Friday, October 7, 2016

Session 1: Mimbres Chronology

9:00 a.m.
Introduction to Mimbres Chronometrics: Data, Quantitative Methods, and Preliminary Patterns
Myles R. Miller and Stephen E. Nash

As part of the workgroup on Mimbres region chronologies the participants compiled a comprehensive database of dates from the Mimbres, Eastern Mimbres, and Gila subregions. Over 600 tree-ring samples, 600 radiocarbon dates, and 100 archaeomagnetic dates were compiled and evaluated for their ability to contribute to chronology building. The current status of the databases and the procedures used to evaluate and refine the dates, particularly those obtained before the 1990s, will be summarized and an overview of the Bayesian statistical theory, methods, and models used to analyze large numbers of radiocarbon and archaeomagnetic dates to identify phase and period boundaries will be reviewed. Preliminary results will be presented to establish a foundation for the more detailed papers dealing with Mimbres chronologies to follow.

9:15 a.m.
Chronometrics of the Mimbres Region Archaic and Pithouse Periods
Roger Anyon, Darrell Creel, Barbara Roth, and Chris Turnbow

A recent compilation of chronometric dates from the Mimbres region Archaic and Pithouses Periods revealed an unexpected richness of data with substantial numbers of tree-ring, radiocarbon, and archaeomagnetic dates. There are over 100 radiocarbon dates for the Archaic period alone. During the pithouse periods the tree-ring, radiocarbon, and archaeomagnetic data complement each other. For example, many radiocarbon dates in the AD 900s indicate that the gap in the tree-ring record is most likely a result of behavioral changes in wood use and not a gap in occupation. We review the data with respect to strong cases, biases, and critical gaps that provide new research opportunities.

9:30 a.m.
Classic and Postclassic Mimbres Chronometrics
Kathryn Putsavage, Patricia A. Gilman

Assembling and analyzing the available chronometric dates from the Puebloan, that is, the Classic (A.D. 1000-1130) and Postclassic (A.D. 1130-1400), periods in the Mimbres region of southwestern New Mexico have given us new insights into two issues. First, we discuss clusters and gaps in the tree-ring record, and we note that the clusters represent construction or remodeling and not necessarily reflect major transitions in the archaeological record. Second, we have used Bayesian analyses of the radiocarbon and archaeomagnetic dates to delineate the boundary date ranges between time periods. Because of the richness of the tree-ring record, radiocarbon and archaeomagnetic dates are not frequently used, but these dating methods are key for understanding periods of transition in the record. We also consider the strengths and weaknesses of the Classic and Postclassic chronometric data base. These considerations have key implication for the Mimbres chronology as well as chronologies throughout the greater Southwest.
Session 2: West Mexican Influence in the Mogollon World

Session Abstract
Since Alfred Kidder’s pioneering work on Casas Grandes iconography, archaeologists have pondered the relationship between Mogollon and Mesoamerican groups. This interest intensified after Di Peso and his colleagues’ seminal work, and has become even more pronounced with the work of J. Charles Kelly and more recent scholars. Increased knowledge about both West Mexico and the Mogollon region has allowed the more systematic evaluation of past ideas and the proposal of new connections. This session serves to both evaluate existing ideas regarding the nature and extent of West Mexican-Mogollon interaction and to advance our knowledge of this topic by generating new ideas and presenting new evidence. The time range considered extends from the Classic Mimbres through the Medio period Casas Grandes cultures and the papers employ evidence ranging from bioarchaeology and shell sourcing to iconographic analysis. These papers reflect an emerging consensus of meaningful cultural transmission between the two regions, although the nature and timing of this interaction remains debated.

9:45 a.m.
South by Southwest: Archaeological Dichotomies, Orthdoxies, and Heterodoxies in the Mogollon
Marc Thompson and Myles R. Miller

Archaeologists attempt to answer tantalizing questions. Some divide the profession. Were Neanderthals ancestral to modern humans? Was there a pre-Clovis occupation of the Americas? Was Kennewick Man ancestral to modern Native Americans? Responses to these and other questions are often dichotomized, not unlike political allegiances. The question of influence, presence, and significance of Southwestern and Mesoamerican interaction also divides scholars. If Mesoamerica shaped Southwestern cultures, when and where is this evident and how must it be documented? Can exotic materials and similarity of artifacts, architecture, iconography, and languages be explained only by migration, diffusion and trade?

10:00 a.m.
Assessing Mesoamerica as a Concept and a Region in the Archaeology of the Southwest United States and Northwest Mexico
Michael Searcy and Todd Pitezel

The term “Mesoamerica” has been used to mean different things, including a geographical region, a set of common traits shared among cultural groups throughout time, and even anything south of the Mexico-U.S. border. This paper explores uses of the term in light of Gorenstein and Foster’s (2000) assessment of what constitutes Mesoamerica and how this has changed. Additionally, we examine how structuration provides an alternative view in understanding how structures of neighboring societies interact to produce what some archaeologists call boundaries, when in reality they are more similar to diachronically fluid spheres of interaction that cause regional structural transformation.

10:15 a.m. BREAK

10:30 a.m.
The Segmentary Nature of City-States in Southern Mexico: The Chichimec Contribution
John M.D. Pohl

Research over the past twenty years has forced us to reevaluate traditional evolutionary models for the Late Postclassic period. The shift toward political decentralization after the abandonment of Tula is often equated with notions of “collapse” or “fall” when in fact we know that many social institutions actually became more complex. In this presentation we examine the possibility that if tribes and chiefdoms appear
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to invest in systems of social stratification at the same time they are supplying exotic raw materials (like turquoise) to states, then states could be appropriating aspects of the segmentary systems of tribes and chiefdoms to reorganize themselves more effectively across wider geographical ranges than their Classic centralized state predecessors.

