

New Mexico Archaeology

THE NEWSLETTER OF THE FRIENDS OF ARCHAEOLOGY

MUSEUM OF NEW MEXICO FOUNDATION

WWW.NMARCHAEOLOGY.ORG

AUGUST 2022

FROM THE DIRECTOR

IF WE KNEW THE ANSWERS, WE WOULDN'T HAVE TO DIG

ERIC BLINMAN, PH.D.
OAS DIRECTOR

Last issue, I introduced readers to the preliminary work that goes into what might seem to be a simple archaeological project: clearing accumulated debris from against the nineteenth century joists beneath the floor of Room 6 at the Palace of the Governors. The formal plan (required by permitting) is downloadable at www.bit.ly/3wsr3cK. The plan anticipates what we expect to find, but if we really did know what was there, why waste the resources doing the archaeology? Luckily, there definitely is more to learn about Room 6.

We are closing in on the half-way point of the project, where the planning and the excavation are complete, and now we are processing artifacts and samples. Although we recover artifacts continuously in the field, this project was special in that the History Museum wanted the dirt removed from the premises permanently. We couldn't screen deposits as we excavated (too much dust within the unventilated room) and there was no place to screen it and pile it in the courtyard of the Palace. So, the strategy was to fill buckets with the excavated dirt and bring the buckets back to CNMA for processing.

Excavation proceeded with 165 horizontal and vertical proveniences, defined by the joists, the underlying gas line trenches, and the different

See **Director**, on Page 7.

BUILDING BLOCKS

TERRA 2022 WORLD CONGRESS COMES TO CNMA



CNMA played host to special hands-on workshops related to Terra 2022, which was held in Santa Fe in early June. The 13th World Congress on Earthen Architectural Heritage was organized by the Getty Conservation Institute, the National Park Service, and the University of Pennsylvania. See Pages 4 and 5 for more images.

OSTEOLOGY LAB HOSTS STUDENT RESEARCHERS

STUDENTS GET AN INSIDE LOOK AT A VARIETY OF GOINGS-ON AT CNMA

Students from the University of Las Vegas, Fort Lewis College, and the University of New Mexico spent time this summer in the Osteology Laboratory at OAS working on some special projects.

Katie Stansbury, a University of Las Vegas Anthropology graduate student, spent July collecting data for her master's thesis. She recorded the degree of development of muscle attachment sites on various bones. She is exploring the association of extreme development of these skeletal signatures of heavy labor with unusual burial treatment and evidence of trauma in the Pueblo II and Pueblo III residents of the La Plata Valley, and the social implications of these. Stansbury has a background in cultural resource management and said she hopes

to learn more about the effects of long-term stresses on the human body.

Aliya Godoy, a senior at Fort Lewis College in Durango, worked on her senior project in Forensic Anthropology entitled "Macromorphoscopic Ancestry Estimation: The Analysis of Southwest Populational Representation in the Beta-Version of MaMD Analytics." She looked at some historic and prehistoric remains in the OAS temporary collections and recorded variation in features of the face and mandible that are used in estimating ancestry, to assess their usefulness for ancient and recent Southwestern people. Aliya plans to travel for a few months after graduating, and then start a graduate program in Forensic Anthropology.

Nadia Neff, a Ph.D. student at the University of New Mexico and part-

time bioarchaeologist at OAS, spent part of the summer on a UNM field project in Belize and then returned to OAS to resume the ongoing study of legacy collections and to assist with Aliya's project (Nadia is a Fort Lewis College alum). Nadia's dissertation at UNM involves experimental work in the use of amino acids and isotopes from tooth enamel and dentin in reconstructing human life histories in some very early communities in Central America.

It is always great to have students in the lab (well...in several labs, and in masks). They bring their enthusiasm and new ideas, and get valuable lab experience, and when not busy with bones, they get an inside look at the variety of goings-on at the Center for New Mexico Archaeology. ❖

PLANS FOR 2022 ARCHAEOLOGY DAY STILL UNDECIDED

International Archaeology Day is Sunday, Oct. 16, and we here at OAS would love to invite you to celebrate with us as we almost always have—at our beloved open house event. Unfortunately, due to the continued threat of Covid-19, such a celebration may still not be possible.

Friends of Archaeology board members and the Friends of Archaeology Activities Committee are currently considering a number of options for the celebration of International Archaeology Day, either here in person, in small group tours or events, or in online format. Whatever the outcome of these considerations, rest assured, we will find a way to continue our Archaeology Day traditions in the best, and safest, manner possible.

Please stay tuned to the Friends of Archaeology Facebook page for further news about our celebration of International Archaeology Day. ❖

GRANT BUILDS ON OAS BIOARCHAEOLOGY DATABASE

DATABASE TO INCLUDE VARIABLES ON THE HEALTH OF ANCESTRAL PUEBLOAN COMMUNITIES BETWEEN AD 800 AND 1600.

