

meaning of cultural traditions. The theoretical malaise at the root of this scepticism verging on nihilism shows that medieval archaeology still has to come to terms with such key concepts as symbols, style, and power. The paper offers a brief survey of the most recent developments in the field.

Curtis, Jason [153] *see Brenner, Mark*

Curtis, Jenneth (Parks Canada), Adrian Burke (Université de Montréal), Jamie Brake (Torngâsok Cultural Centre) and Pierre Desrosiers (Avataq Cultural Institute)
[147] *Documenting the Ramah Chert Quarries in Torngat Mountains National Park of Canada*

Ramah chert is a distinctive material for chipped stone technology that is well-known for its wide distribution across archaeological sites in eastern North America. Recent fieldwork is increasing our knowledge of several aspects of the quarry sites. This paper provides a review and update on the quarries as a contribution to the international inventory. We explore the geology of the chert outcrops and evidence of cultural activity. This information is further placed within the context of the period of use, products created, and geographical range over which they were distributed.

Cushman, David (SRI Foundation) [3] *First Chair* [3] *First Moderator*; [3] *first organizer*

Cuthrell, Rob (UC Berkeley)

[154] *Foodways, Practices, Colonial Experiences, and Elusive Identities: A Comparative Approach*

Many archaeologists have acknowledged the foodways/practice/identity nexus as an important space for political and social negotiation in colonial settings. However, because identities are multifaceted, multiscalar, and dynamic, exploring them using archaeological remains involves much uncertainty and ambivalence. This is particularly evident in colonial settings, where identities and identity-signaling practices were often central discursive problems. Using examples from colonial and post-colonial contexts from the east and west coasts of North America, this essay will explore how these issues affect archaeological interpretation.

Cutright, Robyn (Centre College)

[137] *Domestic Ritual in a Provincial Chimu Community, Jequetepeque Valley, Peru*

This poster explores small-scale domestic ritual in the LIP village of Pedregal, in the Jequetepeque Valley on the north coast of Peru. A wide range of rituals at multiple scales, from small offerings of burnt maize within houses to community-wide feasts, were integral to community life at Pedregal. The use of exotic materials in intimate household-based ritual acts drew Pedregal residents into contact with wider spheres of interaction, while feasting in the public sector of the site served to reinforce integrative community ties.

Cutright-Smith, Elisabeth (University of Arizona), Kacy Hollenback and Wendi Field Murray

[7] *Twenty Years Later: A Quantitative Assessment of NAGPRA's Impacts on American Archaeology*

The passage of NAGPRA in 1990 forever changed the discipline of archaeology. This legislation mandated repatriation of human remains and certain objects found on federal or tribal lands to culturally affiliated descendant communities, as well as those items in the possession of agencies and museums receiving federal funding. Yet twenty years later, we still do not have a clear picture of how this legislation has collectively changed the discipline in terms of method, theory, or practice. This paper seeks to understand the magnitude and direction of these changes through a quantitative content analysis of major anthropological and archaeological journals.

Cyphers, Ann (IIA-UNAM)

[156] *Subsistence Strategies at San Lorenzo*

Food production strategies in the lower Coatzacoalcos River drainage are risky due to unexpected fluctuations in environmental conditions.

In the early phases, the San Lorenzo Olmec diversified in a wide spectrum of resources in a mixed economy that incorporates fishing, hunting, and collecting with arboriculture and upland root crop cultivation. As subsistence demands increased through the Early Preclassic period, wetland resource withdrawal and production intensified, and maize agriculture in the wetlands became increasingly attractive despite its higher degree of risk from unpredictable flooding.

Cyr, Howard (The Department of Archaeology)

[111] *Geoarchaeological Research along the Oldman River, Southern Alberta*

Few early-middle Holocene age archaeological sites have been identified across the Northern Plains, leading archaeologists to speculate as to the effects postglacial environmental change had on the habitability of the area and on differential site preservation. Little is known about the development of Northern Plains river systems following the draining of the glacial lakes or about the impacts that river evolution may have had on both site selection by prehistoric groups and site preservation. This paper investigates the evolution of the Oldman River drainage in southern Alberta and addresses the possible impacts of alluvial activity on archaeological site preservation.

Czaplicki, Jon (Bureau of Reclamation)

[50] *The Fabulous '50s*

The 1950s is the decade that brought, among other things: the Korean War, polio vaccine, IKE for president, the original Disneyland, the Suez Canal crisis, the Barbie doll, the microchip, the death of the last Union and Confederate Civil War veterans, Sputnik, the space race, NASA, the US's Explorer satellite, rock 'n' roll, Elvis, the hula hoop, the 4 cent postage stamp [first penny increase in 26 years ('58)], the color TV ('53), B-52 bombers on full-time flying alert, and 509 TV stations by the end of decade. Well, what the heck was happening in archaeology?

[50] *First Chair* [141] *Second Organizer*

da Gloria, Pedro [47] *see Strauss, André*

Daehnke, Jon (Stanford University)

[225] *Places of Protocol: Lived Heritage, Memory and Materiality on the Columbia River*

There is increased demand by Indigenous populations for control of heritage, especially in accordance with their own practices and protocols. While non-Indigenous views on heritage often remain attached to the primacy of archaeological objects, it is often these forms of intangible heritage – protocol and practice – that are most relevant to Indigenous communities. This paper explores the Chinook Nation's efforts at cultural reclamation, especially their emphasis on "lived heritage". This is demonstrated most clearly by the resurgence of canoe culture, the rebirth of communal longhouses, and most importantly the teaching of the protocols associated with being Chinook.

Daggett, Adrienne (Michigan State University)

[53] *The Chronology of Exchange: An Example from Early Iron Age Southern Africa*

Research on exchange between forager and agropastoralist communities in the southern African Iron Age focuses on how exchange affects social organization and subsistence for both communities. Spatial and cultural associations between forager and agropastoralist sites are well-documented, but sufficiently tight chronology to demonstrate temporal correlation is often missing. The material record represents relatively short-term events, from which long-term processes are extrapolated. The disparity between the activities represented and their interpretation makes addressing cultural and economic exchange problematic. This paper will consider chronology, inter-site correlation, and interpretation for a better understanding of the dynamics of interaction in Iron Age southern Africa.

[124] *see Milligan, Colleen*

Dahdul, Mariam (University of California, Santa Barbara)

[56] *Possible Ecological Factors Affecting Variability within the Cahuilla Mortuary System*

Much of the variability observed in mortuary remains has been attributed to social complexity or status differentiation. What some studies have not taken into account are ecological factors that may have influenced mortuary practices, specifically among prehistoric hunter-gatherer groups. Within the Cahuilla mortuary system, there may have been a relationship between variability and ecological conditions. This paper will explore whether or not ecological conditions at the time of a Cahuilla individual's death was a factor in determining how much energy and material wealth the social group was willing or able to expend on the funerary process.

Dahlin, Bruce (Ancient Maya Environmental Studies Center)

[5] *A Tale of Three Cities: Revisiting the AD 536 Event in the Maya Lowlands*

Climate scientists and historians have long known that starting in AD 536 a dust veil blanketed the earth, causing extremely debilitating climate changes, crop failures and famines throughout much of the northern hemisphere. Empirical data of various sorts now show that its effects drastically altered climates for a short, but significant, time in the Maya lowlands, and there are reasons to believe that Maya societies were forced to adapt to these changes in ways that fundamentally changed the course of Maya prehistory. This paper will review the data from Tikal, Caracol and Calakmul, the largest reigning polities at that time.

[178] *see Magnoni, Aline*; [20] *see Terry, Richard E.*

Dahlstedt, Allisen (Arizona State University)

[137] *Beer, Meat and Potatoes: Dental Evidence for the Movement of Chicha, Llamas and Tubers between the Moquegua Valley of Peru and Highland Tiwanaku*

The movement of food goods between the Omo and Chen Chen populations of Peru's Middle Horizon Moquegua Valley has not been adequately investigated. By analyzing and comparing the rates of the complete Rio Muerto M70B Omo skeletal assemblage for the presence and severity of caries, calculus, abscesses, enamel hypoplasia, and attrition with the rates of local and foreign populations of known subsistence strategies, results are suggestive of an agropastoralist economy. With the integration of botanical evidence, as well as previous dietary studies conducted on Chen Chen and Tiwanaku populations, an inter-dependent relationship between all three communities is suggested.

Dalan, Rinita [251] *see Hargrave, Michael L.*; [251] *see Clay, Rudolf B.*; [251] *see Greenlee, Diana M.*

D'Alpoim Guedes, Jade (Harvard University) and Ming Jiang (Chengdu City Archaeology Institute)

[151] *Going back to Baodun: Challenges for Archaeobotanical sampling in the Chengdu Plain*

Sites of the Baodun culture (2700 BC) form a lynchpin in our understanding of the spread of agriculture to the Sichuan Basin, China; however none of these sites were sampled for archaeobotanical remains. This paper presents the results of feasibility study carried out to assess the potential for re-sampling previously excavated sites in the alluvial environment of the Chengdu Plain. A combination of geophysical prospection and small scale excavations were used to extract data. The efficacy, representativeness and efficiency of these sampling methods are examined.

D'Alpoim Guedes, Jade [151] *First Organizer*; [151] *Second Chair* [162] *see Meadow, Richard H.*

Dalzell, William (College of Wooster)

[184] *Lead Tesserae and the Roman Economy or How I Stopped Worrying and Learned to Love Lead Tokens*

The purpose of this paper is to reevaluate the Roman tesserae, primarily lead or bronze tokens of approximately the first and second centuries AD, in light of modern theories and apply knowledge of them to the study of the Roman economy. To this end, the study analyzes a sample of 2400 pieces from the British Museum and other collections. The majority of tesserae considered are from the city of Rome, along with specimens from the provinces. The remaining data is taken from in the few published catalogs, scholarly articles, and site reports.

Damiata, Brian (Cotsen Institute of Archaeology at UCLA)

[246] *Shallow Geophysics on Viking Age sites in Skagafjördur*

Critical to the success of the Skagafjördur Archaeological Settlement Survey is a robust subsurface exploration program. We use electromagnetic and electrical methods to locate sites and to identify concentrations of architecture. Once identified and confirmed, we use Ground Penetrating Radar (GPR) to define specific structures. Developing GPR as an excavation tool in Iceland has its challenges. The most important methodological refinements have been the mechanical removal of the surface grass; close transects spacing; and appropriate processing of the data using GPR-Slice software. These refinements make GPR an indispensable tool for the excavation of Viking Age turf farmsteads in Iceland.

Damp, Jonathan

[213] *Daily Practice and Early Southwest Domestic Space*

This study reviews attempts to analyze domestic space during the Late Archaic and Basketmaker periods in the Southwest. I focus on the use of space within pitstructures and ephemeral structures on the Colorado Plateau from the Zuni/Cibola area, Black Mesa, and Grand Canyon. Various methods of analysis are provided to show how social organization through gender or economy (farming versus foraging) may have contributed to the use of domestic space. A GIS-based approach best offers insight into daily practice in the early Southwest.

Damp, Nicholas (University of New Mexico)

[37] *Rethinking Tijeras Pueblo*

Fourteenth century aggregation of Ancestral Pueblo communities along the Rio Grande has long been a hotly debated topic among archaeologists. New research being conducted on Tijeras Pueblo (Cordell and Damp 2009; Cordell et al. 2009) may provide further clues into the aggregation process. By employing an approach that combines 461 tree-ring dates with a geographic information system-based (GIS) map we have re-defined previous interpretations of the site. As a result, new information on population growth at Tijeras Pueblo, important to exploring aggregation as a process, is slowly unfolding.

Dancey, William (Ohio State University) [244] *Discussant*

D'Andrea, Catharine [53] *see Brandt, Steven A.*

Daniels, James (ASM Affiliates, Inc.) and Mark Becker (ASM Affiliates, Inc.)

[161] *Geophysical Investigation and Archaeological Excavation of a Late Prehistoric Site*

Large scale excavations are often employed to understand the function and cultural activities associated with late prehistoric archaeological sites. However, these endeavors can be expensive and destructive. This study employs an efficient and integrative approach to assess cultural activities associated with subsurface artifacts. The integration of geophysical data, controlled surface collection data, geomorphology and topographic data using global information systems (GIS) was used to conduct a dynamic spatial and associative analysis of the archaeological record at a late Prehistoric site on near the Coast of Southern California in order to address site structure and function.

Daniels, Stephanie [217] *see Kozuch, Laura*

Danien, Elin (Univ. Pennsylvania Museum)

[229] *Self-Sacrifice, Tombs, and Trade: The Construction of a Ceramic Narrative*

From the time of its discovery in 1961 at the site of Altar de Sacrificios, the 'Altar Vase' has been the focus of questions. Five of the six individuals depicted and their home cities have been identified. But who is the sixth figure? And why is a young woman engaged in auto-sacrifice? This paper examines the vase together with relevant data accumulated over the past half century, to answer those questions as well as how a nice Chama Polychrome from the country made it down river to a tomb in the big city of Altar de Sacrificios, and why it's important.

Danis, Ann (Barnard College)

[235] *Pictured Tipi Site: Biographical Tradition Rock-art in Northern New Mexico*

This poster reports on a previously undocumented tradition of Western Plains rock art in northern New Mexico. Two seasons of rock art survey in the Rio Grande Gorge have brought to light dozens of detailed images of battles, tipis, horses, parfleches, and other material culture scratched onto basalt boulders. Following the "Biographical Tradition" known in the Western Plains, the images recount specific events, represent tallies, and express individual identities and tribal affiliations through stylistic detail. As such, they raise important questions regarding changing attitudes towards identity, landscape, and the construction of personal archives during the turbulent early colonial period.

Darley, Zaida (University of South Florida) and E. Christian Wells (University of South Florida)

[258] *Archaeopedological and Geomorphological Perspectives on Prehispanic Water Management at Palmarejo, Honduras*

The research discussed in this paper uses archaeopedological and geomorphological data to reconstruct aspects of water management at the prehispanic settlement of Palmarejo in northwestern Honduras. Mid-level settlements (not quite urban, not quite rural) have often been neglected in water management studies in Mesoamerica that attempt to investigate a representative sample of hydrological features and configurations by focusing on the extreme ends of the urban/rural continuum. Recent archaeological research at Palmarejo, a mid-level settlement, has revealed an unexpected degree of water management complexity involving the use of limestone sinks.

Darling, J Andrew (Gila River Indian Community) and Robert Valencia (Pascua Yaqui Tribe)

[225] *Return to Bacatete: Yaqui Resistance, Reconciliation, and International Repatriation*

In 1902, the physical anthropologist, Ales Hrdlicka, armed with a letter from Porfirio Díaz and under the aegis of the Hyde Expedition for the American Museum of Anthropology, removed the physical remains and possessions of Yaqui genocide victims from the site of Cerro Mazatán, Sonora. Today, negotiation for their repatriation resides in multiple overlapping political arenas. Some scholars may accuse Hrdlicka of anthropological racism, but such statements are political obfuscations, which downplay tragic historical realities and Yaqui memory. Yaqui Tribal action, instead, is the only focal point of social engagement that can lead to their reconciliation with an unburies past.

[158] *Discussant [193] Second Organizer*

Daron, Steve (Lake Mead National Recreation Area)

[253] *Ranching on the Shivwits Plateau*

Ranching has been an integral part of life on the Arizona Strip for over 100 years. J. D. "Slim" Waring arrived on the Strip in the early 1900s. Over the next 50 years he built a large cattle ranching operation that covered over 100,000 acres. The ranch included several cabins, corrals, dirt reservoirs or "tanks", and roads. This paper examines the physical remain associated with the Waring Ranch landscape on the southern end of the Shivwits Plateau on the west site of the Arizona Strip.

Darras, Véronique

[221] *Ritual and Trivial Uses of Obsidian: The Symbolic Dimensions of Blades among the Tarascans*

By the 13th century, prismatic blades become a common artifact among the Tarascans from Zacapu, Michoacan. The study of their spatial distribution at the site of Las Milpillas shows an undifferentiated distribution in both domestic and ritual contexts. Through these archaeological examples and ethnohistorical data, the symbolic dimension of the blade is considered. Two hypotheses are conceived: 1) the "banalization" of the prismatic blade is compatible with uses other than trivial (especially for bloodletting and ritual cutting of hair); 2) the consumption of green blades from a regional source is probably linked to the symbolism associated with that color.

Dasovich, Steve (SCI Engineering, Inc.)

[187] *230 Years of Living: Front Yard and Back Yard Archaeology in St. Charles, Missouri*

Old Main Street in St. Charles, Missouri has stayed residential for over 200 years. This has resulted in historic and prehistoric deposits remaining relatively undisturbed in people's yards. Late Prehistoric, French Colonial, and Early American Period materials have been found in several locations along Old Main Street. A volunteer archaeological program has provided much of the excavation labor.

Davenport, Bryce (Brandeis University)

[169] *Substance and Style: Evaluating Mixteca-Puebla Influence in the Aztatlán Complex*

The spread of the Mixteca-Puebla ceramic style linked Postclassic Mesoamerica and beyond, from the American Southwest to Pacific Nicaragua, into what many scholars consider a nascent international system of trade and political influence. On the West Mexican coast, this spread was accompanied by intense political, economic, and social change. In this paper I argue that the Aztatlán phenomenon of the Pacific littoral can best be understood as a series of local developments taking advantage of the Postclassic International style in order to generate idiosyncratic claims to legitimacy, rather than as an overriding 'wave of influence' from Central Mexico.

Davenport, James (Tulane University) and Kit Nelson (Tulane University)

[137] *Cuchimilcos and their Role in Interment Ritual for the Chancay*

Cuchimilcos have long been recognized as a marker of the Chancay Culture of the north central coast of Peru. Although they are part of the burial ritual, little has been ascertained about the role or significance of cuchimilcos. Specific attributes are examined in light of recent finds including excavations of a tomb near the town of Rontoy in the Huaura Valley and an x-ray fluorescence study of red paint found on both excavated and museum samples of human remains and cuchimilcos. From these data, aspects of interment ritual for the Chancay culture are examined.

Davies, Diane (Tulane University)

[175] *The Value of Chemical Analysis in Understanding the Function and thus Activities carried out in Ancient Structures: Results from the Maya site of San Bartolo, Petén, Guatemala*

Artifacts collected in excavations are often used by archaeologists to determine a structure's function. The results can be misleading as artifacts are most often found in secondary depositional contexts. Fortunately chemical signatures are mostly left in primary contexts even when all evidence of past activities has disappeared. Over 300 floor samples from an architectural group in the ancient Maya site of San Bartolo were analyzed for phosphate and potassium. The results, combined with architectural morphology, associated features, and artifacts, proved successful in determining activities carried out in the individual rooms and thus the function of the structures as a whole.

Davila Cabrera, Patricio (INAH)

[195] *Algunas Características Arquitectónicas de la Region Huasteca en los Siglos XV y XVI*

Cuando los europeos llegaron al continente americano, Mesoamérica se encontraba en un proceso de unificación en el que participaron

varias áreas culturales, sin embargo, cada una de ellas continuó conservando los atributos básicos de sus tradiciones originales. Las investigaciones arqueológicas más recientes, en la región Huasteca, han llevado a refutar varios de los axiomas que fueron establecidos para especificar las características de su arquitectura. En esta sesión expondré algunas de las particularidades que hemos encontrado, tanto en sus elementos constructivos, como en sus patrones, los cuales distinguen a los constructores huastecos de los siglos XV y XVI.

[195] *Second Organizer*

Davis, Allison (University of Michigan)

[225] *Ancestors, Living Landscape, and Community Identity in an Early Village in Cusco, Peru (400 – 100 BC)*

The Andes Mountains are a rugged landscape comprised of river valleys, icy lakes, high grassy plains, and imposing glacial peaks. Historic and ethnographic accounts describe farming and herding communities who understood their shared identity and territorial rights as (1) established by ancestors, and (2) conceptualized through relationships with living landscape features. My excavations at Yuthu, a Formative period village in Cusco, Peru (400-100 BC) uncovered a sunken court, ritual canals, and 21 human burials that are material remnants of ceremonial practices shaped by similar ideology early villagers used to establish, renegotiate, and remember their place and privilege in the world.

Davis, Hester (Arkansas Archeological Survey), and Glen Akridge (Arkansas Archeological Society)

[38] *85 Years of Contributions by Amateur Archeologists in Arkansas* Contributions by amateur archeologists to preserving Arkansas's past began in 1925, when Sam Dellinger, Professor of Zoology and head of the University of Arkansas Museum, found that museums in the east were accumulating large collections of Arkansas's prehistoric artifacts. He began an effort to save archeological sites and artifacts for Arkansans. With the creation of the Arkansas Archeological Society in 1960 and the Arkansas Archeological Survey in 1967, these efforts intensified. Amateur contributions continue to this day largely because of the successful Society/Survey Training Program now in its 45th year.

Davis, Judy (HDR | e²M) and Ben Fischer (HDR | e²M)

[165] *Settlement Patterns of the Mormons and Chinese in the American West*

Mormon settlers and Chinese immigrants played key roles in the settling of the western frontier. Although both groups pursued differing goals, their settlements reflected their traditions and culture. Archaeological evidence illustrates how these two distinct groups interacted with the environment, with other settlers, and why they chose to live where they did. This poster focuses on reconstruction of the two groups' settlement patterns from their respective archaeological records.

Davis, Judy [165] First Organizer; [165] First Chair

Davis, Katharine (Harvard University)

[245] *Heterarchy and Whole Camelid Butchering among Urban Residential Populations in the Classic Tiwanaku Period, Muru Ut Pata, Bolivia*

As the Middle Horizon site of Tiwanaku (AD 800-1000) experienced an influx of population at the ceremonial center, spaces around monuments were settled for residential occupation. Though cross-culturally such urbanization often signals a disconnect from pastoral activities, such is not the case in Muru Ut Pata. Traditional models of social complexity hold that meat-provisioning leads to the emergence of hierarchical systems of distribution. Data from Muru Ut Pata, however, suggests that members of non-elite households had direct access to whole animal carcasses. This paper explores the nature of heterarchical power achieved by residential groups through close connections with camelid herds.

[245] *Second Chair [245] Second Organizer*

Davis, Loren (Oregon State University)

[62] *Stratigraphic Context and Site Formation Processes at Paisley Five Mile Caves, Oregon*

Geoarchaeological investigations at Paisley Five Mile Point Caves establish a contextual perspective on its late Pleistocene to Holocene cultural occupations. Deposits within Caves 1, 2 and 5 are polygenetic in origin, comprised of aeolian, colluvial, alluvial, and biogenic deposits. Late Pleistocene-aged deposits are contained in all three caves, but are best exhibited in Cave 5. Cave 5 late Pleistocene-aged deposits are primarily comprised of aeolian dust influx and coarse clastic roof fall materials, reflected in lithostratigraphic unit 1a, and a deposit of reworked packrat midden materials combined with aeolian, colluvial, and alluvial deposits, which are designated as lithostratigraphic unit 1b.

[62] *see Stafford, Thomas W.*

Davis, Mary Anne [43] see Canaday, Timothy W.

Davis, Michael [226] see Wake, Thomas A.

Davis, Miriam (Delta State University)

[51] *Kathleen Kenyon and Women Archaeologists of the British Empire*

Women were prominent in the archaeology of the British Empire. In the early twentieth century archaeology was still primarily an amateur pursuit; paid positions were rare. Women with independent means could pursue archaeology almost as easily as men. Dame Kathleen Kenyon (1906-78) both made an important methodological contribution to the new discipline and excavated a site that changed scholarly understanding of prehistory. In the 1950s her excavations at Jericho pushed back the accepted date of town life by at least 2000 years and were instrumental in spreading the Wheeler-Kenyon method to the Middle East, where it has continued to influence archaeological field work to the present day.

Davis, Sara (Archaeological Investigations Northwest)

[108] *Stacked rock features along the Columbia River of Oregon and Washington*

Stacked rock features are typically difficult to evaluate in terms of function and age. Ethnographic and historical information indicate a wide diversity in both functions and ages for these types of archaeological features. Hundreds of stacked rock features have been recently identified in the Southern Columbia Plateau of Oregon and Washington, located in the Columbia Hills and on the broad terrace along the Columbia River. This large data set provides a unique opportunity to assess the function and age of rock features in this area. Analysis of these stacked rock features compares their geographic locations, morphology, size, and associated artifacts to provide general characterizations of stacked rock features in this region.

Davis-King, Shelly (Davis-King & Associates)

[81] *Glassowisms and Their Subsistence Support for One Person's Career Path*

This paper provides a glimpse into communications between Mike Glassow and the author during his first years at Santa Barbara, and connects these expressions to her exploration of Native American cultural geography. In 1972, Al Spaulding and he received "a pile of bread for two years work on Santa Cruz...." that led to his groovy observation that one needs "to spend time in a place so that you can understand why other people were there." This simple concept provided structure to understanding California Indian settlement, subsistence, and spiritual geography, explicated by using California's Winnemem Wintu cultural landscape as an example.

Davis-Salazar, Karla (University of South Florida), Edgar Amador (University of South Florida), Jason Miller (University of South Florida)

[162] *Undergraduate Archaeology at the University of South Florida-Tampa*

This poster presents an overview of undergraduate archaeology at

USF, a large, metropolitan research university in the Southeast US. As the first anthropology department in the country to offer a graduate degree in Applied Anthropology, USF traditionally has placed great emphasis on public archaeology. This poster considers how the applied emphasis at the graduate level has shaped the undergraduate major, including program goals, course offerings and content, student learning outcomes, and career paths.

Day, Grant (AMEC Earth & Environmental) [150] First Chair

Dayton, Chris (Cox|McLain Environmental Consulting, Inc.)
[231] *Excavations at Site 41DL203: New Data on the Late Archaic and Late Prehistoric in North-Central Texas*

The prehistoric archaeology of North-Central Texas remains marked by serious gaps in basic knowledge about subsistence regimes, chronology, settlement patterns, exchange, and paleoenvironment, even in relatively recent periods such as the Late Archaic and Late Prehistoric. The region's archaeology has lagged behind that of neighboring areas, due in part to a lack of multidisciplinary investigations of stratified sites. Recent data recovery excavations at Site 41DL203, a stratified 2,500-year series of near-channel occupations on Rowlett Creek in Dallas County, provide important new data that allow us to more confidently address some of these gaps.

De Anda Alaniz, Guillermo (Universidad Autonoma De Yucatan)
[148] *Watery Spaces of Life and Death: Ritual Practices in Cenotes of the Center of Yucatan*

The present work is based on the reports of an important number of artifacts, cave modifications and human remains found in cenotes of the Center of Yucatan State. This work analyzes the presence of these materials in specific cenotes, and makes first interpretations on the data obtained. We also examine their possible relationship with an extended cult activity in all the area of the Center of Yucatan and its possible origins.