10:45 a.m.
**Bundling Knowledge: Bundles as a Means of Cultural Transmission between West Mexico and the Mogollon World**  
*Todd L. VanPool and Christine S. VanPool*

Cultural information is by definition transmitted, but ethnographic and archaeological analysis indicates that high fidelity cultural transmission is typically difficult to achieve without some supporting structure that reduces the likelihood of rampant invention of new traits and their acceptance as innovations. One means of high fidelity cultural transmission particularly common among New World cultures are bundles, in which physical objects act as mnemonic devices for religious/political ideas and outline their relationships in a fluid, larger structure. This allowed cultural complexes to have the flexibility to be adapted to novel local contexts, while also encouraging cultural continuity. Here we evaluate whether the introduction of West Mexican influence in the Mogollon region fits the pattern expected with the introduction of bundled concepts, and, if so, the implication this has on the timing and nature of West Mexican influence among the Mimbres, Viejo, and Medio period people. We find that Mesoamerica (especially Aztatlán) influence was frequent, perhaps even continuous, as early as the Mimbres Mogollon culture (AD 1000 to 1150), but that periods of rather rapid cultural adoption of West Mexican religious systems are indicative of the use of bundles to produce a transformation of Mogollon culture.

11:00 a.m.
**Imagining Paxis: Making Complexity at Casas Grandes**  
*Jerimy J. Cunningham*

Models for the emergence of complexity at Casas Grandes have tended either to focus on foreign influence or reference more systemic facets of local sociocultural evolution. In this paper, I consider a practice-focused approach to the emergence of Casas Grandes. Drawing on theory from material culture studies, I explore how material praxis may have constituted new social relations in the late Medio Period. In particular, I use Nicholas Thomas’ (1991) discussion of the promiscuity of objects to ask how exotic goods were redefined during consumption in the Casas Grandes setting and suggest that the making of high value objects and their use in ritual performances may have been key to the legitimization of elite power.

11:15 a.m.
**Commensal Politics and Rituals of Power: Examining the Casas Grandes Feasting Complex in the Postclassic Mesoamerican World**  
*Michael Mathiowetz*

This paper considers how politically charged community consumption practices in a public ritual context in prehispanic northwest Mexico operated within a shared ideology amid a constellation of local and regional networks in the Casas Grandes world that was centered at the paramount center of Paquimé. In identifying the specific political and ritual nature of these Casas Grandes feasting networks, which were first generally identified by Paul Minnis and Michael Whalen as a local evolutionary development, I then demonstrate instead how earlier and then contemporaneous Postclassic West Mexican feasting in the Aztatlán world served as the extra-regional politico-religious model and inspiration for social and political organization and feasting practices in Medio period northwest Mexico after AD 1200. This discussion enables a more clear view of the development of social networks of communities of
consumption among Pueblo societies in the U.S. Southwest after AD 1300. Rather than examining the Casas Grandes and Puebloan worlds as near bounded and isolated entities, a more expansive bird’s eye view of macroregional social networks and developments among their near-neighbors in northwest Mesoamerica reveals a much more dynamic and complex understanding of southwest and northwest Mexican social change when situated within the Postclassic Mesoamerican world system.

11:30 a.m.
**Comparative Approaches to Casas Grandes Mortuary Practices**
*Kyle D. Waller*

The mortuary practices at Paquimé, located in northwestern Chihuahua, Mexico, demonstrate perhaps the most variability in the Greater Southwest. Unique characteristics include a variety of corpse locations and positions, post-cranial burials in specialized polychrome urns, multiple burials below wooden boards suggesting ongoing ritual activities, post-mortem corpse processing, and human sacrifices. This paper applies key diagrams and a broad comparative perspective to test hypotheses about the development of mortuary practices at Paquimé. The results suggest both broad similarity with Mimbres and Mogollon mortuary practices to the north, while suggesting transmission and local of ritual practices from Aztatlan and Chalchihuites groups to the south and southwest. The implications for this mosaic pattern on Casas Grandes ritual practices and social organization are considered.

11:45 a.m.
**The Casas Grandes Regional System expansion into Sonora State**
*Jupiter Martinez*
Archaeologist, INAH Sonora

The archaeological project Sierra Alta of Sonora carried excavations on the site Bavispe (CHIH:C:09:004) in the municipality of Bavispe, Sonora, a very looted site with a Casas Grandes ceramic assemblage from the Medio Period but apparently with wattle and daub houses (bajareque); investigation results showed that the site had at least two compounds with several rooms with T doors, similar to Paquimé architecture. A hearth and a storage pit were dated getting a range of AD 1270 - 1325 (2 sigma calibration), just when the expansion of Casas Grandes regional system took.

The spatial distribution of the Casas Grandes regional system usually has been confined to the State of Chihuahua, southern New Mexico, a small portion of the Arizona boot and a highly variable line that runs through the Sierra Madre Occidental in the state of Sonora. Since the investigations of the Amerind Foundation, this mountainous area located to the west of Paquimé, was considered as an area requiring further study, especially as a forest with specific and different resources than Casas Grandes Valley.

The Sierra Alta of Sonora, project founded by the National Institute of Anthropology and History, has conducted research in this mountainous region within the state of Sonora Mexico, with the objective of understanding their regional dynamics; it has selected four prehistoric communities emplaced in different geographical contexts to find similarities and particularities. In this paper I will focus on the results of Bavispe site located in the Valley of Bavispe by the river of the same name, where the known sites usually presented upright stone alignments, except so far, the Bavispe site.

The archaeological evidence of Bavispe suggests that the Casas Grandes Regional system was expanding into the state of Sonora with symbolic and architectural elements that might relate to present elites directly linked to Paquimé, giving us elements to define a greater extent of Casas Grandes, than what is generally considered.

12:00 – 1:30 p.m. LUNCH BREAK
Session 3: General Mogollon

1:30 p.m.
**Preceramic Architecture in the Upper Gila River Valley, Southeastern Arizona**
*Andrea Thomas, Robert J. Hard, John R. Roney, A.C. MacWilliams, and Clint McKenzie*
Center for Archaeological Research, University of Texas at San Antonio

Recent research at the cerro de trincheras of Round Mountain in the Duncan Valley has revealed new details of rock ring architecture. Round Mountain includes 1.9 km of walls and 18 rock ring structures that was occupied during the Cienega phase of the Early Agricultural period. Surface documentation and excavation reveal new information about the construction, age, and role of these preceramic period rock ring structures.