OAS announces the award of a National Science Foundation grant to Ann Stodder, Co-PI with Scott Ortman (University of Colorado), for the project "Human Networks, Sustainable Development, and Lived Experience in a Nonindustrial Society." Collaborators at other institutions include Keith Kintigh and Matt Peeples (Arizona State), Barbara Mills (University of Arizona), Bill Doelle, Jeff Clark and Joshua Watts (Archaeology Southwest), and Kyle Bocinsky (Montana State).

The two-year project starts in January 2023 and will involve Ann Stodder, Mary Weahkee, Nadia Neff, and our NMBIOARCH database guru Shamsi Berry. We will create a bioarchaeology

database (offspring of NMBIOARCH) that includes a set of variables to characterize the health of Ancestral Puebloan communities between AD 800 and 1600. This will articulate with other Big Data resources on SW paleoclimatic data, paleodemography, and social network analyses based on ceramics. Among the larger questions addressed by the project is the impact of different kinds of social networks on community health and resilience in contexts of climatic changes and the earliest decades of European contact. Ann and Mary will add a novel component to the "lived experience" aspect of the project through meetings with a group of community advisors from nearby Pueblos, sharing stories of individual life histories of ancient people based on osteobiographies, and learning their interpretations of those stories and the roles of health, caregiving, and personal experience in traditional Puebloan communities. ❖

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:

Keith Anderson

Joyce Blalock

Greg Dove

Kathleen Murphy

Richard Schmeal

Sherill Spaar

Eric Blinman (OAS Director)

Contributors to the Board:

Shelby Jones

Melissa Martinez

Lauren Paige

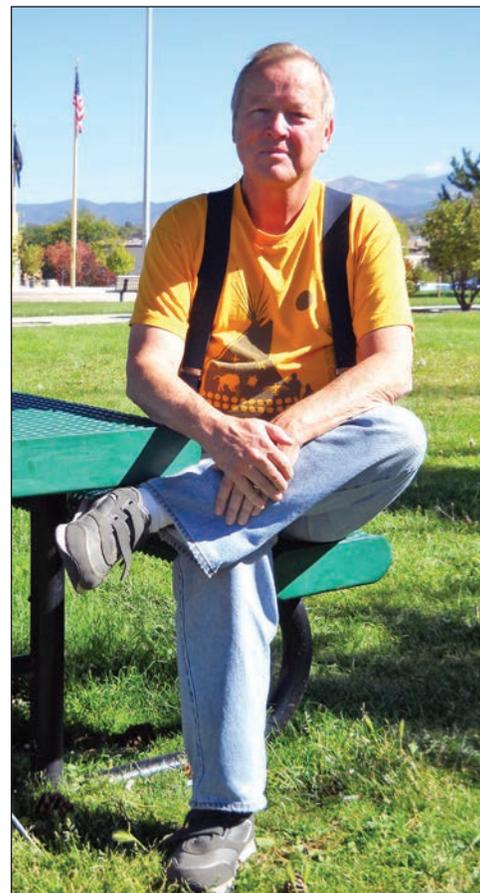
REMEMBERING REGGE

Regge Wiseman's death Aug. 7, 2022, marked the end of an era for many of us.

Paula Holmes, Reg's older sister, recalls his early interest in archaeology as a child in Roswell (he was born in 1947, the year of the Roswell incident, which may explain why he was so annoying as a little brother). Reg and his friend Bob Cobean egged each other on in their interests in looking for artifacts in the Roswell area, giving them both a sense of discovery and appreciation for being out in on the landscape.

After completing high school at the New Mexico Military Institute, Reg's undergraduate years were spent at UNM, culminating as a teaching assistant for Florence Ellis. He joined the Laboratory of Anthropology as a seasonal archaeologist in 1968, started 22 years of participation in the NM National Guard in 1969, and explored the possibilities of graduate school at Arizona State University in 1970. The prospect of being a professor or administrator was not to his liking, and he became a permanent member of the Laboratory of Anthropology staff in 1971. In the face of a State funding crisis, Reg relinquished his "permanent" staff position at the Lab for the uncertainty of contract archaeology in 1986. That side-step into the Research Section of the Laboratory of Anthropology served him well, and he spent the rest of his career "doing archaeology." The Research Section was renamed the Office of Archaeological Studies in 1990, a change whose value was lost on Reg. He retired from OAS in 1999, only to return in 2008–2010 to direct the completion of the NM 128 (Loving-to-Jal) NMDOT project in far southeastern New Mexico. Upon his second retirement, he moved into CNMA as a Research Associate, maintaining a full schedule of service to New Mexico archaeology up until declining health and the onset of Covid-19 kept him at home for the final years of his life.

