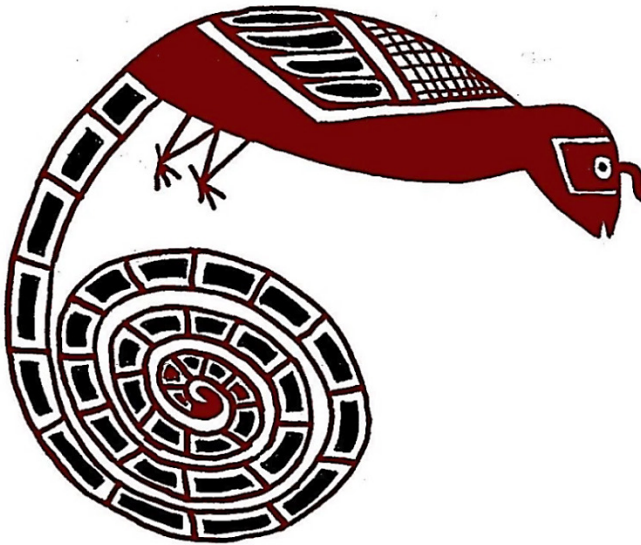


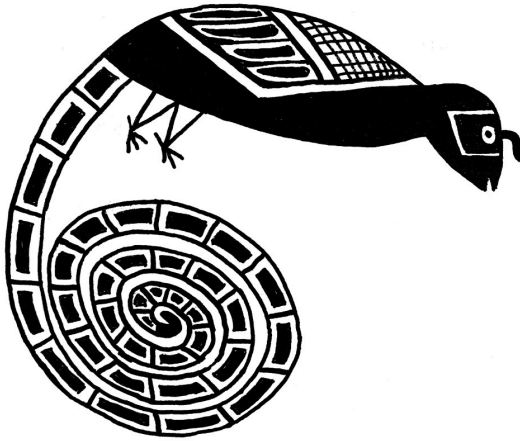
# **20<sup>th</sup> Biennial Mogollon Archaeology Conference**



**October 11-13, 2018**

**New Mexico State University  
Las Cruces, NM**

# **20<sup>th</sup> Biennial Mogollon Archaeology Conference**



**October 11-13, 2018**

*Sponsored by the*

**Department of Anthropology and  
Anthropology Graduate Student Organization  
New Mexico State University**

**Thursday Evening October 11, 2018**

**New Mexico State University Museum**

*Kent Hall*

*1280 E. University Ave., Las Cruces, NM  
(Corner of Solano and University Ave)*

**OPENING RECEPTION  
and  
CONFERENCE REGISTRATION**

**5:30 - 7:30 PM**



*Sponsored by the*

**New Mexico State University Museum**

*Director Fumi Arakawa*

**Friday Morning October 12, 2018**  
***Corbett Center Auditorium***  
***New Mexico State University***

- 8:00 Refreshments and Registration
- 8:50 Opening Remarks:  
*Lonnie C. Ludeman, Conference Chair*
- 8:55 Honoring Pat Becket  
*Karl Laumbach and Regge Wiseman*
- 9:15 Amusing History of the Mogollon Archaeology Conference  
*Pat Becket*

**Session 1: General Mimbres**

- 9:30 **The XSX Ranch Site: Excavations of a Late Classic Mimbres to Early Post Classic Pueblo in the Upper Gila Forks, New Mexico**  
*Christopher Turnbow and Robert Forrester*
- 9:45 **Mimbres Sacred Landscapes: An Example from City of Rocks State Park, Grant County, New Mexico**  
*Robert J. Stokes*
- 10:00 **New Insights on the DeFausell Site (LA 34779)**  
*Jakob W. Sedig*
- 10:15 **Turkey Domestication and Iconography during the Mimbres Classic Period**  
*Sean G. Dolan and Andrew T. Ozga*
- 10:30 **The Distribution of Canyon Grape among Mimbres Mogollon Archaeological Sites**  
*Michael W. Diehl*
- 10:45 **Mimbres Copper Artifacts Found on the Gila National Forest**  
*Christopher D. Adams*
- 11:00 Break

## **Session 2: Mimbres Valley Dating Methodology**

- 11:15 **Chronological and Bayesian Analyses of New Radiocarbon Dates from the Postclassic (post-A.D. 1130) Montoya Site in the Mimbres Valley and Implications for Other Postclassic Sites**  
*Kathryn Putsavage, Myles R. Miller, Patricia A. Gilman, and Roger Anyon*
- 11:30 **Dating the Cañada Alamosa Project**  
*Karl Laumbach, Myles Miller, Stephen Lekson, and Toni Laumbach*
- 11:45 **Revisiting Mogollon Village Chronology: A Bayesian Approach**  
*Lori Barkwill Love*
- 12:00 Lunch Break

## **Friday Afternoon October 12, 2018**

### **Session 3: Recent Research in the Mimbres Valley**

*Organized by Barbara J. Roth*

- 1:30 **The Architectural Sequence at the Elk Ridge Site, Mimbres Valley, New Mexico**  
*Barbara J. Roth and Darrell Creel*
- 1:45 **From Pithouse to Abandonment: An Analysis of the Ceramics from the Elk Ridge Site**  
*Danielle Romero*
- 2:00 **Elk Ridge: The Past and Present- What Has Been Accomplished Since the 1990s Salvage and Recovery Efforts**  
*Judy Berryman and Karl Laumbach*
- 2:15 **Health, Mortuary Patterns, and Regional Interaction at the Elk Ridge Site: Conformity and Variation in an Upper Mimbres Community**  
*Kathryn M. Baustian, Barbara J. Roth, and Darrell Creel*
- 2:30 **Obsidian Use Strategies at the Harris Site during the Late Pithouse Period (AD 550-1000), Mimbres Valley, NM**  
*J. Dylan Person*

- 2:45 Break
- 3:00 **Variation in pre-Pueblo Dart and Arrow use from Forestdale and Mimbres Sites (A.D. 500-1000)**  
*Samuel M. Smith*
- 3:15 **Social Differentiation at Swarts in the Mimbres Valley**  
*Darrel Creel*

#### **Session 4: Archaeological Investigation at the Diamond Creek Locality**

*Organized by Fumi Arakawa*

- 3:30 **Archaeological Investigation at the Diamond Creek Locality in the Northern Mimbres Region**  
*Fumi Arakawa and Trevor Lea*
- 3:45 **Preliminary Results from Excavations of a Communal Pit Structure in the Aldo Leopold Wilderness Area of the Gila National Forest.**  
*Trevor Lea and Dustin Wagner*
- 4:00 **Application of a Small Unmanned Aerial System for Archaeological Site Mapping and Documentation of Twin Pines Village, Gila National Forest, New Mexico**  
*Michael Morrison and Jorden Scott*
- 4:15 **Ecological Resource Use Comparison of the Northern Mimbres Region and the Mimbres River Valley**  
*Kailey Martinez*
- 4:30 **Differences in Technological Styles of Bone Tools Within the Mimbres Region**  
*Hannah Clark*
- 4:45 **An Analysis of Projectile Points from the South Diamond Creek Pueblo**  
*Chris Stanton*

**Friday Evening October 12, 2018**

**The Double Eagle Restaurant**  
2355 Calle De Guadalupe, Mesilla, NM

6:15 pm No Host Cash Bar

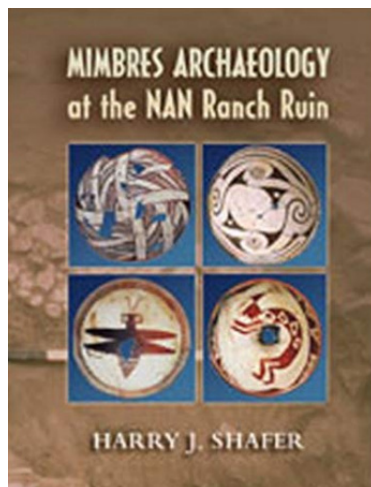
6:45 pm Banquet

7:30 pm Invited Lecture

***"Some Thoughts and Reflections about  
Mimbres Archaeology: Past and Future"***

Harry J. Shafer, PhD  
Curator of Archaeology  
Witte Museum, San Antonio

**Abstract:** Despite being left to relic hunters for nearly 60 years, Mimbres archaeology came of age with the onset of the Mimbres Foundation research in 1974. This effort stimulated other new research interests in the region that together has altered our perspectives about Mimbres culture and society. I will share some thoughts and reflections about Mimbres archaeology, noting accomplishments, current research gaps, and impacts of climate change.