1:45 p.m.
**Preliminary Investigation of Two Boots (AZ CC:4:32 (ASM)), An Early Mogollon Pithouse Site**
*Lori Barkwill Love*
Department of Anthropology, University of Texas at San Antonio

This paper presents the preliminary results of the excavation conducted at Two Boots (AZ CC:4:32 (ASM)). Two Boots, located near Duncan, Arizona, is an early Mogollon pithouse site consisting of at least eight known pit depressions that are associated with plain brown ware and a small percentage of red ware on the surface. In June 2016, test excavations were conducted in one of the pit depressions. The structure appears to have been burned. During the excavation, a burnt plastered wall and several small-to medium-sized, burnt beams were found. In this paper, I will provide a summary of the artifacts, ecofacts, and architecture found during the excavation. Comparisons will also be made between Two Boots and other early Mogollon pithouse sites in the Duncan valley as well as the greater Mogollon region. In addition, future work at the Two Boots site will be discussed.

2:00 p.m.
**Chronology of the Ho-Bar Site: Origins of the Mogollon Early Pithouse Period**
*Michael Pool*

Obsidian Hydration and conventional radiocarbon dates at the Ho-Bar Site range from 900 B.C. to A.D. 750, partially overlapping dates from nearby Mogollon Village. Perhaps more importantly, these dates are comparable to the Early Agricultural and Early Pithouse Period sites from the NM 90 Highway project. The Ho-Bar Site dates suggest that there is a Late Archaic/Early Agricultural Period in the Upland Mogollon area, as opposed to documented dates in the Lowland Mogollon of southern New Mexico and Arizona and the Mountain Mogollon of west-central New Mexico and east-central Arizona. They also have implications for the diffusion of maize agriculture during this time period. Was the diffusion of maize agriculture through contact diffusion from Mesoamerica along a mountain corridor, was it contact diffusion from southern Arizona, or was there a migration of agricultural people from southern Arizona?

2:15 p.m.
**Survey in Duncan Valley, Arizona: Mimbres Mogollon Aggregation and Unintended Consequences**
*Mary Whisenhunt*

My research examines prehistoric population aggregation and abandonment processes by analyzing how Mimbres Mogollon farming communities nucleated, and then dispersed in or abandoned Arizona’s Duncan Valley from the end of the Early Agricultural period to the Salado period. The upper Gila River Valley offers a unique opportunity to understand these dynamics. The project explores the interplay of
ecological and demographic pressures within a resilience theoretical framework. I suggest that community aggregation initially offered competitive advantages which enhanced social robustness, but eventually introduced social and ecological vulnerabilities. I will evaluate this hypothesis by surveying and recording sites in the Duncan Valley. Survey will focus on agriculturally productive locales most likely to have hosted prehistoric groups. Each site will be evaluated to determine whether it reflects aggregation or dispersal based on size; room, house, and roomblock numbers; spatial patterning; and the presence/absence of socially integrative features. The investigation will include an assessment of the diversity of temporally- and spatially-diagnostic ceramic assemblages. Diversity and other heterogenic responses enhances the resilience of social-ecological systems to uncertain future conditions, while periods of relative cultural homogeneity tend to occur prior to reorganization and transformation. Emergent patterns will suggest how regional populations changed in time and space.

2:30 p.m.
**The Reserve Area Archaeological Project 2015-6**
*Michele L. Koons, Deborah L. Huntley, and Stephen E. Nash*
Denver Museum of Nature & Science

For six weeks in 2015 and 2016, archaeologists from the Denver Museum of Nature & Science’s Reserve Area Archaeological Project (RAAP) conducted survey work in the greater Reserve, New Mexico region. They examined numerous tracts in a range of biomes to better understand the highly variable topographic setting and archaeological settlement patterns, documenting dozens of new sites in the process. After spending a week in the New Mexico site files in Santa Fe in March, 2016, the team also spent substantial time and effort re-locating and re-recording many previously (and often poorly) recorded sites in the region. The team’s future research will focus on the Torriete Lakes region north of Reserve, where a single isolated great kiva exists within a broad, high-altitude meadow. Small pueblos scatter the landscape like satellites around the great kiva and appear to encompass both the Reserve and Tularosa Phases. Survey work in 2017 will focus on a more detailed survey of the region, hopefully allowing us to parse the comparatively ephemeral Reserve Phase occupation from the more substantive Tularosa Phase occupation. All of this will be done with an eye towards developing an excavation program in 2018.

2:45 p.m.
**Thirty Years into Yesterday: A History of Grasshopper Archaeology**
*J. Jefferson Reid*
School of Anthropology, University of Arizona

Twenty-five years ago, the University of Arizona Field School at Grasshopper concluded 30 years of fieldwork initiated by Raymond H. Thompson, expanded by William A. Longacre, and concluded by me. The research potential will long outlive the directors and will never be repeated in the prehispanic archaeology of the American Southwest. This presentation highlights the unique achievements of Grasshopper research as it continues to provide a strong empirical case for testing contemporary explanations of past human behavior. It also emphasizes Longacre and Thompson’s contributions to Mogollon studies.

3:00 p.m. **BREAK**
3:15 p.m.
Salado period occupation of the Duncan/York Valley in the Upper Gila River Valley, Arizona
Kristin Corl, John R. Roney, Mary Whisenhunt, and Robert J. Hard
Department of Anthropology, University of Texas at San Antonio

The Salado period remains the focus of substantial discussion in the Southwest yet many important sites have suffered from decades of destruction. Documentation of the remnants of sites offers information about the character of the Salado occupation in this little known section of the Upper Gila River.