De La Fuente, Guillermo

[23] *The Abaucán Sur Research Project: initial stages in the collaboration between archaeologists and archaeometrists (Dpto. Tinogasta, Provincia de Catamarca, Argentina).*

The Abaucán Sur research project began two years ago in the context of exploration and research of a new geographical area. This geographical area was almost entirely unexplored until the 70's with some few archaeological sites being known and investigated. Most of the archaeological evidence known from this area belongs to the Late (ca. AD 900 – AD 1200) and Inka (ca. AD 1480 – AD 1532) Periods of Northwestern Argentine region. One of the goals of the project focused in the development of an archaeometry program involving the studding of different types of artefacts, mainly ceramic, to understand certain aspects of ceramic production organization for these two periods (raw materials use, manufacture, function, and trade). The integration of the classical archaeological evidence and the archeometrical data is an ongoing work we are developing at this stage of the project. This paper is concerned with the exploration of the several ways archaeologists do this integration, paying especial attention to the links with local communities they are working in. This work involves the dissemination and diffusion of the main results obtained through research and how this information helps and lead people and archaeologist to a better understanding the past in the region under study

De Leon, Jason (University of Washington)

[194] *The Migrant Material Culture Project: Studying Modern Undocumented Migration through Ethnoarchaeology and Ethnography*

Undocumented migration into the United States has increasingly become a secretive, multi-faceted, and highly politicized cultural phenomenon. These combined factors have made studying undocumented migration a difficult task for social scientists to undertake. The Migrant Material Culture Project (MMCP) uses ethnoarchaeology along the southern U.S. Border combined with

ethnography in Northern Mexico to better understand this complex issue. Here I present data from the first field season of the MMCP and discuss the benefits and problems of combining archaeology and ethnography to study, interpret and explain a cultural phenomenon that is always clandestine and often contentious.

[156] *Discussant* [156] *Second Organizer*

De Leon, Jason [156] see Wendt, Carl J.

De Loecker, Dimitri [184] see Kindler, Lutz

Deal, Nan [56] see Johnson, John R.

Dean, Rebecca (University of Minnesota-Morris)

[16] *The Mesolithic/Neolithic Transition in Coastal Portugal*
In Portugal, Mesolithic shellfisher/gatherers persisted in marine environments after domestic economies were established in the interior. It is difficult to generalize about Mesolithic and Neolithic resource use, since faunal remains reflect the variation in terrestrial and marine species available to inhabitants of rocky shores, sandy estuary environments, and inland sites. Where regional trends are masked by variability in available resources, measures of energetic return prove easier to compare than more traditional zooarchaeological data. Assemblages from Mesolithic and Neolithic sites show a general trend toward lower energetic returns from wild resources, whether in shifting species compositions, or in diminution of shellfish.

Deats, Stewart [158] see Spurr, Kimberly

Decker, Jeremy (Valles Caldera National Preserve)

[41] *On a Foundation of Stone: Using Projectile Points in Building Culture History at the VCNP*

While adjacent regions in the Jemez Mountains have been the target of archaeological investigation for decades and have well-developed culture histories, the Valles Caldera National Preserve has been inaccessible and little is known about the chronology of human use in this landscape. Since 2000, archaeologists have collected 178 projectile points within the VCNP, mostly from surface assemblages. These points provide an opportunity to build a culture history for the caldera through evaluation of typology, raw materials, and obsidian hydration. This poster summarizes the available projectile point data, and provides new knowledge regarding chronology and land use within the Preserve.

[41] *First Chair*

Deckers, Katleen [157] see Riehl, Simone

Deel, Judith [187] see Meyer, Regina M.

Deely, Aislinn E. [259] see Blackwell, Bonnie A. B.

deFrance, Susan (University of Florida)

[64] *Animals and Social Distinction at the Wari site of Cerro Baul, Southern Peru*

The Andean Wari Empire used animals and animal products as a means to create social distinction. At the administrative capital of Cerro Baul in far southern Peru the distribution of animal remains in elite-occupied architecture indicates that the Wari acquired diverse animals for both food and non-food symbolic functions. The Wari relied on local pastoral production and engaged in long-distance trade including contact with coastal regions. I discuss intra-site variability in social function using the distribution of animal remains in different buildings and rooms across the site.

[245] *Discussant*

DeFrank, Laura, Brian Connolly (University of Pennsylvania), Fumi Arakawa (Crow Canyon Archaeological Center), Nathan Goodale (Hamilton College) and Timothy A. Kohler (Washington State University)

[19] *A Breadcrumb Trail: Using Projectile Point Variation to Address*

Migration

Production of material goods across space and time should have correlates in the out-migration of people from the Northern Southwest during the thirteenth-century. We aim to link the out-migration of the Mesa Verde region to variation in projectile point morphology by mathematically characterizing the shape of the bases of side- and corner-notched points from the central Mesa Verde and the Northern Rio Grande regions. Along with data regarding projectile point variation as well as temporal and spatial controls, we utilize Bayesian statistics and network graph analysis to examine cultural transmission and migration in the VEP II study areas.

Deily, Kristen [135] see *Bush, Jason*

Delaney-Rivera, Colleen (Cal State Channel Islands)

[127] *West Meets the Middle Ground: A Comparison of Coastal and Riverine Complex Sociopolitical Landscapes*

Humans often use and view space and landscape differently, although the societies may appear similar at first glance. This paper compares the sociopolitical landscape of two "simple chiefdoms" of pre-European contact North America: the Chumash of coastal southern California, and Mississippian-era groups from the Illinois River floodplain of west-central Illinois. While the subsistence systems were different (hunter-gatherer-fishers vs. maize agriculturalists), the sociopolitical power base of the chiefly groups were similar, being reliant on the land itself, as well as familial ties to the land.

[127] *First Chair* [127] *Second Organizer*

DelCastello, Brian (Cultural Resource Analysts), Andrew Bradbury (Cultural Resource Analysts), Andrew Martin (Cultural Resource Analysts), D. Randall Cooper (Cultural Resource Analysts) and Paul Bundy (Cultural Resource Analysts)

[172] *Lithic Analysis and the Avenue of the Saints Project*

Lithic artifacts recovered from sites excavated as part of the AOS project were subject to a series of analyses. Traditional methods such as technological and use-wear analysis of modified implements, individual flake analysis, and aggregate flake analysis were employed in conjunction with refitting and minimum analytical nodule (MANA) analyses. In addition to providing information concerning the prehistoric technologies in use, refitting and MANA provided data relevant to site structure and formation processes. This paper presents an overview of the methods used, how they were applied at the various sites, and the general results of the analyses.

DelCastello, Brian [172] see *Cooper, Randall*; [172] see *Herndon, Richard I*; [150] see *Bradbury, Andrew*

Delgado Kú, Pedro [20] see *Escamilla Ojeda, Barbara*

Delgado Ku, Pedro (Centro INAH Yucatán/AYERCPE A.C.), Bárbara Escamilla Ojeda (Centro INAH Yucatán/AYERCPE A.C.), Carlos Peraza Lope (Centro INAH Yucatán), and Marilyn Masson (University at Albany – UNY)

[20] *El Templo H-17 y la Sala Columnada H-15 del Grupo Itzmal Ch'en y su Contexto Comparativo*

En los últimos años se han llevado a cabo exploraciones arquitectónicas públicas en un barrio importante en el interior de la muralla de Mayapán, el Grupo Itzmal Ch'en, ubicado a 2 km al noreste del núcleo central del sitio. En este grupo fueron explorados el Templo H-17 y la Sala columnada H-15. El presente estudio consiste en un análisis comparativo entre las diferentes clases de edificios como son los templos y las salas hipóstilas de los individuos que coexistieron en los barrios y el núcleo principal de este sitio arqueológico del período Posclásico.

Demarest, Arthur (Vanderbilt University)

[218] *Morphing into Merchants?: The Aborted Early Transition to the Terminal Classic in the Southwestern Peten*

During the eight to tenth centuries some northern and coastal lowland Maya states changed through transition from Classic period k'uhul

ajaw political, ideological, and economic systems to PostClassic multipatterned patterns of power including merchant elites and an economy more involved in over-production and long distance exchange. Yet, most southern lowland states simply collapsed. The Cancuen city-state hegemony, however, began a very early transition in political economy and exchange systems in the eighth century. Recent findings regarding the nature and the failure of this precocious transition allow speculation on the general southern lowland collapse and why the western Peten never recovered.

[229] see *O'Mansky, Matt*; [212] see *Luin, Luis F.*

Demel, Scott (Northern Michigan University)

[102] *Using Features and Contents to Recognize Cultural Change*

Cultural features at the New Lenox site include hearths, processing, storage and trash pits, two types of houses, a unique burial feature containing three individuals and grave goods, and a 24 m by 16 m double walled enclosure of unknown function. These features will be described and to the extent possible be assigned to specific occupations at the site. I will also explore the possibility that the protohistoric component of the site is a refugee center where previously separate groups either border each other, or are mingled into one community, becoming symbolic kinspeople in the "Iroquois shatter zone."

Demoule, Jean-Paul (Université de Paris I)

[61] *European Neolithic Enclosures and Mississippian Monumentalities: Emergences and Collapses*

There is striking similarities between the first monumental enclosures of temperate Europe and the various earth monuments of American Woodland. This concerns the shape of certain complexes of ditches, but also the general process of emergence, from simple farmers communities to much more complex societies. But interestingly enough, in both cases this complexity collapsed after a while and does not produce urban societies like in other places in the world. The problem would be to understand the circumstances and the reasons of such collapses and to look for other examples in other places in the world.

Dempsey, Erin (University of Kansas)

[176] *The Utility of Dirt: Soil Studies at the Hopeton Earthworks*

Soil studies at the Hopeton Earthworks in Chillicothe, Ohio provide valuable information on Hopewell earthwork construction regarding soil placement, construction sequence and chronology, and site use. Geomorphological studies and magnetic susceptibility testing have been conducted on soils across the site. Most recently these techniques were used to study three sections of the earthworks via soil cores excavated during the summer of 2007. This paper presents the results of the 2007 research and briefly summarizes past soil studies at the site to develop an understanding of the earthworks' construction.

[176] *First Organizer*

Dengah, Francois [135] see *Cohen, Anna S.*

Dennett, Carrie (University of Calgary) and Steve Simpson

[202] *Tools of the Trade: Microbotanical Trace Analyses of Ground Stone Tools from El Rayo, Pacific Nicaragua*

In Central America, ground stone tools come in a relatively limited number of forms, most of which are easily identifiable by archaeologists working anywhere in the area. However, what they were used for in pre-Columbian times is often assumed based solely on tool type. For example, manos and metates are generally understood to have served for grinding maize among Mesoamerican groups. With the goal of gaining insight into dietary practices and tool use, this poster presents preliminary results of microbotanical trace analyses of ground stone tools from the site of El Rayo (N-GR-39), located near Granada, Pacific Nicaragua.

Dennett, Carrie [191] see *McCafferty, Geoffrey*

Deppen, Jacob (University of Washington)

[194] *Environment as an Explanation*

This paper will explore the issue of environmental and climatic explanation in archaeology. It will address (1) the history of these types of explanations, (2) the kinds of evidence that are in use, both archaeologically and environmentally, and (3) the problem of establishing causal relations between cultural and environmental phenomena. In an effort to be more than simply critical, the paper will draw on the philosophy of science and explanation to make some recommendations for improving archaeological explanations based on environmental and climatic phenomena.

[194] First Chair

Depratter, Chester [250] see Jones, Douglas S.

Derr, Kelly (Washington State University)

[203] *Human? Nature? or Both?: The Role of Local Fire on Valdes Island, British Columbia.*

Natural fire plays an important role in Pacific Northwest ecosystems. Regional ethnographic data also depict the importance of human-induced fire to increase plant productivity and shape surrounding landscapes. One of the most difficult tasks that researchers face when reconstructing fire history is determining if fires were natural or anthropogenic in origin. Fine-grained localized macrocharcoal data can provide us with a better view of anthropogenic fire.

Macrocharcoal analyses coupled with climatic and archaeological data from Shingle Point, Valdes Island, suggest that pre-contact peoples may have used fire as a tool to shape the localized landscape surrounding the site.

Desrosiers, Pierre [147] see Curtis, Jenneth E.; **[147]** see Burke, Adrian L.

Devlin, Sean (Washington and Lee University), Fraser D. Neiman (Thomas Jefferson Foundation), and Susan Payton (Washington and Lee University)

[166] *Middle Through Spatial Patterning*

While archaeologists have made great strides in understanding the interactions of elite and enslaved individuals within the plantation system, more middling groups such as overseers/farm managers have received less attention. Our research begins to address this lacuna through an examination of household economies of such individuals/family units. Our research draws on interpreting spatial variation in artifact patterning to denote specialized activity areas within the household landscape. In turn, this provides a basis for evaluating the complexity and autonomy of the household economies. Comparative analysis of contemporaneous enslaved households will highlight possible diversity among groups at Monticello in the early-nineteenth century.

Devos, Yannick [259] see Arroyo-Kalin, Manuel

DeWitt, Thomas [21] see Smith, Heather L.

Dexter, Jaime (University of Oregon)

[120] *Paleoethnobotanical Studies at the Erin's Cave Site, Southeastern Oregon*

Recent evidence from the Northern Great Basin documents human occupation there as early as 12,300 cal. B.P. Compared to the wetlands in the Basin, the arid uplands have been perceived as deprived landscapes unsuitable for human habitation and thus marginalized in research. I suggest the xeric uplands should be properly acknowledged as a critical landscape of the early human occupation and foraging activities. The Catlow Valley of southeastern Oregon is such an example. The paper investigates resource procurement strategies of the Late Archaic Period in the Catlow Valley, based on paleoethnobotanical data from the Erin's Cave site, a rockshelter.

Deymier, Alix [140] see Chastain, Matthew L.

Di Giuseppeantonio Di Franco, Paola [189] see Galeazzi, Fabrizio

Diaz-Granados, Carol (Washington University-St. Louis) and James Duncan

[62] *Rock Art in Caves and Rock Shelters: Searching for Evidence of Prehistoric Ritual Activity*

Prehistoric American Indian rock-art, mainly pictographs, have been found in over 40 rock shelters and caves in Missouri. These sites contain paintings in both red and black pigments and naturalistic imagery as well as enigmatic abstract designs. In this paper we review the rock-art recorded at several Missouri sites and discuss the iconography. We also take a look at the possible uses of these rock-art sites during the prehistoric and early historic period.

Diaz-Granados, Carol [22] see Jansen, Susan; **[115]** see Duncan, James R.

Dibble, Harold (University of Penn Museum), Alain Turq (Musée National de Préhistoire), Dennis Sandgathe (Simon Fraser University), Paul Goldberg (Boston University) and Shannon McPherron (Max Plank Institute for Evolutionary Anthropology)

[8] *An Overview of Roc de Marsal*

This paper discusses the site of Roc de Marsal in terms of the history of the excavations there and the site's basic stratigraphic sequence. It also presents background and context for the results of the new excavations concerning the lithic and faunal assemblages, site formation, and the major new discoveries concerning the abundant hearths and the deposition of the Neandertal child.

[8] First Organizer [58] Discussant

Dibble, Harold [8] see Aldeias, Vera I.d.; **[129]** see Schurmans, Utsav A.; **[8]** see Turq, Alain; **[8]** see Sandgathe, Dennis M.; **[8]** see McPherron, Shannon P.

Dibble, Loretta (Rutgers University)

[129] *Understanding Holocene East and North African Bone Harpoon Variation: Subsistence, Technology, Function and Style*

Bone harpoon points are ubiquitous throughout Northern and Eastern African regions during the Holocene. These worked bone artifacts characterize change in human subsistence strategies from hunter-gatherer foraging lifeways. These worked bone artifacts hold many clues to understanding local and regional human dietary and resource utilization shifts towards food production, and natural resource management. Considerable variation exists in harpoon shape and size, and in barb shape, spacing and size. Is the variation related to function or style? This paper presents a typology for barbed bone harpoons and the inter site and intra site variation for the Lake Turkana basin in an initial attempt to address the questions of stylistic or functional variability in barbed bone harpoons.

Dickinson, William R. [206] see Chiu, Scarlett

Dickson, D (Texas A&M University) and Jason W. Barrett (Texas Department of Transportation)

[139] *Cosmography at Nojol Nah, Belize*

Preliminary excavations at Nojol Nah, a newly discovered site in northwestern Belize, reveal an occupation sequence from the Early to the Terminal Classic periods. Present also, in various symbolic forms, are the key elements of Maya cosmology identified by Ashmore and Brady (1999: 144): "mountains of earth and stone, water lying within the earth and caves linking them altogether." Although the entire site appears to be abandoned in the Terminal Classic, limited ceremonial activity resumed during the Postclassic period. This suggests that, despite its abandonment and modest scale, Nojol Nah retained a cosmographic significance for the local Maya.

[91] Discussant

Diederichs, Shanna [19] see Glowacki, Donna M.

Dillian, Carolyn (Princeton University), Charles Bello (FEMA) and M. Steven Shackley (University of California, Berkeley)

[60] *Informal Mechanisms of Long-Distance Exchange*

Though formal long-distance exchange networks have been documented in prehistoric Eastern North America, not all exchange necessarily occurred in this manner. In fact, informal, casual, person-to-person exchange through mechanisms such as gifting, may have been equally important in transporting objects over long distances. Specifically, the small number of obsidian artifacts recovered from sites in the Middle Atlantic region documents long-distance exchange. Obsidian, as a chemically traceable and exotic material, provides evidence for informal and more casual exchange in Eastern North America. Such informal exchange may have cemented relationships between individuals and offered a social link to far away lands.

Dillon, Jennifer (Kenyon College) and Patricia Urban (Kenyon College)

[258] *Keeping the Fires Burning: Ceramic Firing Facilities at Las Canoas, Northwestern Honduras*

Recent excavation at the site of Las Canoas has revealed a sequence of three firing facilities dating from the Late and Terminal Classic. These resemble neither the earliest firing area from Las Canoas, nor the recorded firing facilities from the Late and Terminal Classic at sites to the north in the Naco Valley. These newly-discovered pyrotechnological areas will be compared to other known facilities in Southeastern Mesoamerica.

Dimmick, Frederica [38] see *Crowley, Suanna Selby*

Dixon, Christine (University of Colorado, Boulder)

[5] *Agricultural Organization and Field Boundaries: A Brief Look at Cerén, El Salvador*

The extraordinary level of archaeological preservation at Cerén has afforded valuable insights into ancient Maya food production. The discovery of multiple agricultural plots in the region south of the Cerén site center has changed our understanding of subsistence practices for this Classic Period village. This paper presents a compilation of data from recent field seasons to highlight our current knowledge of overall agricultural organization, particularly the relationship of maize and manioc planting areas to the site center. Additionally this paper discusses a zone of manioc production where possible separate but adjacent manioc fields were discovered in 2009.

Dixon, E. (Maxwell Museum)

[21] *The First Colonization of the Americas: New Insights from Large-scale Paleogeographic Reconstructions*

Advances in large-scale paleogeographic reconstruction define physical and environmental constraints relevant to understanding the timing and character of the first colonization of the Americas. Diachronic mapping shows continental glaciers coalesced in central Canada during the Last Glacial Maximum (LGM) 20,000 – 14,000 years ago while unglaciated refugia existed along the NW Coast. This visual analysis enables large-scale synthesis of recent geological and environmental research. These data establish timelines for a biotically viable colonization corridors connecting eastern Beringia to southern North America and provide insights into probable Paleoindian origins and subsistence strategies.

[21] *First Chair*

Dixon, Mary Lenn [93] *Discussant*

Dixon, Nicholas [34] see *Peres, Tanya M.*

Dodge, Robyn (The University of Texas at Austin)

[54] *Establishing Hun Tun, Insight from the 2008 and 2009 Field Seasons*

This paper examines the data collected during the 2008 and 2009 seasons at the Maya settlement, Hun Tun, initially identified in 2008 in northwestern Belize. Preliminary investigations focused on survey, mapping and testing courtyard spaces. Architectural evidence and material culture will be discussed generally in terms of chronology and possible function. Ceramic analysis suggests a single occupation with a Late Classic hiatus. Analysis of field research will be limited to studies of settlement patterns, chronological sequencing and

proposed function of limestone features. Research has yielded information pertaining to socioeconomic status, sociopolitical interaction and potential hypotheses related to these topics.

Doelle, William (Desert Archaeology, Inc.) and John Kantner (School for Advanced Research)

[14] *The Nonprofit "Pentagon" of the Southwest*

Five private nonprofit institutions arrayed around the perimeter of the American Southwest have very different missions and histories. The strategic plans of these institutions are considered within the context of their histories. Projections and suggestions for the future are developed. The institutions: Museum of Northern Arizona, Crow Canyon, School for Advanced Research, Amerind Foundation, Center for Desert Archaeology.

Doelman, Trudy [155] see *Jia, Peter Weiming*

Doershuk, John (University of Iowa) and John Cordell (University of Iowa)

[59] *Project 1047: New Deal Archaeology in Iowa*

The Iowa State Planning Board issued in September 1934 a comprehensive "Preliminary Report of Progress" to the National Resources Board. Included was description by supervisor Charles R. Keyes of "Project 1047." This project incorporated "the duty" of "supervising certain unskilled work in excavating Indian village sites and Indian mounds" and describes progress made the previous summer and a request for continued funding. The infusion of New Deal funding into on-going Iowa survey efforts led to new types of projects building on accomplishments of earlier work. Today, New Deal-funded Iowa archaeology collections continue to provide critical data and influence current practice.

Dolan, Patrick [203] see *Grier, Colin*

Domenici, Davide (Bologna University (Italy))

[107] *The Mosaic Tablet from Cueva Cheve (Oaxaca, Mexico) and the War of Heaven*

In this paper I suggest that the turquoise mosaic tablet found in 1989 in Cueva Cheve (Oaxaca, Mexico) can be interpreted as a Cuicatec representation of the Mixtec myth known as War of Heaven. The new iconographical reading of the tablet allows a new appreciation of the associated archaeological context of Cueva Cheve Chamber 1, whose elements strongly suggest that it could be interpreted as an activity area devoted to ritual communication and exchange with the ñuhus, the supernatural beings whose reciprocal relationship with humans was properly established by means of the mythical War of Heaven.

Dominguez, Nancy (ENAH) and Cristina García Moreno (Centro INAH-Sonora)

[57] *Recent Investigation in Southern Sonora, Mexico*

The Southwest-Northwest and Mesoamérica Interactions Archaeological Project located, in southern Sonora, Mexico, recorded 17 archaeological sites (including historical contexts) during the first field survey in 2008. One of the most important sites, Batacosa (SON:S:7:2) is currently the focus of our research including surveys and extensive excavations at the site. Batacosa is located in the municipality of Quiriego in the ancient limits between Yaquis and Mayos indigenous groups in southern Sonora. Preliminary results show that the site was of regional importance because its dimensions, the density of archaeological features, and the presence of local and foreign artifacts.

Doneus, Michael (University of Vienna), Christian Briese (Institute for Photogrammetry and Remote Sensing, Vienna University of Technology, Austria) and Nikolaus Studnicka (RIEGL Measurement Systems GmbH, Austria)

[61] *Airborne and terrestrial waveform laser scanning for documentation of archaeological sites in woodland environments*

The presentation will explain the basic process of airborne laser scanning and terrestrial laser scanning, and demonstrate its potential

for archaeological reconnaissance in densely forested areas. It will focus on the latest generation of both airborne and terrestrial laser scanners, which use the entire waveform of the received laser echoes to distinguish between vegetation and solid structures. These systems have the potential to provide a more accurate DTM as well as better and more detailed information on e.g. buildings within densely vegetated areas. Using several case studies, the paper will present the implications of this new generation of laser scanners for the documentation of cultural heritage.

Dong, Guanghui [177] see *Elston, Robert G.*

Dong, Yu (University of Illinois At Urbana- Champaign), Honghai Chen (Northwest University, Xi'an, of Illinois at Urbana-Champaign), Yaowu Hu (Graduate University of Chinese Academy of Sciences) and Yaping Cui (Museum of the Western Han Dynasty Mausoleum of the Nanyue King)

[214] *Paleodietary Reconstruction at Late Neolithic Zongri Site, Western China*

From late Neolithic to Bronze Age, western China generally went through a transition from agricultural system to pastoralism. However, how, when and to what extent agriculture declined is not well understood in this region. Zongri is a newly defined culture distributed to the south of Qinghai Lake, contemporary with the Majiayao culture to the east. Stable isotope analysis of human remains from Zongri site shows slightly increasing millet and less animal protein consumption through time, suggesting a growing emphasis on agriculture. These data are compared to other contemporary sites with isotopic and/or paleoethnobotanical evidence for agricultural diets during this era.

Donner, Natalia (UNAM) and Jonathan Hernández Arana

[254] *Lithic Technologies at El Carrizal, Veracruz: An Operational Sequence Study*

El Carrizal, Veracruz is an archaeological site from the Proto-Classic period (100 B.C. – 100 A.D.) located in South-Central Veracruz. Recent intensive survey of 13 square kilometers in the immediate vicinity of this area by the Proyecto Arquelógico El Carrizal identified numerous lithic artifacts produced from various raw materials (basalt, flint, obsidian, travertine, etc). The study of these lithic artifacts, based on the Operational Sequence Methodology, covers different stages in their use-life, from procurement to abandonment. This approach will provide new perspectives on the role, use and technologies of lithic artifacts from Terminal Formative through Early Classic Period in South-Central Veracruz.

Dooley, Alek [55] see *Barnard, Hans*

Doolittle, Christopher [144] see *Keller, Angela H.*

Doolittle, William (University of Texas)

[44] *A View from the Other Side of the Fence*

In 1990 and again in 1993 I hypothesized that irrigation originated in the southern Southwest and spread into Mexico. I also outlined a sequence of technological developments in Mesoamerican irrigation. My first hypothesis was proven correct by work at the Las Capas site. Subsequent work in Mexico proved my other ideas to be less accurate. This presentation brings irrigation research in the Southwest and Mexico up-to-date in a pan-regional context.

Doran, Glen H. [90] see *Dunbar, James S.*

Dorr, Roger (National Park Service)

[190] *Where is the kiln? Investigating Northern Sinagua Pottery Production through Experimental Replication.*

This presentation investigates Northern Sinagua pottery production around Flagstaff, Arizona through experimental replication. It addresses a deficiency in knowledge regarding clay and temper sources, firing techniques, and the lack of recognized pottery-firing features found in the archaeological record.

Dorshow, Wetherbee (University of New Mexico)

[131] *GIS-based Landscape Reconstruction of the Chaco Core During the Bonito Phase*

This paper presents a GIS-based reconstruction of the 11th century landscape in the Chaco Core. The geospatial reconstruction is based on the Archaeoflow GIS framework and draws on stratigraphic interpretations of archaeological trenches in the Pueblo Bonito mounds as well as previous geomorphic and archaeological research in the region. The ArchaeoFlow framework is a geospatial data model and analytical structure for reconstructing past landforms and environments and simulating hydrological processes.

Dortch, Joe (University of Western Australia)

[16] *Late Pleistocene Environmental Change and the Evidence for an Economic Response in south-western Australia*

Southwestern Australia, a Mediterranean-type region, features flat topography, nutrient-depleted soils, and a diverse and resilient biota relatively unaffected by climatic oscillations. Zoo-archaeological evidence and hunter-gatherer occupational remains dating from c.45,000 BP at limestone caves in the far south-west indicate changes in prey abundances c.10,000 BP, contemporaneous with small shifts in plant associations as documented by pollen and charcoal sequences. Such localized change need have required no major regional-scale innovations. While much work remains to be done in the little-investigated, drier interior, and in assessing social changes, the picture so far suggests shifts in emphasis rather than fundamental economic change.

