



# Pecos Conference 2024 Talk and Poster Abstracts

## Cordell/Powers Prize

Julia Coverdale

### **Ceramics and social connections: Current research at Kin Ya'a and Kin Bineola**

Recent studies of the ceramics at the Kin Ya'a and Kin Bineola Great House communities have brought new revelations to light. Kin Ya'a is a Great House near Crownpoint and dates to the 11th and 12th centuries with a tower kiva that is connected to Chaco through the South Road. Kin Bineola is located near Lake Valley and dates to the 11th century. This talk discusses preliminary and current research at these communities that highlight their social and larger connections in the Southwest and provide an updated understanding of the periods of occupation of these communities through mean ceramic dating.

Melanie Deer

### **Isolation Is Not Healthy**

Since 1995 there has been little improvement of the list of 10 Agents of Deterioration in the museum/curation field. I am proposing to change that. The 11th Agent of Deterioration would be Isolation. It is a concept revolving around isolating an item from original or intended context. This can be anything from Nazi era looting to archaeological looting to being out of the institutions scope of collection to being isolated from the originating culture. In this talk I will discuss the positives that can come from including this as an official Agent of Deterioration.

Matthew Harwood

### **Zooarchaeological Investigations at El Dumpé, a Mid-Twentieth-Century Dump**

El Dumpé is an archaeological site located between Grant Road and Speedway Boulevard in Tucson, Arizona, now covered by the Interstate-10. El Dumpé was both a city dump and a community dumping area and received trash on-site as well as from the nearby St. Mary's Road incinerator. The site was active between the 1920's and 1950's. We conducted faunal analysis on bones recovered from El Dumpé. Our results indicate that cattle, pig, and chicken were the most commonly consumed species. Overall, El Dumpé gives a general overview of the diet of Tucsonians during the time period it was active.

Alma McKown

**Why no-one is talking about Indigenous mathematics: A historical study of excluding mathematics from the archeological record**

The mathematics of Indigenous people in the American Southwest is an under-studied topic, despite evidence for interesting and place-based mathematical thinking. Neglect of Indigenous mathematics in the American Southwest can be began with anthropologists at the Bureau of American Ethnography 1880 and 1920 in the American Southwest.

The failure to recognize and study Indigenous mathematics was not due to a lack of evidence, but rather a systematic marginalization of Indigenous knowledge and practices rooted in social evolutionism and exacerbated by John Wesley Powell's influence on Southwestern Anthropology. Disregard for Indigenous mathematics has persisted in archeological research, misconstruing histories and exacerbating biases around mathematics in the Southwest and beyond.

Franklin Norris

**Igneous Lithic Technologies within the Phoenix Basin: Regional Signatures in Reductions and Procurement at Pueblo Viejo (AZ T:12:73[ASM])**

Through an interdisciplinary perspective on lithic materials originating from geologic and anthropological perspectives, this study evaluates regional procurement and reduction signatures among the Hohokam within Pueblo Viejo (AZ T:12:73[ASM]). Lithic analysis was performed on 828 artifacts recovered from identified features (canals, hornos, middens, and structure remnants) during a project performed by HDR. Results of the study demonstrated signatures of expedient reduction influenced by residential sedentism. Further, 138 artifacts were selected from the sample for geochemical analysis with a portable XRF (X-ray Fluorescence) spectrometer. Geochemical results established six unique basalt clusters and three obsidian sources: Saucedo, Government Mountain, and RS Hill.

Sarah O'Donnell

**Catch-and-Release Archaeology: A Path Towards Solving the Curation Crisis**

Kersel (2015) describes archaeology as “the production of knowledge and an accumulation of things.” The accumulation of artifacts has led to a curation crisis wherein resource management and funding is limited or entirely unavailable. Removing artifacts from archaeological sites also poses the challenge of removing them from context. New methods of archaeology should be utilized to minimize the impacts on resources. The use of catch-and-release practices at the Apex, Arizona Archaeology Project field school is a prime example of producing knowledge and providing public education about historical archaeology without accumulating artifacts and disturbing the cultural context where they were found.

# Talks

Ric Alling, Greg Munson and Chris Dombrowski - Society for Cultural Astronomy in the American Southwest  
**New Concepts and Visualization of Cultural Landscape Surveys**

The Society for Cultural Astronomy in the American Southwest (SCAAS) is developing a new program. The program involves the implementation, in the field, of detailed photogrammetric drone survey technology along with transit survey and confirmation of horizon orientations. So far, we have detailed documentation of Escalante Pueblo and Wallace Great House Pueblo, done preliminary work on Lowry Pueblo and will be working on two more sites that are in development for the near future. This Cultural Landscape Survey Program completed the 'proof of concept' phase while continuing to secure project partners and we look forward to future collaborations. We will give a brief overview of SCAAS's purpose for developing the program and an update on how we are refining all elements of the process from survey planning, site work, data processing, technical innovations in data visualization and project reporting. It is our desire to attend the Pecos Conference with the purpose of continuing existing relationships and sparking new dialogue with site managers and archaeological researchers in the four corners region.

Ryan Arp - WSP  
**WSP Archaeology Update**

WSP continues to work on several archaeological survey and monitoring projects in Arizona. We highlight some of our recent efforts on archaeological projects in the Greater Phoenix area with a focus on projects in Mesa and Phoenix. We share some preliminary results, directions for further work, and updates on upcoming projects throughout the region.

Alan Bartholomew - Triangle Natural Resources Conservation District  
**The AZG&F Dept Pronghorn Antelope Corridor Survey**

For the last 2 years we have surveyed approximately 11,000 acres for the Arizona Game and Fish Dept Pronghorn Antelope Corridor Project just north of Chino Valley. I will discuss common site types, projectile point styles, feature types, ceramic styles, and general archaeology of the region.

Oslynn Benjamin – Arizona State University  
**ASU at the Cashion Site**

Cashion (AZ T:11:1 [ASU] / AZ T:11:39 [ASM]), a Hohokam village dating to the Pioneer to Classic periods, is one of many archaeological sites going through NAGPRA compliance at Arizona State University. A crucial part of this work is understanding the context of where archaeological objects were removed. Background research revealed six separate projects connected to ASU, spanning from the early 1960s into the late 1990s. In this talk, I will discuss this work to provide context for active cultural resource management in the area and to provide insights into reconstructing past archaeological work with varying levels of documentation for projects where context is vital.