3:30 p.m.
Archaeological Sensitivity Modeling for Cultural Resource Inventory Planning, the Pinal Highlands, South-central Arizona: Prehistoric and Protohistoric Colonization of Hanging Valleys in Topographically Rugged Terrain
Sebastian Chamorro and Cannon Daughtrey

Survey in a rugged region known as the Pinal Highlands, has historically consisted of coverage limited in scope. While scholarship surrounding landscape use derives from few archaeological investigations conducted here or from happenstance findings, much of the land and its past occupants’ histories remain poorly understood. Posed at the edge of varied archaeological landscapes—entrepreneurial Hohokams, architectural Salados, stylistic Mogollons, and elusive Apaches—the Pinal Highlands hold more than is presently known.

Recent survey efforts in a remote portion of the Highlands resulted in the documentation of an interesting archaeological phenomenon—habitations, regardless of temporality or cultural affiliation, are characterized by the use of geologic formations tentatively termed “hanging valleys”.

Aiding land managers, cultural resource specialists, and clients alike, a model positing archaeological sensitivity in the Highlands is now developed. Upon spatially defining and isolating the biophysical characteristics and thus, the locations of “hanging valleys”, this model might be used in cultural resource inventory and project design planning, as well as elucidating our understandings of settlement systems in altogether, modernly inaccessible topographies.

3:45 p.m.
Jornada Mogollon Agricultural Sites in Southern Tularosa Basin Indicate Strong Relationship with Mimbres Mogollon Groups
Alexander Kurota
Office of Contract Archeology, University of New Mexico

Until very recently, it has been thought that the prehistoric Jornada Mogollon people of southern New Mexico did not practice high-yield agricultural techniques utilizing expansive masonry construction. Our on-going archaeological re-evaluations of sites at White Sands Missile Range in the southern Tularosa Basin have produced noteworthy discoveries of agricultural loci and associated features. Our research indicates that the Jornada Mogollon people were experienced farmers who constructed agricultural field complexes which consisted of dry masonry check dams, grid gardens and possible terraces. These farming features were placed strategically inside or in proximity to shallow drainages to capture seasonal water runoff. Simple fieldhouses as well as large pit structures were found in association with the agricultural loci. Initially, the presence of these agricultural features, coupled with exceptionally high frequencies of Mimbres Black-on-white ceramics and Mimbres-like burial attributes, was thought to imply that the Jornada Mogollon farmers were in communication with, and inspired by, the Mimbres Mogollon culture. Yet, radiocarbon dates obtained from the excavated features have been found to coincide with the period of abandonment of the Mimbres Valley. This underscores the additional
possibility that the ideas for the use of these agricultural techniques were actually brought to the Tularosa Basin by Mimbres immigrants.

4:00 p.m.
**Recent Research at a Jornada Mogollon-Manso Site, Leasburg Dam State Park, New Mexico**

Robert J. Stokes  
New Mexico State Parks

New Mexico State Parks and the U.S. Bureau of Reclamation recently undertook survey and limited testing at a proposed recreational vehicle expansion area at Leasburg Dam State Park along the Rio Grande north of Las Cruces. Survey indicated that the project area abutted a large area of surface artifacts and burned rock (LA 178466). Many of the sherds are typical for Jornada Mogollon sites, but numerous pieces of an unknown olive green glaze ware were also found. Extensive shovel probe testing in the project area revealed other pieces of the glaze ware adjacent to the site boundary, but also recovered one piece each of Gila Polychrome and Spanish Majolica (Puebla Polychrome). Trench monitoring discovered a large oval fire pit near this location which produced macrobotanical remains and a radiocarbon date. Based on the evidence gathered thus far, the site appears to be a transitional Jornada Mogollon-Manso occupation (1400s-1600s). Future research is planned within the site boundary which may provide additional archaeological data for this poorly understood local Native American transitional period after Spanish contact.

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**Session 4: Bioarchaeology**

4:15 p.m.
**Health and Wellness in Mimbres Society: An Assessment through the Cultural Sequence**  
Kathryn Baustian

The depopulation of the Mimbres Valley at the end of the Classic Period has been theorized as the result of a confluence of factors including, but not limited to, an overexploitation of local resources. A bioarchaeological analysis of Mimbres human remains sheds light on the plausibility of this explanation. Skeletal indicators of nutrition, illness, and physical development were documented for 247 adults ranging from approximately AD 550 to AD 1350. Results of analysis reveal low rates of nutritional or bacterial diseases. These findings indicate that the Mimbres people did not struggle to achieve their daily nutritional needs, nor did they suffer from diseases associated with increased population densities or changing subsistence strategies. The data suggest a reasonably healthy population throughout the Mimbres sequence, thus there may be utility in reassessing reasons for movement away from the Mimbres Valley later in the occupation.

4:30 p.m.
**Bioarchaeology at South Diamond Creek Pueblo**  
Sara M. Blahut  
New Mexico State University

South Diamond Creek Pueblo is a small Classic Mimbres pueblo located in the Gila Wilderness. Due to heavy erosion threatening the site, a salvage excavation was undertaken during the 2016 field season to collect and preserve potential data. This paper discusses the findings and interpretations of the recovered bioarchaeological evidence. Though the site was remarkable in that it was not heavily looted by pot-hunters, considerable bioturbation was present resulting in the discovery of many isolated elements. In total, six true interments were identified. Funerary objects were largely absent with the exception of two
burials. The first of these may be among the most elaborate of infant burials containing artifacts that are exceedingly rare for a site of this size. The second belonged to an older male individual whose noteworthy placement under the hearth leaves much to be considered.