Douglas, Joseph [62] see *Blankenship, Sarah A.*

Douglass, John (Statistical Research, Inc.) and Seetha Reddy (Statistical Research, Inc.)

[154] *Perceiving Food and Identity during Culture Contact*

Culture change and continuity are two fundamental aspects of archaeological research. In this talk we discuss culture change and continuity as perceived through food during the contact period in North America - a time of upheaval and change for Native Americans. Contact with European and Hispanic cultures, either through the Mission system and/or through colonization, introduced new ideologies, technologies, and social structures. However, Native American exposure to and incorporation of these new traditions was varied. Our talk focuses on markers of cultural identities among hunter gatherers, and the most prevalent media for expression of cultural identity among hunter-gatherers.

Douglass, John [154] *First Organizer*; [154] *First Chair*

Douglass, Matthew (University of Auckland), Simon Holdaway (University of Auckland) and Thomas Barker (University of Auckland)

[73] *Assemblage Color Variability as a Proxy for Prehistoric Mobility in Western New South Wales, Australia*

Recent study using cortex proportion indicates widespread curation of stone artifacts from assemblages produced from local stone. Here we report on the use of digital imaging analysis as an alternate measure of artifact movement. Artifacts were photographed under controlled lighting and analyzed using imaging software. The extracted data create a distribution of assemblage color variation. Isolated data points represent unpaired artifacts within assemblages thus indicating transport from elsewhere. Conversely, point clusters provide a basis for linking artifacts to the same nodule. Results demonstrate the usefulness of color variation for investigating artifact movement within high volume assemblages produced from local materials.

Dowd, Elsbeth (University of Oklahoma)

[26] *The Woods Mound Group: Revisiting a Multi-mound Site in the Caddo Area*

The Woods Mound Group (34MC104) is a late prehistoric site along the Mountain Fork River in southeastern Oklahoma, in the Caddo archaeological area. A portion was excavated in 1964-65 prior to inundation by the Broken Bow Reservoir. The site, which is situated

within the Ouachita Mountains, includes eight low mounds (0.2-0.8 m tall) clustered into two distinct groups. By obtaining four new radiocarbon dates and stylistically reanalyzing the pottery from these two groups, this project attempts to test whether the mounds were built concurrently and whether socially different groups of people were responsible for their construction.

Doyon, Leon (HRAF, Inc.)

[67] *Once in a Lifetime?: Spondylus Supply and Demand in the Regional Developmental Period Ecuadorian Highlands*

A sequence of shaft tombs at La Florida, Quito attributable to a generation or three of a middle Regional Developmental period (ca. AD 150-500) elite lineage provides a unique look at the short-term microeconomics of a system of long-distance exchange emphasizing *Spondylus*. Although social reproduction was highly dependent upon prodigious amounts of *Spondylus* ultimately consumed in mortuary ritual, supply was spotty and processing probably was local and small-scale. In order to maintain exclusivity, the ruling class was forced to practice strategies of rationing and substitution and, quite likely, personally undertake perilous journeys to the ends of the earth.

Drake, Douglas (Washington State University) and John G. Jones (Washington State University)

[136] *Spatial Analysis of Phytoliths from an Archaic Shell Midden in Coastal Chiapas*

A detailed analysis of phytoliths from a shell midden in southern Chiapas is revealing information on prehistoric plant use and human activity. Samples collected in 1m increments across a gridded pattern on a prepared clay floor reveal distribution patterns reflecting past plant use. Possible presence of economic types including palms and Heliconia, presumably thatch, should prove to be particularly significant. These patterns have the potential to document the presence of houses or other ephemeral structures. Other phytolith types document nearby forests and potentially significant plant foods. The role of cultigens at this 5500 year old site is also explored.

Drake, Eric (Binghamton University/Hiawatha National Forest) and John Franzen (Hiawatha National Forest)

[114] *Commodity Fetishism and the Looter's Looter: Casting a Reflexive Gaze Upon the Practice of Archaeology In Capitalism*

For professional archaeologists, relic hunting, or looting, represents the quintessential antithesis of the discipline; and yet, this wide spread activity has received little analytical attention. In this paper we draw upon examples of recent looting activity in the Upper Peninsula of Michigan to explore relic hunting as a social practice structured by the commodity form of historical narrative production. This exercise serves as an entry point for asking the difficult question: "In what way(s) does the practice of archaeology in the context of late capitalism resemble that of looting, and how might this affect our collaborative relationships with descendant communities?"

Drass, Richard, Stephen Perkins (Oklahoma State University) and Susan Vehik (University of Oklahoma)

[171] *Digging Ditches; Fortifications at Bryson-Paddock and Other Southern Plains Villages*

In 1759, Spanish forces attacked a Wichita village on the Red River. The expedition provided the first description of a Wichita fortification; a roughly circular rampart and stockade surrounded by a ditch. Wichita groups erected similar structures as early as 1500. Magnetometer surveys and excavations at an 18th century Wichita village revealed three concentric ditches representing portions of fortifications. The efforts expended to excavate ditches and build extensive fortifications at large villages reflect intensification of intertribal conflict in the southern Plains by 1700, probably arising from increased mobility with arrival of horses and competition over access to the European market economy.

Drennan, Robert D. [155] see Peterson, Christian E.

Dretske, Lisa (Illinois State University)

[125] *German Ethnicity in Missouri*

This paper will examine the ways in which German immigrants expressed their ethnic identity in a town dominated by French colonial descendants. The analysis is based on material culture recovered from excavations at the Janis-Ziegler/Green Tree Tavern site (23G272) in Ste. Genevieve, Missouri, and historical documentation, including census records, probate records, and newspapers from several archives.

Drew, Brooke (University of Wisconsin-Milwaukee)

[124] *"Register of Burials at Milwaukee County Poor Farm": Utilizing Historical Documentation in the Analysis of an Excavated Historic Cemetery*

The analysis of the Milwaukee County Poor Farm Cemetery is an example of the utility of the use of multiple lines of evidence including that of anthropologically-oriented archaeology and historical documentation. Documentation includes a ledger-format book, though incomplete, which includes name, residence, place, cause, and date of death, burial date and grave number. This information, as well as the county death certificates, is currently being inputted into a database to facilitate management and statistical manipulation. This poster demonstrates how this will inform the osteological analysis of the remains and make possible the identification of individuals interred at the cemetery.

Drew, Natalie (US Army Corps of Engineers)

[76] *Meeting the Curation Challenges of the Digital Dark Age*

Curating archaeological associated documentation has always been challenging but the increasing usage of digital and electronic media in these collections has made it especially so. These challenges can be so daunting that the threat of a Digital Dark Age, where electronically recorded information is inaccessible and the information is irrevocably lost, seems a very real possibility. This paper will discuss some of these challenges (particularly those associated with digital images), identify different types of electronic records, and provide practical strategies for curating electronic and digital records.

[76] *First Chair [76] Second Organizer*

Driver, W. (Houston Community College)

[112] *Building Boundaries: Ancient Maya Architectural Design and the Construction of Social Identity*

Excavations at the site of Blue Creek in Northwestern Belize documented a wide range of formal variation in the architectural designs of both ritual and residential structures. Further study determined that a consistent set of proportions were present in the design elements that comprise the substructural façades of temples and shrines located within the site core area. Comparisons with formal shrine groups located in the surrounding settlement zone indicate a correlation between shrine façade design and settlement distribution, and provide potential insight into the sociopolitical organization of the polity.

Druckenmiller, Pat [79] see Shirar, Scott

Drucker, Dorothée [157] see Bocherens, Hervé

Drucker, J.D. [72] see Vlack, David T.

Dubreuil, Laure (Trent University) and Hughes Plisson (CNRS, Aix-en-Provence)

[216] *Use-wear Approaches to Ground Stone Tools: Developing the High Magnification Analysis of Objects with a Metallographic Microscope*

Use-wear formation on ground stone tools has generally been investigated at low magnifications with a stereomicroscope (from x6 to 50, sometimes to 100). This method is particularly relevant for the study of use-wear features on ground stone tools made of coarse, non-homogeneous, raw material. In this paper, we explore another promising approach: the high magnification (from x50 to 500) analysis of ground stone tools using a metallographic microscope. We discuss the methods used to observe and photograph the surfaces and comment on some of the use-wear features observed in an

experimental sample consisting mostly of basalt implements.

DuChemin, Geoffrey (University of Florida)

[116] *Food and Community: Zooarchaeology in South Central Puerto Rico*

Recent research from sites in south-central Puerto Rico provides an opportunity to shed new light on the nature of pre-Columbian social organization in the region. Animal remains recovered from three sites, PO-29 (Jacanas), PO-42, and PO-43, are currently being analyzed. Preliminary results are presented here, emphasizing how faunal data can be used to elucidate aspects of social development and organization. Food procurement, allocation, and consumption are communal activities that hold important cultural significance. Careful zooarchaeological analysis offers interpretation of social organization that focuses on the level of the community, as opposed to central-power models that are often applied when chiefly societies are presupposed.

Dudgeon, John (Idaho State University - CAMAS), David Peterson (Idaho State University) and Monica Tromp (Idaho State University)

[175] *Traces of the Trade: Bronze Age Metal Producers in the Eurasian Steppes Determined Through Skeletal Trace Metals*
Human skeletal and wild and domesticated faunal remains from the Middle Bronze Age II Kamennyi-Ambar V cemetery (western Siberia, circa 2025-1745 BC) were analyzed for trace metals to determine the probability of identifying copper and bronze producers in ancient populations. Current social models favor sedentary agriculturalists over Eurasian steppe pastoralists, while metallurgy was another significant productive activity during this period. Identifying metal producers is crucial to improving present understandings of ancient Eurasian societies. Signatures of metal production in human bone acquired by LA-ICP-MS and SEM-EDS are compared with results for local fauna to distinguish and quantify non-occupational uptake and diagenesis.

[175] *Second Chair [175] Second Organizer*

Dudgeon, John [175] see Peterson, David

Dueppen, Stephen (University of Michigan)

[110] *Burning the Past, Present and Future: The Ancestor House at Iron Age Kirikongo, Burkina Faso*

Excavations at Kirikongo (AD100–1700) have revealed only two structures destroyed through burning. These structures, one of which was likely built to replace the other after it burned, were ritual buildings located in the center of the site: analyses identified a variety of features that distinguish them from domestic contexts, including evidence for ritual animal sacrifice, special architectural construction methods, and communal storage activities. Building from the characteristics of the burned structures, this paper will explore why and by whom these were targeted for burning, as well as the implications for social and political developments in the community and region.

Duff, Andrew (Washington State University)

[240] *Producing Structure: The Role of Ceramic Production in Understanding Chaco-period Communities in the American Southwest*

Pottery production within a community comprised of kin, neighbors, and more distant others is a conscious act that reproduces societal relationships in material culture. Information encoded into vessels during manufacture is used to reveal differences in learning frameworks among the residents of two Chaco-period communities (ca. A.D. 1050-1130) located at the intersection of two classic Southwestern Culture Areas—Mogollon and Pueblo. Aspects of undecorated vessel manufacture both document and served to reproduce difference, while larger scales of social action signal greater communal unity; both processes are argued to be accurate reflections and embodiments of social relations.

[14] *First Chair*; [223] *see Wilkinson, Brenda J.*

Duffy, Paul (University of Michigan)

[149] *Trends and locations for Bronze Age crafting in the Lower Körös Basin*

The fortified tell sites of the Great Hungarian Plain are believed by most specialists to be the area's centers of craft production and consumption. This paper evaluates the evidence for this claim in the Lower Körös Basin. First, I estimate metal consumption by site for the regional scale. Second, using surface collection material from open and tell settlements for a focus area within the Basin, I consider the evidence for stone tool production and metallurgy over the Early and Middle Bronze Age. The observed patterns at both scales suggest that fortified tells have less authority over craft production than previously believed.

Dunand, David [140] see Chastain, Matthew L.

Dunbar, James (FI Bureau of Archaeology), Glen H. Doran (Florida State University) and W. Jack Rink (Geology and McMaster Institute of Applied Radiation Sciences (MCIARS))

[90] *Paleoindian Sites Revisited – Known Sites and New Perspectives*

Wakulla Springs Lodge (WA329), Helen Blazes (BR27) and Norden (GI40) are Florida Paleoindian sites first investigated more than a decade ago. In 2008, the Wakulla Springs Lodge site was revisited and, in 2009, Helen Blazes and Norden, among others, to collect OSL samples. While the Wakulla Springs Lodge site might be pre-Clovis, the Helen Blazes and Norden sites remain without temporal context, represented only by waisted Suwannee points, until OSL results are completed. Here we will not focus on the age or internal integrity of these sites; rather on past versus current understanding of artifact-bearing levels and the artifacts recovered.

Duncan, James (Lindenwood University) and Carol Diaz-Granados (Washington University)

[115] *The Ascent of First Man's Eldest Son*

Using one of Brown's (Phillips and Brown 1978) iconic Braden markers, the copper repousse hawk plaques, we will trace this cosmic imagery through time from its earliest expression to the latest protohistoric examples. This set of images is not only the work of a particular linguistic group -- it is the material and iconographic expressions of each related group's oral traditions. These oral traditions are found to have many similarities as do their material expressions.

Duncan, James [62] see Diaz-Granados, Carol

Duncan, Neil (University of Missouri-Columbia)

[55] *Gourd Artifact Residues and Macroremains Reveal Feasting in Late Preceramic Peru*

In a recent study, starch grains from residues on ~4000 year old gourd and squash artifacts were recovered; identifying several cultivated and managed plant taxa used as food at the Buena Vista site in central Peru. In this paper, I will present the phytolith results from the same squash and gourd artifacts. As part of a larger dataset, starch and phytolith residues provided evidence of taxa not identified in the macroremains, despite excellent preservation. The results of this study have implications for interpreting agriculture in Late Preceramic Peru, as well as feasting and ritual behaviors associated with food.

Duncan, Richard (GAI Consultants, Inc.) and Alyssa Trimmer (GAI Consultants, Inc.)

[179] *Life with Lithics in the Upper Mercer: Sites 33Pe174 and 33Pe362 in Perry County, Ohio*

Data recovery investigations at Sites 33Pe174 and 33Pe362, performed as part of the REX-East Pipeline Project in Perry County, Ohio, document lithic procurement and tool production in the heart of the Upper Mercer chert resource area of eastern Ohio. The results of these investigations will be explored in relationship to the broader findings of other REX-East and regional sites within the uplands of the Hocking and Muskingham river drainages.

Dunford, Ashley (University of Wisconsin-Milwaukee)

[124] *Examples of Juvenile Scurvy from the Milwaukee County Poor Farm*

Ortner (2001) and Brickley and Ives (2006) have thoroughly researched and recorded methods of diagnosing scurvy in juvenile skeletal remains in the recent years. This poster details examples of scurvy in juvenile remains from the Milwaukee Poor Farm Cemetery. This research is focused on two temporally distinct areas of the cemetery both used for the exclusive burial of children. These distinct areas of sampled in order to determine the presence of scurvy. The results provide a characterization of changing juvenile health among the poorest segment of early 20th century Milwaukee residents.

Dungan, Katherine (University of Arizona)

[235] *Distance and Perception in GIS Visibility Analysis: A Chacoan Example*

Models of changes in the visibility of objects with increasing distance are crucial to GIS viewshed analysis if our visibility models are to accurately represent human experience. This study uses an approach to visibility derived from the fields of proxemics, architecture, and landscape design to examine intervisibility within the community surrounding the Chacoan great house of Kin Bineola, New Mexico. The distance classification model, in combination with "ground truthing" of lines of sight, provides a robust model of intracommunity visibility that can then be used to question the apparently straightforward relationship between visibility and monumental, ritual, or community architecture.

[192] see Huntley, Deborah L.

Dunn, Stacy (Tulane University) and Kit Nelson (Tulane University)

[137] *Reevaluating Ceramic Chronologies for the Huaura Valley, North-Central Coast of Peru*

This study examines both inter- and intra-site variability of Chancay ceramic assemblages during the Late Intermediate Period (A.D. 1100-1435) and Late Horizon (A.D. 1435-1532) in the Huaura Valley, north-central coast of Peru. Unfortunately, Chancay pottery typologies established in the 1920s have not advanced since then beyond basic descriptions of stylistic traits. To address this issue, detailed attribute analysis of pottery excavated from structures at three sites--Rontoy, Chambara, and Quipico--combined with AMS dates allow for the formation of a more refined ceramic chronology. Pottery distributions across time and space are then compared to characterize the Chancay in this region.

Dunn, Stacy [98] see Heaton, Ashley K.

Dunning, Nicholas [97] see Jones, John G; [139] see Storozum, Michael

Duran, Victor [161] see Glascock, Michael D.

Durán, Victor [123] see Giesso, Martin

Durant, Adam [183] see Eren, Metin I.

Dussubieux, Laure (Field Museum of Natural History), Mark Golitko (University of Illinois at Chicago), Patrick R. Williams (Field Museum of Natural History) and Richard Cox (University of Quebec at Chicoutimi)

[121] *ICP-MS with Adaptable Chamber Laser: Quantitative Analysis of Glass, Metal and Ceramic Artifacts in the Museum Environment*
Commercially available lasers used with Inductively Coupled Plasma – Mass Spectrometer allow the sampling of small objects with a high throughput. An experimental adaptable cell laser ablation system was recently developed for the characterization of archaeological specimens without the necessity to destructively subsample whole artifacts that will not fit in a standard laser chamber. The acquisition of such a laser system reduces the risk of biased samples that a selection of only small or already broken objects could introduce. A

rigorous testing program was implemented in order to test the new laser system on several different matrices (ceramic, glass, metal).

Dussubieux, Laure [121] *First Chair*; [121] *First Organizer*; [121] see Sharratt, Nicola O.; [121] see Cisse, Mamadou; [121] see Vaughn, Kevin J.

Duwe, Sam (University of Arizona)

[19] *Coalescence, Continuity, and Change in the Tewa Basin, New Mexico*

The large Classic Period (AD 1325-1600) sites in the Tewa Basin of northern New Mexico have confused archaeologists interested in population movement over the past century with their sprawling architecture and long ceramic chronological sequences (in some cases over three centuries). This paper will address the results of a ceramic analysis from surface contexts of 10 sites in the region. By comparing ceramic seriations to detailed site maps it is possible to create a high resolution culture history of population coalescence. This research is imperative to conduct studies of cosmological and ecological adaptation during this period of social and residential upheaval.

Dwyer, Benjamin [22] see Johnson, Angela K.

Dwyer, Rachel (SUNY-University At Buffalo)

[247] *A Madder of Grave Importance*

Bedstraw (*Galium* sp.), a member of the Madder family, is one of few sources for a stable red dye in North America. The vast quantities of bedstraw seeds recovered from the Curtwright site in Western New York are indicative of the utilization of the plant for this purpose. The production of red dye was possibly important to the political economy of Pre-Iroquoian people and a way Pre-Iroquoian women mediated violence during a time of increased warfare.

Dye, David (University of Memphis)

[59] *An Early Mississippian Mortuary Complex at the Gray Farm Site(40SW1) in Stewart County, Tennessee*

Charles H. Nash excavated the Gray Farm site (40SW1), located in Stewart County, Tennessee, in 1939 as part of the UT-WPA-TVA work in Kentucky Lake. Nash, assisted by John Alden and George W. Brainerd, investigated an Early Mississippian upland mortuary complex which exhibited a terraced landscape, multiple stage burial mounds, bundle burials, and mortuary scaffolds. At the time of excavation Nash believed the floodplain village to be "Tennessee-Cumberland" Mississippian, but was perplexed about chronological affiliation of the upland mortuary complex. T.M.N. Lewis and Madeline later defined the mortuary area as a Late Woodland Harmon's Creek affiliation.

[115] see Sharp, Robert V.

Dyrdahl, Eric [45] see Kling, Amber M.

Dziedzic, Erica (Michigan State University)

[226] *The Social Life of Art and Death: Interpreting Cultural Behavior from the Relationship between Ceramic Design Structure and Spatial Mortuary Patterns*

This paper evaluates how ceramic design structure can illuminate social differentiation in a cemetery context, testing the strength of a different line of mortuary evidence. The social role of design structure within a mortuary system has not been explored, yet it is a rich resource. The goal of this paper is to systematically examine ceramic design structure against the spatial order of burials as a comparison of mortuary data sets in the burial program of the Late Intermediate Period Chiribaya in Peru. These data will be compared with previous bioarchaeological interpretations.

Earle, Timothy (Northwestern University)

[149] *Political Economy and Specialization in the Benta Valley: Broader Comparatives in the Bronze Age World*

Specialization is central to the political economy. This paper examines the settlement patterning of the Benta Valley, exploring

specialization and trade in the Carpathian Basin during the Middle Bronze Age. There in the Benta Valley, control over particular products, such as animals, appears to be increasingly centralized to central settlements, while other specialization, such as in ceramics, was not centralized; ceramic production and exchange involved numerous, local producers. Why this happened will be analyzed, as well as how control over exchange, rather than over production, apparently drove a restructuring of the political economy and an increase in social stratification.

[145] *Discussant*

Earley, Caitlin (University of Texas at Austin) and Julia Guernsey (University of Texas at Austin)

[260] *Framed: The Textile Associations of Preclassic Geometric Bands*

This paper explores the symbolic repertoire of framing bands, geometric motifs, and their contexts in the Preclassic. While variously interpreted as sky bands, terrestrial bands, or schematized monster maws, the bands share a vocabulary of forms and structuring principles. We explore how these forms and structuring devices relate to textile and costuming traditions, and consider the conceptual overlap between these mechanisms for delineating space, wrapping scenes, objects, or persons, and literally framing narratives or imagery. These framing bands also extended into the architectural domain, evidencing the fluidity of this motif as a communicative device that may have carried locative associations.

Eaton, Marietta (NLCS - Bureau of Land Management), Rebecca Lasell (Bureau of Land Management) and Robin Burgess (Bureau of Land Management)

[75] *The National Landscape Conservation System and Cultural Resource Management: BLM's Multiple Use Conservation Mandate*

The BLM's National Landscape Conservation System (NLCS), created in 2000, is now poised to celebrate its 10th anniversary and the codification of its existence in 2009 with PL 111.11. With more than 27 million acres under this management umbrella the NLCS manages monuments and national conservation areas, wilderness and wilderness study areas, wild and scenic rivers, and national scenic and historic trails. Within these designations are important and diverse cultural resources. This poster will summarize archaeological and historic sites and scientific projects, as well as, challenges in managing these resources within the framework of BLM's conservation mandate in the context of multiple use.

[75] *First Chair*

Ebbitt, Alicia (Indiana University)

[196] *"Werl Mi Haad Den, Veri Haad": Student Perspectives about History, Archaeology, and the Ancient Maya*

A significant component of many public archaeology projects is a focus on primary-school education. To develop culturally relevant pedagogy and understand the impact and value of knowledge about history and cultural heritage, it is important to explore ideas students already have about these concepts and how students interpret and transform information they gather. In North-Central Belize, through contact with archaeological resources, research projects, and curriculum initiatives, students develop ideas about and interests in "the Olden Days," archaeology, and "the Mayas." In this paper I discuss key themes in student knowledge and some origins and potential implications of their ideas.

Ebeling, Jennie (University of Evansville)

[216] *The More They Stay the Same: Use of the Bible and Palestinian Ethnography in the Study of Ground Stone Tool Use in the Bronze and Iron Age Southern Levant*

This presentation will begin with an overview of the use of the Hebrew Bible and nineteenth and twentieth century Palestinian ethnography by archaeologists to illustrate ground stone tool use in the Bronze and Iron Ages. Due to changes in grinding technology, recent ethnography does not necessarily inform our understanding of the archaeological material; likewise, the biases of the biblical writers make the texts unreliable for reconstructing ground stone tool use in

the past. I will demonstrate how use-wear analyses can be used to reconstruct function, and suggest reasons why archaeologists essentially overlook the artifacts when discussing food preparation activities.

Eberl, Markus (Vanderbilt University)

[218] *Real/Fictive Lords/Vessels. A List of M.A.R.I. Lords on the Newly Discovered Andrews Coffee Mug*

E. Wyllys Andrews V's private collection of priceless Mesoamerican artifacts now holds a Maya ceramic vessel with a hieroglyphic inscription. While its recent provenance is known – it was presented to him during his retirement party –, its archaeological context remains obscure. I discuss the vessel and its long glyphic text. The vessel forms part of the Dynastic Vase tradition and celebrates the history of the M.A.R.I. lords. Comparable king lists on Dynastic Vases are of obscure historical value because their kings are rarely attested in other sources. Can they be taken for real?

Eckerle, William [234] see Cannon, Kenneth P.

Eckert, Suzanne (Texas A&M University) and William D. James (Texas A&M University)

[161] *Using LA-ICP-MS to Determine Production Provenance for Basalt Tempered*

The Rio Abajo region in central New Mexico was home to more than 20 large Pueblo villages during the 14th century. Potters in these villages produced basalt tempered pottery that has been recovered throughout the Rio Grande region. Due to the lack of successful petrographic provenance studies, archaeologists have been unable to pinpoint production of this pottery to a specific village or group of villages. A pilot study applying LA-ICP-MS to pastes and basalt tempers from Rio Abajo pottery was done to see if this technique can be used to determine production provenance in this region of the American Southwest.

Edmonds, Jason (Mississippi State University)

[236] *Mobility and Population Change in Northeast Mississippi: An Object-Based Seriation of Projectile Points as a Relative Paleodemographic Indicator*

Considerations of mobility have primarily focused on the differences in and among the kinds of mobility, rather than addressing why settlement patterns were mobile. This study addresses such questions within evolutionary theory. Using the concept of bet-hedging/waste, it is argued that mobility was selected for its population limiting properties. Relative changes in the numbers of projectile points in seriated classes were taken to indicate relative population change. The result suggests that rapid growth occurred only with the abandonment of mobility in the Gulf Formational period and indicates that in this instance mobility was a bet-hedging behavior.

Edwards, Matt (University of California, Santa Barbara)

[127] *Building a Landscape of Power: Middle Horizon Infrastructure of The Upper Nasca Valley*

During a period of rapid territorial expansion that began around AD 750, the Wari empire engaged in extensive construction of administrative and economic infrastructure throughout the Peruvian Andes. While these administrative centers, roads, and agricultural improvements surely served specific functions; when taken together they also would have formed an imposing political landscape upon which the power of the state to shape the world would have been clearly manifest. This paper will present evidence from recent research conducted at the site of Pataraya and its environs in the Nasca headwaters region of southern Peru.

Edwards, Richard (UW-Milwaukee)

[105] *GIS Catchment Analysis of Oneota Settlement Patterns near Lake Koshkonong, Southeast Wisconsin*

A GIS is used to conduct an environmental catchment analysis around four known Oneota sites in the Lake Koshkonong region of Southeastern Wisconsin; the Crescent Bay Hunt Club site (47JE904),

the Schmelting site (47JE833), The Twin Knolls site (47JE379), and Carcajou Point site (47JE814). Each of these sites contains an Oneota occupation dating to circa A.D. 1200-1400. The GIS is used to illustrate the environmental variables that were most important in determining settlement locations for the Oneota inhabitants of the region. To accomplish this goal, data on Oneota resource exploitation is combined with a model of prehistoric environmental conditions of 13th Century Lake Koshkonong. The model is based on examination of the General Land Office Survey notes and maps as well as study of the soils surrounding the four sites.