Robert Bischoff -Arizona State University  
**Safford Obsidian and Collector Collaboration**

The Safford Valley in Arizona has a unique mix of Hohokam, Mogollon, and Ancestral Puebloan traditions. Archaeological investigations documented multiple migrations from various regions throughout the Southwest, but more work is needed to understand the history of this area. Many sites are located on private lands and substantial collections are held privately. To better understand exchange patterns, we have begun a project to source obsidian in official and private collections. We present the preliminary results of our obsidian provenience study with prior results. Most obsidian is from nearby sources, but more distant sources indicate some long-range exchange in all directions. We hope that working with private collectors will provide new insight into the archaeology of the area and help reinforce respectful archaeological practices.

R.E. Burrillo – Archaeology Southwest  
**Peoples of the Tall Pines: Pre-Contact Architecture and Settlement Patterns in the Sierra Ancha, Central Arizona**

The Sierra Ancha (Spanish for “wide mountain”) of central Arizona boasts some of the richest human history in the greater Southwest, yet its archaeology remains understudied and poorly understood. The region lies within or between the boundaries of the Hohokam, Salado, Ancestral Pueblo, and Mogollon culture areas, and most of the interpretations of Sierra Ancha culture history are based on more thorough understanding of the surrounding regions. Approximately 8,000 acres of cultural resource inventory was conducted in the heart of the Sierra Ancha for fuels reduction projects on behalf of the Tonto National Forest. The results suggest that the region experienced a population surge during the Early to Late Classic or Pueblo III/IV transitional period, a time in which the nearby Colorado Plateau was all-but entirely depopulated.

Wade Campbell – Boston University  
**Starch & Southwest Foodways - An Early Navajo Case Study**

Microbotanical starch analysis is currently underutilized in U.S. Southwestern archaeological research. The general resilience of starch granules embedded in groundstone tools and ceramic vessels makes this approach ideal for investigating the dynamics of ancestral Southwestern foodways in a minimally invasive manner in line with the tenets of the Indigenous archaeology movement. This talk reports the results of a starch-focused analysis of ceramic sherds and groundstone tools recovered from the surface of a Gobernador Phase (c.1625-1760 CE) Diné (Navajo) habitation site in northwest New Mexico. Microremains evidence for a variety of early Navajo food preparation techniques is discussed in conjunction with ethnohistoric studies of Diné foodways and the ongoing food sovereignty movement in Indigenous communities.

Chris Caseldine – Arizona State University  
**Building a Repository: My Experience Leading Change in an Archaeological Repository**

The Center for Archaeology and Society Repository, located in the School of Human Evolution and Social Change at Arizona State University, combines collections with distinct origins – the Department of Anthropology, the Office of Cultural Resource Management, and the Archaeological Research Institute. As a university museum, the repository focused on preserving archaeological collections for research and education. In 2021, I became the Curator of Collection, making me responsible for meeting the repository’s goals and its operation. Since that time, the repository staff has grown from six staff and students to nearly 50, and accounting for the collections, NAGPRA repatriation, and collections care and NAGPRA education have become the mission of the repository. In this talk, I will give a brief history of the collections, followed by an

overview of building up and changing the repository's mission, and conclude with tips for implementing change in a museum.

Jason Chuipka - Woods Canyon Archaeological Consultants, Inc.

### **Ground Truthing LiDar Anomalies in Southeastern Utah: Cultural, Natural, or Something Else?**

Review of LiDar data from southeastern Utah has revealed anomalies that some researchers have interpreted as a network of prehistoric berm and swale features. These anomalies are evident as parallel clusters of alignments on LiDar, but field observations have been somewhat less convincing. This paper presents background on the topic, results of fieldwork observations in areas where these anomalies occur, and suggestions for testing to evaluate whether these features are natural, cultural, or simply artifacts of LiDar.

Joseph S. Cray (Independent Researcher), Thatcher A. Seltzer-Rogers (Office of Archaeological Studies, New Mexico), and Stephen Germick (Tonto National Forest, Retired)

### **A Reevaluation of the Sunset Crater Eruption and the Advent and Spread of Red Ware and an Early Twelfth Century Sinagua Migration from the Flagstaff Area of North-Central Arizona**

Using the results of archaeological investigations and paleoclimatic research from the past century, we evaluate the recent revision by Elson of the Sunset Crater eruption date as it relates to the Flagstaff Area chronology of north central Arizona. Although Colton dates the eruption to the late AD 1060s, Elson proposes a date in the 1080s to 1090s. Yet our review demonstrates that the preponderance of evidence supports the late AD 1060s or early 1070s. In support of this, we identify an unprecedented large-scale production of red ware pottery directly linked to the eruption. Herein, tree-ring dated sherd count data indicate that immediately prior to the eruption, this phenomenon centered in the Coconino Area and Sunset district, yet after the eruption with widespread abandonments throughout the ash fallout zone, this phenomenon rapidly shifted to the Winona district in the Flagstaff Area followed by population reorganization and a sudden southern spread of the red ware phenomenon to the Upper and Lower Verde, as well as the Tonto Globe areas. In this paper, we discuss these related patterns and advocate an improved chronology for the Flagstaff Area before providing the background for the implications of this migration for these adjacent areas.

Stephen Germick (Tonto National Forest, Retired), Thatcher A. Seltzer-Rogers (Office of Archaeological Studies, New Mexico), Joseph S. Cray (Independent Researcher)

### **Revisiting the Miami Phase and Evidence of Sinagua and Highland Mogollon Twelfth Century Migrations in the Tonto Globe Area of Central Arizona**

In this paper, we revisit the Miami phase, evaluate the relevance of the Hardt phase, and propose several revisions of the Tonto Globe Area phase-based chronology between AD 1100 and 1250. We propose key revisions based on what we argue were two large-scale migration processes and demographic consolidation, each associated with distantly different ceramic traditions. The chronometric data indicates the first migration dates to the end of the eleventh or beginning of the twelfth centuries and involved Sinagua groups that produced large amounts of paddle-and-anvil made red ware and moved south from the Flagstaff Area. As part of a much larger phenomenon associated with coil-and-scrape corrugated pottery, the second migration dates between AD 1130 and 1150 and included the southern and western movement of Highland Mogollon groups. In turn, sites with large amounts of paddle-and-anvil plain ware support localized demographic consolidation. Our analysis of the data establishes that in the wake of the migrations, sites predominantly associated with plain ware assemblages are restricted to the southeastern districts of the Tonto Globe Area, whereas sites with large amounts of red ware pottery are concentrated in the northern, isolated west-central, and southwestern districts.

