavy responsibility of doing the work well the first time since there are no do-overs.

Before archaeologists dig, we must be permitted for the project. To earn a permit, we routinely prepare detailed plans that document what we intend to do, why, and how. This justifies the expense for the client, but most importantly it satisfies the regulatory agencies that the archaeologist can be trusted with the destruction of a unique resource.

Permitting is controlled by city, county, state, federal, and tribal authorities. Depending on the location of a proposed investigation and its scale, as many as three different agencies are involved in permit review. A floor replacement within Room 6 of the Palace of the Governors is an example of the process (Thanks to Billy Garrett and the New Mexico History Museum, our client, for permission to share the story of this project).

The wooden floor of Room 6 needed maintenance under the guidance of historic architects. Existing relatively modern planks were pulled up to examine the nineteenth-century joists beneath. All the joists rested on earth for at least some of their length, and some inter-joist spaces were partially filled with earth, both creating opportunities for damage and preventing a full assessment of joist condition. The History Museum consulted with the New Mexico His-

See **Director**, on Page 7.



## HIKING FORKED LIGHTNING

FOA members spent a sunny Saturday exploring the ruins of Forked Lightning Pueblo at Pecos National Historic Park. Park Archaeologist Jeremy Moss led a short hike through the ruins, which were first excavated by A.V. Kidder from 1915 to 1921. The group also enjoyed a behind-the-scenes look at the visitor center's pottery collection and the Kidder collection itself.

More photos on Pages 4 and 5.

# PROGRAM FOCUSES ON STRING GAMES OF THE PAST

MARY WEAHKEE  
OAS ARCHAEOLOGIST

String games have been found all over the world. Nobody really knows how they started or how the many patterns found in string games were created. The history of string games goes back to the first weavers. Any time string was made for a garment, there was always a little leftover. Some of the earliest evidence of string games were strings made of hide, leather, or sinew—material that perhaps predates use of fiber. String games materials first appear in the Southwest with the use of yucca fibers and other plant materials.

In working with Native American students, adults need to understand that Native children of various ages do not fare well with diagrams or written instructions. Hands-on visual interpretation reaches them easier. Storytelling helps ease the tension of overachievement, gives them a break from frustration.

String games traditionally can only be taught in the winter times because the nights are long, and the days are short. Stories often accompany the games and—at the end of the game—there is always a lesson to be learned. Many lessons are life lessons and teach discipline and respect. Humorous string games help people release tension. There are many figures in string games—such as animals, plants, landforms, and household objects.

The Office of Archaeological Studies education outreach program was asked to teach string games to children in the Santa Fe Public Schools' Intertribal Cultural Club for Native American Students, an after-school program for kindergarten- to high school-aged kids coordinated by Nocona Burgess.



String games are taught by OAS's Isaiah Coan, who grew up playing string games as a child. Having the cultural background—and knowing the rules of string games—has definitely made Isaiah the main character in the teaching of the games. Shelby Jones, also of OAS, assists Isaiah in teaching these games and adds an educational aspect to the games. Both instructors are experts at these games.

Both Pueblo and Navajo string games utilize similar images, and both cultures believe that the spider taught these games to the people. As spiders spin webs in your house in the winter, we believe the spiders tell stories of the humans they live with.

Isaiah Coan, right, teaches string games to a group of students at Cesar Chávez Elementary School in Santa Fe. At left, one young student shows his work.

As long as there's snow on the mountain—sometime as late as June—night stories can be told, and string games can be played. After that—because the days become long again—people must work in the fields and go to sleep early.

The appreciation for string games among Native American children in the Santa Fe Public School system has been a great delight for all. The children at first are reluctant, but by the end of the lesson, they often become very engaged.

Members of each group must learn at least five games. If this is accomplished, a prize—an obsidian arrowhead—is given to each child. At the end of the session, each child receives a string of their own. Shelby and Isaiah have also developed a hand-out so the children can continue to learn on their own, at home.

I will often hear back from some parents about just how wonderful these lessons were for their children to learn. Often, the parents themselves have forgotten these games and watching their children reminds them of their young days. ❖