Edwards, Susan (Desert Research Institute), Carol Shimer (Desert Research Institute), Cheryl M. Martin (Desert Research Institute), Maureen L. King (Desert Research Institute) and Scott D. Ferguson (Desert Research Institute)

[211] *The Density Dilemma: The Challenge of Defining, Interpreting, and Managing Diffuse Lithic Scatters in the southern Great Basin*
Archaeologists still struggle with how best to define and interpret diffuse lithic scatters within local and regional contexts, while government agencies have been charged with managing these important low-density resources. Typically, diffuse scatters are treated as discrete "sites" with boundaries determined by changes in artifact density. This approach focuses on higher-density concentrations within a continuous distribution while masking the nature of the intervening landscape. Searching for better balance between research goals and management needs, we examine a siteless survey approach and the utility of the archaeological district to investigate diffuse lithic scatters in three geologically distinct areas of southeastern Nevada.

Eeg, Holly [81] see *Bowser, Brenda J.*

Eerkens, Jelmer [161] see *Lipo, Carl P.*; [4] see *Tushingham, Shannon*

Efferson, Charles [197] see *Richerson, Peter J*

Efremov-Kendall, Nicholas (Fulbright Student 2009-2010, Ukraine)

[32] *Landscapes of Transition: Bronze to Iron Age in the Western Eurasian Steppe*

The Bronze to Iron Age transition in the Ukrainian steppe is associated with large-scale changes in settlement patterning, domestic economy, and social organization. Traditionally, this shift has been attributed to an ill-defined climatic shift that is used to explain an observed reduction in the number of known sites and the transition to mobile pastoralism. Both phenomena are possible responses to climatic shifts, however the two prevalent theories explaining these changes rely upon opposing climatic scenarios, underscoring the problem of simplistic climatic models. This paper explores these changes from a landscape perspective, attempting to break the circular arguments of previous approaches.

[32] *First Organizer*; [32] *First Chair*

Egan-Bruhy, Kathryn (Commonwealth Cultural Resources Group, Inc.) and Mark Bruhy (USDA Forest Service)

[70] *New Perspectives on the "Terminal Woodland" in Northern Wisconsin*

In northern Wisconsin, and elsewhere in the Canadian Biotic Province, late prehistoric populations have been referred to as "Terminal Woodland," distinguishing them from the agrarian Late Woodland populations to the south. Within the past 15 years, our understanding of the cultural landscape of the late prehistoric period in northern Wisconsin and surrounding areas reflects greater cultural diversity than was formerly recognized and a greater dependence on horticulture than was thought to exist in the "northwoods." This paper will briefly review new information relating to these new understandings.

Egan-Bruhy, Kathryn [150] see *Weir, Donald J.*; [150] see *Hambacher, Michael J*

Egeland, Charles [256] see *Byerly, Ryan*

Ehlers, Katherine (Museum of Texas Tech University) and Eileen Johnson (Museum of Texas Tech University)

[72] *Native American Petroglyphs on the Llano Estacado Escarpment*
Rock art provides powerful representations of past populations and landscapes. Panels on sandstone cliffs at a ranch near Post, Texas display influences of at least two native populations present on the Southern High Plains. Variations in the style of structures, anthropomorphic and zoomorphic figures, and differences in the display of interaction between elements, indicate the influence of Southwestern and Plains peoples in the area. Specific elements that demonstrate different authorship include structures, a possible three-toed turtle, possible representations of agriculture, and people. Superimpositions show temporal differences, indicating that different groups influenced or were responsible for the creation of these petroglyphs.

Ehrhardt, Kathleen (Illinois State Museum)

[102] *The Protohistoric Copper-base Metal Industry from New Lenox*
Over 170 pieces of copper base metal have been recovered from securely dated early protohistoric contexts at the New Lenox site. Formal, technological, compositional, and comparative analyses reveal that at least some of artifacts in the industry occur both in earlier late prehistoric and in later protohistoric assemblages documented elsewhere in the region. Native and European-derived copper-base metals are used to manufacture New Lenox artifacts, and the technological means through which the metals are manipulated appear to remain consistent throughout these critical periods.

[255] *Discussant* [102] *Second Organizer*

Ehrhardt, Kathleen L. [102] see *Lurie, Rochelle*

Eiler, Lorraine [164] see *Rankin, Adrienne G.*

Eiselt, B. Sunday (Southern Methodist University), Katy Pocklington (Southern Methodist University) and Nicola Muchnikoff (Southern Methodist University)

[193] *Vecino Archaeology and the Politics of Play*

Francis Swadesh identified an 18th century vecino cultural pattern, which after American occupation, retracted into the isolated hills and tributary valleys of the northern Rio Grande. This paper investigates the impacts of the American invasion on vecino culture through a consideration of children's artifacts and fantasy play. As children were gradually excluded from the workforce and drawn into the home, they were simultaneously pulled into an expanding commercial market and public educational realm. Elders today observe that this historical process has disenfranchised local youth from traditional village life in the St Francis of Assisi Parish, New Mexico.

Eiselt, B. Sunday [193] *First Organizer*; [193] *First Chair*

Ek, Jerald (SUNY Albany)

[134] *Changing Patterns of Ceramic Sphere Affiliation in the Río Champotón Drainage, Campeche, Mexico*

Recent investigations of ceramic assemblages from sites in the Río Champotón drainage provide important information concerning shifting spheres of influence and long-distance exchange among polities in the Gulf Coast periphery of the Maya Lowlands. These data reflect a shift from regional, inland-focused interaction spheres to larger-scale, international linkages via coastal trade routes by the end of the Late Classic Period. This is most clearly indicated by participation in the Canbalam ceramic sphere, which encompassed coastal trade centers between Yucatan to Tabasco. These changes were part of a general pattern of increasing pan-Mesoamerican cultural linkages that characterized the Terminal Classic/Epiclassic period.

El Hajraoui, Mohammed [129] see *Schurmans, Utsav A.*

Eldridge, Kelly (U.S. Army Corps of Engineers) and Margan Grover (Bold Peak Archaeology)

[164] *Salvage Archaeology at the Snake River Sandspit Site in Nome, Alaska*

In 2005, the U.S. Army Corps of Engineers began constructing a new harbor entrance channel in Nome, Alaska. During construction, a late prehistoric semi-subterranean housepit was identified before it was bulldozed into the ocean with most of the associated artifacts. In 2006, another housepit and a midden were uncovered and subsequently excavated. This well-preserved Late Western Thule site was salvaged through the combined efforts of the Army Corps, volunteers from the Nome Eskimo Community and the City of Nome.

Elia, Ricardo (Boston University) and Amalia Perez-Juez (Boston University)

[82] *Teaching Heritage Management in an Archaeological Field School: An Example from Menorca*

Archaeological field schools traditionally train students in the practical skills of survey, excavation, recording, and laboratory analysis. With their direct exposure to real-world sites and contexts, field schools may also offer valuable hands-on opportunities for students to experience, study, and participate in heritage management, including topics like cultural tourism, outreach, preservation, and management. We describe our experience introducing a heritage management component to the 2009 Boston University Archaeological Field School in Menorca, Spain, an island with rich and diverse archaeological, historical, and natural resources.

Elia, Ricardo [34] *see Ostovich, Marta E.*

Ellenberger, Katharine (Binghamton University)

[88] *Building Community Through Archaeology: A Method for Indigenous Community Involvement in Archaeology on the Northwest Coast*

In the past decade it has become clear that there are significant intellectual and personal benefits to involving indigenous communities in archaeological research. In order to demonstrate that community archaeology is within the reach of all archaeologists, the process of appropriate community engagement should be described and made available in the archaeological community. In this spirit, I will outline the process that has been used to promote collaboration between the Lummi Nation and Western Washington University archaeologists. The project is a realistic guideline for increasing tribal involvement in archaeology without starting a new excavation project.

Ellick, Carol (University of Oklahoma) [180] *Discussant* [63] *First Organizer*; [63] *First Moderator*

Elliott, Elizabeth (University College Dublin)

[106] *Does Archaeology Matter? Young Adult Perspectives on Irish Archaeology*

This case study of 18-26 year olds in Dublin uses a combination of interviews and surveys to answer the question: Does archaeology matter to Ireland's young adults? By targeting three key areas: 1. Interest, Knowledge, and Participation, 2. Archaeology and Identity, and 3. Archaeology and Society, archaeologists can understand the role archaeology plays in young adults' lives and make informed decisions for the future of archaeology. By synthesizing these findings with previous research in North America and Europe, we can begin to identify the global trends and social phenomena that impact public perceptions of archaeology and consequently, archaeology itself.

Elliott, Michael (Jemez Mountains Research Center)

[152] *Over the Hills and Far Away: A Perspective on the Gallina to Jemez Migration Model*

For more than 70 years, archaeologists have speculated that residents of the Gallina Culture area of north-central New Mexico migrated to the Jemez Springs, New Mexico region in the late 13th century. This paper presents an examination and evaluation of the archaeological, osteological, and ethnographic evidence for this

model.

Ellis, Christopher (University of Western Ontario), Dillon Carr (Michigan State University) and Thomas J. Loebel (CAGIS - University of Illinois, Chicago)

[224] *The Younger Dryas and Late Pleistocene Peoples of the Great Lakes Region*

This paper examines possible effects of the Younger Dryas on Pleistocene cultures of the Great Lakes. Examining these effects requires precise temporal control over environmental and cultural events, which is currently lacking. Moreover, in some areas, such as the eastern Great Lakes, observed changes may correlate with factors not related in a direct manner to the Younger Dryas event like forest succession. Nonetheless, in more northern areas of the western Great Lakes region there are some suggestions that after initial penetration by Clovis-like groups use of these areas was minimized, perhaps in response to the Younger Dryas.

Elson, Mark (Desert Archaeology) and Henry Wallace (Desert Archaeology)

[128] *To Burn or Not to Burn: Regional Variability in Pre-Classic Hohokam Pit Structure Abandonment*

The Pre-Classic period (A.D. 550-1150) Hohokam of southern Arizona lived in semi-subterranean wood and adobe pithouse structures, generally arranged in family-level groups around an open courtyard. Partial and complete structure burning has long been known from this area, with little consensus among archaeologists as to its nature. Suggested causes include ritual-, accidental-, and conflict-related events. Data on structure burning from 400 pithouses throughout the Hohokam area indicate that this practice was not homogeneous, but locally specific, suggesting the possibility of intraregional differences in ritual. This study supports previous research suggesting a high degree of behavioral diversity within the Hohokam area.

Elston, Robert (University of Nevada, Reno), Dongju Zhang (Key Laboratory of West China's Environmental System (Ministry of Education), Lanzhou University, Lanzhou, Gansu, 730000, P.R.C) and Guanghui Dong (Key Laboratory of Western China's Environmental Systems (Ministry of Education), Lanzhou University, Lanzhou 730000, China)

[177] *Human Responses to the Younger Dryas in China*

In the Younger Dryas (12.9-11.7 ka), a weakened summer monsoon retreated to the south while winter westerlies became stronger, making China colder and dryer (especially in the north), and affecting the abundance and distribution of plant and animal resources used by humans. This paper critically reviews previously proposed models of human response to these changes (including the inception of agriculture) and suggests strategies for further research.

Elswick, Erika (Geological Sciences, Indiana University) and Tammie L. Gercke (Glenn A. Black Laboratory of Archaeology, Indiana University)

[257] *Soil Characteristics of the Angel Mounds State Historic Site: Providing Context for Artifact Interpretation and Preservation Potential*

Soil characteristics of the Angle Mounds provide a record of the environment through time, and provide context for the interpretation of the preservation of archaeological remains. Grain size distribution and geochemical analyses suggest they are dominated by fine sand, silt and clay-sized particles and are mineralogically homogeneous composed of illite, micas, quartz, chlorite, kaolinite, with potassium and plagioclase feldspars. Phosphorus (P) ranges from below detection to 6030 ppm with a mean value of 1690 ± 1600 ppm. The soil effective pH ranges from 4.87 to 6.40 ± 0.45 with a mean value of 5.79.

Elswick, Erika [257] *see Gercke, Tammie L.*

Emerson, Thomas (University of Illinois) and Timothy R. Pauketat (University of Illinois)

[15] *Rethinking Cahokian Identity*

Contradictory mono-ethnic versus multi-ethnic interpretations of Cahokian identity have emerged in the literature. We suggest that a multi-ethnic model better fits known regional evidence, especially given the shortcomings of past trade models. We review the redundant signatures of extra-regional connections, most notably with the Trans-Mississippi South, and the hints of relocated non-local contingents at Cahokia. We also review Skiri Pawnee ceremonialism and the implications of Caddoan-like fineware pottery in the region, leading us to call for more sophisticated models of Cahokian identities and descendants.

Endo, Naoko [39] see *Smith, Lisa M.*

Eng, Jacqueline (Western Michigan (University), Phillip Walker (University of California-Santa Barbara), Quanchao Zhang (Research Center for Chinese Frontier Archaeology, Jilin University), Shugang Yang (Henan Provincial Institute of Cultural Relics and Archaeology) and Shugang Yang (Department of Archaeology and Anthropology, National University of Mongolia)
[122] *The Arthritic Toll of Warfare, Farming, and Pastoralism among Populations of China and Mongolia in the Zhou Dynasty/Xiongnu Period*

Marked social changes occurred in East Asia during the first millennium BC, especially the latter half. China experienced not only the Zhou dynasty's fragmentation into contentions hegemonic states, but also advances in agriculture and the introduction of iron technology. In the northern steppe frontier, nomadic pastoral cultures arose and one of the strongest confederacies to emerge were the Xiongnu, who posed a threat to Chinese states. Bioarchaeological analysis of arthritic patterns in skeletal collections from sites in China and Mongolia dating to this turbulent time offer insight into the toll of changing subsistence strategies and increased warfare.

[122] *Second Organizer*

Eng, Jordan (Antiquus Archaeological Consultants Ltd.) and Ryan Sagarbarria (Antiquus Archaeological Consultants Ltd.)

[203] *"Pilevenience" – Salvaging Data from A Middle Period Site in the Interior Plateau of British Columbia*

Data are presented from a CRM study conducted on a Middle period site located in British Columbia's Interior Plateau. The nature of the study and inherent abundance of cultural materials recovered is a direct result of "salvage" operations. Diagnostic artifacts recovered represent not only the largest Lochnore phase (5000 to 3500 BP) assemblage, but also the co-occurrence of an associated Lehman phase (6000 to 4500 BP) component. Results from faunal and radiometric analyses are included. These data will enhance our knowledge of the Middle period and the poorly defined cultural and temporal interface between the Lehman and Lochnore phases.

Engelbrecht, William [38] see *Anselmi, Lisa M.*

Enloe, James (University of Iowa)

[119] *Theory, Methodology and Real Work: Applying Binford in the Field*

Lewis Binford has been the most significant figure in archaeology of the last fifty years. He has revolutionized how we think about theory and method, and how we go about doing archaeology. He inspired me to consider graduate school, and launched my career in this field. While problems and theories have come and gone, what has remained as the central core of Binford's influence is his insistence on methodology. His ideas about epistemology have resonated in the work I have tried to accomplish and in the lessons I have tried to pass on to my own students.

[85] *First Organizer*; [85] *Discussant*

Eppich, Keith (Southern Methodist University)

[77] *Tracking the Late-to-Terminal Classic transition at El Peru-Waka: A Ceramic Perspective*

Excavations at the Classic Maya center of El Peru-Waka yield both an unbroken ceramic tradition and occupational sequence than spans

the period traditionally considered the "Classic Maya Collapse." The end of the 8th century sees dramatic changes in political and social structure at this lowland center and holds a unique perspective on the events. Dating and tracking which events took place in which order requires a tight chronological control with especial attention paid to the subtle changes in ceramic slip, paste, and shape found in the site's indigenous potting tradition. These subtle changes are explored here and the results may serve as a metric for other sites in the Peten, regardless of their own events in and around the end of the Classic period.

[77] see *Navarro Farr, Olivia C.*

Equihua, Juan Carlos (CNRS – Universidad de Paris I, UMR 8096) and Veronique Darras (CNRS – Universidad de Paris I, UMR 8096)

[195] *The Pottery Production in Chupicuaro, Guanajuato (Late Preclassic Period): Recent Input of the Techno-typological Analysis of the Painting Vases*

The update of archaeological knowledge on Chupicuaro and a better appreciation of the relationships with the basin of Mexico, require to specify chronological data through the ceramic analysis correlated with the stratigraphic sequences and consolidated by radiocarbon dates. Recent excavations in the valley of Acambaro provided an abundant collection of ceramics which allow to precise the typology firstly proposed by M. Porter. Some of the problems and results of the techno-typological approaches are presented with a special focus towards the painted recipients and the transition between the phases corresponding to the development and peak of Chupicuaro (600 - 100 B.C.).

Erdman, Katherine (University of Minnesota - Twin Cities)

[183] *Weaving the Past and Present: Bringing a Modern Perspective to Understanding Ancient Artifacts*

Bringing non-academic perspectives into analysis remains a somewhat unconventional approach in archaeological research. During the spring of 2009, an assemblage of bone objects from Tel Anafa in Israel was examined for the first time by archaeologists. The objects were initially described as 'weaving implements' based on comparative examples from other excavations, but their exact function remained unclear. With the knowledge and skill of members from the Weavers Guild of Minnesota, it was possible to compare the ancient tools with modern examples to understand the role the morphology of the implement played in determining how it was used by ancient weavers.

Erek, Cevdet (Dr.Cevdet Merih EREK) and Benjamin S. Arbuckle (Baylor University)

[62] *A Living Place for the Last Hunters and Gatherers: The Epi-Paleolithic occupation of Direkli Cave (Kahramanmaras, Turkey)*

Recent work at Direkli Cave has uncovered important new evidence for an Epi-Paleolithic microlith-producing tradition in the northeast Mediterranean region of Turkey (Kahramanmaras province). Although centrally located with respect to better-known Epi-Paleolithic traditions in the western Taurus, Levant, and Zagros respectively, the Epi-Paleolithic occupation of this region is virtually unknown. In this paper we discuss recent finds from Direkli including the regional affinities of the lithic industry, an early example of figurative art, and also mobility and subsistence practices.

Eren, Metin (Southern Methodist Univer), Adam Durant (Cambridge University) and Christina Neudorf (University of Wollongong)

[183] *An Experimental Examination of Animal Trampling in Dry and Saturated Substrates in Kurnool District, Andhra Pradesh, South India*

Every archaeological site presents its own unique formation processes. Thus, when it comes to archaeological experiments that model these processes, the more the better. This poster presents the motivation, procedures, and results of an experiment conducted in February 2009 that examines animal trampling in dry and saturated substrates in South India. This experiment provides an important middle-range data set for future interpretations of South Indian sites,

and comparisons to other trampling experiments allow a "big picture" look at the minor and major influences trampling may have on artifact context and appearance.

Eren, Metin [256] *First Organizer*; [256] *First Chair*; [256] see Flores, Jodi R.; [74] see Willis, Lauren M.

Erickson, Clark (University of Pennsylvania)

[222] *Historical Ecology of Totora Reeds in Lake Titicaca*
Andean peoples are often portrayed by archaeologists as powerless in the face of climatic fluctuation or degraders of their environment. In contrast, historical ecologists and landscape archaeologists show that they created and managed landscapes effectively. Although misinterpreted as wild, the natives have been cultivating and managing totora reeds for millennia. Totora is used for roofing, boats, mats, basketry, floating settlements, and food, and thus, critical for dense populations in the development of complex societies in the Lake Titicaca basin. I compare the demand for totora to the distribution, reproduction, growth rates under human management to evaluate sustainability and environmental impact.

Erickson, Luke, Courtney Stoll (Environment and Archaeology, LLC) and Michael Conner (Associate Curator, Dickson Mounds Museum)

[150] *Temporal Affiliation or Geographical Situation: Ceramics of the Bay Creek Drainage, Lower Illinois River Valley, Pike County, Illinois*
Site 11PK1702, Pike County, Illinois, is best described as an "Edge-Area" site, straddling the Middle and Late Woodland Period shift. Ceramic analysis identified 35 vessels: 24 Middle Woodland, 9 White Hall, or at least Late Woodland, and two indeterminate vessels. Pike/Baehr and White Hall/Weaver are the predominate types represented. However, almost no Havana ceramics or transitional Havana-Pike to White Hall ceramics were identified. It appears that there was a decorative and technological break between the two components at the site. The almost complete lack of Havana ceramics and its implications for Bay Creek will be explored.

Eriksen, Berit (Centre for Baltic and Scandinavian Archaeology)

[177] *Socioeconomic Responses to the Younger Dryas event in Late Palaeolithic Scandinavia*
Due to the proximity of the Scandinavian ice sheet and the damming and subsequent deluge of the Baltic Ice Lake, the younger dryas event made itself particularly hard felt among the pioneer settlers of northernmost Europe. Despite severe climatic conditions, however, it seems that the process of colonization continued and several scholars have argued that even the, now submerged, North Sea continent (Doggerland) was settled by the Ahrensburgian hunters. The present paper will review recent Scandinavian research dealing with the timing and nature of the colonization process in relation to the younger dryas environmental preconditions.

Erlandson, Jon (University of Oregon), Phillip Walker (University of California, Santa Barbara), Todd Braje (Humboldt State University), and Tom Rockwell (San Diego State University)

[122] *Tuqan Man: Discovery, Context, and Chronology of a 9500 year old PaleoAmerican Skeleton from San Miguel Island, California*
In 2006, the top of a human cranium was found eroding from an arroyo wall over three meters below the modern surface, stratigraphically below an Early Holocene old shell midden on San Miguel Island. After consulting with representatives from Channel Islands National Park and the Chumash Indian Tribe, a salvage excavation documented that the skull was from an adult male buried in a flexed position in a pit dug below a 9500-year-old shell midden. Other than two large stones laid over the skeleton, no artifacts were found. We describe the discovery, context, chronology, and implications of the Tuqan Man discovery.

Erlandson, Jon [224] see Reeder, Leslie A.; [122] see Kuzminsky, Susan C.

Erlenwein, Eileen (University of Arkansas), George Avery

(Stephen F. Austin State University), H. Pete Gregory (Northwestern State University, Natchitoches), Jami J. Lockhart (Arkansas Archaeological Survey) and Michael Hargrave (ERDC CERL)

[73] *New Findings at Presidio Los Adaes, Louisiana: Results of Large-Area Geophysical Survey and Targeted Excavations*
Los Adaes, a Spanish military post, mission, and settlement located in northwest Louisiana, has been investigated with large area geophysical survey followed by test excavations. Historical documents, including a 1720 architectural plan and a 1767 scaled map, and findings from previous excavations, allow for several hypotheses to be tested by analysis of the geophysical maps and additional targeted excavations. The site is historically important as a center for economic and social interactions among French, Spanish, and Caddoan peoples ca. 1721-1773. Large area (.7 to 1.37 hectare) magnetic gradiometry, electrical resistance, conductivity, magnetic susceptibility, and ground penetrating radar surveys were conducted there in May, 2009, followed by test excavations during the ensuing winter.

Erwin, John [60] see Holly, Donald H.

Escalante, Nancy

[143] *Concepto histórico del cuerpo femenino dentro de los cacicazgos de la tradición cultural Valencia (1200-1500 ap)*
Con la incorporación de categorías como reproducción y producción de mantenimiento, se plantea un análisis del marco histórico en el cual se produjeron las figuras femeninas de la Tradición Cultural Valencia (1000 – 1500 a.P.). Estas constituyeron un elemento central de la iconografía de las sociedades de la región centro norte de Venezuela. Se persigue vincular algunas nociones sobre las representaciones del cuerpo femenino y el control sobre la reproducción, impartidos quizás por los linajes dominantes del cacicazgo, a través de los cuales se naturalizaron las relaciones asimétricas entre hombres y mujeres y las concepciones sobre lo femenino y la mujer.

Escamilla Ojeda, Barbara (Centro INAH Yucatán/AYERCPE A.C.) and Pedro Delgad Kú (Centro INAH Yucatán/AYERCPE A.C.)

[20] *La Obsidiana del Barrio Itzmal Ch'en de Mayapán, Yucatán*
Las excavaciones arqueológicas realizadas en el barrio del Grupo Itzmal Ch'en, han producido una muestra de artefactos de obsidiana, observando significativas diferencias entre los contextos hallados en el centro del sitio. Este material fue una de las materias primas preferidas para la fabricación de herramientas en la época prehispánica. La relevancia del estudio de los objetos de obsidiana, es de suma importancia para el entendimiento del comercio maya prehispánico, por tal motivo la presencia de obsidiana en Itzmal Ch'en es evidencia importante del intercambio entre los habitantes de Mayapán y el comercio de larga distancia durante el periodo Posclásico.

Eschbach, Krista (Arizona State University)

[254] *Resituating Northwest Florida Presidios within a Broader Context through Investigations at the Spanish Colonial Port of Veracruz, Mexico*
Between 1698 and 1763, Spanish officials conscripted and sent hundreds of Afromestizos from New Spain to Northwest Florida through the colonial Port of Veracruz. By the eighteenth century, the population of New Spain had experienced almost two centuries of cultural and biological miscegenation between Spaniards, Mesoamericans and Africans. Fifteen years of research at the Pensacola presidios has generated a breadth of data and discussion. Through analysis of historical and archaeological data recovered from investigations of Afromestizo barrios at the Port of Veracruz, this paper will begin to resituate Pensacola presidios within a broader temporal and geographical context.

Escoriza, Trinidad (Universidad de Almería- Spain) and Pedro Castro Martínez

[143] *Investigaciones sobre el trabajo y la explotación social en la*

Prehistoria del Area Mediterránea Ibérica. Feminismo, materialismo e historia

Para nuestra investigación prehistórica del Mediterráneo Ibérico, la teoría social y arqueológica basada en el materialismo, el feminismo, la teoría crítica y el realismo científico han sido claves. Nuestras preguntas se enfocan al trabajo social de mujeres y hombres, y la existencia o no de relaciones sociales de simetría-reciprocidad o dominación-explotación. La lectura social del arte rupestre levantino es un resultado conspicuo, así como el estudio de las condiciones materiales de la producción social y relaciones económicas y político-ideológicas en las sociedades de la región. Nuestro interés se centra en colectivos sexuales (mujeres) y sociales (servidumbre, grupos dominados) tradicionalmente desatendidos.

Eskenazi, Suzanne (HRA, Inc. Conservation Archaeology) and Heidi Roberts (HRA, Inc. Conservation Archaeology)

[144] *Cactus Processing in the St. George Basin, Washington County, Utah*

In April 2009, HRA conducted data recovery at site 42Ws4832, located on land owned by the State of Utah, School and Institutional Trust Lands Administration near Bloomington, Utah. The site contains eight slab-lined thermal features, which were visible on the surface only as fire-cracked rock scatters. The site is situated in an area containing few resources except cactus. HRA hypothesized that cactus species were the likely subsistence focus of the site's prehistoric occupants, and the pollen record suggests that cholla, prickly pear, grass seeds, and Chenopods were processed in the features. Radiocarbon samples returned dates of 990 +/-15 BP and 1175 +/-15 BP. HRA conducted experimental cholla roasting in the fully excavated features and sent the roasted cholla for nutritional analysis.