Jon Ghahate - Crow Canyon Archaeological Center

### **What's In a Name? Anasazi?**

It is important, nay essential to acknowledge that presently some of us, choose to use specific self-identifiers. Why else would some choose to use specific pronouns, to have correct gender identifiers, the appropriate professional titles, or use 23 & Me or Ancestry dot com. And when they're not used, it can be perceived as a faux pas. This because, we as Homo sapiens sapiens possess an innate desire to know who we are and where we belong as humans.

Since 1927, the term 'Anasazi' was accepted within the scientific community, referring specifically to the inhabitants of the Chacoan culture, all the while discounted by the contemporary Pueblo peoples of the US Southwest, the perceived descendants of the Chacoans. The term 'Ancestral Puebloan' is now the commonly accepted term. However, the term 'pueblo' isn't in the vocabulary of the descendants of the Chacoan civilization. Although ubiquitous, it isn't who we are. As stable, sophisticated, autonomous agrarian societies, we have always had our own languages, our own identifiers, and claim our right to do so. And so, what is in a name? What contributes to an individual, a society, a community, in having it's 'sense of place'?

Kelsey Hanson – University of Arizona

### **Creating Blue-Green in Chaco Canyon**

Blue-green is one of the most significant colors in the Pueblo cosmivision with important symbolic ties to water and vegetation, but it is also one of the most challenging colors to effectively render in paint. Using an innovative approach to non-destructive analysis, Hanson will discuss the results of their recent research on blue-green paint technology from Chaco Canyon great houses. This research demonstrates that Chaco era recipes for blue-green rely upon a rare and previously unreported mineral pigment, which was circulated widely in time and space. Hanson will contextualize these findings by considering the infrastructures in place in Chaco great houses to control the display of colorful painted media, and the ongoing impacts of contemporary copper mining on these traditions among contemporary communities today.

Kelley Hays-Gilpin – Northern Arizona University/Museum of Northern Arizona

### **Recent Explorations of Hopi Yellow Ware**

The Museum of Northern Arizona and Hopi Cultural Preservation Office recently convened a meeting to share ongoing research and future plans for systematic studies of Hopi Yellow Ware pottery. I will summarize updates to typology and terminology, and share results of our discussion of future collaborative and inter-disciplinary research priorities. Thanks to the Arizona Archaeological and Historical Society for their sponsorship through the Orrell-Martin Research Award.

Ed Kabotie

### **Mythic Archaeology**

Through both music and spoken word, Ed Kabotie critiques commonly held misconceptions about "Ancestral Puebloans" and discusses the gap between cultural memories and scientific findings.

Brian Kenny - Team McJunkin

### **George McJunkin: Folsom True in the Land of Enchantment**

Archaeologists apply method and theory to material culture in stratigraphic and geospatial contexts to get meaning. Efforts to reevaluate George McJunkin sites serve several outcomes -- freeing people to rethink Colonial stories; encouraging BIPOC student entry into professional work; helping colleagues develop storytelling practices related to historical archaeology in northeastern New Mexico; creating visitation revenue using underappreciated McJunkin-related sites; developing new perspectives for scholarship and popular writing; and, expanding appreciation of George McJunkin's reputation by reexamining personal attributes, power, agency, personhood and ambitions of other Black western pioneers. Team McJunkin's five-year plan (2022-2027) uses archaeology as applied anthropology. We are drafting our papers for publication in the journal KIVA. August and September 2027 mark the 100th anniversary of Pecos Conference and confirmation of the Folsom site's antiquity. The two events remain intertwined in our history.

Mike Lindeman – Desert Archaeology

### **The Edison Eastlake Community Project: Investigations at AZ T:12:1**

The City of Phoenix is redeveloping public housing on a series of parcels just east of downtown Phoenix. The parcels overlay the pre-contact site of AZ T:12:1, known historically as La Ciudad. AZ T:12:1 was one of the largest Hohokam settlements in the Phoenix Basin, founded around AD 500 and largely abandoned in the 1400's. Desert Archaeology's investigations have encompassed this time span and uncovered a broad swath of the site, from the southern reaches of the plaza to settlement beyond the central plaza. The current presentation provides an overview of the work and its findings.

Matt Peebles, Arizona State University

### **Update on the ASU field school at S'edav Va'aki**

In spring 2023, ASU conducted an archaeological field practicum project in conjunction with the City of Phoenix on the grounds of the S'edav Va'aki Museum. In this talk I outline the process of designing and creating this class and the findings from the first year of fieldwork. The project documented both recent historic and ancestral O'odham features in the area.

Peter Pilles – Coconino National Forest, Retired

### **Mountain Top Macaws: A Pueblo Icon?**

Discovery of a large, unusual pictograph panel, consisting of triangles with a macaw sitting on top, was discovered in an area of the Coconino National Forest that is almost an archaeological void. Curiosity about such an anomaly led to a literature research and verbal inquiries to find other examples. The result has been the recognition of what is likely an iconic foundational motif of the Pueblo people.

David Purcell – Museum of Northern Arizona

### **Mapping the Beale Wagon Road in Coconino County, Arizona**

Following the 2019 Museum Fire in Flagstaff, flooding required emergency retention pond construction that physically obliterated a segment of the 1857-1860 Beale Wagon Road. As mitigation agreed to in the project MOA, MNA conducted archival research and prepared a GIS database of the road's location and condition

across Coconino County that is now available as a management tool to avoid additional impacts to this singular resource.