**Saturday Morning October 13, 2018**  
***Corbett Center Auditorium***  
***New Mexico State University***

8:00 Refreshments and Registration

**Session 5: Recent Survey and Excavation in the Upper  
Gila River Valley, Arizona: Aggregation and Dispersal**  
*Organized by Robert J. Hard*

- 8:45 **Archaeological Survey in Arizona's Upper Gila River Valley:  
2014 – 2018**  
*Mary E. Whisenhunt, John R. Roney, and Robert J. Hard*
- 9:00 **The Sanchez Site: An Early Pithouse Period Cerro de  
Trincheras on the Upper Gila River, Arizona**  
*Robert J. Hard, John R. Roney, A.C. MacWilliams, Mary  
Whisenhunt, and Karen R. Adams*
- 9:15 **Internal Site Organization at the Sanchez Cerro de Trincheras**  
*Kathleen Jenkins*
- 9:30 **The Sanchez Site Plaza**  
*Gabriella M. Zaragosa*
- 9:45 **Rock Ring Architecture at the Sanchez Site**  
*Peggy Wall*
- 10:00 Break
- 10:15 **Estimating Labor Investment at the Sanchez Site using Drone  
and 3D Photogrammetry**  
*Robert W. Gardner Jr.*
- 10:30 **A Preliminary Look at Double and Triple Rock Rings at the  
Sanchez Site**  
*Michelle Carpenter*
- 10:45 **Obsidian Sources, Acquisition and Use at the Sanchez Site**  
*Clinton M. M. McKenzie and M. Steven Shackley*



## Session 6: Mogollon and Beyond

- 11:00 **Production and Distribution of San Marcial and Socorro Black-on-white Pottery Recovered from the Cañada Alamosa Project**  
*Mary F. Ownby, Karl W. Laumbach and Toni S. Laumbach*
- 11:15 **Climate Change and Old Corn at Canada Alamosa: 4000 Years of Geomorphic and Isotopic Evidence**  
*Curtis Monger and Karl Laumbach*
- 11:30 **McDonald Corrugated Ceramics – A Stylistic Analysis of Vessels from the Point of Pines Region**  
*Tammy Stone*
- 11:45 **The Toriette-Reserve Area Great Kiva: Results of the 2018 Field Season**  
*Erin Baxter, Steve Nash, Michele Koons, and Deborah Huntley*
- 12:00 *Announcement: Michael W. Diehl of Desert Archaeology, Inc. will host the 21st Mogollon Archaeology Conference (Oct 2020)*  
Lunch Break

## Saturday Afternoon October 13, 2018

### Session 7: Mogollon

- 1:30 **Rock Art as Ritual Communicator: Reconceptualizing Form, Function and Framework**  
*Mary Brown*
- 1:45 **Material Expressions of Mountains and Caves in the Jornada-Mimbres Region**  
*Myles R. Miller*
- 2:00 **Beyond the Village: Contrasting Mimbres Ritual Landscapes**  
*Garrett Leitermann and Mary Brown*
- 2:15 **Projectile Points, Sorcery and Room Closure**  
*William H Walker and Judy A. Berryman*
- 2:30 **Patterns of Multi-Ethnic Population Aggregation at Cottonwood Spring Pueblo**  
*Kristin Corl, Dustin Wagner, Michael Gable, and William Walker*

- 2:45 **Land Usage Patterning of a Large Jornada Mogollon Pueblo:  
A Pedestrian Survey of the Dune Fields at Cottonwood Spring  
Pueblo**

*Brandon Gonia, William Walker, and Judy Berryman*

- 3:00 Break

## **Session 8: Ethnohistory**

- 3:15 **Ethnohistory and Mimbres Subsistence**

*Stephen H. Lekson*

## **Session 9: Jornada Mogollon Area**

- 3:30 **Shedding Light on the Darkness: Stacked-Rock Feature Sites  
on the Carrizozo Malpais, White Sands Missile Range**

*Mark Sale, Moira Ernst, Matt Swanson and Amy Silberberg*

- 3:45 **Assessing the Evidence for Mimbres Integration into Jornada  
Villages along the Eastern Tularosa Basin, New Mexico**

*Alexander Kurota, Thatcher Rogers and Evan Sternberg*

- 4:00 **Agricultural Terraces and Irrigation Systems Used During the  
Mid-Mesilla Phase in Tularosa Canyon, Otero County, New  
Mexico**

*David Greenwald and James A. Neely*

- 4:15 **Clay and Stone: Petroglyphs at Three Rivers Petroglyph Site  
Compared with Mimbres Ceramic Painted Bowls**

*Joan E. Price*

## **Session 10: Northern Chihuahua**

- 4:30 **Mimbres Pottery in the Bootheel and Northern Chihuahua**

*Thatcher A. Rogers*

- 4:45 **Common and Ritual Use of Two Casas Grandes Cliff Dwellings  
on the Sierra Madre, México**

*Jupiter Martinez-Ramirez*

## Friday Morning October 12, 2018

### Session 1: General Mimbres

9:30

#### **The XSX Ranch Site: Excavations of a Late Classic Mimbres to Early Post Classic Pueblo in the Upper Gila Forks, New Mexico**

*Christopher Turnbow and Robert Forrester*

*New Mexico Gas Company*

The XSX Ranch site (LA 50702) is a multicomponent occupation located on the East Fork of the Gila River in Grant County, New Mexico. Between 1980 and 1992, Robert E. Forrester, a chemist from Texas, excavated 10 pithouses, 32 pueblo rooms in five room blocks, and 91 burials at the site. In his little-known excavation reports, Forrester suggested the site was a Classic Mimbres occupation reoccupied by a Reserve/Tularosa population; however, in a review of his data, the site may best be interpreted as a medium-sized transitional late Classic Mimbres to Early Post-Classic pueblo. Our paper examines the site's architectural remains, mortuary patterns, and related funerary ceramics in comparison to other excavated Classic Mimbres occupations in the Forks region and using those data, suggests other sites that may have been occupied in the Gila Forks between circa AD 1130 and 1200.

9:45

#### **Mimbres Sacred Landscapes: An Example from City of Rocks State Park, Grant County, New Mexico**

*Robert J. Stokes*

*New Mexico State Parks*

Mimbres researchers have known for years that Cooke's Peak at the southern end of the Mimbres Valley was an important landmark for this ancient farming society from the Late Pithouse through Classic periods. Many of their important sites were situated to encompass views of this uniquely shaped mountain peak and many houses and ceremonial structures had openings that also faced the peak. Not all Mimbres sites had such a view however. Further, it has been argued that most village sites were placed to take advantage of arable land and water, not for their views. As a result, in depth studies of Mimbres site placement in relation to prominent landforms is an understudied aspect of this ancient society. A recent New Mexico State Parks testing and data recovery project at City of Rocks State Park provides important new data for understanding Mimbres appreciation of unique landforms and landscapes at a location that has little to no farming potential. What was originally thought to be a looted field house turned into something else entirely that has ramifications for understanding how the Mimbres viewed the natural and sacred world around them.

10:00

**New Insights on the DeFausell Site (LA 34779)***Jakob W. Sedig**Harvard*

This presentation provides information about the DeFausell site (LA 34779), a Classic Mimbres site located on private land in the upper Gila valley. DeFausell was registered as a site in 1972 and initially investigated as part of James Fitting's research in the upper Gila. The site was then periodically excavated by Fel Brunett and avocational archaeologists during the mid 1970s-1980s. Although DeFausell has been mentioned in various reports and summaries of upper Gila archaeology, no official site report was published, and details about the site have remained vague.