Espinosa, Silvana [47] see Belardi, Juan B.

Esqueda, Marcela (University of Pittsburgh)

[258] *Playing with Fire: Ceramic Production at a Rural Site in Northwestern Honduras*

While similarities in artifact assemblages exist within the valleys bordering the Rio Chamelecon, the manufacturing processes utilized for some of these artifacts varies considerably. Recent research at the site of Las Caleras in the Cacaupala Valley of Northwestern Honduras provides an example of how residents at a small rural site with environmental conditions unsuitable for pottery production, attempt to integrate themselves in an extended network of pottery producers situated along the Rio Chamelecon. This paper compares the manufacturing process of pottery at Las Caleras to other neighboring sites, both large and small, and discusses the possible implications for socio-political practice.

Estabrook, Richard [219] see Miller, Sarah

Euber, Julie (Arizona State University) and James Bayman (University of Hawaii at Manoa)

[163] *Bioarchaeology in Guam: Trends and Current Conditions*

In the coming years, the American military base on Guam will expand creating even more archaeological projects than in the past. With this in mind, it is important to determine which information collected from human skeletal remains will benefit future question-oriented bioarchaeological research. In this study, I compiled publications employing methods from bioarchaeology and physical anthropology and analyzed topical trends pertaining to Guam's past. Based on the results, I then suggest several potential avenues for future bioarchaeological studies and explore the plausibility of a database that would compile Chamorro mortuary and skeletal information.

Euraque, Dario (Trinity College) [65] *Discussant*

Evans, Damian (University of Sydney)

[153] *The Development of Urbanism and Water Management Systems in Early Cambodia*

The publication in 2007 of the first comprehensive map of settlement

and infrastructure at Angkor represents the culmination of nearly two decades of research into Cambodia's medieval capital by members of the Greater Angkor Project. More recently, the methods and theories applied at Angkor have been used to uncover, map and analyse residential patterning and water management systems around several other early temple complexes in Cambodia. This paper presents an overview of this ongoing research, and traces the development of Khmer hydraulic engineering over time and within a range of different environmental contexts.

Evans, Madeleine (Illinois Transportation Arch. Research Program) and Dale McElrath (Illinois Transportation Archaeological Research Program)

[146] *Early Occupations in the Midwestern Confluence Region*

This paper explores new evidence for the Late Paleoindian/ Early Archaic transition in southwestern Illinois. Excavated sites pertaining to the late Pleistocene and Early Holocene occupation of the American Bottom are rare because of the dynamic nature of the terrain in this major confluence area of the Mississippi, Illinois, and Missouri rivers. Four recently excavated sites in the northern American Bottom underlain by Savannah or Kingston terrace remnants, however, have yielded significant Paleoindian and Early Archaic materials. This paper will examine the CB North, Ringiering, Nocht, and Cass sites and discuss their relevance to regional chronology and settlement models.

Evans, Madeleine [83] see Beck, Brenda; [83] see Butler, Amanda

Evans, Susan [88] see Nichols, Deborah L.

Evans, Tim [113] see Rivers, Ray

Everhart, Jennifer [74] see Henecke, Jennifer L.

Evershed, Richard [48] see Pitter, Sharmini

Fábregas Valcarce, Ramón [205] see Miller, Alexandra E.

Fadem, Cynthia (Earlham College), Andrew Moore (Rochester Institute of Technology), Jennifer R. Smith (Washington University in St Louis) and Marko Mendjusic (Republic of Croatia Ministry of Culture)

[9] *Soils & Site Choice in Neolithic Dalmatia*

As the Danilo Bitinj and Pokrovnik sites preserve the landscape context of early farming in Dalmatia, our site-specific geoarchaeology has the unique opportunity to inform the environmental context of earliest European agriculture. Site soils have been farmed for >7000 years, despite atypical chemistry. X-ray diffraction analysis reveals the parent material is silica-rich, despite ubiquitous carbonate terrain. Soil stable isotopic analyses indicate stability in local and regional climate conditions throughout the soil's life. These factors suggest site choice was guided by the differential productivity of these deeper, silica-rich soils relative to the shallow, poorer soils of the surrounding karst terrain.

Faivre, Jean Philippe [8] see Turq, Alain

Falabella, Fernanda (Universidad de Chile) and Oscar Andonie (Universidad de Chile, Departamento de Antropología)

[23] *Manejo diferenciado de materias primas en la producción cerámica Aconcagua de Chile central. Una evaluación mediante análisis de activación neutrónica instrumental*

Hace unos diez años iniciamos una colaboración entre científicos del área de la química y física de la Comisión Chilena de Energía Nuclear y arqueólogos de la Universidad de Chile, con el fin de generar un espacio interdisciplinario de colaboración enfocado a la solución de problemas de procedencia de cerámica prehispánica. Esta interacción se ha mantenido y consolidado desde entonces posibilitando el desarrollo de interesantes proyectos. En este trabajo presentaremos los resultados de los análisis de activación neutrónica instrumental (INAA) orientados a responder preguntas sobre la

organización de la producción cerámica de las comunidades Aconcagua del período Intermedio Tardío de Chile Central y como hemos ido afinando la comprensión del problema, a través del resultado que entregan distintas categorías de vasijas.

Fan, Wenquan [189] see *Pechenkina, Ekaterina*

Fang, Hui [155] see *Li, Min*

Farnum, Julie (Montclair State) and Elizabeth Righter (State Archaeologist, Division for Archaeology and Historic Preservation, St. Thomas, U.S. Virgin Islands)

[23] *Multi-disciplinary integration in the study of the Pre-Columbian Tutu Village, St. Thomas, US Virgin Islands*

The multi-disciplinary integration of experts in many specialty areas is becoming an essential part of significant research studies of past societies. We will discuss aspects of the design and collaboration to complete a large multi-disciplinary project. The Tutu project, a landmark project in Caribbean Archaeology, will be used to demonstrate the integration of work from specialists in physics, geology, chemistry, archaeology and others to studying the Tutu Village Site occupation and reconstructing social organization, diet, technology, and various other important aspects of life on Pre-Columbian St. Thomas, US Virgin Islands

Fash, Barbara (Harvard University)

[153] *Enclosed Courtyards as Watery Realms in Maya and South East Asian Environments*

Although the reservoir systems in SE Asia and the Maya area were the primary urban water retention features, smaller enclosed courtyards that collected and channeled water into the reservoirs allowed for retention on a personal scale. Symbolism often associated with courtyards indicates their importance in architectural layouts and their associations with water and fertility. Comparing from both tropical culture areas, this paper will explore the role the enclosed courtyard played in past social organization and water management, and how their water features can impact sanitation and sustainability issues.

Fast, Natalie (BLM- Canyons of the Ancients National Monument)

[75] *Canyons of the Ancients National Monument Cultural Landscapes*

Established as a National Monument by President Clinton in June 2000, Canyons of the Ancients contains 164,000 acres administered by the Bureau of Land Management. Since 2000, several large block intensive cultural resource inventories have been conducted. These inventories covered 13,500 acres and recorded 1,192 sites. Almost 26% of the Monument has now been inventoried, an unprecedented coverage for a BLM area, and approximately 6,350 sites total are documented. This poster presentation will provide a synthesis of inventory results and new information on Ancestral Puebloan settlement and land use in the Monument.

Fatkin, Danielle (Knox College), Andrew Wilson (University of Liverpool), Benjamin Porter (University of California, Berkeley), Bruce Routledge (University of Liverpool) and Katherine Adelsberger (Knox College)

[92] *In Search of Empire: On-Site Survey at Dhiban (Jordan)*

Researchers excavating multi-period sites have the challenge of how best to understand their site's long-term habitation history without excavating the entire settlement. Dhiban, Jordan, poses similar issues for its excavators. Although archaeologists have worked here for many years, periods of the site's history remain obscure. The current investigation of Dhiban's habitation history is necessary to distinguish between true indications of settlement expansion and abatement and apparent abatement due to lack of data. By combining GIS, surface collection, and test pits with old excavation data, the survey team was able to identify and investigate changes in settlement size.

Fatkin, Danielle S. [259] see *Adelsberger, Katherine A.*

Faull, Kym [55] see *Barnard, Hans*

Fauman-Fichman, Ruth (University of Pittsburgh)

[13] *Alliance or Aloofness in Tlaxcala Prehistory?*

Much has been made of the role Tlaxcala played in the Spanish Conquest of Mexico. Our understanding of Postclassic period Aztec Realpolitik comes predominantly from a Mexica worldview. What we know about Tlaxcala settlement and political orientation in earlier periods is based on Garcia Cook or Snow's work from the late 1960's and 1970's. The role of Cholula or Teotihuacan in earlier time periods is alternately viewed as huge or marginal. The multi-component site of Calcahuas, located close to the present-day city of Tlaxcala in the municipio of Totolac provides a small scale perspective on these issues.

Faust, Katherine (UC Riverside)

[260] *Skin Deep: A Comparison of Formative Period Olmec and Postclassic Huastec Body Iconography*

The Formative period Olmec and Postclassic Huastec cultures of the Gulf Coast Region developed two of the major Mesoamerican iconographic traditions. Separated by time and space, both cultures depicted human bodies "tattooed" with abstract symbols in a unique manner when compared with the material productions of other Mesoamerican cultures. Thus, although the Las Limas statuette and the sculpture known as the Huastec Youth belie distinct aesthetic and ideological systems, they share important stylistic and conceptual features. This paper explores the style and meanings of these bodily inscriptions and considers the possibility of recognizing echoes of Formative period Olmec iconographic style in Postclassic Huastec art.

Fauvelle, Mikael (California State University, Northridge)

[134] *Feasting and Social Complexity at La Blanca, Guatemala*

Feasts provide venues through which individuals and groups can publicly compete for wealth and prestige. As such, competitive feasting provides an attractive model for studying the emergence and development of social complexity. This paper presents data on the distribution, size and form of ceramic feasting vessels at the Middle Formative site of La Blanca, Guatemala. Comparisons between house mounds allow for the examination of differences between elite and non-elite consumption and of the role of feasting as a means of elite aggrandizement. Results are contextualized with regard to the regional development of social complexity during the Formative Period.

Faux, Jennifer (SUNY Buffalo)

[169] *Mapping the Past: An Assessment of the Half-Conical Figurine Workshops at Teotihuacan*

The figurine assemblages of Teotihuacan have been intensively studied by archaeologists in the past, yet little is known regarding the Half-Conical figurines; specifically the location of the figurine's workshops. This paper will address the distribution of the Half-Conical figurine assemblages at Teotihuacan in hopes of determining the specific location of Half-Conical workshops at Teotihuacan. Based on the results of the maps the possible location of Half-Conical workshops was evaluated.

Fay, Amelia (Memorial University of Newfoundland)

[27] *Mikak's House: Excavations of a Late Eighteenth Century Inuit Settlement*

In 1767, Mikak was one of nine Inuit captured by British sailors off the coast of Labrador, Canada, and later taken to London, England. Mikak helped secure the Moravian missionaries' proposed land grant, enabling them to establish their first mission station in Nain in 1771. Mikak lived at Khernertok, a sod house settlement on Black Island, Labrador in 1776. Excavations at Khernertok will foster our knowledge of the changing late eighteenth century Inuit economy. The Inuit and their lifeways were not entirely superseded by Europeans; they were active agents in the changing social and

economic landscape of the eighteenth century.

Fayek, Mostafa [123] see Hull, Sharon K.

Fazioli, K. Patrick (University at Buffalo)

[243] *Reassessing the 'Proper Study' of Medieval Archaeology: Twenty Years Later*

Over the past several decades, medieval archaeology (AD 500-1500) has become one of the fastest growing subfields in our discipline, thanks to an increase in urban rescue projects as well as continued interest in identifying the sociopolitical origins of "Europe". More importantly, medieval archaeologists are developing increasingly sophisticated research agendas that transcend just "proving" or "disproving" traditional historical narratives. However, with few exceptions, medieval archaeology remains largely outside broader theoretical and methodological debates within mainstream Anglophone archaeology. This presentation examines some underlying reasons for this unfortunate lack of dialogue, and calls for more concerted attempts to bridge this disciplinary gap.

[243] *First Organizer*; [243] *First Chair*

Feathers, James (University of Washington)

[72] *Dating Buried Soils Below Rock Structures*

Stone circles ("tipi rings") and other rock alignments are common archaeological features in the northern High Plains and adjacent Rocky Mountains. Although important for understanding hunter-gatherer adaptations and settlement in this region, most of these features have not been dated. This poster presents the application of optically stimulated luminescence (OSL) of sediments underneath the rocks in order to date when the rocks were placed. Results from rock structures from the Absaraka Mountains of northeastern Wyoming and from the Kutoyis bison jump site in north central Montana show that reasonable dates can be obtained.

Feathers, James [182] see Rosenstein, Dana Drake

Fedje, Daryl (Parks Canada), Duncan McLaren (University of Victoria), Quentin Mackie (University of Victoria) and Terri Lacourse (University of Victoria)

[224] *Younger Dryas-age Environment and Archaeology on the Northwest Coast*

The paleontological record from Haida Gwaii (formerly the Queen Charlotte Islands) demonstrates a rich terrestrial and marine fauna from early post-glacial to earliest Holocene time and, an archaeological record extending to at least 10,600 14CBP. Although environmental changes were substantial during the Younger Dryas, we have identified three bear hunting sites dating to this time. Elsewhere on the Northwest Coast a small number of sites contain components of this age. Together these sites provide a small window on early human occupation despite most Younger Dryas era shorelines having been drowned to at least 75 m below modern levels.

Fenn, Thomas (University of Arizona), Eric W. Ritter (Bureau of Land Management, Redding), Joaquin Ruiz (University of Arizona) and John T. Chesley (University of Arizona)

[255] *Transmissions and Transformations in Protohistoric Baja California: Copper-Based Metals from Laguna Guerrero Negro*

An assortment of Colonial Period objects were recovered through survey and excavation at protohistoric Cochimi residential sites along Laguna Guerrero Negro (LGN), central Baja California, Mexico. A sample of copper-based objects recovered from residential loci in the LGN region was subjected to compositional and isotopic analyses with the purpose of exploring provenance for the materials. Furthermore, metallographic analyses also were employed to examine modifications and adaptations of materials by indigenes for local usage. Preliminary evidence suggests that LGN brasses were imported, from Europe or possibly East Asia, while unalloyed copper objects originated from other locations, potentially mainland Mexico.

Fenn, Thomas [255] *First Organizer*

Fennell, Christopher (University of Illinois)

[125] *Multivalent Histories and Archaeology of a Diverse Frontier Town*

Several universities, a state museum, and local and descendant communities are collaborating in exploring the histories of a town established in 1836 on the American frontier. New Philadelphia, Illinois was founded by a free African American, and it grew over several decades of existence into an integrated town with residents of African American, European American, Canadian, Irish, and English heritage, among others. This project addresses the challenges and rewards of analyzing past multiethnic and interracial social relationships through interdisciplinary methods, and of serving the interests of diverse groups presently focused on enhancing the national memory and heritage of this town.

Fenner, Lindsay (University of Nevada Reno) and Chrissina Burke (University of Nevada Reno)

[232] *What pluvial beach ridges say about prehistory: New investigations along Pleistocene Mud Lake, Nye County, Nevada*

Investigations at Pleistocene lakes throughout the twentieth century provided a great deal of knowledge concerning the prehistoric peoples of the Great Basin. Continuing this tradition is the most recent work conducted at pluvial Mud Lake, Nye County, Nevada. This project, focusing on beach ridges, geologically active areas, and previously known sites, aims to provide more information concerning the chronology, subsistence, and mobility of the prehistoric inhabitants of this area. With temporal diagnostics of Paleoindian age through the present, Mud Lake continues to be a unique investigation into prehistory.

Fenner, Sr., Dale [234] see Zedeno, Maria N.

Feranec, Robert [4] see Lovis, William

Ferguson, Jeffrey (University of Missouri), Karl Laumbach (Human Systems Research, Inc.), Margaret Nelson (Arizona State University), Stephen Lekson (University of Colorado) and Toni Laumbach (New Mexico Farm and Ranch Heritage Museum)

[192] *Characterization of Carbon-Painted Ceramics from Southwestern and South Central New Mexico*

Carbon-painted ceramics from three sites in southwestern New Mexico have been interpreted as evidence of migration by Northern Pueblo groups into southwestern New Mexico from the Four Corners region during the 13th century. Similar ceramics are found in very limited quantities on El Paso Phase sites in south central New Mexico. Recent compositional analysis of carbon-painted ceramics from the Pinnacle, Gallinas Springs and Roadmap sites has identified characteristic chemical signatures that suggest local production. These data are compared with a limited sample of carbon-painted sherds from an El Paso phase site in the Tularosa Basin.

Ferguson, Jeffrey [144] see LeTourneau, Philippe D.; [200] see Oswald, Chris M.

Ferguson, Jeffrey R. [73] see Naunapper, Linda S.

Ferguson, Scott D. [211] see Edwards, Susan R.

Ferguson, T. (University of Arizona) and Barbara J. Mills

[14] *Reuniting Southwestern Ethnography with Archaeology*

A Southwestern ethnologist recently told us that most of the interesting research in Southwestern ethnography was now being done by archaeologists. This situation has resulted from a number of factors including fewer sociocultural anthropologists working in the Southwest, increasing numbers of archaeologists responding to the demands of heritage management, the desire of tribes to become active partners in research, and renewed theoretical perspectives that require linkages between the past and the present. In this paper we evaluate how and why this situation has come about and what this might mean for the future of Southwestern archaeology.

Fernandez, Gerardo (Universidad Autonoma de Zacatecas)

[23] *La Arqueometría en el Contexto de la Educación Superior*
A raíz del desarrollo constante de nuevas técnicas en arqueometría, se discuten los enfoques que pueden utilizarse para incluir este corpus de conocimientos científicos en los programas formativos para arqueólogos. Las alternativas se desglosan en dos vertientes: Incluir materias técnicas en los programas correspondientes (lo que involucra una decisión sobre qué especialidades deben ser incluidas en una propuesta curricular limitada), o bien, se puede optar por la interdisciplina incluyendo especialistas de diversas áreas en la formación de estudiantes. Cualquiera sea la ruta que se tome, la inclusión de la arqueometría en los programas formativos debe considerar limitaciones institucionales, el tipo de profesionista que se está formando y el mercado laboral disponible.

Fernandez, Patricia

[191] *Costa Rica Metallurgy: Local Productions and Social Networks Established with CR, Panamá and Nicaragua*
This paper presents the results of a study in which has been possible to characterize the pre-hispanic metallurgical production in Costa Rica in terms of the provenance ore sources, technology and contextual variables. The analytical study on pre-hispanic metal artifacts and ore sources from Nicaragua, Costa Rica and Panamá use diverse techniques, such XRF and EDS through is possible to identify social networks between Panamá, Costa Rica and Nicaragua. This study pretends to contribute to the discussion about regional interaction related about production and circulation of metallic objects.

Fernández León, Elisa [191] see *Aguilar, Ana Cristina*

Fernstrom, Katharine (Towson University)

[247] *Archaeology and the Construction of Euro-American Identity: Tiffany & Co. at the 1893 Chicago Exposition*
The surveys and excavations of Squier and Davis, in the midwestern US, form one cornerstone of 19th century scientific knowledge and debates about pre-European America. These arguments and debates were not limited to scholarly texts, but were also incorporated into popular culture, and into decorative arts created for public display at the 1893 Chicago Columbian Exposition, and for private display in the home. For example, Tiffany & Co. produced one set of silver vases incorporating and contradicting Antiquarian Stephen Peet's religious arguments; these vases underscore the pervasive cultural importance of archaeology to the infrastructure of American identity.

Ferreira, Francisco [18] see *McEwan, Colin*

Ferring, Reid (University of North Texas)

[231] *Geology and Formation Processes at the Aubrey Clovis Site*
The Aubrey Clovis site is buried 7.5-9 m below the flood plain of the Trinity River in north central Texas. This large multi-component occupation was situated near a spring fed pond and the river channel. Artifact and faunas in two camps and a bison kill/processing area were quickly buried by fine-grained overbank deposits, preserving an excellent record of features and artifact clusters, documenting a range of activities dated to ca. 11,550 rcbp. Data from soils, bone taphonomy and spatial patterning are used to reconstruct the site formation processes during and after the brief occupations.

Ferris, Jennifer [120] see *Andrefsky, William*

Ferris, Neal (University of Western Ontario)

[60] *Constant Contacts and Profound Localisms: The Implications of Interregional Interaction for "Contact" Archaeology*
The importance of interregional interaction in the Eastern Woodlands has been long established. Nassaney, Sassaman, Fox, Jamieson and others point to prosaic, spiritual and non-material manifestations of interaction to underscore how knowing the world - conceptually, materially, cosmologically - beyond the palisade or local drainage helped shape internal innovation among societies. But this growing cosmopolitan sense of the world in the centuries before European contact has been characterized as a period of "profound localism" by

scholars buttressing post-contact assumptions of dramatically changed Indigenous behaviour. Acknowledging the sophistication and antiquity of interregional interaction re-contextualizes European "contact" within this long term and ongoing Native-centric worldview.

Fie, Shannon (Beloit College) and William Green (Beloit College)

[162] *Archaeology at Beloit College: New Approaches for an Established Program*
Beloit College trains many undergraduates who become professional archaeologists. Archaeology at Beloit also engages students who pursue other careers. On-campus museum and archaeological resources, and Beloit anthropology's longevity and tradition of innovation, contribute to our success. Current restructuring of the anthropology major offers new opportunities for students interested in archaeology. The goal is to provide students with the necessary skills to conduct research. Key elements of the revised curriculum include distinct stages at which students develop, present, and assess research. Along with continuing field and lab opportunities, the new curriculum promises to engage students more deeply in doing anthropology.

Fiedel, Stuart (Louis Berger Group)

[90] *Is That All There Is? The Weak Case for Pre-Clovis Occupation of Eastern North America*
After decades of futile exploration and argumentation, the case for a pre-Clovis human presence in eastern North America still relies on just a handful of sites. The evidence ranges from nearly credible (Cactus Hill, Meadowcroft, Wisconsin kill sites) to very implausible (Topper, Saltville). Despite credulous acceptance by mass media, wildly speculative hypotheses, suggesting a European origin of the Clovis complex and its abrupt demise due to a comet impact, are probably fallacious.

[224] *Discussant*

Fiehn, Oliver [4] see *Tushingham, Shannon*

Field, David (English Heritage) [147] *First Organizer*; [147] *First Chair*

Field, Judith (University of Sydney) [132] *Discussant*

Field Murray, Wendi [7] see *Cutright-Smith, Elisabeth*

Fields, Virginia (Los Angeles County Museum of Art)

[260] *X Marks the Center of the Universe*
The essential criteria for identifying Mesoamerican divine kings are manifested by clothing, paraphernalia, and occasionally text. This paper addresses the criterion of pose in order to better understand the nuance and metaphor embedded in depictions of royal figures. Early rulers wear specific regalia associated with the maize god; a corollary and consistently depicted pose is the focus of this paper.

Figol, Timothy J. [55] see *Malainey, Mary*

Figuroa, Alejandro (University of South Florida)

[204] *The Clash of Heritage and Development in the Island of Roatán, Honduras*

The present study examines the ways and extent to which archaeological sites in developed and undeveloped areas on the island of Roatán, Honduras, have been damaged in recent years. Impact assessment data collected in 2009 are evaluated and used to identify possible mitigation measures that take into account the local socioeconomic context, national and international policy and law, as well as the various stakeholders with vested interests in the island's cultural heritage.

[204] *First Organizer*; [204] *First Chair*

Filin, Sagi [147] see *Nadel, Dani*

Finley, Judson (University of Memphis) and Laura Scheiber (Indiana University)

[72] *A Pilot Provenance Study of Intermountain Ware Ceramics in Western Wyoming*

In this study we examine 50 sherds from four sites to understand ceramic vessel source area variation in the Central Rocky Mountains and Wyoming Basin. Intermountain Ware ceramics are a diagnostic marker of Shoshone ethnicity, and our central hypothesis explores changing mobility during the terminal Late Prehistoric and early Historic Periods ca. AD 1700-1830. We use instrumental neutron activation analysis (INAA) and petrographic analysis to characterize clay and temper mineralogy. INAA places ceramic artifacts into four groups with some overlap between sites in southwest and northwest Wyoming. Temper composition supports INAA indicating ceramic vessels may have been transported long distances before their eventual discard.

Finley, Judson Byrd [228] see Scheiber, Laura L.

Finney, Bruce [175] see Misarti, Nicole; [27] see Lech, Veronica

Fischer, Alysia (Miami University)

[17] *Gender and Glass: An Historical and Contemporary Consideration*

Cross-culturally, glassblowing has historically been a man's profession. There have been many barriers to women becoming glassblowers, including cultural beliefs about women's roles in society and assumptions about women's physical abilities. Beginning in the 1960s, studio glassblowing was practiced in the US within an art, rather than craft, context and found its way into universities. Though this shift made it possible for women to engage in glassblowing, written histories continue to highlight achievements of men and rarely mention women. This paper reconsiders that history, the demographic changes since that time, and the continued barriers to women working as glassblowers.

Fischer, Ben [165] see Davis, Judy L.

Fish, Paul (University of Arizona) and Suzanne Fish (University of Arizona)

[242] *Trincheras Sites: Landscapes, Summits, and Ideology*
After A.D. 1200, hill sites proliferate across vast areas of northwest Mexico and the southern reaches of the U.S. Southwest. This trans-regional pattern is often linked to the intensification of conflict. However, we argue that ideology provides an equally vital and valid framework for understanding the societal significance of this late prehispanic phenomenon. Using case studies from the Rio Magdalena Basin of northwest Sonora and the Tucson Basin of southern Arizona, we examine trincheras sites as differential elements of settlement pattern and landscape and their features and summit precincts as facilities of ritual practice. Regional ethnography offers intriguing models for the nature of summit features, their relationship to ceremonial cycles and settlement hierarchies, and the ritual landscapes into which they fit.

Fish, Suzanne [242] see Fish, Paul R.

Fisher, Chelsea (College of Wooster)

[204] *Resorting to the Resort: A Museum's Relationship With the Archaeology of Roatán Island, Honduras*

Despite over 100 years of informal and formal visits, surveys, and excavations, little is known about the prehistory of the Bay Islands, Honduras. Recent and ongoing construction associated with the growing tourism industry on the islands has had a significant impact on the island's archaeological resources. Yet, tourism has also popularized interest in the island's ancient inhabitants. This poster considers the structure and function of an archaeology museum at one resort on Roatán Island, and assesses its perceived effectiveness in conveying information about the prehispanic islanders and the need to protect archaeological sites.

Fisher, Christopher (Colorado State University)

[11] *Political Ecology and the Built Environment: New Insights from*

the Lake Pátzcuaro Basin, Michoacán, Mexico

A regional political ecology approach has been central to long-term coupled human/environment work in the Lake Pátzcuaro Basin, Michoacán, Mexico. Here I present the results of the research, outline the political ecology approach used, and suggest avenues for new applications.