Regge must be among the most prolific of New Mexico archaeologists. He was author, co-author, editor, or co-editor of more than 160 published



works. He always empathized with the excitement felt by non-archaeologists, maintaining strong relationships with local archaeological societies and avocational archaeologists. He was a partisan for the importance of histories outside of the Four Corners and the northern Rio Grande Valley, happily chiding the rest of us for taking on "easy archaeology" when there was important work to be done in the lesser-known portions of the state. Thankfully, in his final years he committed to writing and publishing his last word on southeastern New Mexico prehistory: *Pruning the Jornada Branch Mogollon: Changing Perspectives* (available from Secord Books, Albuquerque).

Reg was a curmudgeon, wouldn't trust any new technology until it was obsolete, and was loyal to a fault. We will miss him. A memorial will be held at CNMA on Saturday, Nov. 5. A potluck will start between 11:30 a.m. and 12 p.m. Reminiscences will begin at 1 p.m. ❖



TERRA

USING EARTH TO BUILD

Participants in the Terra 2022 "Earth as a Building Material" workshop learned about the use of raw earth as a natural concrete. During the event, conference-goers studied the role of clay, water, salt, and other chemicals in the development of natural concrete and, later, took some time in the lab to create their own earth-based "concrete." Participants then tested the durability and cohesiveness of a number of earth-based natural building formulas using small wooden molds.



TERRA

MORTAR METHODS

The “Methodology for the Development of Injection Mortars” workshop focused on earthen grout methods used to stabilize and conserve decorated earthen surfaces. During the workshop, participants developed their own grouting materials. These materials were then mixed and used in a series of experiments aimed at testing grout adhesion and contraction. Finally, participants were able to test grout application techniques on adobe bricks.



Photos by Melissa Martinez

MAJOR DONATION TO AUGMENT LAB WORK

SUPER CRITICAL FLUIDS EQUIPMENT WILL HELP FURTHER NON-DESTRUCTIVE ANALYSIS AT OAS

BY SHELBY JONES/OAS

One of the challenges and fun opportunities for creativity in radiocarbon dating is pretreating specimens in order to remove any contamination.

In the OAS Low Energy Plasma Radiocarbon Sampling Laboratory, almost all specimens undergo some pre-treatment but this step is especially important for buried artifacts that must be subjected to the removal of contaminating organic materials that permeate through the soil and into the artifacts. If not removed, these materials can cause serious errors in dating through the introduction of carbon that may be a different age than the artifact (i.e., contamination).

In radiocarbon pre-treatment, performed by other radiocarbon laboratories around the world, but not at the OAS, an artifact/sample is washed with 120° F strong base. As a result of this harsh pre-treatment, the artifact may partially dissolve or become altered; this is not ideal. Due to the low temperature characteristics of the OAS plasma sampling technique, the standard OAS pre-treatment procedure does not need to be so harsh, allowing for a near non-destructive procedure to be used instead.

Neither method is guaranteed to remove all contamination. Non-destructive sampling is definitely preferred, so the creative search for new pre-treatment methods continues.

In 2004, Marvin Rowe, lead scientist and volunteer in the OAS radiocarbon laboratory, suggested using super critical fluids (SCFs) as a nondestructive means of removing contamination and organic matter. Known to be very good solvents of organic materials, SCFs are gases that behave like liquids due to the temperature and pressure conditions that they



The addition of super critical fluids machinery, donated by Dr. Jerry King, will help the OAS Radiocarbon Sampling Lab better eliminate contaminants from specimens.

experience. For example, carbon dioxide gas becomes a SCF when it is subjected to slightly elevated temperatures (~40° C, a hot day in Phoenix) and very high pressure (100 to 1,000 times earth's atmospheric pressure).

To learn about SCFs, Marvin arranged a six-month sabbatical at Los Alamos

National Laboratory (LANL) with Kirk Hollis and Dr. Jerry King. Due to unforeseen events, the sabbatical was shortened to just two days of observing. Luckily, the abbreviated sabbatical blossomed into a successful collaboration

See **Donation**, on Page 8.

DIRECTOR

Continued from Page 1.