Hoski Schaafsma – Desert Archaeology, Inc. - Justin Mortenson - Desert Archaeology, Inc., Janet Golio – Golio Endeavors, Michael Golio – Golio Endeavors, and Scott Wood - Friends of the Tonto National Forest

### **Ancient Anchorites of Arizona**

This talk focuses on one aspect of hilltop ritual enclosure sites that are found throughout a large portion of the Transition Zone of central Arizona. Our ongoing study has documented and ground-truthed about 200 hilltop ritual enclosures; these sites are characterized by large masonry structures located on or near hilltops. The structures were constructed and used between AD 800 and 1150. Most include a wall encircling a hilltop, some have associated masonry elements, including internal or proximal exterior terraces, rooms, or standalone walls. Specifically, this talk focuses on one of these associated masonry elements; small adjoining sites consisting of one to several small rooms typically located on rock pinnacles near hilltop ritual enclosure sites. These rooms are built on the tops of high pinnacles of rock where access is difficult, if not impossible without ladders. Many of the pinnacle tops are extremely rugged rocky prominences with almost no flat areas. The unusual placement of these small sites and their proximity to ritual sites suggests that these rooms may have been used as anchoritic retreats for ritual practitioners associated with the proximal hilltop sites. In this paper we explore these anchoritic structures and their possible uses.

Amy Schott - Glen Canyon National Recreation Area

### **Preparing for New Archeological Research on Lake Powell**

The Glen Canyon Project was a landmark project in the history of Southwest Archeology. The project resulted in the documentation of archeology sites on the Colorado River and tributaries, before the filling of Lake Powell. For many years, archeologists assumed that submersion in Lake Powell destroyed archeological sites. As NPS archeological monitoring over the past 30+ resulted in better documentation of previously submerged sites, it has become clear that many sites retain some integrity, even as others suffer or have been destroyed. Due to many years of drought and climate change, Lake Powell dropped in 2021 to the lowest levels in more than 3 decades; current modeling predicts lower than average water levels in the future, which will have drastic impacts on submerged archeological sites. In 2022, the Glen Canyon park superintendent requested funding through the NPS Disaster Relief Funding source to provide urgently needed funding to address natural and cultural resources impacted by the long-term draught and climate change. This paper presents current planning for an upcoming archeological project on Lake Powell to address archeological sites exposed by dropping lake levels.

Thatcher A. Seltzer-Rogers (Office of Archaeological Studies, New Mexico), Joseph S. Crary (Independent Researcher), and Stephen Germick (Tonto National Forest, Retired)

### **Integration, Migration, and the San Carlos Safford Area Two Dog and Eden Phases**

In this paper, we present further results from our ongoing reanalysis of existing published and mostly unpublished archaeological investigations in the San Carlos Safford Area of southeastern Arizona from the Early Agricultural period through the early Historic occupation. We investigate patterns restricted to the San Carlos Safford Area but also aim to link them to broad scale shifts that occurred, on occasion, throughout eastern and central Arizona. For this talk, we focus on improving the Late Formative period chronology and understanding for the San Carlos Safford Area. Specifically, we discuss the decline of Ancestral O’odham influence and interaction, the development of a local tradition, and the impacts of two large-scale megadrought-influenced migrations. The first dates to the early eleventh century and includes Highland Mogollon groups



associated with pit houses with long, narrow entries and decorated Mimbres pottery. The second appears to represent part of one noted by Clark and colleagues that is associated with corrugated pottery and dates to the mid-twelfth century. We also focus on the local developments that occur during this period and advocate for the need to better integrate the San Carlos Safford Area into southeastern Arizona and southwestern New Mexico archaeological narratives.

Jaye Smith - Council of Allied Societies/SAA

### **Preserving the Ray Robinson Collection: Avocational Efforts in Preservation and Research**

In 2015, the Arizona State Museum accessioned the Ray Robinson Collection—an acquisition made possible by Northern Arizona University and Archaeology Southwest with support from the Smith Living Trust. The collection, consisting of over 250 large boxes from Ray’s preservation activities during the 1950s and 1960s, has been a seven-year labor of respect and learning by a team of dedicated avocational researchers. Since 2017 this team has committed 20 to 40 hours per week to the project, which includes washing and sorting, ceramic typological analysis, preparing obsidian artifacts for sourcing, rehousing, and meticulous data collection for sites Ray visited in southeastern and south-central Arizona. The focus of this paper is to celebrate the achievements of the Robinson Project Team and their efforts to preserve this important assemblage, making it accessible to future researchers.

Izzy Stein - EnviroSystems

### **Summary of Recent Surveys in the Grand Canyon Parashant National Monument**

EnviroSystems has conducted several large surveys in the Grand Canyon Parashant National Monument. With thousands of acres surveyed and over 800 sites recorded, material and settlement patterns are beginning to emerge. This presentation will provide a summary on the work completed and broadly describe interesting patterns represented in our growing geodatabase.

Davina Two Bears – Arizona State University

### **The Old Leupp Indian Boarding School and Nikkei Isolation Center, A Community-Accountable Archaeological Partnership**

The Old Leupp Boarding School (OLBS) historical archaeological site is a significant place that is important to the Diné (Navajo) community of Leupp, Arizona on the southwest Navajo reservation. 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 in 1943, the U.S. War Department reutilized the OLBS as a Japanese Isolation Center. This former United States federal Indian boarding school and Citizens Isolation Center deeply impacted the community histories of both the Diné and Nikkei (Japanese Americans). I will briefly speak about the community-accountable archaeological project that is currently underway that centers the history and archaeology of the Old Leupp site.

Ruth Van Dyke, Julia Coverdale, Daniel Hampson, Jessica Weinmeister, and Liv Winnicki - Binghamton University

### **Working the Bugs Out: 2024 Fieldwork in the Kin Ya’a and Kin Bineola Chacoan Communities**

Binghamton University - SUNY is assisting Chaco Culture NHP with re-location and condition assessment of the sites in the Kin Ya’a and Kin Bineola great house communities. We are walking in the footsteps of the Chaco Project and the Chaco Additions Survey, but with updated equipment and slightly different research

interests. In summer 2024, we completed work on the National Park Service parcel within the Kin Ya'a community. At Kin Ya'a, we doubled the site count and discovered a robust Late Pueblo I/Early Pueblo II period occupation. We also documented an extensive historic Navajo occupation. At Kin Bineola, we re-visited 40% of the community sites to date, with 60% to go in 2025. Kin Bineola contains an occupation that stretches from Basketmaker III through early Pueblo III, plus an historic Navajo occupation. LiDAR has revealed numerous road segments in both communities.