[135] *First Organizer*; [135] see Pezzutti, Florencia L.; [135] see Batista Martinez, Raquel; [11] see Fisher, Christopher T.; [135] see Ahrens, Corrie L.

Fisher, Jacob (University of Washington)

[213] *Processing and Consumption of Rabbits at Antelope Cave, Arizona*

Antelope Cave, a Virgin Anasazi site located in northwestern Arizona, offers a large faunal assemblage dominated by jackrabbits (*Lepus californicus*) that has been minimally impacted by post-depositional processes. Using data from this site, I discuss how butchering and consumption practices of the past can be elucidated from statistical analysis of faunal remains. Supporting evidence from human coprolites and experimental data on rabbit roasting and boiling are presented to provide additional lines of evidence. It is anticipated that such data will offer important information for understanding processing decisions at a site possibly related to communal jackrabbit drives.

Fisher, Lynn (Univ of Illinois Springfield), Corina Knipper (University of Mainz), Rainer Schreg (Römisch-Germanisches Zentralmuseum) and Susan Harris (University of Tübingen)

[184] *Neolithic Chert Acquisition Features on the Swabian Alb, Germany*

Recent investigations at the chert quarry site of Asch-Borgerhau, near Blaubeuren, Germany, documented visible surface features and chert acquisition pits dating from the Early/Middle to Final Neolithic. This poster investigates the form and fill of quarry features in 6 test trenches. Variations in pit fill and in the density and distribution of raw material, artifacts, and charcoal suggest that a diverse set of chert acquisition and production activities shaped this extensive archaeological landscape. Comparisons to quarry features in neighboring regions are used to frame hypotheses about the organization of Neolithic chert acquisition on the Swabian Alb limestone plateau.

Fisher, Lynn [184] see Harris, Susan K.

Fisher, Philip (Washington State University) and William Andrefsky Jr (Washington State University)

[232] *Partitioning the Middle Archaic in the Northern Great Basin*

The Archaic period in the northern section of the Great Basin is not well understood. A sequence of 11 radiocarbon dates was used to partition the Middle Archaic occupation along the Owyhee River in southeast Oregon into distinct assemblages. Principal Components Analysis was used to assess similarities and differences in assemblage composition during this period of occupation. The 11 assemblages consist of various lithic artifacts, shell, mammal, and non-mammal bone. Results show the site was used for different activities over a 3,000 year span of time.

Fisher, Victor (Towson University)

[88] *Themes in Environmental Archaeology*

A nationwide survey of universities offering a course in "Environmental Archaeology" affirmed that instructors utilize a broad range of materials from geographically diverse areas and are uneven in their employment of scholarship from other disciplines. This paper describes some common and unifying themes that have been found to underlie the different approaches.

Fitzhugh, Ben (University of Washington)

[197] *Under the Hood of Intensification: Towards a More Useful Construct*

Economic Anthropologists and Archaeologists have long been interested in the concept of "intensification" as a framework for

understanding aspects of cultural evolution and the underpinnings of social complexity. Whereas conventional anthropological applications of 'intensification' focus most often on evolutionary results of intensified production (more food per capita), behavioral ecologists seek to explore individual motivations and consequences of intensified effort (more work per unit output). This paper will explore a key semantic confusion arising from the juxtaposition of these two approaches as a means of developing a bridging model linking the two aspects of intensification at both adaptive and evolutionary scales.

Fitzhugh, William [161] *see* Wolff, Christopher B.

Flad, Rowan (Harvard University), Gwen Bennett (McGill University), Kunyu He (Chengdu City Institute of Archaeology) and Timothy Horsley (University of Michigan)
[155] *Research at Songjiaheba: Survey, Excavation and Geophysics at a small Settlement Site*

An international collaborative research project focused on the Chengdu Plain of Sichuan Province has been using surface survey and augering to systematically survey a 300 square km area surrounding a late Neolithic walled town. During this survey, dozens of small sites have been discovered. This paper reports on the discovery of and subsequent magnetometry work and excavations at the site of Songjiaheba in the survey zone. For this region, this is the first use of geophysics and the first attempt to employ several strategies to investigate a small settlement site of the Early Bronze Age.

Flad, Rowan [155] *First Organizer*; [95] *Discussant*

Fladerer, Florian [184] *see* Bosch, Marjolein D

Fletcher, Roland (University of Sydney)
[153] *Global Cross-comparisons of Climate Change and Collapse: Logical Issues and Implications*

The great low-density agrarian cities in Lowland Mesoamerica, Sri Lanka and SE Asia between 250 BCE and 1150 CE represent a distinctive path to urban life in tropical environments. Yet they all experienced a long process of collapse, apparently associated with climate change. This paper will investigate the logical issues involved in cross-regional analyses of relationships between community behavior, and the long-term ecological interaction between low-density urbanism and global climate change. The analysis has implications for the potential trajectories of the increasingly prevalent, low-density urban settlements of the industrial world.

[153] *Second Organizer*

Flores, Jodi (University of Exeter) and Metin Eren (Southern Methodist University)
[256] *Reporting Skill-level In Experimental Archaeology: How Often It Is Done And Why It Is Important*

As a sub-discipline Experimental Archaeology has contributed to our understanding of history for over a century, but in the last 20 years it has become vital for understanding archaeological formation processes and for testing models of technology. Nevertheless, an experiment is most useful if it can be replicated, and an experiment's results are most valuable when all major influencing inputs are reported and understood. In this paper we present the results of a survey documenting the presence and method of reporting skill-level in published experiments. We discuss why reporting skill-level is important, and how it might be achieved.

Flores, Louise [122] *see* Sholts, Sabrina B.

Flores, Oscar [45] *see* Kling, Amber M.

Flores Colin, Alberto [109] *see* Shaw, Justine M.

Flores Escudero, Paul [67] *see* Pajuelo-Flores, Eva

Floss, Harald
[157] *Lithic Raw Material Procurement Patterns in the Aurignacian of the Swabian Jura, southwestern Germany*

The Swabian Jura belongs to the most important areas of palaeolithic occupation in Central Europe. The Swabian Aurignacian has yielded an outstanding amount of information about early Upper Paleolithic chronology and the arrival of anatomically modern humans in that area. It has as well yielded about 50 examples of mobile art and numerous items of personal adornment. The analysis of lithic raw materials tends to detect mobility patterns of early Upper Paleolithic hunter gatherers and to confront these results with those of the last Neandertals in this part of Central Europe.

Flynn, Christopher [219] *see* Walz, Gregory R.

Fogelin, Lars (Univ. of Arizona)
[194] *Fallback Philosophy: The Worst Offense is a Perfect Defense*
This paper critiques the use of the negation strategy by processual archaeologists and constructivism by post-processual archaeologists. I argue that archaeologists rarely employ a negation strategy or constructivism in the creation of archaeological explanations. Rather, archaeologists only deploy these theories in defense of explanations created using other means. In either case, archaeologists create an impregnable fortress of skepticism that only diminishes their archaeological conclusions.

Foley Winkler, Kathleen (University of Wisconsin- Milwaukee)
[105] *Oneota and Langford Mortuary Practices from Eastern Wisconsin and Northeast Illinois*

Two archaeologically identified mortuary programs for Developmental Horizon Oneota in southeast Wisconsin suggest different underlying social and/or political structures. Three key issues are addressed. First, a case is made for the ways that burial data are expected to inform about social, political, and economic structures in the late prehistoric Midwest United States. Second, eastern Wisconsin Oneota burial programs are compared with contemporaneous Langford and Oneota sites of northern Illinois. Last, data collected provide a regional discussion of culture contact and diversity and are used to examine whether or not violence was present among the Wisconsin Oneota sites.

Follensbee, Billie (Missouri State University)
[260] *Gender-Neutral and Gender-Ambiguous Costume in Formative Period Gulf Coast Cultures, and its Implications*

Recent studies of sex and gender in Formative Period Gulf Coast art and archaeology reveal that certain costume elements are strongly gender-associated, while others are gender-neutral. Still other attire may be more strongly associated with one gender, but in certain, specific situations may appear on members of the opposite gender. These more ambiguous garments appear to be primarily associated with a status or an office. The fact that costume associated with different levels of status appears on both male and female figures, and on individuals of differing age, is particularly meaningful for our understanding of Formative Period Gulf Coast society.

Fontana, Marisa
[217] *Of Walls and War: Fortification and Warfare in the Mississippian Southeast*

This paper explores late pre-contact indigenous fortifications in the American Southeast to examine what these constructions can tell us regarding the nature of Mississippian warfare. I use the Mississippian site of Canebreak in east-central Alabama as a case study to illustrate how archaeologists can determine the difference between defensive and non-defensive architecture in the context of Mississippian warfare. The timing of the appearance and development of fortifications has the potential to show patterns that document the evolution of sociopolitical relationships between neighboring sites and/or polities—the cycling of “raiding and trading,” or war and peace.

Foor, Thomas [39] *see* Prentiss, Anna Marie

Ford, Anabel (UCSB)

[241] *The Sustainable Landscape of the Ancient Maya*
From the initial settlement of the Maya lowlands 3,000 years ago, populations grew, cities ebbed and flowed, and land use became intense. The prosperity of the Classic and the continuity of language and practice into colonial times underscores successful adaptation to the landscape built on experience that back into the Archaic and founded on the milpa-forest garden management system. The Maya adaptation depended on an intimate understanding and dynamic use of their landscape. Based on our predictive model of the Maya settlement, we present a model of the land use and calculate a population density for the El Pilar area.

[241] *Discussant*

Ford, Ben (Texas A&M University)

[247] *Changes in Perception and Perceptions of Change on the Lake Ontario Shore*

Littoral environments are never static; water rises and falls, transportation networks open and close, and resource come and go on daily, seasonal, and longer time scales. The perception of these changes also shifts with time and variations in culture. Perceptions of less mutable features of the Lake Ontario shore (e.g. the international boundary and the threat of storms) have shifted with time as well. How maritime cultures perceived both change and continuity affected their interactions with the shore environment and the substance of the archaeological record. Data for this analysis was drawn from a combined terrestrial and maritime archaeological survey.

Ford, Ben [19] *see* Crabtree, Stefani A.

Formica, Tracy (URS Corporation)

[179] *Lithics Really Do Talk Back: A Comparison of Sites 33PE838 and 33PE839*

Phase III archaeological investigations at 33PE838 and 33PE839, both multi-component Archaic, Woodland, and Late Prehistoric period sites in the Rush Creek watershed, Perry County, Ohio, yielded some 18,000 lithic artifacts. As lithics are enduring and the most common type of artifact generally found at prehistoric sites in the Ohio Valley region, site interpretation generally is heavily weighted by lithic data interpretation. This paper compares the lithic assemblages from sites 33PE838 and 33PE839. To aid interpretation of archaeologically-derived lithic assemblages, the results reiterate the need for a flexible analysis framework, gathering information from multiple lines of evidence, and experimental replication studies.

Formosa, Sue [163] *see* Blake, Michael

Forne, Melanie (Cancuen Project), M. James Blackman (Smithsonian Institution), and Ronald L. Bishop (Smithsonian Institution)

[229] *Fine Grey and Fine Orange: Early Presence and Foreign Provenience - Interpretations for Long-Distance Trade from Cancuen*
In the Maya Lowlands, fine grey and fine orange ceramics are among the strongest markers for chronology and cultural contact. Long term studies using compositional analyses have permitted us to determine manufacturing sources and subsequent routes of dissemination. Archaeological recovery has generally resulted in Chablekal Fine Gray being placed earlier in the ceramic sequence than Fine Orange Ware. Recent investigation at Cancuen however, has revealed the presence of an early Fine Orange, which appears to come from newly recognized sources. Here, we present these new findings and situate Cancuen's involvement in a long distance movement of pottery.

[229] *First Chair*

Forsman, Leonard A. [203] *see* Lewarch, Dennis E.

Forsythe, Lauren (Southern Illinois University Carbondale) and Heather A. Lapham (Southern Illinois University Carbondale)

[26] *Cut Mark Analysis and Tool Identification at the Berry Site Using*

Scanning Electron Microscopy

Fort San Juan, built in 1568 adjacent to Joara, a large Native American town in western North Carolina (known collectively as the Berry site), provides a unique opportunity to examine the relationships that developed between the Spanish soldiers and the native townspeople. We examined cut marks left on animal bones discarded in fort middens using a scanning electron microscope to determine if stone or metal tools were used to butcher and prepare meat for consumption within the garrison. Our results indicate the butchery scars were made by stone tools, which suggests the soldiers were supplied with meat by the native Joarans.

Forte, Maurizio

[230] *3D Collaborative Environments in Archaeology*

This paper aims at introducing an innovative approach to cyber-archaeology in relation to the need to investigate what happens in 3D immersive collaborative environments where every user is embodied in cyberspace through participatory activities. Different virtual platforms of participatory learning and collaborative environments are able to create diverse outcome for research and training. UCM is currently working on the creation of a network of collaborative immersive environments. They will allow scholars to collaboratively interpret and reconstruct archaeological artefacts, sites and landscapes on the basis of participatory immersive interactions (Powerwall, Teleimmersive Systems) and 3D web virtual cyberspaces.

Fortier, Andrew (Illinois Transportation Archaeological Research Pr)

[30] *Preliminary Analysis of Prehistoric Dog Coprolite Samples from the American Bottom, Southwestern Illinois*

Coprolites are fossilized feces that are rarely encountered in open-air archaeological contexts in the Midwest. Recent Excavations at the Janey B. Goode site in metropolitan East St. Louis have recovered just over 100 discrete, well-preserved, desiccated coprolite samples that date from A.D. 900-1000. Preliminary analysis indicates that these coprolites are from dogs. Analysis is ongoing and is aimed at reconstructing diet, health standards and the genetic make-up of this dog population. Macro-analysis has revealed the undigested remains of animal bone, teeth, fish scales, plant remains, sinew and hair. Future blood panels, and parasite/bacteria analyses will be conducted to determine levels of health and nutrition.

Fortin, Louis (Washington State Univ.)

[259] *Depositional Sequences at Cox Ranch Pueblo, New Mexico: A Geoarchaeological Perspective*

Cox Ranch Pueblo (LA 13681), New Mexico is a Chacoan great house community established ca. A.D. 1050 – 1130. Research was completed to aid in the identification of the depositional processes that affected Cox Ranch Pueblo during post-abandonment, specifically Roomblocks 1 and 4. Off-site natural samples were also collected for reference. Samples collected from these units were put through a suite of pedological analyses (pH, electro-conductivity, % organic, % CaCO₃, particle size) to determine the differences in natural and cultural strata. Results were then compared with previous geoarchaeological analysis of alluvial processes to identify regional similarities in the deposition sequence.

Foster, Elise (U.S.D.A. Office of the General Counsel)

[86] *Proposed Amendments to ARPA on Restitution and Use of Funds Collected*

ARPA enforcement since the statute was enacted has shown that fines and penalties collected in enforcement actions can be applied to restoration and repair of resources. However, this does not uniformly occur. The Government can optimize archaeological resource protection without an increase in spending by enacting certain amendments to ARPA. The suggested amendments will: 1) make restitution mandatory in ARPA enforcement cases; and 2) create statutory authority for agencies to use funds collected through penalties, fines and restitution to fund restoration and repair of resources or to otherwise further the purpose of ARPA.

Foster, Jennifer (University at Buffalo)

[243] *Social Circles: Rathes and Status in Early Medieval Ireland*
Over 40,000 raths dot the countryside in Ireland; these defensive-looking bank-and-ditch enclosures have long been considered the homes of the middle and upper classes of the Early Medieval period. But recent archaeological evidence suggests otherwise: not all raths have yielded "high status" material upon excavation, while others may have remained vacant. This paper will examine the multiple roles raths held in the Early Medieval landscape: who lived within their walls and who did not, where other people lived, and how perceptions of "status" cloud archaeological interpretation.

Fowler, Catherine (University of Nevada) [211] Discussant

Fowler, Don (University of Nevada Reno) [248] Discussant

Fowles, Severin (Barnard College, Columbia University)

[14] *On Narrative in Southwest Archaeology*
I propose a return to the grand narrative in Southwest archaeology—or, at least, a return to a serious engagement with those metahistories inevitably constructed from archaeological statements by the public. Over the past three decades, critiques of social evolutionary theory have prompted widespread retreat into questions of the individual, the short-term, the historically contingent and the idiosyncratic, accompanied by a growing theoretical focus on more intimate matters of meaning, memory, perception and agency. Fine. But ignoring old metahistories hardly makes them disappear. Compelling counternarratives are needed, and here I look for guidance to both indigenous Pueblo and anarchist perspectives.

Fox, William (Canadian Museum of Civilization)

[60] *Reciprocal Symbols*
Individual examples of symbolically equivalent item exchange over considerable distances during the early seventeenth century are presented. Such events are considered within the context of rapidly changing social structures - the evolving sixteenth/seventeenth century "shatter zone" in eastern North America.

France, Christine [161] see Speakman, Robert J.

France, Elizabeth (Metcalf Archaeological Consultants, Inc.), Elizabeth Paris (University at Albany, SUNY) and Jonathan White (University at Albany, SUNY)

[20] *Delving into Debitage: The Spatial Distribution and Scalar Variation of Shell and Lithic Production at Mayapan Houselots*
Shell ornament and lithic tool production occurred at varying scales in houselots of different Mayapan neighborhoods. This paper compares the variation in frequency and type of production reflected in shell and stone tool-making debris at domestic contexts across the city and identifies several localities where surplus production and multi-crafting is evident. Major lithic workshops focused primarily on late production stages while all phases of marine shell-working were commonly represented. We identify differences in the continuum of production between houses with modest quantities of debris and surplus workshops and the significance of these patterns for understanding occupational specialization at the city.

Frank, Ross (Dept. of Ethnic Studies, U.C. San Diego) [193] Discussant

Frankl, Michael [90] see Stewart, R Michael

Franklin, Kathryn (University of Chicago)

[34] *Medieval Settlement Patterns, Trade Routes and Political Topography in the Kasakh Valley, Republic of Armenia*
Trade and travel through the Armenian highlands integrated larger political spheres and local developments throughout the medieval period (3rd- 14th centuries AD). This paper presents preliminary investigations of the system of roads, settlements, monasteries and fortresses within the Kasakh river valley, in the Aragatsotn region of

Armenia. Survey results were combined with remotely sensed data within ArcGIS. This system was augmented with historical research, inscriptions, and extant archaeological data to give chronological control to patterns of settlement and movement. Least-cost-path analysis and other methods demonstrate the changing relationship between medieval patterns of settlement and 'natural' routes through the landscape.

Franzen, John [114] see Drake, Eric C.

Frederick, Kathryn (Wayne State University) and Meghan Howey (University of New Hampshire)

[163] *Displaying a Living Past, Calling for Stewardship: A Case Study of Cross-Disciplinary Museum Discourse from the University of Michigan Biological Station*

Museums aim to fill the gap between academics and publics. This poster explores the process of designing a museum exhibit aimed at crossing a different gap, between archaeology and other sciences. The University of Michigan Biological Station, a world-class environmental research center located in Northern Michigan, is teeming with archaeological sites yet only very recently has archaeology occurred here. This poster describes the challenges and benefits in designing an exhibit for UMBS that both brings the past to life and effectively imparts the message to a community known for their environmental stewardship that cultural conservation deserves equal place in stewardship.

Freedman, Jacob (Gray & Pape, Inc.)

[252] *Deep Testing Methodology, The "Black Dirt" Peat Deposits, Warwick, New York*

This paper describes the methods used to investigate the "Black Dirt" peat deposits located in the Town of Warwick, New York. Fieldwork consisted of 2, 3- by 3-meter hand excavated "environmental boxes." These boxes permitted the recovery of bulk soil samples to the base of the peat deposit, approximately 2.2 m.b.s. To accomplish this, de-watering, hydraulic shoring, a manually operated crane, and fall protection systems were used to permit safe, OSHA-compliant excavation. These samples will be used to reconstruct the post glacial environment to better understand the Pine Island Archaeological District and general climate trends in the Northeast.

Freedman, Jacob [252] see Pretola, John P.

Freeman, Jacob (Arizona State University)

[119] *Lewis Binford's Impact on the Science of Humankind: A Graduate Student Perspective*

Lewis Binford's impact on the science of humankind is discussed from a graduate student perspective. Lewis Binford's contributions to the science of humankind have been profound. Yet perceptions of these contributions vary. Variability in perceptions among graduate students is discussed and compared to current graduate student mentors. Finally, these perceptions are compared to the author's own experiences and perceptions.

Freidel, David (Southern Methodist University) and F. Kent Reilly III (Texas State University)

[115] *Architecture, Cosmology, and World Renewal at the Formative Period Mesoamerican Site of La Venta*

Jim Brown cites evidence that the Great Mortuary at Spiro was a cosmogram representing the world at the moment of creation. Brown postulates that this material tableau linked to rituals of world renewal. The enclosed court at La Venta, with its restrictive construction and placement of caches and sacred bundles, served as an Olmec architectural configuration that also functioned as a cosmic diagram serving as a stage for rituals of world renewal. The commonality in cosmograms at these two exemplary North American ceremonial centers suggests the presence of a foundational religious sensibility informing ritual practice in these two cultural areas.

Freidel, David [77] First Organizer

Freter, AnnCorinne [30] see Weaver, Sarah A.

Freter-Abrams, AnnCorinne (Ohio University) and Elliot Abrams (Ohio University)

[241] *Reconstructing the Paleodemographic Trends Associated with the Maya Late Classic/Terminal Classic Depopulation of the Copan Valley, Honduras: A Multi-Scalar Approach*
Paleodemographic reconstructions require multiple lines of data and multiple scales of analysis before sufficiently nuanced population trends can be discerned. Archaeological research in the Copan Valley, Honduras has produced a rich data set from which to examine the Late Classic/Terminal Classic population trends associated with the "Collapse" from a multi-scalar perspective. This paper, employing architectural, survey, and excavation data, reconstructs the complex sociopolitical process of the valley's depopulation. By articulating regional settlement trends with building-specific abandonment events, agricultural processes and detailed chronology, a multi-scalar picture of paleodemographic trends emerges.

Freund, Kyle (University of South Florida) and Robert H. Tykot (University of South Florida)

[123] *Lithic Technology and Obsidian Exchange Networks in Bronze Age Nuragic Sardinia (Italy)*
The study of Sardinian Bronze Age lithic technology and the exchange networks which created and maintained an island-wide identity as seen through the presence of its distinctive nuraghi has received little attention despite the wealth of knowledge it is capable of yielding. This research provides one of the first comprehensive studies of Bronze Age obsidian artifacts by combining typological analyses from two sites with source data gleaned from the use of X-Ray Fluorescence (XRF) technology.

Frink, Liam (University of Nevada Las Vegas)

[17] *Gendered Specialized Production of Seal Pokes and Storage among western Arctic Hunter-gatherers*
Seals and their products were the backbone of Arctic communities; critical as food, tools, clothing, medicines, fuel, and central to community identity. But little research has shed light on the techniques of processing and storage. An innovative invention were seal pokes—whole seal skins wherein dried fish were stored and seal fat was rendered into oil. This paper explores the use and manufacture of seal pokes and storage and investigates possible archaeological signatures and if this method of storage may have fluoresced during the early colonial period as a demand for fish and oil for trade intensified.

Fritz, Carole and Gilles Tosello (Centre Emile Cartailhac, Université de Toulouse)

[104] *Master or Apprentice? Tradition or innovation? Man or woman?: Reflections on the identity and role of the artists in Paleolithic societies of Europe*
In studies of European Upper Paleolithic art, results are usually at the level of a cultural group. It is less easy to approach Paleolithic art at the level of the individual artist. For example, what was the part of women? Thanks to microscopic analyses of engravings, we can identify the degrees of aptitude or experience, apprenticeship, and the transmission of techniques. Clearly, there are some rules for drawing. Does the respect for or transgression of these norms reflect some aspects of freedom? Using some selected examples, we discuss how to better perceive the anonymous artists through their practices.

Fritz, Crystal

[92] *Pottery and Emergent Complexity in Southeastern Arabia*
The concept of heterarchy as an organizing principle has been usefully employed in the study of emergent complexity in new world archaeology. Heterarchy has proven particularly useful for the study of societies located in marginal environmental zones. This paper applies the concept to understanding a dramatic increase in settlement in Iron Age period (1100-600 BCE) in arid Southeastern Arabia. A regional analysis of ceramic production and distribution reveals a concrete representation of heterarchical organization

facilitating emergent complexity.

Fritz, Gayle (Washington University in St Louis)

[52] *Food, Labor, and Sexual Politics at Fort San Juan: The Archaeobotany of Early Contact in the Southeastern U.S.*
What decisions did native food producers at the village of Joara in western North Carolina make when a small force of poorly provisioned Spanish soldiers came to dinner in 1567 and didn't leave? Who decided whether or not to feed the intruders? Are Iberian food preferences or aversions manifested in the archaeological record? Did the Joaran farmers—probably women—benefit or suffer (or both) from the presence of foreigners—all men—who needed their crops for survival? Archaeobotanical remains from the Berry Site are examined and compared to those from other early Spanish contact sites in the Southeast in order to address these issues.

Frouin, Millena [18] see Meddens, Frank

Fucella, Phillip [181] see Modzelewski, Darren

Fuller, Michael (St. Louis Community College)

[62] *Spirit Beings Associated With Caves in Missouri*
Archaeological and ethnographic evidence provides insights for the Native American beliefs in spirit beings associated with caves and rock shelters in Missouri. Large caves with albino crayfish may have been associated with spirit beings such as the Mohenka Shinka. Breathing caves and caves with surging springs are found in several parts of Missouri; at least some of these were seen as sacred places. Possible sacred cave and rock shelter sites include the cave at Big Moniteau Rock, Cliff Cave, and the Mitchell Site rockshelter.

Fullerton, Ben (Geo-Marine, Inc.), Arlo McKee (Geo-Marine, Inc.) and Duane Peter (Geo-Marine, Inc.)

[231] *Cultural Dynamics during the Late Prehistoric Period in Northcentral Texas*
Investigations at site 41COL172 within the woodlands/prairie ecotone of northcentral Texas have revealed numerous Pennington Punctated-Incised ceramic sherds in association with bison remains between A.D. 1000 and 1300. Three prevailing models exist for the late prehistoric use of the woodlands/prairie ecotone: (1) Caddoan hunting parties from the east ventured out onto the prairie when bison were present; (2) Caddoan farmers migrated into the area to establish new villages; and (3) a local population occupied this ecotone and borrowed readily from surrounding cultures. This well preserved site containing bison remains and early Caddo-influenced pottery provides new evidence for evaluating these models.

Funk, Caroline, Brian Hoffman (Hamline University) and Debra Corbett (United States Fish and Wildlife Service)

[79] *Aleut Landscapes and Seascapes: The Rat Islands, Alaska*
Survey and site testing on Rat and Kiska Islands in the western Aleutians during Summer 2009 revealed new site types and demonstrated more intensive use of the islands than documented in earlier studies. The research focuses on identifying ecosystem changes resulting from invasive species predation, Aleut resource management and on understanding Aleut and Russian cultural and environmental adaptations during contact between the societies. The work counters historic records to show that Aleuts were present in larger numbers, lived more fully on the landscape than expected, and did indeed modify landscapes and wildlife to satisfy their way of life.