4:45 p.m.
The Infant Burial at the Calderón site, Chihuahua: Context, Analysis, and New Interpretation
Danny Zborover
Institute for Field Research

In the summer of 2008, the Proyecto Arqueológico Chihuahua excavated one of the richest Viejo period burials known from the Chihuahua Culture Area. The burial was found in one of five occupation phases of an architecturally-complex pithouse at the Calderón site, and is dated between the mid-11th and mid-12th century CE. The unusually deep shaft was the final resting place of an infant, who was lavishly accompanied by hundreds of shell beads and other unique grave goods. While the raw materials for the offerings originated from the American Southwest and the Gulf of California, the artifact types and associated iconography strongly point to northern connections and worldview. Taken together, this private mortuary context differs significantly from other burials excavated at this site and in the region. In this presentation, I will argue that the infant burial and the multi-phase structure in which it was found were the embodiment of Viejo-period social memory tied to notions of ancestral places and fertility.

Saturday, October 8, 2016

Session 5: Recent Research on the Gila National Forest

8:30 a.m.
Archaeological Research in the Gila Forks Region and Beyond
Fumi Arakawa, Candice Disque, and Garrett Leitermann
New Mexico State University

The Gila Forks region encompasses both Gila National Forest and Gila Wilderness in New Mexico. The region is surrounded by several major Mimbres cultural areas, including the Upper Gila Valley, Mimbres River Valley, and Eastern Mimbres Valley. Although a great deal of archaeological projects have been conducted in these areas, there has been a lack of exploration and synthesis regarding archaeological research in the Gila Forks region. In this session, numerous New Mexico State University (NMSU) researchers will discuss our current knowledge of archaeology and cultural resources in the Gila Forks region. Along with the discussion of small- and medium habitation sites, the largest community-center, the Twin Pines Village site, will be the central focus of several presentations. The presenters will discuss a variety of topics, including subsistence patterns, exchange and trade, architecture, and cultural and physical landscapes.

8:45 a.m.
Ecological Comparisons, Environmental Reconstruction, and Population Estimates of the Gila Forks and Mimbres River Valley Regions
Kailey Martinez and Paul Van Wandelen
New Mexico State University

The American Southwest has been home to people and cultures for thousands of years, each with varying degrees of differences in their cultural characteristics and home range. The ecology of the Southwest,
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specifically New Mexico, also contains a vast array of variation. New Mexico contains five very distinct biomes, differentiated from one another by elevation, precipitation, and temperature, that determine the surrounding ecology. Minimizing the span of land, this paper will compare the local ecologies of the Gila Forks and Mimbres River Valley regions by attempting to reconstruct the environment that the people of the region would have inhabited c. AD 1250. Comparisons will include elevation, precipitation, faunal remains from the Twin Pines Village site, and present day wildlife data of the region. Results from these comparisons as well as structural information from the Twin Pines site will then lead to a final attempt to estimate the population density and carrying capacities of villages that would have been present in the two regions.

9:00 a.m.
Granaries in the Gila Forks Frontier: An Examination of a Flagstone Feature at Twin Pines Village
Candice R. Disque
New Mexico State University

During the 2015 New Mexico State University Summer Field School at the Twin Pines Village site, excavations were conducted that revealed what is presently defined as a Classic Mimbres granary. The characteristics of a granary are defined by flagstones with packed adobe, and stone slabs bordering the sides. Although the feature excavated at Twin Pines Village is composed of these characteristics, the uniqueness of it brings into question its function as a granary. These questions include the location of the feature, the lack of attached architecture, and the material culture assemblage, all of which resemble more of a communal or extramural feature rather than a food storage space. Current research into the possible function of this feature is being conducted through examination of the artifacts found; interpreting the spatial layout of and around the feature; and through floatation analysis of the soils collected. This paper will present the results of this research, as well as provide possible alternative perspectives for interpreting granary features at Classic Mimbres sites.

9:15 a.m.
Intercultural Trade and Interaction in the Mimbres Gila Forks Region at Large and Small Pueblos
Garrett Leitermann and Kailey Martinez
New Mexico State University

Within Mimbres archaeology the topic of intercultural trade and interaction at Mimbres sites with surrounding cultural groups has long been dominated by the evidence put forth by large village sites. Classic Mimbres pueblos of approximately a dozen rooms or less have been argued to not have comparative assemblages of traded objects in relation to that of larger pueblos. In the Gila Forks region, NMSU has recently conducted a summer field session at Twin Pines, a large Classic Mimbres pueblo with approximately 50 rooms and will conduct a 2016 summer field session at South Diamond Creek Pueblo, a small Mimbres pueblo of approximately seven rooms within several miles of Twin Pines. A comparative analysis of the ceramic assemblages and other potential artifacts received through trade (obsidian, shell, turquoise etc.) of both Twin Pines and South Diamond Creek Pueblo can assist in detailing any similarities or dissimilarities between the nature and volume of trade between large and small size Mimbres pueblos. On a larger scale, this research will assist in documenting the nature of trade and cultural interaction in the Gila Forks region during the Classic Mimbres occupation.
9:30 a.m.
**Mimbres and the Gila Frontier: Using Ceramic Seriation at Twin Pines Village as a Tool in Defining Settlement Fluctuations**  
*James J. Hill*  
New Mexico State University

The Mimbres region of southwestern New Mexico has long been known for its unique and regionally dispersed ceramic traditions comprising a combination of Mimbres plain and painted pottery types. Twin Pines Village provides an excellent opportunity for interpretation of these characteristics that set these traditions apart from surrounding and contemporaneous settlements within the larger Mogollon construct. Here, I link pottery types to temporal periods known to the Mimbres Mogollon time sequence and correlate them to when Twin Pines was initially occupied, when it experienced heightened periods of aggregation and begin to deduce why it ultimately experienced marked fluctuations of population. Through a relative ceramic seriation dating method, I hypothesize two heightened periods of aggregation: a San Francisco phase Late Pithouse occupation as well as a Middle to Late Classic period occupation. Exploring its distinctive ceramic development which includes the presence of a high degree of Reserve phase pottery provides insight within the transitional cultural frontier between the Mimbres Valley and the Northern Gila known as the Gila Forks region. This research will hopefully expand upon the understanding of a larger and more collaborative relationship between regionally dispersed Mimbres groups that is clearly reflected as distinctly different indigenous developments.