During the summer of 2017 I visited Pat Brunett, Fel Brunett's widow, to examine materials from DeFausell that were brought to the Brunett's residence in Fife Lake, Michigan. I discovered that many artifacts from DeFausell are present in Fife Lake: unwashed sherds, chipped stone, several manos and metates, multiple small bags of faunal material, some isolated diagnostic sherds, a few obsidian projectile points, botanical samples, and some miscellaneous artifacts (beads, quartz crystals, shell bracelet fragments, bone awls). I was also able to locate some field notes, maps, and correspondence, from excavation at the site. I summarize data from these in this presentation to shed new light on DeFausell.

10:15

**Turkey Domestication and Iconography during the Mimbres Classic Period***Sean G. Dolan<sup>1</sup> and Andrew T. Ozga<sup>2</sup>**<sup>1</sup>N3B Los Alamos National Laboratory <sup>2</sup>Arizona State University*

While much is known about turkey (*Meleagris gallopavo*) domestication in the northern U.S. Southwest based on genetics and bone isotopes, archaeologists are not fully aware of how people in the Mimbres Valley managed these birds. Mimbres groups used turkeys in some capacity due to archaeological evidence, but researchers have not reached a consensus on if domestication occurred. We analyzed the mitochondrial DNA of 19 turkeys from Elk Ridge Ruin, Mattocks, and Wheaton-Smith to determine if they belong to the H1 domestic or H2 wild haplogroup. We report varying levels of extraction and amplification success with yields between 1.6 and 13.8 ng/μl. After the final results are analyzed, these genetic data will be contextualized with previously published haplogroup data. We discuss if domestication occurred in similar ways in the Mimbres Valley compared to other regions. Also, because turkeys are depicted on Mimbres pottery, we discuss turkey iconography to understand how these birds were used and viewed in Mimbres society during the Classic period (A.D. 1000–1130). Using multiple lines of evidence, we contribute new insights into the dynamic relationship between humans and turkeys in the prehispanic U.S. Southwest.

10:30

## **The Distribution of Canyon Grape among Mimbres Mogollon Archaeological Sites**

*Michael W. Diehl*

*Desert Archaeology, Inc.*

A comprehensive review of paleobotanical assemblages from prehistoric southwestern New Mexico has demonstrated that some archaeological sites contain exceptional amounts of wild canyon grape (*Vitis arizonica*) -- a native North American vine grape encountered intermittently within the Mimbres Mogollon area. In this paper, I review the distribution of canyon grapes in Mimbres sites and compare that distribution with other heavily studied areas. The comparison shows that canyon grape is exceptionally abundant at a few Mimbres sites. I surmise that canyon grape may have been a valued fermentable resource, with concomitant potential for identification in residue analyses on Mimbres area ceramic vessels. If canyon grape was tended or fermented by specialists, the resulting fermented beverage -- okay -- "wine" -- may have been a trafficked commodity in regional social interaction or trade networks.

10:45

## **Mimbres Copper Artifacts Found on the Gila National Forest**

*Christopher D. Adams*

*US Forest Service*

Mimbres Copper Artifacts Found on the Gila National Forest Research has been underway by the author on newly discovered prehistoric copper artifacts found at Mimbres sites on the Gila National Forest, for the last nine years. Investigating Mimbres pithouses, field houses and Mimbres Classic period pueblos has produced evidence of native copper nuggets, cold-hammered fetishes/pendants and prehispanic copper bells. Approximately 24 sites on the Gila National Forest were sampled, with over 100 Mimbres copper artifacts discovered, making this the largest copper artifact collection in the greater southwest. This research would not be possible without relying on the latest metal sensing technology. This paper will highlight the patterns of the Mimbres copper artifacts within the Mimbres architectural realm. The exploitation of Mimbres native copper appears to have started during the period of A.D. 950 and ends around A.D. 1130. In addition, X-Ray Fluorescence (XRF) analysis was completed on the Mimbres copper artifacts and a summary of the results will be presented.

11:00 Break

## Session 2: Mimbres Valley Dating Methodology

11:15

### **Chronological and Bayesian Analyses of New Radiocarbon Dates from the Postclassic (post-A.D. 1130) Montoya Site in the Mimbres Valley and Implications for Other Postclassic Sites**

*Kathryn Putsavage<sup>1</sup>, Myles R. Miller<sup>2</sup>, Patricia A. Gilman<sup>3</sup>, and Roger Anyon<sup>4</sup>*  
<sup>1</sup>Independant Researcher, <sup>2</sup>Versar, Inc., <sup>3</sup>University of Oklahoma, <sup>4</sup>Pima County, Arizona

Chronometric and Bayesian analyses of new radiocarbon dates, along with an archaeomagnetic date, illuminate the construction and final use of two heavily burned rooms at the Montoya site in the Mimbres Valley. The Montoya site, a 25-room adobe pueblo in the southern Mimbres Valley, dates to the Postclassic period (A.D. 1150-1400), and the associated pottery types suggest the Early Postclassic before A.D. 1300. This analysis provides more chronometric control for the poorly dated Postclassic period. We discuss the implications of the analyses for the Montoya and other Postclassic sites.

11:30

### **Dating the Cañada Alamosa Project**

*Karl Laumbach<sup>1</sup>, Myles Miller<sup>2</sup>, Stephen Lekson<sup>3</sup>, and Toni Laumbach<sup>1</sup>*  
<sup>1</sup>Human Systems Research, Inc. <sup>2</sup>Versar, Inc. <sup>3</sup>University of Colorado at Boulder

The Cañada Alamosa Project tested four sites over a 13 year period. The resulting sequence covered 4000 years of human activity from the earliest years of the Late Archaic to the recent historic period. During that time 64 radiocarbon dates and 8 archaeo-magnetic dates were obtained from discrete proveniences. The pithouse to pueblo sequence includes nine distinct phases.

The Cañada Alamosa pueblo sequence includes two instances where populations with distinctively different material cultures appear to have been co-existent. The first of these involves pueblos representing the Mimbres and Socorro Traditions. The second involves a large Tularosa Phase pueblo and an adjacent Magdalena Phase pueblo.

The chronometric dates and their respective contexts are investigated using Bayesian statistical models. The results allow a more precise definition of temporal phase boundaries and an evaluation of the level of confidence with which we can view the contemporaneity of neighboring populations. Finally, the Cañada Alamosa chronology is compared and contrasted to developed chronologies from the Mimbres region of the American Southwest.

11:45

### **Revisiting Mogollon Village Chronology: A Bayesian Approach**

*Lori Barkwill Love*

*University of Texas at San Antonio*

Emil Haury's excavation of Mogollon Village in 1933 helped to establish the Mogollon culture concept as well as providing the first overview of pithouse occupation in the Mogollon region. Tree-ring data from Haury's excavation suggested that the site was occupied from at least A.D. 730 to 900; however, the stratigraphy of the site suggested that the site was likely occupied prior to A.D. 700. Further excavation work at the site conducted in the late 1980s and early 1990s suggested an occupational range from A.D. 120 to 898. Thus, Mogollon Village had a long-term history of pithouse occupation. This paper provides date estimates for Mogollon Village using 38 radiocarbon results and six tree-ring cut dates from 13 pit structures examined within an interpretative Bayesian chronological framework. Two separate Bayesian models (one based on architectural form and the other based on ceramic phases) are used to examine occupation/duration, pottery production, and pithouse contemporaneity at Mogollon Village. Future research to further refine the chronology of the site will also be discussed.

12:00 LUNCH BREAK

## Friday Afternoon October 12, 2018

### Session 3: Recent Research in the Mimbres Valley

*Organized by Barbara J. Roth*

1:30

#### **The Architectural Sequence at the Elk Ridge Site, Mimbres Valley, New Mexico**

*Barbara J. Roth<sup>1</sup> and Darrell Creel<sup>2</sup>*

*<sup>1</sup>University of Nevada Las Vegas, <sup>2</sup>University of Texas at Austin*

Archaeological excavations along an arroyo cut exposing intact pueblo rooms at the Elk Ridge site in the northern Mimbres Valley has revealed new data on the Classic period (AD 1000-1130) architectural sequence through time and across the pithouse-to-pueblo transition. Here we summarize the results of this work and discuss the recovery of a Transitional phase pithouse, early Classic period adobe pueblo component, and later cobble adobe pueblo. We discuss the significance of these architectural changes both in terms of the physical changes and what these might indicate about social groups living at the site.