### 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](http://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:

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# HITTIN' THE AIRWAVES



Photo by Shelby Jones

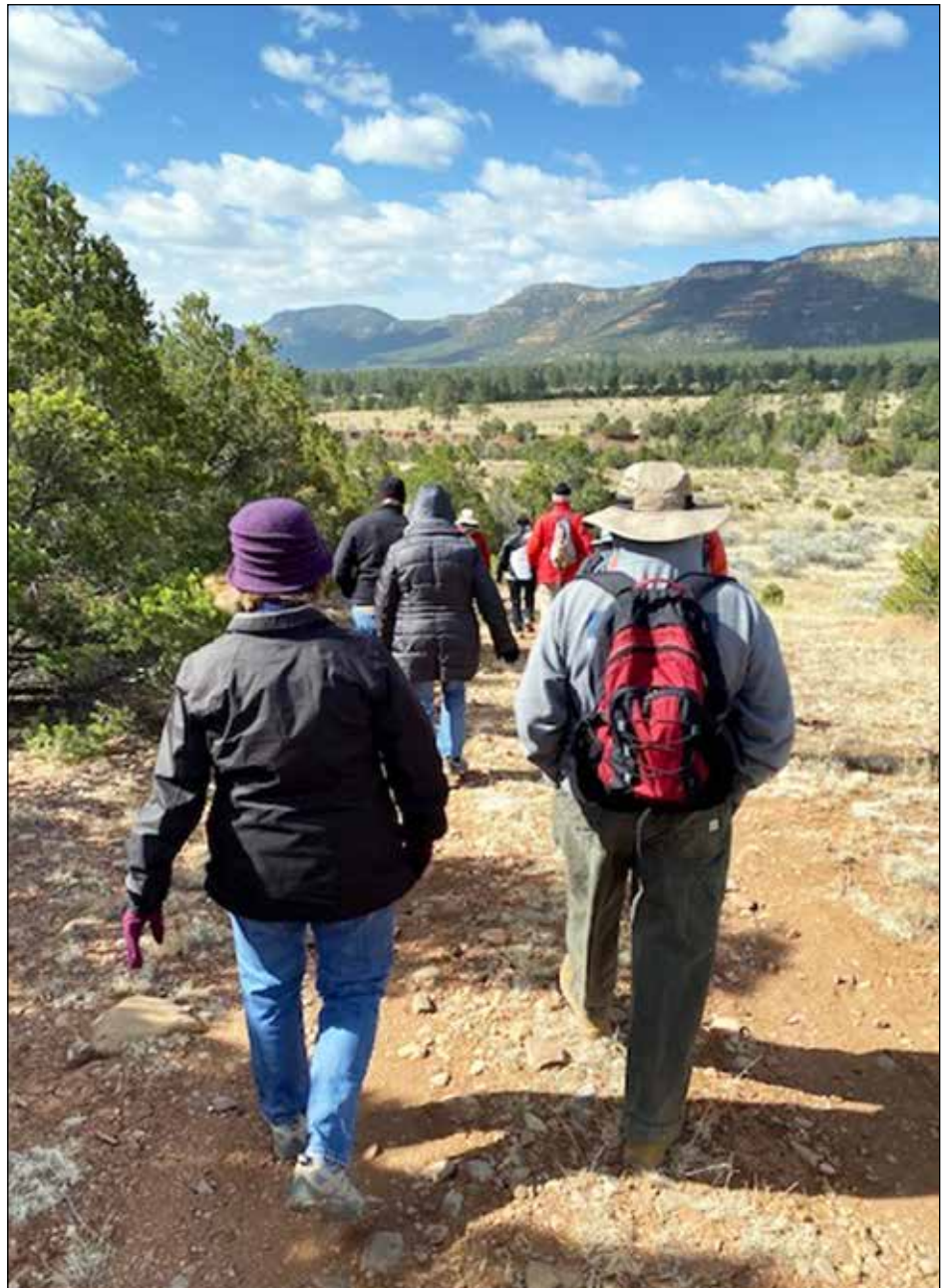
Mary Weahkee, of OAS, shares her personal experience and archaeological expertise with Katie Stone, executive director and producer of "The Children's Hour," a public radio show and podcast for kids focused on science, civics, culture, and history. Now in syndication, the radio show is available to listeners throughout the United States and Canada.

Mary is currently appearing in a new six-part podcast series titled "A Kids' History of the American Southwest." The series is produced in partnership with the Native American Community Academy, the NACA Inspired Schools Network, and the New Mexico State University Center for Anthropological Research, among others.

In the first episode, viewers take a Virtual Field Trip to White Sands National Monument, where the 23,000-year-old footprints of a young woman were recently discovered. Mary speaks about the importance of the discovery and about ancient cultures and practices in the area along with Piro-Manso-Tiwa Tribal Historian Diego Medina and White Sands National Park Resource Program Manager Dave Bustos. To view this episode, go to <https://www.childrenshour.org/history/>. ❖

# HIKING

## FORKED LIGHTNING



FOA hikers spent a crisp April morning exploring the ruins of Forked Lightning Pueblo, which was occupied in the 1200s. Hikers also visited the final resting place of Alfred Vincent Kidder and his wife, Madeleine, above. A.V. Kidder conducted some of the first excavations at the site.