9:45 a.m.
**Tool-Stone Procurement Patterns in the Gila Forks Region and Beyond**  
*Paul Andrew Duran*

Lithic data from the Twin Pines Village in the Gila Forks region of New Mexico can shed new light on tool-stone procurement strategies in the American Southwest. The goal of this research is to track the economic strategies among the Mimbres people by investigating stone-tool raw material distributions and procurements. I begin by defining local, semi-local, and non-local lithic materials in the Gila Forks region. Then, I investigate how groups in this region procured and used different raw materials using both mass and metric analyses. These analyses allow us to understand general and particular patterns of raw material distributions and lithic reduction processes at the site. For local and semi-local materials, I address the following points: 1) what types of tools were manufactured using particular raw materials? 2) did the residents of the Twin Pines site manufacture stone tools at the site or areas away from the main habitation area? For non-local materials, I use x-ray fluorescence (XRF) analysis for obsidian tools and their debris recovered from the site which address the issue of procurement from local obsidian quarries. My analysis ends with a discussion of local and regional interaction within the landscape, possible settlement patterns associated with procurement strategies, and tool-stone variables between local and regional raw material sources.

10:00 a.m.  BREAK

10:15 a.m.
**Twin Pines Obsidian: Projectile Points or Ritual Objects?**  
*Mary Brown*  
New Mexico State University

The ritual and ceremonial use of obsidian and projectile points is supported ethnographically among many indigenous groups of the Americas. A behavioral theoretical premise is used to examine the performance characteristics of obsidian projectile points recovered in 2015 from the Mimbres site, Twin Pines Village, in the Gila National Forest, New Mexico. The performance characteristics analysis intends to comprehend
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whether the obsidian points from Twin Pines were used for traditional purposes of hunting and warfare, or manufactured and used for non-traditional purposes, as ritual objects.

10:30 a.m.
**An Experiment in Design and Ballistic Performance of Early Mimbres Archery Technology**  
*Michael Morrison*  
New Mexico State University

The adoption of bow and arrow technology occurs in the American Southwest around A.D. 500. Evidence of chipped-stone arrow points excavated during the summer of 2015 at the Twin Pines site in the Gila National Forest in New Mexico, seems to indicate prominent use by the end of the Three Circle Phase (A.D. 900-1000). Combined with the lithic evidence from Twin Pines (primarily Cosgrove and Southwestern Triangular points) and data from extant examples of bows and arrows found from this period in the American Southwest, this report will discuss the research into the performance of Mimbres archery technology. The presentation will describe an experiment focusing on Mimbres bow and arrow (including projectile point) design characteristics and their effects on in-flight and terminal ballistic performance. The results of this experiment may broaden understanding into hunting techniques and warfare tactics employed by the people of Twin Pines and the broader Mimbres region.

10:45 a.m.
**Mimbres Frontier Culture: Results from the South Diamond Creek Excavation Project**  
*Trevor Lea, Candice R. Disque, and Kevin Conti*  
New Mexico State University

The South Diamond Creek Pueblo project is a salvage excavation effort to recover and stabilize a small Classic Mimbres site that is actively eroding from a hillside. Aside from natural erosion, the site shows minimum looting activities because the pueblo is located in the Aldo Leopold Wilderness of the Gila National Forest. This unique circumstance provides New Mexico State University researchers to gain insight into the Mimbres Frontier culture. In addition to contributing data to the current record of the site, the aim of the project has three initiatives: 1) to evaluate subsistence and mobility patterns; 2) to explore social organization and ritual practice within the site itself; and 3) to examine the relationship that may have existed between people at South Diamond Creek Pueblo and the large aggregated site of Twin Pines Village, located less than 5 kilometers away. This paper intends to address these potential research topics and the role this site plays within the Gila Forks frontier community.

11:00 a.m.
**Defining and Evaluating Pueblo Construction Episodes at the Elk Ridge Site**  
*Aaron Woods, Darrell Creel, and Barbara Roth*

During excavations at the Elk Ridge site in 2015 and 2016, evidence of several construction episodes was noted. These episodes included multiple occurrences of masonry walls on top of earlier adobe walls. In addition, several accretionary rooms of varied construction methods were noted. In this paper, we explore the construction episodes and variations of the architecture of Elk Ridge in an attempt to better understand pueblo growth, nuances in construction and remodeling episodes, and the chronology of room block creation, occupation, and use. Improved comprehension of construction episodes during these excavations may provide us with a foundation to begin understanding the nature of social organization at Elk Ridge.
Mimbres Pottery Production: Exploring Technological Organization through Time
Matthew Taliaferro, Bernard Schriever, Jeff Speakman, and Elizabeth Toney

For some time archaeologists working in the Mimbres area of southwestern New Mexico have sought to characterize the manner in which different prehistoric technologies were organized. As is the case with many Southwestern studies, attention was primarily given to ceramic technology. These studies have tended to focus on the presence of craft specialists within the Mimbres valley due in part to the black-on-white design styles that emerged in the area during the Late Pithouse period (ca. A.D. 550-1000). Recent syntheses of the extant NAA data allow for a more thorough characterization of the manner in which ceramic technology was organized during the Late Pithouse period, Classic period (ca. A.D. 1000-1150), and Black Mountain phase (ca. A.D. 1150-1300) in the region. Here, we present a more contemporary analysis of the manner in which ceramic technology was organized in the Mimbres area using Costin’s (1991) organization of production parameters coupled with extant compositional data derived from over 3000 samples submitted for chemical characterization by means of INAA. The results of these analyses demonstrate that ceramic technology in the Mimbres area became increasingly organized at the community level through time. We offer a few suggestions as to why this pattern possibly emerged.