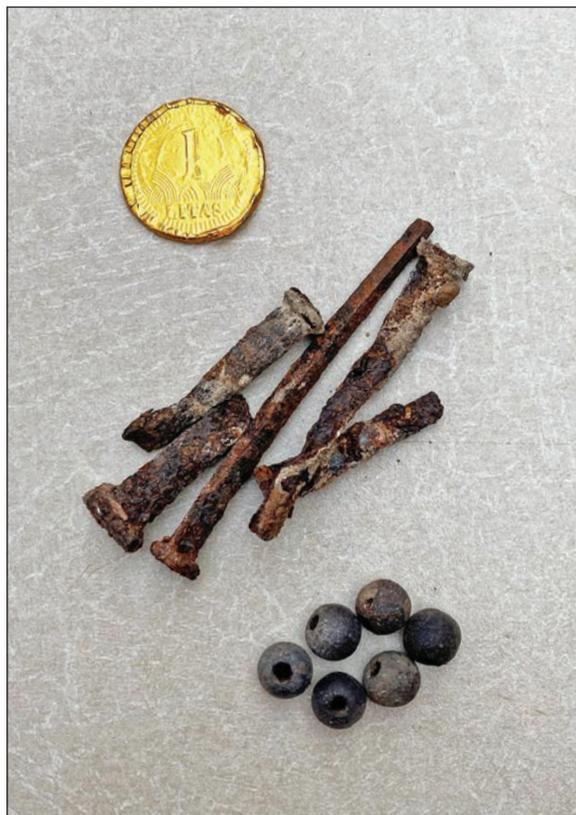
stratigraphic layers of fill that had accumulated around and between the joists. In some cases a fair amount of fill had accumulated, with up to five buckets required to hold all of the dirt from a single provenience. In other cases (toward the center of the room), there had been little or no accumulation, and a small paper bag was sufficient to recover inter-joist debris without requiring dirt removal.

Isaac Coan, with some help from volunteer Laura Reich, has screened bucket contents through 1/8-inch construction mesh, concentrating the artifacts and bigger resistant dirt clods. Volunteer Kay Henriksen has been patiently working through the collected debris and the screenings, picking out and cleaning the artifacts, while bagging the clods. The clods are important since they are mostly fragments of adobe bricks and mortar, and we will need to describe their nature and volume at various areas around the room perimeter.

The artifacts are interesting, and they keep Kay on her toes. They include lost items that have slipped through the cracks in the floorboards over more than a century, construction trash from several episodes of remodeling and repair, refuse from when the area of the room was part of a corral, and centuries of artifacts that were mixed into both the Fort Marcy era adobes and the Spanish Colonial adobes.

Kay's highlight list so far includes shattered plexiglass from early exhibits in the room, beads (like Mardi Gras beads), buttons, red beans, pins, nails, and food bone. Of singular interest have been fragments of a European clay pipe, mica sheets (some cut), and a foil-wrapped chocolate coin. When the buckets are processed, the formal analysis of the artifacts and construction debris will begin.

The next installment of the Room 6 story will address what we have learned about the room's history. ❖



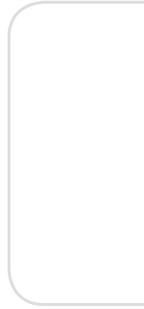
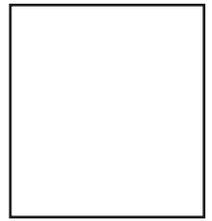
Top: OAS volunteer Kay Henriksen searches for artifacts in debris collected from Room 6 at the Palace of the Governors in Santa Fe. Artifacts include beans and stone fruit pits, above, and nails, small beads, and a foil-wrapped chocolate coin, left.



MUSEUM OF NEW MEXICO FOUNDATION

P.O. Box 2065

Santa Fe, NM 87504-2065



DONATION

Continued from Page 6.

between Marvin and Jerry, who later took a job as a professor of chemical engineering at the University of Arkansas. Together, Marvin and Jerry demonstrated that using SCFs as a pre-treatment was indeed a promising technique for removing contamination from numerous materials, including seeds and textiles.

Jerry recently retired from the University of Arkansas and was looking for a new home for his SCF systems. Remembering his collaboration with Marvin, Jerry approached OAS and we excitedly accepted his offer.

In June, Marvin, OAS employee Jeff Cox, and OAS volunteer John Martin met with Jerry in Fayetteville, Arkansas, selecting about 2 tons of donated equipment for the trip back to Santa Fe. The most important pieces were four SCFs units, valued at tens

of thousands of dollars. These newly acquired SCFs units will augment the non-destructive analysis protocols used by the OAS Radiocarbon Sampling Laboratory, much improving the lab's performance. Stay tuned while the laboratory staff works to overhaul the lab to accommodate this new equipment and put it to good use! ❖

EDUCATION STILL NEEDS SUPPORT

OAS and FOA are gratified by the response to recent pleas for financial support for our research programs. Several generous contributions have exceeded our hopes for the research campaign. Since OAS does not receive State funds for education, and if you intend to give but haven't yet, please consider directing your contribution to education. For information, contact Lauren Paige at lauren@museumfoundation.org

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

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