1:45

#### **From Pithouse to Abandonment: An Analysis of the Ceramics from the Elk Ridge Site**

*Danielle Romero*

*University of Nevada Las Vegas*

Archaeological analyses often offer information related only to a brief moment of a site's occupational history. This can be the result of prehistoric activities disturbing various contexts or excavation strategies that do not recover a wider breadth of artifacts. The excavations undertaken by the University of Nevada, Las Vegas at the Elk Ridge Site have yielded structures dating from transitional pithouses to rooms occupied immediately prior to abandonment. This architectural sequencing allows for the tracing of the ceramic styles within a room-block through time. This paper presents the analysis results of the ceramic assemblage as it pertains to the changing ceramic types and design similarities and differences seen between the households.

2:00

#### **Elk Ridge: The Past and Present- What Has Been Accomplished Since the 1990s Salvage and Recovery Efforts**

*Judy Berryman<sup>1</sup> and Karl Laumbach<sup>2</sup>*

*<sup>1</sup>New Mexico State University <sup>2</sup>Human Systems Research, Inc.*

Elk Ridge (LA 78963) is a large Late Pithouse-to-Classic period site located on an



alluvial fan along a tributary drainage on the west fork of the Mimbres River. The site is on U.S. Forest Service land as well as at least three parcels of privately owned land. The private landowners discovered the presence of the ruins in 1989 and began massive mechanical looting of the site. After the burial law went into effect, sporadic digging continued until a two-acre parcel of land was sold to the Russells in 1990. Aided by Human Systems Research and other organizations, William Russell excavated 14 whole and 27 partial rooms as well as 13 proveniences. The collection includes approximately 27,000 ceramic sherds, 5500 faunal specimens, 404 macrobotanical samples as well as stone tools and shell artifacts. The study of this collection is has provided valuable information in terms of ceramic distribution, room construction and inter- and intra-site activity. The purpose of this paper is to provide an overview of the work completed and ongoing studies. The data will be incorporated with the materials from the University of Nevada at Las Vegas field school, providing a better understanding of Mimbres occupation in this region.

2:15

## **Health, Mortuary Patterns, and Regional Interaction at the Elk Ridge Site: Conformity and Variation in an Upper Mimbres Community**

*Kathryn M. Baustian<sup>1</sup>, Barbara J. Roth<sup>1</sup>, and Darrell Creel<sup>2</sup>*

*<sup>1</sup>University of Nevada Las Vegas, <sup>2</sup>University of Texas at Austin*

Recent excavations at the Elk Ridge site necessitated exposure and recovery of numerous human burials to avoid damage by erosion caused by an adjacent arroyo. This paper details the demography of the burial population, health data, and mortuary patterns and highlights unique findings. Overall data do not vary significantly from the current understanding of Classic Mimbres patterns but some individual burials stand out in ways that inform about social interactions in the Upper Mimbres River Valley. Specifically, we discuss skeletal features and ceramic style as indicators of frequent contact with Reserve area communities and the possibility of marriage between Mogollon men and Mimbres women. Furthermore, we present bioarchaeological data from select households that complement theories of lineage groups previously discussed by Shafer. Collectively, our findings add valuable data to the interpretation of life at Upper Mimbres communities and the region as a whole.

2:30

## **Obsidian Use Strategies at the Harris Site during the Late Pithouse Period (AD 550-1000), Mimbres Valley, New Mexico**

*J. Dylan Person*

*University of Nevada Las Vegas*

Lithic assemblages feature a variety of raw material types that generally mirror the regional geology of the site area. The Mimbres Valley of southwestern New Mexico exhibits a complex system of geologic activity that resulted in ample coarse-grained igneous, sedimentary, and metamorphic rocks available for human

acquisition and use. Alongside these local rock types, obsidian is found at Mimbres sites and is often considered a prime lithic material for both its easy conchoidal fracturing and sharp edge. Recent analysis of the Harris Site (LA1867) lithic debitage assemblage has suggested that despite evidence of material conservation obsidian was largely treated like any other lithic material suitable for flintknapping. However, the increased effort it took to import obsidian from western sources seems to indicate that some portion of the flint knapping population valued obsidian over local rocks. Why go through the trouble acquiring obsidian to simply treat it like any common stone? This paper addresses this question from a technological and performance perspective to investigate reasons for the seeming disparity between inferred material value and lithic production methods.

2:45 Break

3:00

## **Variation in pre-Pueblo Dart and Arrow use from Forestdale and Mimbres Sites (A.D. 500-1000)**

*Samuel M. Smith*

*University of Nevada Las Vegas*

The introduction of the bow and arrow into the Southwest caused a major change in technology for most of the Southwest, with the rapid replacement of the dart and atlatl to the bow and arrow. The Mogollon however, were an exception to this as they continued to construct darts and atlatls even after the arrival of the bow and arrow. This research presents the results of the analysis on arrow and dart points made in two distinct Mogollon cultural regions: Forestdale and Mimbres (A.D. 500 - 1000). Projectile points from the Mimbres sites (Harris and La Gila Encantada) and points from the Forestdale sites (Bear Ruin and Bluff Site) were used for this comparison. Projectile points were analyzed primarily for identified differences in function and use wear. Ethnographic analogs from Southwest and Great Basin cultural groups have also been incorporated into this research, in order to provide insights into potential reasons for use wear variation that was seen across the analyzed sites.

3:15

## **Social Differentiation at Swarts in the Mimbres Valley**

*Darrel Creel*

*University of Texas at Austin*

The Peabody Museum's 1924-1927 excavations of the Swarts site yielded the most nearly complete and largest architectural and mortuary data sets from any site in the entire Mimbres area of southwest New Mexico. It thus offers an unparalleled opportunity to assess mortuary variability that might reflect social differentiation and possible change over the three to four centuries of its known occupation. The restricted intra-site burial location of the small number of people with ornaments,

particularly as it relates to special rooms and the main plaza, is summarized. At Swarts, adult males with large numbers of *Glycymeris* bracelets on their arms are few in number during the Three Circle phase and perhaps had special responsibilities in the community. In the Classic period, bracelets and other ornaments were worn by adults of both sexes and children, but they were still relatively few in number and may have been members of families/lineages closely linked to, perhaps having controlled, the earlier great kivas. At Swarts and other Mimbres sites with Late Pithouse and Classic occupations, the fact that later, Classic period, burials with *Glycymeris* bracelets were more frequent in rooms above or adjacent to the retired great kivas suggests a persistence of these families and their social distinctiveness over many generations, well beyond the use of great kivas.

## **Session 4: Archaeological Investigation at the Diamond Creek Locality**

*Organized by Fumi Arakawa*

3:30

### **Archaeological Investigation at the Diamond Creek Locality in the Northern Mimbres Region**

*Fumi Arakawa and Trevor Lea*

*New Mexico State University*

This presentation presents new archaeological field research at the Diamond Creek Locality in the northern Mimbres region. The locality lies in the Gila National Forest and Aldo Leopold Wilderness areas in the southwestern New Mexico, an area which has extensive pithouses and Classic Mimbres components. Our field studies focus on two sites—Twin Pines Village and South Diamond Creek Pueblo (SDCP)—as representing pithouse and Mimbres habitation sites in the region. After presenting the preliminary results of our data recovery efforts from these sites at the Mogollon Conference in 2016, we carried out additional excavations and remapped the sites. In this presentation, we discuss new discoveries and how it relates to our research question: How did populations, who inhabited in a Gila River headwaters and were surrounded by a forested environment, interact with people who lived in the semi-desert of Mimbres Valley and beyond?