# A CLOSER LOOK

## AT THE KIDDER COLLECTION

Jeremy Moss, archaeologist and expert on the Pecos area, led a rare FOA tour through the A.V. Kidder collection, which is housed at the Pecos National Historic Park Visitor Center. The special behind-the-scenes tour offered a unique, up-close

look at ceramic, lithic, and bone items dating back to the prehistoric era. Other items were more recent and included historic era metal work as well as tools, cigar boxes, and other items used by A.V. Kidder himself.

Photos by Melissa Martinez

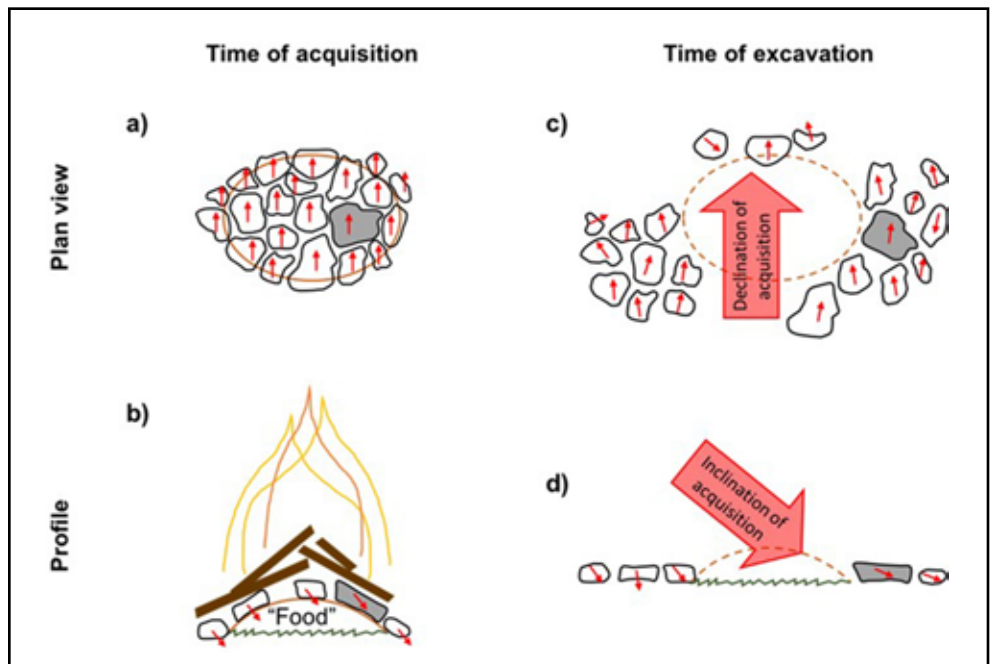
# UNDERSTANDING FEATURE FORM & FUNCTION: A MYSTERY IS SOLVED USING ARCHAEOMAGNETISM

SHELBY A. JONES AND ERIC BLINMAN  
OAS

Burned rock features and rock clusters are commonly found at archaeological sites around the world with ages dating to at least 30,000 years. Often these features have few artifacts, limiting insight into their form and function. Most research is related to the ethnobotanicals found in association with the rocks in the cluster, and most features are interpreted as being related to cooking technology.

Despite this growing body of ethnobotanical literature, there is no standardized terminology to objectively describe rock features in archaeological sites, hindering interpretations of feature form critical to the feature's use, site use, spatial and temporal comparisons, and discussions of human behavioral adaptation. One explanation for this is that archaeologists rarely have the opportunity to utilize direct, measurable evidence (aside from ethnobotanicals) to understand these rock features. Archaeomagnetic studies offer a variety of techniques that can inform on outstanding research questions related to feature form and function including directional archaeomagnetic studies that can yield insight into feature geometry.

In 2020, OAS was contracted to work with the Texas Department of Transportation to "tell them anything we possibly could" about two burned rock features found during excavations related to road construction. The features were very different. One (Feature 5) was large, roughly 3 meters in diameter and almost perfectly round. The other (Feature 16) appeared to be a haphazard collection of rocks in four clusters spread over 1½ meters. Carbon dating eventually came back on both features, dating Feature 5 to 2410 ± 30 rcy BP, a late Archaic date, and Feature 16 to 641 ± 29 rcy BP, well within the Caddo period. Other than the date and the organization of the rocks at time of excavation, little was known about how these features were used. Archaeomagnetism helped answer some of these questions.



This rock feature, located during a construction project by the Texas Department of Transportation, was likely used to heat food by piling rocks into a dome-like shape.