Mary-Ellen Walsh – Arizona SHPO  
**AZ SHPO Update, 2024-2027**

An update about SHPO's grassroots efforts to develop the next statewide historic preservation plan, plans for updates to SHPO's guidance documents, and incorporating tribal perspectives / indigenous knowledge into the S106 process.

Linda Wheelbarger - San Juan College  
**Update on the San Juan College Totah Archaeological Project**

The 2024 field season consisted of excavation in the Great Kiva, the Court Kiva, Room 31 of the Middle San Juan Great House, and an area south of the previously excavated Basketmaker III pithouse. Great Kiva excavation centered on the northwest roof support pier revealing a circular masonry seating pit filled with large cobbles, layers of tabular sandstone flooring, and associated large foundation stones. The similarity to construction of the northern seating pits at Chetro Ketl is striking although construction materials differ. An additional extremely large pilaster of Chacoan style construction and Pueblo III modification was uncovered in the Court Kiva. Wooden logs were incorporated into the construction of three of the four exposed pilasters. As of this writing the search continues for the floor hearth. The additional work at Room 31 was consistent with our previous excavation and revealed several Pueblo III bowls and fragile carbonized textiles in the layer of burned roof fall. And finally, in the area south of the pitstructure we discovered a small masonry structure associated with mostly Early to Late Pueblo II ceramics. This will be the last year directed by Wheelbarger, although we are making tentative alternative plans hoping for it to continue.

Liv Winnicki - Binghamton University  
**Mermaid Figurines on a 1970s Diné Homestead**

This paper presents a thought experiment relating to the numerous mermaid figurines found on a 1970s Diné homestead in Crownpoint, NM, employing methodologies traditionally used in the study of Venus figurines from the Upper Paleolithic period. By juxtaposing these mermaid figurines with Venus figurines, prehistoric with modern contexts, I work to explore classic archaeological hypotheses on the symbolic, cultural, and social dimensions of figurines. The 1970s provide a crucial lens through which to view the complexities of these artifacts. This period is defined by cultural revival, political activism, economic challenges, and the impact of federal policies. The presence of mermaid figurines, seemingly anachronistic within traditional Diné culture, invites a re-examination of our assumptions about figurine objects in prehistory. This analysis reveals how recent historical contexts can complicate and enrich our understanding of the past.

## Posters

Perri Allen – University of New Mexico

### **Strategic Settlement on the Agrarian Landscape of the East Sandia Foothills**

Between the massive Classic Period pueblos of Tonque and Paako runs Cañon Tejon, an intermittent tributary of the Rio Grande. Along the relatively lush banks of this drainage are found an unusually high density of small precontact structures, or field houses, as well as agricultural features including check dams, terracing, and grid gardens. These sites are conventionally interpreted as elements of a strategic settlement pattern in which inhabitants of the large pueblos spread out across the landscape during the maize growing season to maximize the region's productive capacity. During the 2024 season, the UNM Archaeology Field School set out to survey and document a portion of this district. We found considerable diversity in architectural design, artifact assemblages, interval of occupation, and topographic setting. In this poster, we present the preliminary results of this study, comparing various field house characteristics across sites to evaluate whether they might be classifiable into an approximate typology. With this information, we begin to test the goodness of fit of the Cañon Tejon data with the seasonal dispersal model. There is a degree of urgency to this work: Cañon Tejon is presently subject to significant alluvial erosion and channel incision, imperiling many of the sites.

Katherine Bradford – Independent Researcher

### **Sego Canyon Woman: Have you seen her sisters?**

Iconographic analysis of Sego Canyon rock art motifs; draws on mythology and ethnographic research to build on previous interpretations in a consideration of Fremont, Ute, and Barrier Canyon-style elements and geographic distribution.

Laura Brumbaugh and Lindsay Saylor - Mesa Verde National Park

### **The Ridgetop Community Bi-Wall: Mesa Verde National Park's First Documented Bi-Wall**

From 2023- 2024, archaeologists at Mesa Verde National Park have been undertaking the Chapin Mesa Survey Project in order to re-document sites in the burn area of the 2002 Long Mesa Fire. The 2024 field crew is currently documenting a densely settled area known as the Ridgetop Community. This large Pueblo I – Pueblo II settlement spans two neighboring, gently sloped mesa-top ridges and the surrounding areas, with one large village on each ridge. On the highest point of the ridge overlooking Soda Canyon, the residents built a community center: the Ridgetop Community Bi-Wall. This structure is a small great kiva with adjoining rooms on the north side, surrounded by an enclosing wall that encircles the kiva. Spoke-like walls radiate from the kiva and connect it to the outer enclosing wall. The Ridgetop Community Bi-Wall dates to the Pueblo II period, making it an unusually early example of multi-walled public architecture. The existence of this bi-wall has been known for some time, but it has only now been officially documented as Mesa Verde National Park's first bi-wall, as well as one of the earliest multi-walled structures known in the Ancestral Pueblo Southwest.

Lauren Compton - Glen Canyon National Recreation Area

### **Recent Archeological Monitoring in Glen Canyon National Recreation Area**

The National Park Service has identified and manages approximately 3,000 known archeological sites within Glen Canyon NRA's 1.25 million acres. As a recreation area with intense visitor use, mandated grazing allotments, and complex lake and river dynamics, impacts to archeological sites across the recreation area can

be severe. This poster summarizes the last 5 years of archeological monitoring across Glen Canyon. Archeologists have targeted recent archeological monitoring across the park unit to document disturbances which are categorized into specific disturbance categories and types. In 2019-2024, a total of 747 sites were monitored, with a focus on working in areas where impacts are expected to be more severe. Archeological condition assessments are completed in order to document current conditions, understand future threats, and plan management actions and future projects.