3:45

### **Preliminary Results from Excavations of a Communal Pit Structure in the Aldo Leopold Wilderness Area of the Gila National Forest.**

*Trevor Lea and Dustin Wagner*

*New Mexico State University*

As part of the recent salvage excavation of a small Classic Mimbres pueblo (1000-1150 CE) at the South Diamond Creek Pueblo (LA 181765) in the Aldo Leopold Wilderness of the Gila National Forest from 2016 to 2017, we also carried out a test excavation on a large pit structure. The structure appears to be associated with

an earlier occupation of the area, likely during the Late Pithouse period (550-1000 CE). Since very few archaeological investigations of communal pit structures have been conducted in this area, the data recovered from this structure will contribute to a sparse data set from this northern edge of the Mimbres boundary. The aim of this presentation focuses on the preliminary results of the excavation effort and discoveries, especially the architectural style and artifacts recovered from the pit structure. We will conclude our discussion with the future investigation plans of communal pit structures in the northern Mimbres region.

4:00

## **Application of a Small Unmanned Aerial System for Archaeological Site Mapping and Documentation of Twin Pines Village, Gila National Forest, New Mexico.**

*Michael Morrison and Jorden Scott*

*New Mexico State University*

Commonly known as “drones,” unmanned aerial systems (UAS), have grown in reputation as being dependable, precise and cost-effective for the collection of geo-referenced images that can be combined into a high-resolution, ortho-mosaicked image using photogrammetry software. The output of this data is suitable for a variety of analysis, utilizing geographic information systems. In this paper, we discuss our effort of mapping the Classic Mimbres site of Twin Pines Village, using a small, consumer-grade UAS. In August 2018, this project was conducted as reconnaissance and site documentation to aid excavation planning for the upcoming 2019 New Mexico State University Archaeological Field School. We conclude this paper by discussing the advantages and limitations of employing UAS (particularly on public land) and outline a simple workflow of mission planning, preparation, execution, and data processing to accomplish UAS missions for archaeological inquiry.

4:15

## **Ecological Resource Use Comparison of the Northern Mimbres Region and the Mimbres River Valley**

*Kailey Martinez*

*New Mexico State University*

The Gila National Forest and Gila Wilderness are home to an impressive amount of rich ecological resources. Modern uses of the Gila’s resources include hunting, fishing, grazing, farming, and outdoor recreation, just to name a few. Looking at the amount of activates that are available today, it is easy to imagine the importance that the land played in the survival of the people of the Mimbres culture. Though the Gila is comprised of a large area, the land within varies in altitude and precipitation. This causes changes in vegetation and wildlife throughout, limiting the resources that were available to Mimbres people that were settled in areas of differing ecological make-ups. This paper will attempt to compare the resource availability and usage between inhabitants of the Northern

Mimbres region, specifically the Diamond Creek Locality, and inhabitants of the Mimbres River Valley, using preliminary zooarchaeological data. The north contains a greater amount of large prey species and general population sizes than the lower elevations, leading to a hypothesized surplus of resources and higher carrying capacity. The topic in question is whether or not the inhabitants of the less resource laden Mimbres River Valley found a need to pull and exchange from the source areas of the northern region in order to sustain themselves?

4:30

## **Differences in Technological Styles of Bone Tools Within the Mimbres Region**

*Hannah Clark*

*New Mexico State University*

Bone tool manufacturing styles during the Classic Mimbres (AD 1000-1130) phases within the Mimbres region tend to have inherent cultural similarities that sets them apart from the Hohokam and Ancestral Pueblo regions. However, the worked bone tool assemblages from the sites of South Diamond Creek Pueblo (SDCP) and Twin Pines, located in the Gila National Forest and Wilderness, have shown unexpected differences in skeletal element usage, species collection, and reduction techniques from those of the Mimbres River Valley sites. This presentation explores the comparison of the SDCP and Twin Pines assemblages with those at NAN Ranch, Old Town, and Swarts Site in the Mimbres Valley by evaluating whether or not diverse ecological settings within the region caused different technological characteristics of bone tools. To tackle the question, I will focus on analysis of the skeletal elements and species' concentrations of the worked bone assemblages and the diachronic characteristics of the sites' ecological location.

4:45

## **An Analysis of Projectile Points from the South Diamond Creek Pueblo**

*Chris Stanton*

*New Mexico State*

This presentation presents an analysis of the projectile points recovered from the South Diamond Creek Pueblo (SDCP) site. This project took place over two summers in 2016 and 2017 and involved a salvage excavation of a Classic Mimbres pueblo. The excavation of the site yielded numerous intact projectile points in various contexts. By integrating a Behavioral Archaeology framework, I will examine object agency—how agents and materials interacted in an environment—using the spatial and temporal associations between the context of the projectile points recovered from the SDCP site and the Mimbres peoples. To achieve my research goal, I will discuss the morphology of the SDCP projectile points, their use-life, and the interactions between Mimbres peoples and their surrounding groups within and beyond the Mimbres study area.

**Friday Evening October 12, 2018**

**Double Eagle Restaurant,  
2355 Calle de Guadalupe Mesilla, NM**

6:15 pm No Host Cash Bar

6:45 pm Banquet

7:30 pm Invited Lecture

*Invited Lecture*

**"Some Thoughts and Reflections  
About Mimbres Archaeology: Past and Future"**

*Harry J. Shafer*

*Curator of Archaeology*

*Witte Museum, San Antonio*

Despite being left to relic hunters for nearly 60 years, Mimbres archaeology came of age with the onset of the Mimbres Foundation research in 1974. This effort stimulated other new research interests in the region that together has altered our perspectives about Mimbres culture and society. I will share some thoughts and reflections about Mimbres archaeology, noting accomplishments, current research gaps, and impacts of climate change.

## Saturday Morning October 13, 2018

### Session 5: Recent Survey and Excavation in the Upper Gila River Valley, Arizona: Aggregation and Dispersal

*Organized by Robert J. Hard*

8:45

#### **Archaeological Survey in Arizona's Upper Gila River Valley: 2014 -18**

*Mary E. Whisenhunt<sup>1</sup>, John R. Roney<sup>2</sup>, and Robert J. Hard<sup>1</sup>*

<sup>1</sup>*University of Texas at San Antonio* <sup>2</sup>*Colinas Cultural Resource Consulting*

Southeastern Arizona's upper Gila River Valley is an understudied area that includes both large, aggregated prehistoric sites and small rock ring, pithouse, and pueblo sites from the Early Agricultural to Salado periods. University of Texas at San Antonio Field School surveys conducted from 2014–2018 have identified and recorded approximately 50 sites located in a variety of environmental settings, including terraces along the main stem of the Gila River, floodplain, side drainages, and higher-elevation locations. While a geospatial information system site probability model underpins the survey's judgmental aspect, local informant knowledge was critical in identifying many of the sites, particularly those occupied during the Ceramic period. Site location, density, size, and persistence over time will be analyzed in relation to environmental zones and the distribution of arable land along the Gila River. Most of the sites in the research area remain vulnerable to pothunting and agricultural land modification, heightening the need for continued survey work and strong local partnerships to identify and preserve these important sites.

9:00

#### **The Sanchez Site: An Early Pithouse Period Cerro de Trincheras on the Upper Gila River, Arizona**

*Robert J. Hard<sup>1</sup>, John R. Roney<sup>2</sup>, Mary Whisenhunt<sup>1</sup>, A.C. MacWilliams<sup>3</sup>, and Karen R. Adams<sup>4</sup>*

<sup>1</sup>*University of Texas at San Antonio* <sup>2</sup>*Colinas Cultural Resource Consulting, Albuquerque* <sup>3</sup>*Independent Scholar, Minneapolis* <sup>4</sup>*Archaeobotanical Consultant, Tucson*

The Sanchez cerro de trincheras is situated on a 650-foot mountain above the Gila River in the eastern end of the Safford Valley, Arizona. The site contains about 130 rock rings clustered on and near the top of the ridge and has perimeter walls with an aggregate length of 1.5 km. The site is unusual for a cerro de trincheras for multiple reasons including what likely is a constructed plaza. Based on the plain brownware ceramics the site is expected to date to the Early Pithouse period, A.D. 200-550. The Sanchez site has far more structures than most other Mogollon Early Pithouse sites. The 2018 field season work included the use of drone imagery, artifact collections, and feature excavations. These data are amenable to addressing issues related to village formation, population aggregation, and the regional role of this cerro de trincheras.