Furey, Rachel (UC Santa Cruz) and Diane Gifford-Gonzalez (UC Santa Cruz)

[48] *Foodways, Ritual, and Identity at an Early Colonial New Mexican Pueblo: the Archaeofaunal Evidence*
Relatively little is known about the cultural backgrounds of the early colonial inhabitants of Paa-ko/San Pedro (LA162), New Mexico. Historical and metallurgical evidence shed some light on their technological heritages and possible social origins, but faunal data complicates and enriches our understanding of everyday practices. We explore how selection and handling of wild and domestic

ungulates, lagomorphs, and birds elucidates foodways and ritual lives of Paa-ko's inhabitants. We suggest a syncretic, yet fundamentally indigenous, quotidian life ran in tandem with introduced technological practices and persons. We discuss implications for gender and parallels in other colonial settings.

Gabe, Caroline (University of New Mexico)

[193] *Plaza Communities and the Vecino Household: An Archaeological Perspective*

How does plaza organization influence the expression of vecino household structure and spatial configuration? The plaza village is a common historical expression in northern New Mexico, which evolved in tandem with the political changes that shaped the Spanish frontier. Plaza organization affected the associated individuals and households within vecino villages and the spatial organization of gendered activities. Taking the Ranchos de Taos and Taos parishes as a case study, this paper analyzes plaza community layouts from multiple perspectives, as well as their possible affects on social organization and community arrangement.

Gabelmann, Olga

[94] *A Society in Change?: The Formative Period in the Cochabamba Valleys*

The Formative Period society in the Cochabamba region is often depicted as a homogeneous, non-stratified, agriculturalist society with purely monochrome pottery and a lack of monumental architecture. Recent excavations in Santa Lucía revealed a pottery production center with separate workshops and a production output that goes far beyond the producers needs, hence creation of surplus. In addition, the site played an active role in long-distance trade with the highlands, the lowlands and the Pacific coast. This gives room for new interpretations. Is the Formative society more complex than it appears?

Gage, Mathew D. [24] see Yerka, Stephen J.

Gaines, Edmund [21] see Sanchez Miranda, Guadalupe

Galassini, Stacy [213] see Towner, Ronald

Galaty, Michael (Millsaps College), George Bey (Millsaps College), and Timothy Ward (Millsaps College)

[78] *Laboratory Approaches to Cross-Cultural Comparative Archaeology*

The W.M. Keck Center for Instrumental and Biochemical Comparative Archaeology at Millsaps College in Jackson, Mississippi is designed to compare processes of state formation in the Yucatan, Mexico and in Albania, where two very different paths to social complexity were followed. In this paper we examine the gains to be made through systematic laboratory analysis of artifacts from similar archaeological cultures located in two very different parts of the world. Our ongoing research demonstrates the distinctive role to be played by archaeometry in the emerging field of cross-cultural comparative archaeology.

Galeazzi, Fabrizio (University of California Merced) and Paola Di Giuseppantonio Di Franco (University of California Merced)

[189] *The Western Han Dynasty Museum: from the 3D data collection to the 3D spatial analysis*

In 2008 the idea of a Western Han dynasty virtual museum was conceived by the "Xian Jaotong University of Technology" and the "University of California Merced". In two years it has been possible to collect a huge amount of 3D data using different laser scanner techniques. We are going to show the data archive made for the preservation of tangible heritage at risk and communication models made for revealing the intangible heritage.

Gallardo, Francisco [122] see Torres-Rouff, Christina

Gallareta Cervera, Tomas (University of North Carolina at Chapel Hill)

[109] *Reconstructing Social Shifts through Monumental Architecture: a Maya Palace-Temple Case from Kiuc, Yucatan, Mexico*
Due to their hybrid nature, people and objects cannot be analyzed as separated entities; the changes in one entity are necessarily reflected in the other. Monumental architecture, an object constructed to last a long time in a defined space, becomes a receptacle of accumulated meaning, memory and the social identity of communities interacting with it in their daily life. By reconstructing the social biography of a Maya palace-temple, through the building's recovered architectonic sequence and its general characteristics, I explore the possible social implications in the life of ancient Maya dwellers through this structure's 1800 years construction history.

Galle, Jillian (Monticello), Fraser Neiman (Monticello), Ivor Conolley (The University of the West Indies, Mona) and Leslie Cooper (Monticello)

[201] *Identifying Change in Household- and Specialist-Produced Coarse Earthenwares from 18th and Early-19th Century Jamaican Slave Villages*

Archaeologists have long been intrigued by hand-built, open-fired earthenwares on 18th and 19th-century domestic sites occupied by enslaved Africans. In Jamaica, these wares are accompanied by locally-made, glazed, and/or kiln-fired ceramics likely manufactured and marketed by enslaved specialists. Here we use data from over 600 shovel-test-pits excavated from the Papine slave village located outside of Kingston, Jamaica to explore the relationship between household-produced wares and specialist-produced ceramics. After establishing a village-wide chronology, we use systematic, quantitative evidence to track how the importance of household- and specialist-produced locally-made coarse earthenwares changed over time at Papine.

Galle, Jillian [201] see Neiman, Fraser D.

Gallison, James [33] see Church, Michael K.

Gallivan, Martin (William & Mary) and Justine McKnight (Archeobotanical Consultant)

[247] *A Cultural Interpretation of Horticultural Transitions in the Chesapeake*

Drawing on new archaeobotanical data and direct dates on maize from the Chesapeake region we offer an historical account and a cultural model of Native foodways before and after maize's introduction. Maize first appears within Late Woodland settlements marked by persistent places, unusual landscape features, ceremonial events, and political centers. The special status of places with early maize is particularly relevant east of the Blue Ridge where Native societies were not horticulturalists prior to maize adoption. The incorporation of maize involved not simply an embracing of a new plant, but the reshaping of social relationships to accommodate becoming food growers.

Gallivan, Martin [225] see Atkins, Ashley; [225] Discussant [247] First Chair

Gallo, Joseph (ITARP/University of Illinois) and Miranda Yancey (ITARP/University of Illinois at Urbana-Champaign)

[187] *Exploring a Late Nineteenth-Century German Neighborhood in Old North St. Louis*

Old North St. Louis, now blighted due to a half-century of decline, was founded as an independent village in 1816. It later became a focal point of German immigration to St. Louis shortly after its annexation in 1841. Block 1136 developed from 1860 to 1910 as a densely populated neighborhood of skilled workers of German ethnicity. In 2003, excavations in a portion of this block exposed three privy vaults. These features were abandoned ca. 1875-1885 after city sewer facilities became available. This paper analyzes these features and relates them to broader issues of socioeconomics and sanitation practices.

Galloy, Joseph [15] see *Kruchten, Jeffery D.*

Gamble, Clive (Royal Holloway University of London)

[119] *From Baby Grayling to Grey Beard: Lewis Binford as an Archaeological Learning Strategy*

Two opening quotations to *New Perspectives in Archaeology* pitted the archaeological pessimist (Smith) against the optimist (Sears). "There must be limits," Sears wrote, "but until we have tried we shall not know what these limits are." Lewis Binford's career has been about testing those limits combined with a genius for recognising patterns in archaeological data. His 1968 claim that "the practical limitations on our knowledge of the past are not inherent in the nature of the archaeological record" remains the most liberating statement archaeology has ever received. Here I will celebrate Lew as a learning strategy for a world Palaeolithic.

[58] *Discussant*

Gamble, Lynn (University of California, Santa Barbara)

[154] *Subsistence Practices and Feasting Rites: Chumash Choices after European Colonization*

What is interesting about the Chumash Indians of south central California is the persistence of long-established subsistence activities and the holding of religious feasts after European colonization. Although the Chumash used metal tools introduced by the Spanish to fashion cooking vessels and tools, they continued to produce these traditional items and consume traditional foods. In other words, they actively chose what to adopt from the Spanish based on their needs. Moreover, the continued use of baskets for the processing, cooking, and serving of plant resources reflect the significance of female gender roles both before and after Spanish contact.

[81] *Discussant*

Garber, James [54] see *Powis, Terry G.*

Garcia, Dante (Zona Arqueologica de Monte Albán)

[103] *La Tumba 01 de San Pedro Ixtlahuaca: Una Escena Funeraria del Posclásico Temprano en el Valle de Oaxaca*

En el año 2008 se realizó el rescate de la Tumba 01 en el sitio arqueológico de San Pedro Ixtlahuaca. La fachada presentó un rasgo distintivo en la arquitectura funeraria zapoteca, 3 nichos que contenían 6 figurillas antropomorfas y una cabeza efígie, de las cuales, 5 se hallaron en el nicho principal y correspondían a deidades del complejo del Maíz, representado una escena ritual personificando a sus antepasados y pidiendo a sus dioses proteger a la mujer enterrada en su camino por el inframundo, la cual debió tener un papel muy importante dentro de su sociedad en el culto a estos dioses.

Garcia, Krista (University of Alabama)

[134] *Evaluating Access to Common Ceramics at Xunantunich, Actuncan, and San Lorenzo, Belize*

This paper evaluates differential access to common Late and Terminal Classic pottery across three sites in the Upper Belize River Valley using Hirth's distributional approach. Petrographic analysis following Stoltman's methods was run on Cayo Unslipped and Mount Maloney ceramics from Actuncan, Xunantunich, and San Lorenzo. This analysis documented six paste groups based on type and treatment of inclusions as opposed to potentially highly variable stylistic traits. The distribution of paste groups within specific structures and contexts will be used to evaluate the possible presence of a market economy at Xunantunich.

[134] *First Chair*

García Moreno, Cristina [57] see *Dominguez, Nancy*

Gardella, Kristen (University of Pennsylvania)

[245] *Inka Feasting and the Past: Spaces of Celebration, Integration and Memory Construction at Tiwanaku, Bolivia*

Feasts are transformative processes whereby the sharing of food and drink creates social and political bonds and fulfills debts and obligations. During the Late Horizon (approximately AD 1438-1534),

the Inka Empire expanded and consolidated geographical boundaries and strengthened social relations between indigenous communities through large-scale public events. This paper presents the results of zooarchaeological analysis of remains from feasting events at Tiwanaku, Bolivia. Data suggest that spaces utilized for herding, preparing and consuming camelids were important nodes for the creation and preservation of social and cultural affiliations and collective memory in the Lake Titicaca Basin.

[245] *First Organizer; [245] First Chair*

Garden, Mary-Cate

[237] *Creating New Heritage Places: Authenticity, Value and Landscapes*

The regeneration of urban industrial sites into 'new' historic districts, conservation areas and/or heritage places highlights discourses on value, identity and authenticity. As signifiers of both past and present; these 'new' heritage places are key components of the urban landscape. However, as boundaries are redrawn and new values ascribed (often from outside) to established sites, older understandings of place, identity and 'pastness' are challenged. An ongoing regeneration project, 'Titanic Quarter', in Belfast NI offers a timely opportunity to explore how the notion of value is used and understood; shaping perceptions of authenticity, 'pastness' and a sense of place.

Gardner, A. Dudley (Western Wyoming College), Laura Pasacreta (Western Wyoming College), Russel Gibb (Geometria Auckland New Zealand) and William Gardner (Yale University)

[120] *Formative Period Fields and Storage Systems in Northwest Colorado between 1700 and 500 BP*

The Fremont utilized a variety of field locations to insure success in crop production. These fields appear to have been located in flood plains, on alluvial aprons, and on mesa tops. Storage facilities in the Piceance, Douglas Creek, and Cottonwood Drainages were situated close to these fields but corn caches can be found at a variety of localities. This paper will look at the relationship between fields and storage facilities for the period between 1700 and 500 BP in Northwestern Colorado. The paper will also briefly address the reason for selecting certain field locations in the region.

[120] *First Chair*

Gardner, William [120] see *Gardner, A. Dudley*

Gardner-O'Kearny, William (Portland State University)

[203] *Hearth Variability at Lower Columbia River Villages*
Domestic hearths are evidence of household production, although not always fully explored as such. Hearths in two contemporaneous Lower Columbia River plank-house villages illustrate the potential. Meier is a single large house with marked variation in hearth size, with smaller hearths in the house's north end and a massive hearth complex in the south. This may be a communal hearth with the smaller one reserved for people living at the house's northern end. In contrast, hearths at the multi-plank house Cathlapotle site are more uniform in size and structure, while associated faunal remains are more variable, suggesting inter-household production differences.

Garduno Ambriz, Mauricio [199] see *Ohnersorgen, Michael*

Garfinkel, Alan P. [232] see *Binning, Jeanne Day*

Garfinkel, Yosef (Hebrew University of Jerusalem)

[96] *Early Administration at Tel Tsaf: A 6th millennium BC site in the central Jordan Valley*

The Chalcolithic site of Tel Tsaf, Israel (5200-4650 BC Calibrated), yielded large courtyard structures including rounded silos, the world's earliest examples of barrel-shaped granaries. The large-scale storage indicates surplus accumulation on a scale never unearthed before, a millennium before the rise of urban societies in Mesopotamia. The accumulation of wealth is indicated by large dwelling, elaborates pottery, and exported exotic items from Anatolian, Mesopotamia and Egypt. In addition ca. 140 clay sealings and a stone seal were found,

indicating an administration system which was practiced at Tel Tsaf, in conjunction with the large scale silos and the intensive long distance exchange networks.

Garniewicz, Rex Garniewicz [239] *see Pope, Melody K.*

Garraty, Christopher (Statistical Research, Inc.)

[200] *Social Identity and Political Competition in a Culturally Diverse Landscape: Decorated Pottery from the Mescal Wash Site, Southeastern Arizona*

An analysis of Middle Formative period (A.D. 750-950) decorated sherds from the Mescal Wash site in southeastern Arizona highlights the use of painted serving vessels as media for expressing social identity under conditions of political competition and instability. Southeastern Arizona was a culturally diverse landscape, and interaction among peoples of different backgrounds was recurrent, creating a heightened awareness of identity. A large excavated collection and fine-grained chronology permitted a detailed quantitative study of changes in decorated ceramic use, which suggests that social identities were fluid and ephemeral in response to rampant social change and disruption.

Gary, Jack [26] *see Proebsting, Eric L.*

Garza, Silvia, Claudia Alvarado (Proyecto Xochicalco) and Mauricio Valencia (Proyecto Xochicalco)

[195] *The Defensive Character of Xochicalco (A.D. 650-1100)*

The walled city of Xochicalco is considered a fortification due to the ditches and bastions. It has been proposed that many cities after Teotihuacan decline have a defensive function. These military attributions have been questioned. Some scholars have said that walls in other archaeological sites in Mesoamerica and beyond, had ritual, ceremonial or territorial delimitation character. Recent excavations supported by former explorations at one of the main entrance to the city, show that between A.D. 650 and 1100 these architectural features had a defensive function, even though they enclosed areas where different kind of activities were conducted, including ritual ones.

Gatsov, Ivan

[147] *Flint Hoards from the Prehistoric Settlement at Pietrele Romania and the Problem of Raw Material Procurement*

During the excavation a number of three hoards, consist of blades and super-blades (blades longer than 200 mm) have been found in two of the houses, which belong to trench B. The above presented hoards include specimens from different technological categories – crested specimens, blades and super ones and retouched tools as well. The heterogenic character of these hoards – especially the third one, where except super blades appeared crested specimens and retouched tools suggest a rather utilitarian character, than a symbolic or prestigious one. Due to the context they were found in, they can be linked to a great extend with storage purposes.

Gaudzinski-Windheuser, Sabine [184] *see Kindler, Lutz*

Gauthier, Rory P. [19] *see Bellorado, Benjamin A.*

Gaylord, Donald (Thomas Jefferson Foundation) and Derek Wheeler (Monticello)

[166] *The Stewart-Watkins site at Monticello: an Investigation of Household Economies and Site Structure at the Domestic Sites of Free White Laborers and Enslaved African Americans*

William Stewart and Elisha Watkins were free, white workmen who resided at Monticello, the Virginia plantation of Thomas Jefferson. Stewart and his family lived there from 1801 until 1807. Watkins, his wife, and two slaves later lived at the same house for a year in 1809. Our poster will examine the spatial patterning of different artifact classes at the Stewart-Watkins site to distinguish variability in activity areas at the site. These patterns will be compared with those found at domestic sites of enslaved African Americans to determine if variability in household economies can be inferred.

Gebhard, Rupert [184] *see Wagner, Ursel*

Geib, Phil (University of New Mexico) and Edward Jolie (University of New Mexico)

[118] *Direct Evidence of Early Holocene Dietary Expansion on the Colorado Plateau: Interpreting the Constituents of Dated Human Feces*

Though limited by recovery, human feces are unmatched in value for investigating changes in diet breadth. Several sites on the Colorado Plateau of the American Southwest have yielded sufficient numbers of early Holocene human feces to begin charting when humans started to intensively exploit small seeds and of which species or genera. The plant remains from directly dated specimens of several key sites are considered with regard to resource ranking, seasonality, local environmental setting, and site use histories. Consumption of low ranked resources by 8000 BC is evident at Dust Devil Cave but not until 1000 years later at Cowboy Cave.

Geib, Phil [118] *see Jolie, Edward A.*; **[84]** *see Kemp, Brian M.*; **[118]** *First Organizer*; **[118]** *Second Chair*

Geller, Pamela [174] *Discussant*

Gerke, Tammie (Glenn A. Black Laboratory of Archaeology), Erika Elswick (Indiana University), J. Barry Maynard (University of Cincinnati)

[257] *Bone Temper: The likely Source of Elevated Phosphorus in Angel Mounds State Historic Site Ceramics*

Bone tempered ceramics (BTC) have been identified in the Middle Ohio River Valley and American Bottoms region, Missouri. However, there is no known identification of BTC between these locations. This study provides the first known chemical data on ceramics from Angel Mounds which determined, via XRF, that 70% of ceramics (n=40) have elevated P2O5 concentrations (>1 wt% P2O5) reflecting the possible presence of bone. SEM element mapping indicates that fine-grained phosphate is disseminated throughout the ceramics indicating that highly processed bone was utilized as the likely temper. These results provide new insights into ceramic manufacturing techniques employed at Angel Mounds.

Gerke, Tammie L. [257] *see Marshall, Joel*; **[257]** *see Elswick, Erika R.*

Geurds, Alexander (Leiden University)

[191] *Regionality and Monumental Sculpture in Pacific and Central Nicaragua*

This paper discusses the study of cultural interaction and its retaining of the archaeological culture concept in relation to Pacific and Central Nicaragua. First, I provide an overview of the continuous use of both concepts and their accompanying questions for the better part of the last seventy-five years. In the second part, I challenge some of the assumptions embodied by these concepts by using a case study of monumental sculpture in Central Nicaragua. I outline an alternative of shifting focus to the cultural practices developed by communities at the local and regional level rather than looking for stylistically comparable traits.

Ghazal, Royal (University of Chicago)

[92] *Risky Business: An Archaeological Inquiry into the Politics of Solidarity and Ritual De-Commodification in Bronze Age Oman*

This paper contributes to a growing body of research in archaeology and related fields concerning the archaeology of intercultural interaction and systems of exchange in prehistoric/pre-market societies. It questions how the inhabitants of ancient Oman produced, maintained, and ritualized new senses of community in the late third millennium BC in reaction to new trans-regional systems of trade, the exploitation of new resources, and new areas of craft specialization. In this presentation, I argue that the social risks of foreign interaction were offset by the technical production and emulation of foreign goods and the de-commodification of goods through communal

burial.

Gibb, Heather (University of Missouri-Columbia)

[74] *Metric Refitting Using Modern Deer (Odocoileus spp.)*
Anatomical refitting has been used to monitor the spatial distribution of animal skeletons throughout a site and to reconstruct meat sharing. What has not been tested is whether the assumptions of bilateral symmetry and of inter- and intra-membral matching are valid. These assumptions are evaluated using a modern collection of deer (*Odocoileus* spp.) bones from known individuals, focusing on linear measurements because these are more objective than visual comparison of skeletal elements. The assumptions are found to be largely unsupported. In large archaeological samples, individual specimens will likely be found to have more than one possible matching or "refitting" specimen.

Gibb, James (Stevenson University) and April M. Beisaw (Heidelberg University)

[180] *Blogs, Videos, and Volunteers: Some Lessons We Have Learned*

The Port Tobacco Archaeological Project has been engaged in public outreach since day 1. We maintain a daily research blog that we post to even when we are not actively working on the project. We have a YouTube Channel and a Flickr site so everyone can see what we are up to. We include volunteers in the field and the lab and are often outnumbered by them. We constantly reach out to the public; they just don't often reach back. By presenting our challenges, and failures, we hope to help others create realistic expectations for public outreach.

Gibb, Russel [120] see Gardner, A. Dudley

Gibbons, Michael [185] see Kuijt, Ian; [185] see Moore-Shay, Laura; [185] see Lash, Ryan P.

Giesso, Martin (Northeastern Illinois University), Lorena Sanhueza R. (Universidad de Chile), Michael Glascock (Missouri University Research Reactor, University of Missouri at Columbia), and Valeria Cortegoso (CONICET, Universidad Nacional de Cuyo, Mendoza, Argentina)

[123] *Provenance of Obsidian Artifacts from Sources in Central Argentina and Central Chile*

Obsidian was used in central Argentina and central Chile since the Early Holocene. Based on XRF and INAA analysis of more than 600 artifacts from archaeological sites we map the distribution of obsidian from three Andean sources and three source from the eastern extra-Andean region, from 33 to 37 degrees south. We interpret temporal changes that occurred in obsidian procurement and distribution. The results suggest stronger use of the cordilleran sources over those locates in the lowlands, and increase in the number of used sources through time. Data presented here is related to another on geochemical characterization of obsidian sources.

Giesso, Martin [161] see Glascock, Michael D.

Gifford, Chad [45] see Kling, Amber M.

Gifford-Gonzalez, Diane (U of California - Santa Cruz) [48] see Furey, Rachel; [208] *Discussant*

Gijanto, Liza (Syracuse University)

[53] *The Atlantic Trade, Local Preference, and Expressions of Wealth: Feasting and Beads at Juffure, The Gambia*
The village of Juffure and associated British trading factory were integrated into the Atlantic World for several centuries. As the commercial center of the Gambia River moved from upriver to the Atlantic Coast, the residents of Juffure gained unprecedented access to wealth and trade goods from across the Atlantic. The changes in local production, development of new industries, and access to imports and wealth all contributed to resident's interpretation and creation of their socio-economic standing through material means.

The material categories highlighted in this paper represent both the incorporation of European imported goods into everyday expressions of wealth and the translation of this wealth into previously established practices—specifically practices associated with public display such as dress and foodways. To do this, two different assemblages related to public display are presented—glass trade beads and the remnants of feasting.

Gil, Adolfo [161] see Glascock, Michael D.

Gilbert, Phoebe [27] see Potter, Ben A.

Giles, Bretton (Binghamton University)

[36] *Comparing the Double Headed Birds Associated with the Hopewell Horizon*

This paper begins to tackle the distribution, formal variation, and meaning of the double head bird theme during the Early to Middle Woodland period. I argue, based on a reassessment of Shetrone's Burial 11 and the design incised on a femur from Hopewell Mound 25, that double headed birds were an important Ohio Hopewell iconographic theme. I then delve into how Ohio Hopewell depictions of doubled headed birds articulate with similar designs from the Illinois and the Lower Mississippi River Valleys. In particular, I explore how these double headed bird images varied, as well as what they might have meant.

Gillam, Christopher [24] see Johanson, Erik N.

Gillespie, Susan (University of Florida)

[13] *Maps as Re-presentations: A Case Study of Complex A, La Venta, Mexico*

This study reveals how knowledge of La Venta, an Olmec regional center, has been biased by mapping conventions. Information about La Venta is derived primarily from Complex A, last excavated in 1955 and since destroyed, which is now known only through graphic representations. A review of published Complex A maps demonstrates how these drawings have superseded textually presented excavation data in disseminating archaeological knowledge. Because of the reliance on maps, the most important 1955 conclusions regarding Complex A have been neglected. Moreover, accepted interpretations based on spatial patterns apparent in maps are shown not to be supported by stratigraphic evidence.

[13] *First Chair*

Gilliland, J.

[217] *Excavations at the Copperhead site (3CW951), an Open-Air site in Northwest Arkansas*

Data recovery at the Copperhead site (3CW951) was conducted by Burns & McDonnell from 2003 through 2005. Excavations revealed Middle Woodland, Late Woodland, and Mississippian period occupations at the site. The Middle Woodland occupation at the site appears to be related to the Gober complex defined by Hoffman. One of the primary activities carried out at the site was the manufacture of hoes from locally available Atoka argillite. Nineteen specimens of a previously little known projectile point type called Sorter's Bluff were also recovered from the site.

Gillis, Nichole (Public Archaeology Laboratory, Inc.)

[25] *Beyond Immigration: The Pre- and Post-Contact Period Archaeology of Ellis Island*

While Ellis Island is best known for its role in US immigration, the New York Harbor islet has a rich and varied occupational history. Archaeological investigations at Ellis Island have identified significant features and deposits associated with each of its major periods of use ranging from pre- and post-contact period shell midden deposits, to 19th Century military fortifications associated with Fort Gibson, and structural remains associated with the first and second immigration stations. Distributional analysis of cultural deposits and structural features is used to further test hypothesis on the historical transformation of this once 3-acre oyster island.

Gilman, Patricia (University of Oklahoma)

[248] *Farmers Who Forage: Low Populations in the Mimbres Region of Southwestern New Mexico*

Archaeologists have assumed that large pithouse sites in the Southwest housed many people and that they were the foci of sedentary occupations supported by an agricultural economy. Based on reconsideration of Pithouse period sites in the Mimbres region of southwestern New Mexico, I argue that population sizes of even the large villages were much smaller, perhaps only a single family. Furthermore, their presumed agricultural economy was wedded to a degree of mobility that we associate with foragers. This research indicates that, because there were relatively few people, they could maintain a fairly sedentary, agricultural existence while still also being residentially mobile.

Gilmer, Anastasia (Texas A&M University) and Kelly E. Graf (Texas A&M University)

[232] *Preliminary Sedimentological and Stratigraphic Observations in the Late Pleistocene-Early Holocene Deposits of Bonneville Estates Rockshelter, Eastern Nevada*

Bonneville Estates Rockshelter lies on the western fringe of the Bonneville Basin and has provided one of the longest stratigraphic sequences of human occupation in the Great Basin, beginning at ca. 13 ka and extending to the present. Amazing preservation of the site's earliest deposits has provided some intriguing clues to late Pleistocene-early Holocene human occupation of the eastern Great Basin with over 30 hearth features and associated radiocarbon dates, cut-marked faunal remains, diagnostic lithic remains, and preserved bone needles and cordage. Here we present the stratigraphy, radiocarbon dates, and preliminary results of sedimentological analyses of these early deposits.