Emily Dale – Northern Arizona University, Rachael O'Hara – Northern Arizona University

### **A 250% Increase in Jack-o-Canterns: Historical Archaeology at a 20th-Century Northern Arizona Logging Camp**

Northern Arizona University's Apex, Arizona Archaeology Project continued its commitment to collaboration, student training, public engagement, and historical archaeology during Summer 2024. In this poster, we discuss our ongoing research into the Saginaw and Manistee's Depression-Era logging camp along the Grand Canyon Railway and our investigations into the daily lives of the men, women, and children who lived and worked at the site between 1928 and 1936. We provide a general overview of our archaeological findings, lessons from public site tours, and future directions for upcoming seasons.

Rachel Dudzik and Alice Ma - Mesa Verde National Park

### **Effects of Post-fire Erosion on the Ridgetop Community, an Ancestral Pueblo Village Site within Mesa Verde National Park**

During the Chapin Mesa Project, a cultural resource survey focused on the 2002 Long Mesa Fire, Mesa Verde National Park archeologists have been redocumenting Ancestral Pueblo sites located in the burn scar. Throughout the 2023 and 2024 field seasons, they have observed the effects of post-fire erosion on structural remains and sub-surface deposits. Recently, park archeologists have been documenting the Ridgetop Community, a Pueblo I and II village. Correlating with climate change, fire damage has accelerated the erosional processes occurring within these sites. Additional areas of the sites are being exposed and features are being damaged. Sheet wash erosion, erosional cutting, wind deflation, and hazard trees are all evident throughout the Ridgetop Community. The in-depth recording conducted this field season has shown that erosion is rapidly deteriorating sites and that mitigation is necessary. To develop mitigations the crew has been documenting, mapping, and photographing features and their erosional damage, in addition to evaluating them for treatment. Park archeologists will be collaborating with Mesa Verde Fire operations to remove hazard trees from features and use them to help reduce further erosion; additional treatments are being developed.

Matthew Esparza – Northern Arizona University

### **A glimpse into the benefits of active Indigenous involvements in Archaeology**

The importance of the inclusion and involvement of indigenous persons in anthropology, is crucial to fostering an ethically sustainable professional resource from which to source data for the development of professional, academic, and personally enriching means. Through actively engaging with these communities, we can gain a credible understanding of subject matters beyond our expected scope of understanding.

As an indigenous anthropologist of the Hopi nation, I would like to speak on professional examples of how my background has placed me in positions where I am able to contribute to the Archaeological record of current ongoing projects in the Upper Mogollon Rim Region, Prescott National Forrest, and previous projects across the Southwestern United States. It is my sincerest hope that my experiences can serve as inspiration to encourage others to find ways to incorporate indigenous communities into your projects; and allow them a professional space to freely share cultural knowledge with you. In doing this, you open yourself to receiving a

deeper understanding, creating better reports, and help build a better relationship between future anthropologists and the descendants of those we study.

Kristen Francis, Michael Terlep, and Mark Christiano - Kaibab National Forest  
**Pueblos, Hogans, and LiDAR on the Fireline**

Fire archaeologists in the U.S. Southwest are at a challenging intersection of increased wildfire severity with dense fuels, high site densities, and often limited cultural resource inventory. The archaeological sites most vulnerable to wildfire effects are those that are unknown and undocumented. This presentation details the applicability of lidar data to identify archaeological resources in time-sensitive emergency response situations. The 2023 Kane Fire on the Kaibab National Forest in northern Arizona provided the opportunity to field test the technology amidst the fast paced environment, grueling conditions, and multiple logistical challenges of wildfire incidents.

Jon Hardes - Petrified Forest National Park  
**Pueblo Period Archaeofauna of the Petrified Forest**

Petrified Forest National Park is widely known for its world-class paleontology, specifically its Late Triassic Period fossils, with park collections containing more than 80 holotype specimens (and counting). Far less familiar to most, however, is the park's impressive archaeological record, that spans much of the currently known spectrum of human presence in North America, or more than 13,000 years. Further, previous archaeological research in the park typically focused on inferences drawn from lithic and ceramic artifacts, along with rock imagery, while largely overlooking faunal remains from the very same sites. In an effort to begin correcting for these oversights, this study provides a first-time summary of the park's currently known Pueblo Period archaeofauna, and subsequently, a jumping off point for future, more rigorous archaeofaunal studies in the park and the surrounding area.

Alexander Jones - California State University, Stanislaus  
**2001: A Ground Stone Odyssey – An Experimental Approach to Ground Stone Analysis**

A poster from our REU fully funded NSF field school research project. Crow Canyon Archaeological Center has been working on a project called Haynie site. This site has more 3/4 trough style metates than other type of metates. Our REU research project was to understand the time that would have been invested in manufacturing manos and metates that were once made by Ancestral Pueblo peoples. From our research we were successful in learning how long and frustrating the process can be. in addition we were able to come up with future research questions.

Aleanna Kingsley – New Mexico State University  
**Journey From Aztlan: Did Apaches & Aztecs Migrate From Salt Lake Together?**

Transdisciplinary evidence suggests “yes, they did.” This poster presents evidence that the Aztec homeland described as “Aztlan” was on Antelope Island in Salt Lake, that the Aztecs associated with Apachean occupants of Promontory Point Caves on the edge of Salt Lake, and that Apaches and Aztecs migrated Southwest together from the Great Salt Lake area. Evidence is drawn from the fields of archaeology, ethnography, tribal oral histories, geography, anthropology, agroecology, and linguistics.

Hannah Lipps - Petrified Forest National Park

### **Mapping the Movement of Stone Materials within Petrified Forest National Park.**

Archaeology in the Petrified Forest National Park covers a large swath of time, from Paleo-Indian hunter-gatherers to historic artifacts found along old roadbeds of Route 66. The park is also home to a variety of stone and lithic resources that have been used to make stone tools, from chert to different varieties of petrified wood. Both early Basket maker and late Pueblo groups also sourced different types of sandstone from throughout the park for construction as well as for specific use as manos and metates. The goal of this project is to track the movement of materials from their source to their “final” destination at a larger site. I plan to focus specifically on sources of chert, red silicified sandstone, and sandstone used for construction, which is primarily sourced from the Newspaper Rock formation. The project will also attempt to compare the use, movement, and sourcing of these materials between early Basket maker (ca. 1500 BC - 450 AD) and Pueblo IV (AD 1325 - 1400) sites. Using spatial statistics in ArcGIS, I plan to map locations where utilized materials have been found and attempt to trace their journey from source to site.