9:15

## **Internal Site Organization at the Sanchez Cerro de Trincheras**

*Kathleen A. Jenkins*

*University of Texas at San Antonio*

This research will focus on internal spatial organization at the AD 200-500 Sanchez cerro de trincheras site. The hilltop site is unusually large with over 150 features consisting of house foundations, storage structures, terraces and walls. The visibility of these features provides an unusual opportunity to evaluate the site's internal organization. The main, and possibly the most utilized portion of the site is defined by perimeter walls, house clusters, a plaza, and large cleared areas. Surface artifacts consist of brownware ceramics, chipped stone, manos, and metates and some are associated with rock rings. The spatial distribution of artifacts and features will be evaluated to make inferences about site use, formation processes, and social organization.

9:30

## **The Sanchez Site Plaza**

*Gabriella M. Zaragosa*

*University of Texas at San Antonio*

Surprisingly, the Sanchez site has what appears to be a plaza. It is a large, constructed space, 25m x 30m, cleared of rocks and bordered by a low cobble wall. The plaza is located 30 m north of the primary concentration of house foundations and lies in a saddle between two ridgetops. Systematic surface artifact collections from the plaza consist of brownware sherds and chipped stone. Plaza excavations focused on a feature and a test unit to explore plaza stratigraphy. Comparisons are made with other relevant communal features from the region. The plaza at Sanchez is of particular importance since plazas are largely unknown during this period in the Mogollon region and signifies communal activities.

9:45

## **Rock Ring Architecture at the Sanchez Site**

*Peggy Wall*

*University of Texas at San Antonio*

The Sanchez site presented an opportunity to obtain surface observations on about 130 intact surface rock rings. Two were completely excavated and partial excavations were conducted in three others providing details of feature construction and use. These features are not pithouses but created by piling cobbles on the surface to create massive lower walls. Many houses incorporated natural outcrops in their construction. Features constructed on slopes frequently involved substantial cutting and filling to create level floors. Floors were found at shallow depths and consisted of compacted surfaces. No postholes, pits, or hearths were found on the floors. The majority of entryway orientations were south-facing. These architectural data are relevant to issues related to the use of this cerro de trincheras.



10:00 Break

10:15

## **Estimating Labor Investment at the Sanchez Site using Drone and 3D Photogrammetry**

*Robert W. Gardner Jr.*

*University of Texas at San Antonio*

The 2018 fieldwork at the Sanchez site employed drone aerial photography and 3D photogrammetry to address questions related to labor costs. Given the volume of rock in the 1.5 km of walls and terraces and approximately 130 massive rock rings it is apparent that the Sanchez builders invested substantial labor in site construction. This project evaluates the efficacy of using drone imagery combined with 3D photogrammetry to gather volumetric data in an archaeological context. This paper focuses on the early stages of the project including image capture, 3D rendering, and preliminary results of the volumetric and labor cost data, techniques that may be useful in other archaeological contexts. The project's goals are to obtain volumetric data to produce an estimate of the person-years required to construct the site's major features and ultimately address issues related to labor and social organization.

10:30

## **A Preliminary Look at Double and Triple Rock Rings at the Sanchez Site**

*Michelle Carpenter*

*University of Texas at San Antonio*

The approximately 130 rock rings at the Sanchez site appear to have been used primarily for living spaces, with some likely used for storage. Most of the rock rings are single features but thirteen stand out. Ten double rings share a common wall and three form triplets. Construction and placement of stones may provide insights into construction sequences of shared rock walls. We examine a variety of data sets, including photogrammetry, wall height, doorway orientation, floor elevations, and artifact distribution to further our understanding of the behavior that produced these multiple rock rings at the Sanchez site with the goal of understanding their formation and use.

10:45

## **Obsidian Sources, Acquisition and Use at the Sanchez Site**

*Clinton M. M. McKenzie<sup>1</sup> and M. Steven Shackley<sup>2</sup>*

<sup>1</sup>*University of Texas at San Antonio* <sup>2</sup>*University of California, Berkeley*

The University of Texas at San Antonio and Colinas Cultural Resource Consulting recently conducted investigations at the Sanchez site (AZ CC 2:452 (ASM)) in southeastern Arizona. Obsidian was recovered from archaeological contexts and from nodules within Gila River Quaternary gravels below the site. On-site manuport nodules suggest some archaeological obsidian derives from these

gravels. Scarcity of site obsidian is juxtaposed with the abundance of nodules from the gravels. Archaeological obsidian from 2015, 2016, & 2018 collections, and nodules from the gravels, are the basis of analysis utilizing XRF and debitage studies. Results include parent origin, reduction processes, and implications for acquisition in the Upper Gila during the Early Pithouse period.

## Session 6: Mogollon and Beyond

11:00

### **Production and Distribution of San Marcial and Socorro Black-on-white Pottery Recovered from the Cañada Alamosa Project**

Mary F. Ownby<sup>1</sup>, Karl W. Laumbach<sup>2</sup> and Toni S. Laumbach<sup>2</sup>

<sup>1</sup>Desert Archaeology, Inc. <sup>2</sup>Human Systems Research, Inc.

Excavation of 8th century pit structures on the Victorio Site yielded significant amounts of San Marcial Black-on-white, an early Cibola White Ware. Found in tandem with equal amounts of Mogollon Red-on-brown, the type was considered to be intrusive to Cañada Alamosa. A second Cibola White Ware, Socorro Black-on-white, is found in significant quantities at Cañada Alamosa during the 12th century and is also considered to be intrusive. The quest to determine the production area or areas for these two types began with extensive collections of clays and sherds from both the Cañada Alamosa and the Rio Salado drainage system.

Chemical analysis (via NAA) and petrographic examination of clays and sherds has clarified similarities of raw materials and features that can be linked to geological formations. The results suggest a pottery producing area on the eastern flanks of the Gallinas Mountains northwest of Magdalena, New Mexico. Examination of San Marcial and Socorro Black-on-white from 13 sites in the larger region indicates that vessels made in that location were widely distributed. This finding has broader implications for a better understanding of Cibola White Ware exchange and the connections of San Marcial and Socorro Black-on-white to other types in this ware group.

11:15

### **Climate Change and Old Corn at Canada Alamosa: 4000 Years of Geomorphic and Isotopic Evidence**

Curtis Monger<sup>1</sup> and Karl Laumbach<sup>2</sup>

<sup>1</sup>USDA-NRCS National Soil Survey Center <sup>2</sup>Human Systems Research, Inc.

The Cañada Alamosa Project in southwestern New Mexico has produced a sequence of old corn beginning ca. 4000 BP. Geomorphic evidence of climate change during this period was investigated using the model: ↑Aridity > ↓ veg. cover > ↑ bare ground > ↑erosion-alluviation > ↑ local base level elev.-terrace formation

This ecogeomorphic model assumes that aridity causes an expansion of the nearby Chihuahuan Desert, currently 12 miles to the east of the Cañada Alamosa

Project. Carbon isotopes in organic matter of buried soils provide a way to track the desert's expansion as grassland species surrounding the desert use the isotopically-distinct C4 photosynthetic pathway while woody shrubs within the desert use the C3 pathway.

These data are supported by a suite of 23 radiocarbon dates that are used to reconstruct the broad outlines of climate change in the Cañada Alamosa, where human populations reached their maximum during the period ca 600 to 1400 CE, and provides a comparison with other regions of the American Southwest.