The Style and Function of Fillet Rim Vessels
Tammy Stone
Department of Anthropology, University of Colorado, Denver

The use of fillet rims on plain and white-on-red bowls is a common decorative technique in the Mountain branches of the Mogollon during the Reserve and Tularosa phases. This paper presents preliminary results of a stylistic and functional analysis of 137 whole Tularosa Fillet Rim and Tularosa White-on-Red bowls to better understand the use of these types in both communal and domestic activities. Bowls used in this study are housed at the Arizona State Museum, the Field Museum of Chicago, and the Museum of Indian Art and Culture. These vessels range in size from miniature bowls (rim diameter = 5 cm) to large feasting bowls (rim diameter > 47 cm).

From Plain Wares to Polychromes: A Geospatial Evaluation of Ceramics across the Southwest
Andrew Fernandez, Andrew Krug, Brenton Willhite, Christine VanPool, and Clayton Blogett

The past 25 years have seen a significant increase in archaeological fieldwork in the Casas Grandes region of Chihuahua, Mexico. Investigations into ceramic distribution across the landscape will provide a greater understanding of the relationship between the Casas Grandes people and the hinterlands. In this study, we reexamine Carpenter’s (2002) influential model of ceramic distribution with additional site level ceramic data from the Greater Southwest. Archaeologists have traditionally used Geographic Information Systems (GIS) as a data management tool, when, in fact, the system’s strength lies in its analytical capabilities. This project will demonstrate the utility of GIS and propose a revised map of ceramic distribution in the Casas Grandes World.

11:15 a.m.

11:30 a.m.

11:45 a.m.

12:00 – 1:30 p.m. LUNCH BREAK

1:30 p.m.
Pick site for 20th Biennial Mogollon Conference (2018)
Session 7: Specialized Studies

1:45 p.m.
Legacy Data and Long Term Interactions of People and Animals in the Mimbres Region, AD 200-1450
Karen Gust Schollmeyer
Archaeology Southwest

Understanding how people maintain long-term access to animals for food and other uses is important in the context of archaeology and may also have implications for contemporary societies’ access to animal resources. This study brings together legacy datasets and museum collections to examine the long-term record of human population and settlement patterns, land use, and animal remains in archaeological sites in the Mimbres area. Over time, increasing population aggregation and sedentism contributed to altered environments around some villages, and access to some resources became more difficult. Other sites show markedly greater access to certain desirable taxa due to such factors as location and population history. A large body of published and unpublished analyses is applied to examining long-term trends in human use of animals, including the resilience of different taxa to human hunting and anthropogenic landscape change.

2:00 p.m.
Preliminary Findings from Recent Analyses of Paleobotanical Samples from NAN Ranch, Old Town, and WS-17, Southwestern New Mexico
Michael W. Diehl
Desert Archaeology, Inc.

In 2015, Desert Archaeology Inc. and Archaeology Southwest initiated a three year, NSF-funded study of previously-excavated but largely unanalyzed macrobotanical and osteofaunal assemblages from southwestern New Mexico. These span the Mimbres Mogollon and post-Mimbres sequence from the Early Pithouse period through the Salado period. In this presentation I review the goals of the project and discuss preliminary results from three assemblages analyzed in the last year: NAN Ranch Ruin, Old Town Ruin, and WS-17 (an Early Pithouse site near Cliff).

2:15 p.m.
Mimbres Exploitation of Native Copper within the Gila National Forest
Christopher D. Adams
District Archaeologist, Gila National Forest

The discovery of a native copper nugget in 2009 on a Classic Mimbres pueblo site in the Black Range Mountains of the Gila National Forest in southwestern New Mexico initiated an archaeological investigation of copper artifacts in the Mimbres area. This preliminary investigation involved a small sample of Mimbres prehistoric sites using the latest metal sensing technology available, utilizing experienced/trained metal sensing operators and documenting the geographic distribution of native and/or worked copper nuggets and copper artifacts within the Mimbres area of the Gila National Forest. This is the first formal archaeological investigation that has employed the use of metal sensing technology on Mimbres sites in the American southwest and more importantly this newly discovered evidence of Mimbres exploitation of native copper is extremely important in the Mimbres cultural area. This paper will present the results of the metal sensing survey but more importantly it will focus on the Mimbres exploitation of natural and/or worked copper nuggets, fragmented/crushed copper bells, copper fetishes and other copper artifacts that have been recently discovered on Mimbres pithouse and Classic Mimbres pueblo sites dating from A.D. 950 – A.D. 1130.
2:30 p.m.
Provenance Studies through Geochemical Analysis of Obsidian Debitage and Projectile Points from 76 Draw (LA 156980), New Mexico
Heidi F. Noneman and Todd VanPool

This study utilized x-ray fluorescence spectroscopy to geochemically source 35 obsidian artifacts found at the 76 Draw site located approximately 30 km south of Deming, New Mexico. This analysis serves as an expansion to previous provenance studies (VanPool et. al. 2013, Downs 2014) of approximately 147 obsidian artifacts excavated from the 76 Draw site. The majority of the 76 Draw obsidian artifacts were sourced to four major source groups in the American Southwest and Northwest Mexico: Sierra Fresnal, Antelope Wells, Antelope Creek (sub-source of Mule Creek), and Los Jagueyes. This analysis identified three source areas consistent with previous studies to which artifacts can be attributed: Sierra Fresnal (n=24, ~69%), Antelope Wells (n=3, ~0.09%), and Antelope Creek (n=3, ~0.9%). Three of the artifacts could not confidently be assigned to a known source group. One artifact was found to be a material other than obsidian. It is likely basalt, however, further analysis is needed. Geochemical sourcing of this obsidian provides information regarding the movements and landscape interactions of the inhabitants at 76 Draw.

2:45 p.m.
2016 Rock Art Recording at Apache Flats, New Mexico
Margaret Berrier
Jornada Research Institute

As part of a long term project to record rock art on the Organ Mountain – Desert Peaks Monument the Dona Ana Archaeological Society’s Rock Art Recording Team recently completed a project in the Apache Flats area west of Las Cruces (NMCRIS 133270) in 2016. This report presents findings to date including methods, distribution and possible cultural affiliations. Comparisons will be made between styles, locations and content with specific comparisons with other sites which have been labeled as Mimbres rock art sites.