Christopher Manuel – University of Arizona

### **2001: A Ground Stone Odyssey – An Experimental Approach to Ground Stone Analysis**

Manos and metates were used by Ancestral Pueblo peoples to process plant foods for millennia. Although, Ground Stone tools remain poorly understood in modern contexts, pertaining to the time investment necessary to manufacture grinding tools. Examining the time investment necessary, we utilize experimental archaeology to create Ground Stones and establish data to show the manufacture process. Utilizing this data can help establish daily time investments in the Ancestral Pueblo World and understand the extent of Ground Stone manufacturing.

Joaquin Montoya - Los Alamos National Laboratory

### **Cavates on the Pajarito**

Cavates are a feature type largely unique to the landscape around the Jemez Mountains of Northern New Mexico. This feature type refers to a manually excavated cavity in formations of tuff to create a useable space. Cavates may occur with multiple associated sub-features. Perhaps the best know examples can be observed at Bandelier National Monument, located on the edge of the Pajarito Plateau, along the eastern flank of the Jemez. These features can also be found in abundance within the boundaries of Los Alamos National Lab, immediately to the north of Bandelier on the Pajarito. This landscape was created by multiple volcanic episodes of the Valles Caldera Volcano between 50 KA and 1.7 MA. Some of these eruptions created massive layers of tuff, a rock type comprised of welded volcanic ash. Utilizing the uncommon geophysical environment of massive tuff deposits exposed within deep canyons, Ancestral Pueblo peoples excavated into the relatively soft rock to create dwelling spaces, communal spaces, and likely, storage spaces. While the term “cavate” implies a single common feature type and function, this poster will illustrate the variety of cavates documented during a recent project to record approximately 80-acres of Fence Canyon on Los Alamos National Laboratory.

R. Obi Oberdier - Diné Development Corporation

### **A Newly Recorded Village Site on the Chaco River**

In the spring of 2024, archaeologists from the Diné Development Corporation conducted a 12-week pedestrian survey along the Chaco and San Juan Rivers. Among the newly recorded sites, one stands out. Site #SD-02 is an Ancestral Puebloan hamlet that dates to the Pueblo II and Pueblo III periods (ca. 900-1350). There are at least fifteen exposed architectural features, mostly rubble mounds and rock alignments that hint at significant buried

architectural remains, and a large circular depression near the middle of the site that may be a Great Kiva. Archaeologists found two side-notched projectile points in the Kin Kletso style and abundant Mancos and McElmo Black-on-White ceramics, suggesting strong cultural bonds and temporal association with settlements in Chaco Canyon. This site is located about a day's walk from the confluence of the Chaco and San Juan Rivers, and about three days' walk from the Chaco Canyon National Historic Park, helping us better understand Pueblo II period settlement patterns. This paper contextualizes these initial findings within Chacoan studies and proposes strategies for site protection and future research.

Peter Pilles – Coconino National Forest, Retired  
**Macaws on the Mountains: A Unifying Pueblo Icon**

The discovery of a unique pictograph panel in the Coconino National Forest has led to a wide-ranging search for more examples of this rare image. Surprisingly, few examples have been identified so far but greater variation in the use of the icon has been recognized. It is suggested the image represents a core cultural element shared by all Pueblo groups. Currently identified images, their distribution, and variations are presented with the hope of encouraging additional examples to be recognized by Pecos Conference participants.

Kegan Roady - Chronicle Heritage, Matthew Steber - Chronicle Heritage, Kelsey Hanson - University of Texas at Arlington, and James Potter - Chronicle Heritage, PaleoWest Foundation  
**Collaborative Initiatives in Cultural Resource Management: Synopsis of the 2024 Field School Season**

The cultural resource management (CRM) industry is growing rapidly, yet there is a widespread shortage of trained CRM professionals and a lack of adequate training opportunities for students. To address this disparity, the PaleoWest Foundation, Chronicle Heritage, and Crow Canyon Archaeological Center have partnered to offer a Cultural Resource Management Field School dedicated to providing students with the practical skills necessary to enter the CRM industry. This intensive, two-week course emphasizes training in survey methods, site recording protocols and best practices, current technology used in the field by CRM practitioners, descriptive writing for site records and reports, consultation and collaboration with Tribal Nations, and the basics of evaluating sites for listing in the National Register of Historic Preservation Act per Sections 101, 106, and 110 of the National Historic Preservation Act. In this poster, we will share the outcomes of the first year of this collaborative archaeological training program and offer some insights into what to expect in 2025.

Steven Rospopo, Louis Chavez, and Linda Wheelbarger - San Juan College Totah Archaeological Project  
**2024 Architectural Feature Update at the Point Great House**

The Totah Archaeological Project (TAP) has continued research on architecture and construction at the Point Great House Community (LA8619) focusing on the great kiva, court kiva, and great house. The great kiva's northwestern roof support was modified through time. A circular sandstone masonry wall approximately 2.50 meters in diameter, 40 cm wide, and 70 cm high was filled with river cobbles and is the distinctive feature of the roof support. Beneath the cobbles is a center core consisting of apparently three foundation stones. The court kiva being uncovered in the great house plaza area is about 9m in diameter with 8 large pilasters exhibiting beautiful Chaco sandstone slab facing. Juniper logs of a variety of sizes were discovered at the edge of three of the pilasters. Room 31 was investigated to address erosion yielding additional information on a massive burning incident that preserved roof components, textiles, ground stone, corn, ceramic and culinary vessels in the Chaco great house. The artifacts and features suggest a shared community of practice among ancestral Pueblo cultures in the region.

R. J. Sinensky and Jonah Bullen – Crow Canyon Archaeological Center  
**Identifying Nightshade Family Seeds from Archaeological Contexts**

Plants in the nightshade family (*Solanaceae*) provided important foods and medicines for the Ancestors of diverse peoples Indigenous to the US Southwest and Northwestern Mexico for millennia, and remain important to descendant communities today. Relationships between Ancestral Pueblo peoples and plants in the nightshade family are evident from the recovery of carbonized seeds from a variety of archaeological contexts in what is now the northern US Southwest. We compare and contrast the morphology of seeds recovered from 5MT1905 – a CE 800-1150 Chaco-era great house and early village located in the Central Mesa Verde region – with modern seeds of five culturally significant genera in the nightshade family: tobacco (*Nicotiana* spp.), tomatillo (*Physalis* spp.), wolfberry (*Lycium* spp.), nightshades/potatoes (*Solanum* spp.) and datura (*Datura* spp.).