11:30

## **McDonald Corrugated Ceramics – A Stylistic Analysis of Vessels from the Point of Pines Region**

*Tammy Stone*

University of Colorado Denver

McDonald Corrugated ceramics are corrugated vessels with geometric patterns painted in white over the corrugations on the exterior of bowls and jars. This type is found in some branches of the Mountain Mogollon, though not all. In most places it dates between A.D. 1150-1280 but appears to continue as late as A.D. 1400 in the Point of Pines area (Breternitz, Gifford and Olson 1957), though in decreasing amounts. This paper presents a stylistic analysis of 136 whole vessels to further explore the form, decoration, and use of this type in the Point of Pines area. Specifically, I look at corrugation type, layout and motifs of the painted designs, the range of vessel forms used, and its decorative antecedents in the area.

11:45

## **The Toriette-Reserve Area Great Kiva: Results of the 2018 Field Season**

*Erin Baxter, Steve Nash, Michele Koons, Deborah Huntley*

*Denver Museum of Nature & Science*

The Toriette Lakes Great Kiva (TLGK) near Reserve, New Mexico was the subject of a 2018 field project under the auspices of the Denver Museum of Nature & Science. This high altitude, threatened site appeared to be a shallow, disturbed, somewhat isolated, square great kiva of unknown date. Survey, excavation, and remote sensing have refined this interpretation. This paper provides an overview of summer fieldwork, contextualizes the kiva within its surrounding landscape, reports on collaboration with Zuni cultural leaders, and makes a preliminary appraisal of its architectural features. We use Gilman and Stones' 2013 Regional Great Kiva Database as a starting point for assessing hetero- or homogeneity in relation to peer structures. In many respects, the TLGK remains enigmatic, but ongoing research should help to provide a better understanding of the development of the mountain community that surrounds it.

12:00

**Announcement:** Michael W. Diehl of Desert Archaeology, Inc. will host the 21<sup>st</sup> Biennial Mogollon Archaeology Conference (October 2020)

## Saturday Afternoon October 13, 2018

### Session 7: Mogollon

1:30

#### **Rock Art as Ritual Communicator: Reconceptualizing Form, Function, and Framework**

*Mary Brown*

*New Mexico State University*

Rock art is primarily approached as a non-artifact. Its two-dimensionality has confined its data potential to stylistic categories and symbolic meaning. As a result, rock art sites are largely ignored by the archaeological community in favor of sites possessing three-dimensional artifacts such as lithics, ceramics, and architecture. This has had a direct impact on the formation of a methodology to tackle questions regarding its production and use.

Rock art is not simply a graphic form of communication. It is a conduit that facilitates communication processes between humans, objects, locations, and non-humans. Transcending the concept that 'form follows function' necessitates the reconceptualization of rock art as an image-object artifact. Melding behavioral archaeology and communication theory permits study of the artifact's visual and non-visual performance characteristics as communication processes. Reconceptualization brings rock art data potential to the forefront of archaeological investigation and enables application of a behavioral framework that breaks free from the limitations of two-dimensional approaches, to understand production and use in New Mexico and beyond.

1:45

#### **Material Expressions of Mountains and Caves in the Jornada-Mimbres Region**

*Myles R. Miller*

*Versar, Inc.*

Among prehispanic and historic societies of the American Southwest and Mesoamerica, mountains and caves had multivalent metaphorical and symbolic meanings relating to underworld, ancestors, water, lightning, clouds, rain, and emergence. Mountains and caves are featured among origin and emergence myths of past and present pueblo societies across the American Southwest, and many contemporary pueblo societies regard themselves as relationally constituted through such ideational landscapes. Yet, it has often proven difficult to identify material evidence linking such landscape features to village settlements and their inhabitants. In the case of the Jornada and Mimbres regions, material expressions of this ideology can be now identified. Symbolic and metaphorical representations of these concepts were painted, carved, and modeled in many media, including rock art, on ceramics and kiva altars, and on items of shell, bone, stone, and wood, thus creating visible and outward iconographic expressions of such beliefs.

Equally significant is that beliefs involving mountains and caves are materially manifested far beyond the confines of these locations through the widespread occurrence of fossils, crystals, and speleothem deposited in ritual contexts. This paper explores the material manifestations of this underlying foundational cosmology, including possible abstract iconographic expressions present among Pueblo III and IV ceramic traditions.

2:00

## **Beyond the Village: Contrasting Mimbres Ritual Landscapes**

*Garrett Leitermann and Mary Brown*

*New Mexico State University*

Within Mimbres archaeology a substantial body of work has been produced examining the construction and organization of ritual architecture and spaces within Late Circle Pithouse and Classic Mimbres communities. Most often large communal pithouse structures, plazas, and corporate kivas at large, aggregated village sites have been the focal point of these works. While this past research has contributed considerably to our understanding of ritual organization at some of the largest Mimbres sites, there has yet to be much discourse as to how such spaces and practices are created in domains outside of large villages. By drawing on Puebloan ethnography and archaeological evidence from the breadth of the Mollogon region, this paper will examine Mimbres ritual landscapes and practices as they are created at smaller pueblos. An attempt will be made to build a comparative analysis of these sites with previous research in order to examine construct a commentary on the diversity of ritual landscapes with the Mimbres continuum.

2:15

## **Projectile Points, Sorcery and Room Closure**

*William H Walker and Judy A. Berryman*

*New Mexico State University*

Magic and witchcraft, like many classic topics in the anthropology of religion, involve everyday things such as dogs, plant pollen, ashes, and arrow points. As such the archaeological record offers a rich source of ancient religious practices if we can link formation of its deposits to past ritual activities. For example, strata exhibiting ash and projectile points deposited on floors and in the fill of abandoned houses may derive from protective magic. Rather than haphazardly tossed hearth detritus and/or lost arrow points, these common deposits may reveal uncommon evidence of ritual reactions to malevolent power. In the ethnographic record of the American Southwest, ash and projectiles points offer protection against death and sickness caused by witchcraft and sorcery. Our case study at Cottonwood Spring Pueblo, a late prehistoric village (A.D. 1300-1450) in southern New Mexico, demonstrates that ash and arrow points prophylactically protected these places and their former occupants from harm.

2:30

**Patterns of Multi-Ethnic Population Aggregation at Cottonwood Spring Pueblo**

*Kristin Corl<sup>1</sup>, Dustin Wagner<sup>2</sup>, Michael Gable<sup>2</sup> and William Walker<sup>2</sup>*

*<sup>1</sup>University of Texas at San Antonio <sup>2</sup>New Mexico State University*

Ongoing excavations at Cottonwood Spring Pueblo (LA 175) suggest population aggregation within the El Paso Phase (A.D. 1300-1450) may have consisted of distinct groups integrated into one multi-ethnic community. Comparing the excavations at Area A, a large plaza orientated pueblo, and Area E, a series of linear pueblo room blocks, a number of significant differences in construction, use, and abandonment activities have become apparent using room comparisons. I explore these differences through the case study of Room 3 Area A and Room 1 Area E at Cottonwood Spring Pueblo, one of the largest in the region and one of the only pueblos with contemporaneous linear and plaza orientated room blocks. Many differences seen within Cottonwood Spring Pueblo such as layout, wall and room construction, frequencies of ceramic types, depositional artifacts associated with room closure and structural abandonment can be seen on a larger scale between El Paso Phase Pueblos located on either side of the San Andres/Organ Mountain divide. Cottonwood Spring Pueblos' location, straddling a cultural boundary between the Jornada and Mimbres branches of the Mogollon indicate differences within this multi-ethnic aggregated community will be important to understanding population aggregation and social change during this late Pueblo period across the Region.