3:00 p.m. BREAK

Session 8: Style, Identity, and Ritual

3:15 p.m.
Présence Mogollon and Salinas Pueblo Identities
William M. Graves and Scott Van Keuren

We explore the creation and transformation of group cultural identities in the Salinas Pueblo region from the A.D. 700s through the early Colonial period (late 1500s–late 1600s). We use the concepts of identity as being and identity as becoming from the cultural theorist Stuart Hall to identify those aspects of shared cultural identity that express “similarity and continuity” and those aspects that express “difference and rupture.” We argue that an original Mogollon identity or aspect—a Présence Mogollon—was foundational to the definition and expression of future group identities in the area. A Présence Mogollon was expressed in ritual architecture and in plain and decorated ceramics in Salinas communities. Changes in the frequencies of ceramic types and wares along with changes in ritual architecture offer clues as to how the Mogollon aspect of identity both persisted and was transformed. Being Mogollon, at least in part, was always foundational to being Salinas or Jumanos throughout the long history of the region.
ABSTRACTS

3:30 p.m.
**Chupadero Black-On-white: Production and Exchange in The Jornada Mogollon**
*Leon Natker*

Since the beginning of archeological research, style has been used to characterize and define numerous aspects of social interaction and complexity. Among the myriad of Black-on-white ceramic styles found in the Southwest is Chupadero. Produced in central and southeast New Mexico, Chupadero Black-on-white was possibly the longest lived of all the Black-on-white wares, manufactured from A.D. 1100 to 1550. Chupadero was also extensively exchanged. It has been found at sites from Texas to Arizona, and from the Galisteo Basin near Santa Fe to Casas Grandes in Chihuahua. Yet for all of its longevity and ubiquity in the Southwest, the style of Chupadero does not seem to change. The same two basic forms, bowl and jar, account for 98% of known vessels. The design style, based on rim morphology and painted decoration, appears to remain constant as well. In this research, I conduct an attribute analysis of decorative design and morphology of Chupadero in order to assess whether or not change in style occurs. Based on the results, I discuss the implications for the communities of practice which produced Chupadero. Finally, I discuss the implications of the production of this ware in the context of exchange in the greater Southwest.

3:45 p.m.
**The Serpentine Network?**
*Dylan Person*

The horned serpent is an easily recognizable figure in both Pueblo ethnography and ancient Mogollon artistic expression. Previous study has suggested a connection between the horned serpent and the supernatural Pueblo Water Serpent, as well as with similar Mesoamerican serpent beings. Beyond these similarities, what are the social roles played by these beings within oral tradition as well as in religious practice? How is this supernatural agency expressed in Mogollon material culture? These questions will be addressed through comparative analysis of traditional accounts of supernatural serpent beings to determine their relational patterns in North and Central American mythologies. Additionally, the role these beings play in human ritual behavior will be examined to infer how belief in these entities affected Mogollon material culture. The archaeological record shows a pre-Columbian continuity of the horned serpent image in the Mogollon region from AD1000 – AD1450 in ceramic and rock art. Combined with ethnographic information, this enduring presence in Mogollon material culture supports the importance of the horned serpent and provides context for a model of integrative Southwestern religious tradition.

4:00 p.m.
**Identity, Integration, and the Role of Ritual: A Case Study from the NAN Ranch Ruin**
*Stephanie Whittlesey*

DNA analysis (Snow et al. 2011) demonstrated that the NAN Ranch Ruin was occupied by several different ethnic groups, including possible Numic speakers from the western Great Basin and two different groups in northern Mesoamerica. This ethnic diversity is supported by differences in food-preparation and storage technology. In one important aspect, however, there is great homogeneity—mortuary ritual. There has been a recent trend toward viewing religion and ritual as explicitly political and a potential source of conflict rather than its long-held functions of promoting social cohesion, effecting social control, and integrating different social groups (e.g., Fowles 2013). Mortuary ritual at the NAN Ranch clearly seems to support the traditional view of religion. This paper explores mortuary ritual at the NAN community and its potential for melding together the diverse groups that lived there.
4:15 p.m.
**To Touch the Past: Exploring Mimbres Social Memory through Burials and Architecture**  
*Alison Livesay*

While social memory in archaeology can often be very theoretical and abstract, it can also be very tangible and concrete in its observable archaeological manifestations. In this paper, I explore various social memory practices with specific emphasis on the process, strengths of associations, and intimacy that ancient peoples had with their pasts as observed in architecture and burials in the Mimbres region of southwestern New Mexico. By taking a diachronic look at the superposition of structure over earlier structures and when and where intrusive burials placed into areas of earlier occupation occur, I examine how different corporate groups, living in distinct roomblocks, and other site inhabitants interpret the past and reference it. An approach that observes the ways Mimbres groups interacted with their dead, ancestors, founders, and quite literally build upon and touch previously occupied structures, allows for a unique perspective concerning how these perceptions, performances, and practices are played out over time on the Mimbres landscape. I weave into this paper a discussion of primacy and power, ritual, social inequality, and continuity through time. This research contributes to the discussion of both group and “place” formation, maintenance, and “abandonment.”

4:30 p.m.
**Extramural Ritual Architecture among the Mogollon**  
*Steve Swanson and Andrew Vorsanger*

Ritual and ceremonial activities were important aspects of prehistoric life among the Mimbres and Reserve Mogollon cultures. However, much of our knowledge of ritual architecture among those populations is of structures within settlements, and rather less is known about ritual architecture outside of settlements. In this paper we review evidence for previously recorded extramural ritual features in the Mimbres-Reserve region, including feature forms and landscape placement. We also describe several shrine-like features that we have recently recorded in the Mimbres (Deming, Tierra Blanca creek, Palomas creek) and Reserve (Tularosa Canyon, Sand Flat, Queenshead) culture areas. We discuss some of the challenges in the identification and reporting of shrine features, and the opportunities that study of such features have for understanding ritual landscapes.