With the help of Texas field crews, the OAS archaeomagnetic staff was able to create 175 specimens from 13 rocks. All the specimens were oriented so that the geometry of the preserved magnetic signatures in the rocks could be understood in context. The idea was to first test whether the rocks had been heated and then see if their field orientation had changed since their last use and abandonment.

The preserved magnetic signatures in Feature 5 showed that the feature was heated, likely to very hot temperatures, for an extended period of time—the rocks, which ranged in thickness from 1 to 4 inches, showed signs of being heated through! The data also suggested that the rocks had not been moved since their last use 2,400 years ago. While there is still a limited understanding of what such feature might have been used for, ethnobotanicals and ethnographic histories from other regions of the world suggest that it may have been used for roasting walnuts or pecans.

Feature 16 told a very different story. The preserved magnetic signatures sug-

gested that the rocks had been heated but probably to a lower and less sustained temperature. The data also suggested that the rocks had been moved, likely from a dome shape to a flat, single-layer layout. This suggests that the rocks were once used to cover something that was being heated, maybe with a fire on top as well. The rocks were left to cool in place and were later set to the side. A schematic of this process (above) shows the dome as a pile on the surface, rather than underground as would be expected in a rock-lined fire pit. Either scenario could result in the magnetic directions observed, but there was no archaeological evidence of an ash layer or pit structure between the clustered rocks. Thus, the domed scenario was preferred.

This project was built on applications explored by Wulf Gose, specifically the archaeodirectional research design, and has been accepted for scientific publication. Final edits are being addressed before the paper's publication later this year. For information on publication, stay tuned to the Friends of Archaeology Facebook page. ❖

# DIRECTOR

Continued from Page 1.

toric Preservation Division, and they determined that preparing the joists for inspection and rehabilitation was an archaeological problem.

OAS was asked to be the project archaeologist, and we prepared a plan that would guide the work. Although within the City of Santa Fe, the area of the project was small enough in size that City archaeological ordinances did not apply. Instead, since the project was on State land, and within a known archaeological site, State regulations applied. Funding was through the State, so there was no federal involvement, and our planning only had to be responsive to State permitting regulations.

Since the floor had been removed, we were able to examine the problem and design a detailed investigation plan under the umbrella of our annual State permit. The plan had to re-view what was known and unknown about the room and its floor, what the archaeology could contribute to knowledge of that portion of Palace history, and how the archaeology would be carried out to recover significant information. The draft plan was submitted for both History Museum and Historic Preservation review, comments were incorporated; and the final plan was accepted, and the permit granted.

The Room 6 project at the Palace of the Governors has been interesting and challenging so far. View the complete plan by downloading a copy at [www.bit.ly/3wsr3cK](http://www.bit.ly/3wsr3cK). OAS will present a summary of the interim findings in the next FOA newsletter. ❖

## LOOKING FOR US?

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

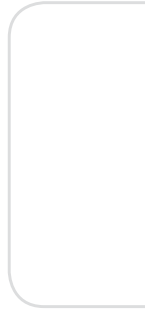
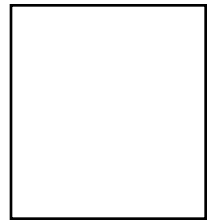


Above: The relatively modern wooden floor of Room 6 at the Palace of the Governors in Santa Fe was recently pulled up to reveal the nineteenth-century joists and a number of artifacts beneath.

Left: A sample of hardened creosote or similar preservative that dribbled through the floorboards.



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## OAS, FOA NEED VOLUNTEERS

OAS is currently looking for volunteers who would like to participate in the following opportunities:

Friends of Archaeology is looking for dedicated board and activities committee members to help guide Friends of Archaeology activities and support the mission of the OAS, which includes archaeological research, education, and community outreach. Contact Melissa Martinez at [melissaj.martinez@state.nm.us](mailto:melissaj.martinez@state.nm.us).

OAS is seeking volunteers for the cleaning and bagging of artifacts and for archaeomagnetic data entry. Contact Shelby A. Jones at [saj012@ucsd.edu](mailto:saj012@ucsd.edu).

The OAS Education Outreach Program is looking for help implementing and maintaining the CNMA ethnobotanical garden and acquiring local plants, trees, and seeds for the garden. Contact

### 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](mailto:lauren@museumfoundation.org)

Mollie Toll at [mollie.toll@state.nm.us](mailto:mollie.toll@state.nm.us).

The OAS Education Outreach Program is also looking for help packing education supplies for children from mid- to late June. Contact Shelby A. Jones at [saj012@ucsd.edu](mailto:saj012@ucsd.edu).

## 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](mailto:lauren@museumfoundation.org)