2:45

**Land Usage Patterning of a Large Jornada Mogollon Pueblo: A Pedestrian Survey of the Dune Fields at Cottonwood Spring Pueblo**

*Brandon Gonía, William Walker and Judy Berryman*

*New Mexico State University*

Cottonwood Spring Pueblo (LA 175) is located on the western bajada of the San Andres Mountains and is a large multicomponent pueblo that spreads over several miles of terrain with various intra-site loci named Cottonwood A through F. Cottonwood Spring Pueblo consists of a very large artifact and architectural sprawl consisting of several El Paso phase (A.D. 1350-1450) roomblocks and at least one Early Dona Ana phase (A.D. 1000-1150) Mimbres pueblo. Cottonwood A, B and C are located on hillslope and mountainous terrain while Cottonwood D, E and F are located in the coppice sand dune fields at slightly lower elevations. In 2018, I conducted a pedestrian survey within the coppice sand dunes at Cottonwood Spring Pueblo beginning at Cottonwood E and terminating at Cottonwood Draw. Three distinct land usage patterns are evident in the survey area and may be indicative of further land usage over the entirety of the Cottonwood Spring Pueblo area. This survey and its subsequent analysis could be used to locate land usage areas such as architectural loci, processing areas and possible agricultural fields at Cottonwood Spring Pueblo and other large-scale Jornada Mogollon pueblos in southern New Mexico.

3:00 Break

## Session 8: Ethnohistory

3:15

### **Ethnohistory and Mimbres Subsistence**

*Stephen H. Lekson*

*Curator of Archaeology University of Colorado Museum of Natural History*

Ethnohistorical accounts of Apache and, later, Hispanic/early Anglo subsistence patterns offer insights for understanding Mimbres regional prehistory. The author's various studies along these lines were presented at early Mogollon Conferences, or appended to contract reports, or buried in unpublished SHPO and NPS overviews. This paper summarizes key points of interest.

## Session 9: Jornada Mogollon Area

3:30

### **Shedding Light on the Darkness: Stacked-Rock Feature Sites on the Carrizozo Malpais, White Sands Missile Range.**

*Mark Sale, Moira Ernst, Matt Swanson and Amy Silberberg*

*Amaterra Environmental Inc., Las Cruces*

Recent investigations have recorded several Formative period sites with stacked-rock features situated atop the Carrizozo Lava Flow, or Malpais on White Sands Missile Range (WSMR). As many of the features appear to be habitation structures, these sites represent previously unrecognized elements of the Jornada settlement systems/land-use patterns. This presentation discusses site characteristics, preliminary indications of site patterning, and potential motivation for construction within the inhospitable Malpais formation.

3:45

### **Assessing the Evidence for Mimbres Integration into Jornada Villages along the Eastern Tularosa Basin, New Mexico**

*Alexander Kurota, Thatcher Rogers and Evan Sternberg*

*Office of Contract Archeology, University of New Mexico*

Recent investigations at four Doña Ana phase villages on White Sands National Monument and White Sands Missile Range in the eastern Tularosa Basin have identified a variety of cultural traits associated with the Mimbres Mogollon. Extraordinarily high frequencies of Mogollon pottery, as well as similar mortuary patterns, agricultural practices, and possible evidence of gambling point to direct cultural influences from the Mimbres Valley. Petrographic analysis and INAA sourcing of Mimbres sherds from a sample of these sites indicate they were all made in the Mimbres region. Yet, a combined estimate of over 2000 to 3000 Mogollon painted and utility ware vessels imported to these sites (Lake Lucero

Site, Huntington Pueblo, Pole Site and Ricochet Village) suggest that some Mogollon groups relocated into the Tularosa Basin. We present features associated with residential and farming activities as well as trade items and a wide range of Mimbres Black-on-white painted designs. This paper interprets new data on previously recorded sites in the region from surveys and excavations.

4:00

## **Agricultural Terraces and Irrigation Systems Used During the Mid-Mesilla Phase in Tularosa Canyon, Otero County, New Mexico**

*David Greenwald and James A. Neely*

*Jornada Research Institute*

Excavations at Creekside Village in Tularosa Canyon have identified a series of agricultural terraces with an associated ditch system confidently dated to the mid-Mesilla phase. Characterized by earthen berms, the terraces form level field areas that were developed within Pleistocene loess sediments on the lower slope of the main ridge of Creekside Village. Irrigation water was delivered to the terraced fields via a small ditch from which a series of shallow field ditches conveyed water to the agricultural terraces. This paper presents preliminary investigative results of ongoing studies that continue to define the spatial extent and design of the field terraces and the water conveyance system specifically used to supply these fields. It addresses identified water sources and posits additional water management features (including a reservoir) and strategies used by Jornada Mogollon agriculturalists during the seventh century A.D. Additional irrigation and agricultural systems found at Creekside Village will also be briefly presented to demonstrate the intensity with which residents focused on an agricultural subsistence strategy.

4:15

## **Clay and Stone: Petroglyphs at Three Rivers Petroglyph Site Compared with Mimbres Ceramic Painted bowls**

*Joan E. Price*

*Jornada Research Institute*

Participants in professional and volunteer archaeological field schools, independent scholars, and directors of archaeological research projects have noted that a significant number of petroglyphs at Three Rivers Petroglyph Site in the northern Tularosa Basin appear to be in the style of Mimbres pottery designs. There is significant evidence of trade in painted pottery pieces between Three Rivers and Mimbres culture groups--sherds of each are found at the others communities. Price will illustrate and briefly discuss motifs found on both decorated stones at Three Rivers Petroglyph Site and on early and classic Mimbres ceramic bowls that suggest shared visual and social concepts of a sacred ritual landscape. Price draws on contemporary scientific findings, the MimPDD online image database of over 9,000 Mimbres pottery designs, examination of the UNM Maxwell Museum Mimbres pottery archives and public exhibit and contemporary



Native American interpretations of petroglyphs at Three Rivers Petroglyph as well as 25 years of field experience visiting Three Rivers Petroglyph Site on a regular basis.

## Session 10: Northern Chihuahua

4:30

### **Mimbres Pottery in the Bootheel and Northern Chihuahua**

*Thatcher A. Rogers*

*University of New Mexico*

Archaeological investigations into the Classic Mimbres culture of southwestern New Mexico have often been relegated to the Mimbres and Upper Gila valleys, particularly those not driven by cultural resource compliance. Mimbres Black-on-white pottery, however, have been found on sites across northern Chihuahua in small, but consistent frequencies. Charles Di Peso's 1960-1961 excavations at the Viejo period Convento and Reyes sites in the Casas Grandes valley recovered several ceramic types associated with Mimbres and Cibola culture areas. Initial design analyses conducted at the same time identified similar diachronic changes in the Mimbres and Casas Grandes areas. More recently, archaeological investigations in the Bootheel of New Mexico and portions of southeastern Arizona, an area that became tied into the emergent Casas Grandes system during the Late Post-Classic, have also documented Mimbres and Casas Grandes pottery on numerous small sites. This paper discusses these trends, their known and hypothesized connections to the Mimbres valley, and implications for the Viejo and later Medio periods.

4:45

### **Common and Ritual Use of Two Casas Grandes Cliff Dwellings on the Sierra Madre, México**

*Jupiter Martinez-Ramirez*

*Centro del Instituto Nacional de Antropología e Historia en Sonora*

Ball courts, large agave ovens and maybe platforms have been considered as part of the ritual life for the Casas Grandes habitants (mainly Paquimé), but looking towards the Sierra Madre mountains there's no clear evidence related with these features. With the exception of Cerro Moctezuma Atalaya, no significant architecture constructions are located or clearly defined among this rugged land, at least on the Sonoran side, then the question is, what kind of archaeologist evidence do we have to look to identify some sort of ritual activities on the mountains sites?

This paper analyzes Cueva de Ochoa Cliff Dwelling and La Cueva Cliff Dwelling located on the Bavispe and Bacerac municipalities respectively. The data indicates different uses on the sites even though they are of the same geological feature type, but small details make the difference as the rock art, the statistics of food residues and the community scale interpretations will help to find those ritual spaces.

## **Special Thanks to**

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Director Dr. Fumi Arakawa

NMSU Anthropology Department

NMSU Anthropology Graduate Student Organization

NMSU Conference Services Event Coordinator

Catering by Sodexo at NMSU

## **Conference Hotels**

Sleep Inn  
Comfort Suites

Cover and interior art are  
modified versions of a freehand sketch by LCL  
of the interior of a Mimbres Bowl curated at the  
New Mexico State University Museum  
Las Cruces, NM

## NOTES

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