R. J. Sinensky – Crow Canyon Archaeological Center  
**Measurements of Archaeobotanical Diversity and Richness using Combined Macrobotanical and Microbotanical Data**

The measurement of taxonomic richness and diversity are central to the interpretive mission of paleoethnobotany. Researchers agree that robust assessments of archaeobotanical diversity must include both macrobotanical and microbotanical remains, yet there is less agreement regarding appropriate methods for integrating these disparate lines of evidence due to divergent taphonomies. Focusing on robust botanical assemblages recovered from four large and well-dated CE 200-550 Ancestral Pueblo habitation sites located in what is now northern Arizona, a statistical resampling technique developed by ecologists known as incidence-based (presence/absence), sample-derived rarefaction is used to compare the richness and diversity of composite macrobotanical and starch assemblages. The results suggest distinctive long-term use of contemporaneous habitation sites located in close proximity to one another.

Alexander Smith, Kendall Smith, and Sal Burkhardt – Crow Canyon Archaeological Center  
**Survey Says: Pedestrian Survey at Hawkins Preserve, Cortez, Co**

From 2022-2024 Crow Canyon Archaeological Center's College Field School has aided the Cortez Cultural Center in a resurvey of the 120 acre "Hawkins Preserve" in Cortez, CO. Using pedestrian survey methods and GIS technology Crow Canyon has helped to enhance existing data, evaluate the impacts of a recent fire, and help develop a long-term management plan for the preserve. These efforts have culminated in the documentation of 27 new sites since the partnership began and provided important insight into the archaeological significance of the area. The vast time depth represented by belongings, features, and structures documented at sites previously and over the course of Crow Canyon's work points to long and complex human interactions with the environment by local peoples, both historic and ancestral. The reassessment of Hawkins Preserve has served to document ancestral ties to the land and provide valuable data to be used in future studies and management of this exceptional, and long-lived landscape.

Austin Sweeney - Petrified Forest National Park  
**Puebloan Demography of Petrified Forest National Park**

Petrified Forest National Park has an area of about 346 square miles, around 20% of which has been formally pedestrian surveyed for archaeological resources. Within the surveyed area there are just over 1300 known archaeological sites, predominately dating to the Puebloan period. By constructing models based off the soil type and elevation of each habitation site within the surveyed area, this paper aims to create reference models



for predicting the number of habitation sites in unsurveyed land and, further, to create a demographic model of the park from the Pueblo I to Pueblo IV periods.

Zithlaly Vega – Arizona State University, Hunter M. Claypatch – Binghamton University

### **The Bennett-Cressey and Woody Parrish Collections from AZ EE:09:103 (ASM) at the Pimeria Alta Historical Society**

Just 2.5 kilometers from the US-Mexico border in Nogales, Arizona, sits AZ EE:9:103 (ASM), known locally as “Cemetery Ruin”. Cemetery Ruin [AZ EE:09:103 (ASM)] is located within the boundaries of the modern Nogales City Cemetery but was also recorded as a precolonial settlement by ASM in the 1980s. The Bennett-Cressey and Woody Parrish collections at the Pimeria Alta Historical Society are made up of several hundred artifacts from Cemetery Ruin [AZ EE:09:103 (ASM)], consisting mainly of plainware ceramics and groundstone. While these collections entered the museum several decades ago, they had never been studied by professional archaeologists and ASM was unaware of their presence when they first registered the site. A reanalysis of the collection confirmed the primary site occupation during the Classic Period (1150-1450 CE) and provides further insight into understanding the precolonial SW Arizona/NW Mexico borderlands. The reanalysis also demonstrates the importance of revisiting collections at smaller museums.

Genevieve Woodhead, Katherine Peck, and Saige Young – University of New Mexico

### **Evaluating image thresholding and computer vision methods for ceramic fabric analysis**

Ceramic fabrics—the specific combinations of clay, inclusions, and voids that make up ceramic vessel bodies—can help answer broad questions about potters’ traditions, decision-making, and communities of practice. Archaeologists identify fabric groups by spotting meaningful differences in petrographic thin sections. To do this, they often focus on characterizing (e.g., by type, size, sorting) and estimating the area percentage of inclusions and voids. Image thresholding algorithms can assist in deriving these metrics by masking particles out from the background clay matrix according to hue, saturation, and brightness. Conversely, computer vision models like Segment Anything (SAM) mask discrete objects by drawing on their training dataset of segmented images. These binary masks can then be used to generate useful metrics for characterizing ceramic fabrics. In this poster, we present a feasibility study that compares image thresholding and computer vision (SAM). We analyzed 20 petrographic images of Kin Kletso (Chaco Canyon) pottery using ImageJ’s default thresholding method to determine the percent area of voids and particles in each slide. We segmented the same slides using SAM, via Python, and derived the same metrics. We then assessed if there were statistically significant differences between each method’s outputs.

Brandon Yam - Hamilton College, Joseph Watts - University of Mississippi, and Sam Bosque - Mississippi State University

### **Back to the Fill-ture: Constructing Chronology of Backdirt at the Haynie Site (5MT1905)**

Backdirt is undertheorized in archaeological research. Because there is no previous research on the site area between the east great house and the west great house at the Haynie site, an ancestral village inhabited between A.D. 800 and 1200, we excavate two backdirt piles. In our poster, we analyze the cultural deposits disturbed by mechanical excavation to reconstruct the chronology of the pit structure between the great houses. Our in-field analyses indicate the pit structure was occupied during the Pueblo I and Pueblo II periods (A.D. 750–1150). Most sherds date to the periods, and the chronology of the site area aligns with the chronology of the site itself. Our findings suggest that we can sample test backdirt, reconstructing chronological assignments of disturbed contexts. Based on our findings, we recommend 1) our methodology and 2) continuous collaboration with Indigenous communities.