Gilreath, Amy (Far Western)

[211] *Rock Art at Pahrnagat, Nevada*

Pahrnagat is easily recognized as stylistically distinct from other rock art styles found in the Great Basin and Utah, and is, in fact, confined to a small zone in central Nevada. Heizer and Hester's 1978 report on Black Canyon is the first published archaeological study of this style, and for that reason Black Canyon can be regarded as the type-site for the style. It is often referenced in passing, but scholarly publications or even focused grey-literature studies of Pahrnagat-style rock art sites within the past 30 years are alarmingly scarce. A recent study examined all of the panels at the type site in detail, and thorough survey of the surrounding landscape identified a number of associated sites. What the study has revealed about the age of this rock art style, and the factors that account for its narrow temporal and spatially restricted distribution are presented.

Gingerich, Joseph (University of Wyoming)

[90] *Biface Morphology and the Occupation of the Plenge Paleoindian Site*

The first report on the Plenge site appeared over thirty years ago. Since this study, collectors have continued to investigate this important Paleoindian site. To date, nearly 200 fluted points have been collected from the site. Biface analyses suggest the presence of numerous fluted-point styles and the on-site manufacture of points. These data provide an opportunity to further evaluate technological change and landscape use throughout the late Pleistocene. The repeated use of the Plenge site during this time period and the utilization of local lithic sources show similarities to other large Paleoindian sites in the region.

[90] *First Organizer*; [90] *First Chair*; [90] see Miller, D. Shane

Giordano, Brock (Monmouth University) and Michael Nassaney (Western Michigan University)

[255] *Crafting Culture at Fort St. Joseph: An Examination of Labor Organization through a Technological Investigation of Tinkling Cones*
The study of craft production in the context of Native-European interaction during the Middle Historic period in the western Great Lakes region continues to be a topic of continued scholarly interest.

The craft production of such items like tinkling cones and rivets for patching kettles exemplify how European raw materials were being transformed into new objects. By examining the technological histories used in the production of tinkling cones, this research illustrates that the production of tinkling cones was being produced in independent workshops as opportunistic activities to fit the demands of life on the Colonial frontier at Fort St. Joseph.

Giron, Mario (CalState-LA) and Jeremy Coltman (California State University - Los Angeles)

[107] *Epigraphy and Iconography of a Polychrome Vase Found at Midnight Terror Cave*

During the 2009 season at Midnight Terror Cave, Belize, several dozen fragments of a Late Classic ceramic vessel were recovered in the entrance chamber of the cave. Restoration revealed approximately half of an elaborately painted polychrome vase. A partially intact hieroglyphic inscription around the rim represents a Primary Alternative Sequence as opposed to the more common Primary Standard Sequence. The painting depicts a human and an avian figure. Similarities in style and iconography are noted with representations on other vases in the corpus of Maya painted ceramics. Analysis of the vase provides insights into ancient Maya mythology and religion.

Gjesfjeld, Erik (University of Washington)

[123] *Analysis of Ceramics from Kuril Islands, Russian Far East*

Advances in archaeological sciences over the past decade have allowed archaeologists to effectively integrate scientific data with questions of social interaction. This research strives to decipher spatial and temporal patterns of cultural transmission, social exchanges and population fluctuation in the Kuril Islands of the Russian Far East. Most importantly, this poster will emphasize the use of archaeological scientific methods of luminescence dating, XRF and INAA to help develop ceramic datasets with which to test social interaction hypotheses.

[113] see Phillips, Stephen C.

Glaab, Rigden (Washington State University)

[120] *Studying Social Resilience through Correspondence Analysis: A Case Study from North Central Utah*

This paper will employ correspondence analysis to study variation in debitage data obtained during the 2008 season of the Tavaputs Archaeological Research Project. The relationship of these data will be interjected into an ecological model called Resilience Theory to identify the correlations between material variation and debitage reduction strategies. The aggregated results are tailored into four typological categories which form a foundation to study trajectories of material use across the Tavaputs Plateau, Utah. Subsequent discussion will focus on elucidating the behavioral characteristics that may be embodied in these respective strategies with regards to social resilience.

Gladwell, Randi (Vanderbilt University)

[245] *The Role of Camelids in Ritual Contexts at Khonkho Wankane (Bolivia) during the Formative Period*

This paper examines the role of camelids in ritual contexts at Khonkho Wankane, a Formative Period (1-400 AD) archaeological site located in the Southern Lake Titicaca Basin. Camelid remains from two temple complexes, the Sunken Temple (Late Formative 1) and the Dual Court Complex (Late Formative 2), are compared to identify variation in the selection, use, and deposition of camelid remains. A shift in the cardinal orientation (from north-south to east-west) of these two complexes suggests significant changes in the inhabitant's ritual practices over time.

Glascok, Michael (University of Missouri), Adolfo Gil (Museo de Historia de San Rafael, Mendoza, Argentina), Gustavo Neme (Museo de Historia de San Rafael, Mendoza, Argentina), and Martin Gieso (Northeastern Illinois University)

[161] *Trace-Element Characterization of Obsidian Sources in Central Argentina and Central Chile Using XRF and INAA*

In order to advance studies of obsidian recovered from archaeological sites located in central Argentina and central Chile, geological samples from eight major obsidian source areas in the region have been collected and analyzed. Both XRF and NAA have been employed to determine the chemical compositions and to identify combinations of elements useful for differentiating between the individual sources and their sub-sources. Successful provenance studies are now possible throughout this region.

[23] *Discussant*

Glacock, Michael D. [161] *see Woods, Julie A.*; [73] *see Naunapper, Linda S.*; [123] *see Giesso, Martin*

Glassman, David [91] *see Wrobel, Gabriel D.*

Glenn, Jonathan (GAI Consultants)

[179] *Living on the Edge: Excavations at the Jacob Kocher Homestead (33MO77)*

The Jacob Kocher Homestead site was investigated as part of mitigation efforts for the Rockies Express East Pipeline project. Occupation of the site dates from the second quarter of the 19th century, and appears to represent Swiss settlement in Monroe County, Ohio. Its rural, somewhat isolated, setting on upland slopes of 20-40% incline pose questions of site selection, development, and utilization. The socio-economic conditions within the context of the surrounding community, the subsistence strategies practiced at this site, and construction methods of the buildings will be examined in relation to the chosen environment for site placement.

Gloux, Sabrina (ArchaeoTek) and Andre Gonciar (ArchaeoTek)

[101] *Integrating DNA analyses to Bioarchaeology or Physical Anthropology studies: The potential benefits in approaching unknown populations as the Noua Culture*

Although physical anthropology methods are well developed a great deal of information is still missing if limited to gross morphology analyses. When applied to bioarchaeology, DNA analyses provide information such as family relationships, group contacts, migrating patterns, ancestry and so on. The purpose of this paper is to present the potential benefits of DNA analyses in approaching unknown populations such as a Noua Culture cemetery from Middle Bronze Age Transylvania comprising around 300 individuals. Exhaustive bioarchaeological analyses as well as DNA analyses will be conducted to compare osteological data to archaeological data in order to better interpret and understand the life and dynamics of these populations.

Glover, Jeffrey (Georgia State University), Dominique Rissolo (Waitt Institute for Discovery) and Jennifer Mathews (Trinity University)

[212] *The Costa Escondida Project: Archaeology and Community Engagement along Quintana Roo's North Coast*

We established the Costa Escondida Project in 2006 to investigate the pre-contact and historic maritime cultures and landscape of northern Quintana Roo, Mexico. While removed from the intense tourism of the Caribbean coast, this area has a burgeoning eco-tourism industry associated with Holbox Island and whale shark migration. This paper will discuss our experiences as an archaeologically-focused project working with the various stakeholders in the region (the Chiquilá-San Ángel ejido, an eco-tourism coop, and the Yum Balam Biosphere Reserve) and more importantly outline a research strategy that is transparent and will actively engage these stakeholders as the project progresses.

[212] *First Chair*

Glover, Jeffrey [109] *see Amador, Fabio E.*

Glowacki, Donna (University of Notre Dame), Charles Reed (Washington State University), Julie A. Bell (National Park Service), R. Kyle Bocinsky (Washington State University) and Shanna Diederichs (National Park Service)

[19] *Making Sense of the Actual: Settlement Trends in the Southwestern Colorado VEP Study Areas*

The models and simulations constructed by Village Ecodynamics Project researchers are only as good as the data that goes into them. Because of this reality, we are investing considerable effort into improving existing site data, particularly for the largest sites, through new fieldwork conducted via the multi-year Community Center Survey. Building on the work of MVNP archaeologists and supplemented thus far by one season of fieldwork, we present our initial look at small site and community center settlement patterns in the Mesa Verde VEP II study area and compare them with those established for the VEP I study area.

Glowacki, Donna [84] *see Lipe, William D.*; [200] *see Perry, Michael*

Glowacki, Mary

[145] *Imperialism in the Middle Horizon: A Reprisal of the Classic Paradigm, Cuzco, Peru*

Traditionally, the Middle Horizon has been characterized by the presence or influence of Wari imperialism throughout ancient Peru. With lesser known areas of the Andes now being explored, this view is considered passé, monolithic, and lacking heuristic value. While it is true that many peoples of the Middle Horizon may not have fallen under the rubric of direct imperial control, others certainly did, and it is this variability that is classically "imperial." This paper reviews Wari evidence from Cuzco in light of the "classic" imperial paradigm. It examines the role of interregional exchange in this process and resulting social changes.

Gnecco, Cristóbal (Universidad Del Cauca)

[222] *The Geopolitics of Archaeology in South America*

This paper discusses the current context in which South American archaeology unfolds, showing the different approaches taking by practitioners and how non-academic actors are entering the historical scene. The paper hopes to be a tribute to Dave Browman's contextual preoccupations.

Goebel, Ted (Texas A&M University), Bryan Hockett (U.S.D.I. Bureau of Land Management) and Kenneth Adams (Desert Research Institute)

[224] *Climate and Environmental Change in North America's Great Basin during the Younger Dryas, and Its Effect on Human Populations*

Evidence from multiple proxy records indicates that pluvial-lake levels across the Great Basin rose significantly during the Younger Dryas, 12.8-11.5 ka, and that conditions were cooler and possibly wetter than preceding and succeeding periods. Here we review the evidence for these climatic shifts and consider the effects they had on humans in the region, especially the greater Bonneville and Lahontan basins. A well-watered Bonneville basin was a boon for early humans; however, in the Lahontan basin higher lakes may have had the opposite effect, since archaeological sites of the Younger Dryas are rare in comparison to the subsequent early Holocene.

Goebel, Ted [21] *see Smith, Heather L.*; [224] *First Organizer*; [224] *First Chair*

Gogte, Vishwas [121] *see Oka, Rahul C.*

Gokee, Cameron (University of Michigan)

[53] *Household and Community during the West African Iron Age: A Surface Perspective from Diouboye, Senegal*

Extensive household compounds in West Africa pose a problem for excavation methods and the archaeological study of diverse household and community forms during the later Iron Age (500-1500 CE). Recent fieldwork at the site of Diouboye in eastern Senegal illustrates how surface feature mapping and artifact sampling, with interpretive support from excavated contexts at the same site, can provide data sufficient to reconstruct domestic architecture and activities during the final occupation phase. Spatial analyses of these data, in conjunction with ethnographic and historic evidence, provide a preliminary archaeological window wide enough to interpret intra- and inter-household organization at Diouboye.

Goldberg, Paul (Boston University) [8] see *Aldeias, Vera I.d.*; [8] see *Dibble, Harold L.*; [157] see *Miller, Christopher E.*; [8] see *Sandgathe, Dennis M.* [126] *Discussant* [126] *First Chair*

Golden, Charles (Brandeis University)

[160] *Dynamics Landscapes and Political Developments in the Maya Kingdoms of Piedras Negras and Yaxchilan: New Perspectives Provided by Remote Sensing, Archaeology, and Epigraphy*
Data from remote imagery, archaeological survey, and epigraphy are used to explore the landscapes of the neighboring Classic period Maya kingdoms of Piedras Negras and Yaxchilan. Looking at the period from the foundation of both dynasties to their collapse (AD 350 – 810), I examine how vistas across the built environment, and movement to and from the political capitals, shaped the political practices of rulers and royal courts, and transformed notions of political space that were extended out across the entire polity, with very different results in each kingdom.

Goldstein, David (S. Carolina Inst. for Archaeology and Anthropology) [132] *Discussant*; [188] see *Muñoz, Lizette A.*

Goldstein, Lynne (Michigan State University)

[115] *Aztalan: Objects, Rituals, and Time*
Archaeologists have spent time, energy, and paper linking the archaeological site of Aztalan in southern Wisconsin to the Mississippian site of Cahokia near St. Louis, Missouri. James A. Brown shifted focus to the meaning of rituals at Mississippian sites. This paper examines a series of ritual objects and symbols from Aztalan, asking why these particular objects may have been selected for use, and whether they were used for the same purposes here as at Cahokia or other Mississippian sites. Rather than looking only at the objects themselves, the focus here is on their context to determine use and whether use is comparable across sites and time. [173] *Discussant*

Goldstein, Paul [226] see *Johnson, Kent M.*; [226] see *Nado, Kristin L.*; [226] see *Plunger, Elizabeth*

Goldstein, Robin C. (Northwestern University)

[188] *Changing Landscapes: Politics in the Majes Basin during Wari Hegemony (550-1050 C.E.)*
Previous studies have often looked at Middle Horizon dynamics as a single phase; however, recent research demonstrates significant political and social dynamism during this period, in particular between the early and late MH. In the Majes-Chuquibamba region of Arequipa, the local political landscape also underwent profound change. Using multiple scales of analysis, I interpret local developments in the Majes-Chuquibamba region in light of broader processes occurring within the Wari Empire. Although largely politically autonomous, some local leaders in the Majes-Chuquibamba region benefited significantly by allying themselves with Wari imperial interests.

Golitko, Mark (University of Illinois at Chicago) and John Edward Terrell (Field Museum of Natural History)

[121] *Applications of LA-ICP-MS to the Study of Holocene Social Networks on the Sepik Coast of Papua New Guinea*
The Sepik coast of northern New Guinea is seen as a potential stopping point between SE Asia and island Melanesia, and therefore potentially important in transmission of cultural practices in the past. However, there is little understanding of how the coast was tied into broader Melanesian social networks. We report here on the chemical analysis by laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) of ceramics and obsidian flakes recovered from the Sepik coast spanning the last two millennia of prehistory, demonstrating continuous involvement in broader Melanesian obsidian exchange, as well as a long term history of exchange along the coast itself.

Golitko, Mark [121] see *Dussubieux, Laure*; [121] see *Sharratt, Nicola O.*; [139] see *Meierhoff, James W.*

Gomez, Esteban (The Colorado College), Rosemary Joyce (University of California, Berkeley) and Rus Sheptak (University of California, Berkeley)

[65] *Public Participation and Archaeology as "Textured History": The Case of the Omoa Project*

During the administration of Dario Euraque, we developed and carried out two seasons of fieldwork at the fort and town of San Fernando de Omoa, northern Honduras. This multi-year colonial archaeology project has amply documented the experiences of the mixed-race African population, colonial Spanish officials, and indigenous labor force that helped form this town. In addition to our research, we have given public lectures of our work, and participated with community members in workshops on the importance of archaeology to local communities. Our participation in these activities was fostered by an explicit policy of community engagement initiated by IHAH.

Gómez Cortés, Alejandra [221] see *Carballo, David M.*

Gomolak, Andrew (Holloman Air Force Base NM)

[152] *Lift Up Thine Eyes Unto the High Lands*
In 1990, the distribution of Rosa, Bancos, Largo and Gallina sites in time and space, as represented by the site data in the New Mexico Archaeological Records Management System, was presented at the SAA meeting and the Chimney Rock Conference. An explanation based on the cyclical feasibility of high altitude agriculture and long term stability of material culture was introduced. As of 2010, hundreds of sites have been added to the record within the study area. In light of the data now available, the explanation forwarded in 1990 survived,... or did it?

Gonciar, Andre (S.U.N.Y. at Buffalo)

[101] *Extracting Emotion: Funeral Behavior in Late Bronze Age, Transylvania (Romania)*

Archaeological studies are based on pattern identification (contextualization) and recognition (actualization). The degree of similarities between contexts is the result of repetition and reproduction of practice through space and time. Potentially stable contexts (i.e. Bronze Age burials), resulting from highly regulated socio-cultural behavior, can display deviations escaping contextual rationalization. It could be theorized that in specific environments, the deviant behavior is the result of an emotional event that overrides rational constructs. Emotion in this context could be approached through the impact it has on the archaeological record to understand the motivation of the gesture that modifies an established behavioral pattern.

[101] see *Gloux, Sabrina*

Gongaware, Laura (Texas A&M University, Nautical Archaeology Program) and Kristen Vogel (Texas A & M University)

[80] *Missouri's Battle to Protect Its Shipwrecks: Then and Now*
Known as the 'Gateway to the West', Missouri was the means by which many of America's pioneers traveled west. By land or river, the journey was difficult and many lives and steamboats were lost in the process. These steamboats were often full of valuable goods attracting many modern day salvage attempts. In 1987, Wayne Lammers brought the destruction of the Missouri Packet to the attention of the Missouri legislature. Since then Missouri has been at the forefront of states legislating to protect its shipwrecks. Despite the existence of these laws, salvagers continue to destroy Missouri's unique and valuable steamboat heritage.

[80] *First Chair*

Gongaware, Laura [80] see *Vogel, Kristen*

Goñi, Rafael [47] see *Belardi, Juan B.*

Gonzalez, Albert (Southern Methodist University)

[193] *Turley's Mill: The Archaeology of Vecino Resistance*
The opening of the Santa Fe Trail and the annexation of New Mexico

by the United States strained the fabric of New Mexico's vecino society. Turley Mill, the Arroyo Hondo grist mill and whiskey distillery that became the focal point for the Taos Rebellion of 1847, represents the force of that strain. The aim of this paper is to analyze the recently excavated mill as an example of vecino resistance to Anglo intrusion in northern New Mexico. More specifically, the paper will explore the economic aspect of Anglo intrusion through an examination of excavated materials, architecture, and documents.

Gonzalez, Albert [200] see *O'Brien, Lauren*

Gonzalez, Sara (University of California, Berkeley)

[181] *An Ethical Archaeology? Decolonization, Collaboration and the Archaeology of Colonialism*

In recent years archaeologists have touted collaborative and community-based archaeologies as a more ethical form of archaeological practice. While community-based research situates community members and archaeologists as equal partners, or stewards, conducting this kind of research creates new ethical dilemmas for archaeologists. For example, how do we balance our responsibility to the community with our commitment to professional integrity or honesty? How do we disseminate the results of research that may negatively impact a community or portions thereof? This paper will address these questions as they relate to collaboration with the Kashaya Pomo Tribe at Fort Ross State Historic Park.

[66] *First Organizer*, [66] *First Moderator*

Gonzalez, Silvia [56] see *Monroe, Cara*

Gonzalez-Licon, Ernesto (INAH-ENAH, Mexico)

[195] *Pasado y Presente de las Investigaciones Arqueológicas en Oaxaca México*

Se hace un balance de las investigaciones arqueológicas realizadas en la región oaxaqueña hasta ahora. Inicio con descripciones de los primeros viajeros que recorrieron la zona, sigo con las excavaciones de mexicanos y extranjeros en el siglo XX, y termino con las que se han ejecutado en este siglo XXI. Discuto los aportes y avances de los trabajos desde una perspectiva teórica y metodológica y concluyo con la evaluación de los temas y regiones más y menos estudiados.

Goodale, Nathan (Hamilton College), Ian Kuijt (University of Notre Dame), Jim Higgins, Maddy Gunter (Hamilton College), Mellisa Coles (University of Notre Dame)

[185] *Tracking the Dead: Early Christian Gravestone Production and Distribution*

Researchers have a very poor understanding of the ritual, economic, and social interconnections between isolated early Christian period (c. 5th – 9th century) coastal communities along the coast of Connemara, Ireland. Drawing upon preliminary XRF documentation and stylistic comparison of headstones from High Island, Inis Air, Bofin Island, Caher Island and at Teampaill Chiaráin on Inshimore, we explore the questions of production of headstones, the geographical spread of these from known source areas, and the placement of headstones within different island communities. This research provides critical new perspectives on the Early Christian landscape of this region.

[185] *Second Chair*

Goodale, Nathan [185] see *Kuijt, Ian*; [185] see *McNeill, Casey M.*; [19] see *DeFrank, Laura*; [120] see *Andrefsky, William*

Goode, Cynthia

[179] *Investigation and Analysis of the Hadley Industrial School for Girls, Hendricks County, Indiana*

Site 12HE347 is a late-nineteenth to early twentieth-century school known as the Hadley Industrial School for Girls. Phase 2 excavations revealed evidence of a yard midden and features including a cesspool and a privy. Artifacts recovered show evidence of school activities such as reading, writing, laundry, sewing, cooking, canning/preserving and painting. Ceramic analysis indicates that vessels were most likely donated to the school due to their variety of

decorative styles and maker's marks. This site has the ability to address questions regarding gender and social power, institutionalized behavior and moral regulations, and socioeconomic status and consumer choice.

Goodman-Elgar, Melissa [259] see *Bettencourt, Nichole S.*

Goodwin, Whitney (University of South Florida)

[204] *Indigenous Populations of the Island of Roatán, Honduras and Their Mainland Neighbors: Implications for the Future of Heritage Tourism on the Bay Islands*

Based on data from the 2009 field season of Project Roatán, this study examines the ways in which native islanders of the Postclassic period (AD 900-1500) expressed their social identity and cultural affiliations with contemporaneous groups on mainland Honduras through their ceramic traditions. The results of the study are then used to critique the ways in which archaeological data have been used and misused in the heritage tourism industry to represent past inhabitants of the island. The future of tourism and issues of representation on the island are also considered.

[204] *Second Chair* [204] *Second Organizer*

Goodyear, Albert (SC Institute of Archaeology and Anthropology)

[90] *Clovis and Post Clovis Paleoindian Manifestations in the Central Savannah River Region*

The central Savannah River region in the Coastal Plain of Georgia and South Carolina occupies a significant geographic niche in the South Atlantic Coastal Plain. At 33 N, it was a major geographic ecotone during the Pleistocene-Holocene transition 16 to 10k yrs. ago. An abundant supply of chert attracted Paleoindians over a 2,000 year period. Systematic surveys and excavations over the past 25 years have provided a reasonable framework to examine technological and settlement responses in this region of the Southeast. A possible demographic decline occurred during the Younger Dryas based on a reduction in post Clovis projectile points. Dalton is a response to modern climatic conditions.

[224] see *West, Allen*

Gopher, Avi (Tel Aviv University) and Ran Barkai (Tel-Aviv University)

[58] *A Fireplace, Blades and Scrapers: Tool Kits and Spatial Organization at AY Qesem Cave, Israel*

Recent excavations at Acheulo-Yabrudian Qesem Cave (late Lower Paleolithic, 400-200 kyr) revealed a generally clear spatial pattern within the central chamber showing a repeated use of large fireplace, specific (yet unstudied) faunal remains within and nearby, and, distinct blade-dominated (Amudian) and scraper-dominated (Yabrudian) areas around it. This enables a glance into the meaning of intra-Acheulo-Yabrudian variability and contributes towards a new understanding of Middle Pleistocene hominin adaptation and capabilities at the end of the Lower Paleolithic in the Levant. The discovery of Hominin teeth at Qesem Cave may provide a link between the abovementioned cultural processes and biological evolution.

Gopher, Avi [58] see *Shimelmitz, Ron*

Goralski, Craig (Cal Poly Pomona, RCC-Norco)

[156] *Gone, But Not Forgotten: Ceramic Production and Exchange in the El Cajon Region, Honduras*

Research conducted by Hirth and colleagues in the El Cajon region of Honduras during the 1980s continues to yield useful data and fresh perspectives on Honduran chiefdoms dating to the Formative and Classic Periods. In this paper, the author revisits ceramic data from the El Cajon project, applying INAA to samples from sites in the region as part of a larger INAA project. These data reveal patterns of ceramic production and help to model interaction between the El Cajon region and neighboring chiefdoms.

Goring-Morris, Nigel [186] see *Hovers, Erella*

Goss, Donald [215] *see Brugam, Richard B.*

Gottsfield, Andrew (University of Kansas) and Rolfe D. Mandel (University of Kansas / Kansas Geological Survey)

[259] *Modeling the Geologic Potential for Cultural Resources in the Upper Neosho River Basin, East-Central Kansas*

A GIS-based geoarchaeological approach was used to develop a predictive model for locating surficial and buried cultural resources in the upper Neosho River basin of east-central Kansas.

Lithostratigraphy and digital soil survey data (SSURGO) were used to estimate the relative ages of geomorphic surfaces and the underlying late Quaternary deposits. Radiocarbon dating combined with soil-stratigraphic investigations was used to test the model. Results of this study indicate that surface soils are fairly reliable indicators of the relative age of landforms and genetically related packages of sediment and associated buried soils.

Graf, Kelly (CSFA, Texas A&M University) and Nancy Bigelow (Alaska Quaternary Center, University of Alaska Fairbanks)

[224] *Human Technological Responses to the Younger Dryas in Central Alaska*

Human response to climatic conditions during the tumultuous terminal Pleistocene has long been a concern of archaeologists and paleoecologists alike. Some researchers propose that production of microblade technology was an optimal choice for foragers placed in high-risk situations such as subsisting in arctic environments during the late Pleistocene. The microblade-bearing Denali complex in central Alaska, dating to 12.8-11.5 ka, may represent a human forager response to decline in climatic conditions and associated decrease in wood availability. Using archaeological and paleovegetation data from central Alaska, we explore the possible relationship between technology and regional ecology during the Younger Dryas cold event.

Graf, Kelly E. [232] *see Gilmer, Anastasia G.*

Graff, Sarah [48] *see Rodriguez, Enrique*

Grafft-Weiss, Amber and Sarah Miller (Florida Public Archaeology Network)

[26] *T'Omb It May Concern: The Use of GPR for Public Engagement in Cemeteries*

For the purposes of public outreach the Northeast Center engaged the public in several demonstrations of GPR use with a cemetery conference as the culminating event. This poster will provide insights into using GPR to gain access to new partners in the community and address their research questions to frame the study. The project involved working with a variety of preservation organizations dedicated to managing historic cemeteries, working with volunteers on said historic sites, and getting the results of the demonstration to the public. The conference included tours, lectures, and workshops.

Grafft-Weiss, Amber [219] *see Miller, Sarah*

Graham, Elizabeth [5] *see Prentice, Andrea*

Graham, Russell [224] *see Schubert, Blaine*

Grange, Roger (U of South Florida and New Smyrna Museum of History)

[170] *Saving 18th Century New Smyrna: Public Archaeology In Action*

During the British Period in Florida the New Smyrna settlement (1768-1777) was part of the British effort to populate East Florida. The settlement pattern of modern New Smyrna Beach overlaps that of 18th century New Smyrna creating a complex setting for historical and archaeological research. This paper reviews the efforts of local volunteers, historians, archaeologists and civic officials to recover part of their city's heritage through archaeology and historical research. Some sites have been excavated, others have been lost

and some have been preserved during the past decade and the future will bring many more challenges.

Graves, Michael [230] *see McCoy, Mark D.*

Graves, Tim [235] *see Beasley, Virgil*

Graves, William M. [33] *see Wegener, Robert M.; [14]* *see Altschul, Jeffrey H.*

Gravlin-Beman, Ashley [178] *see Brown, Clifford T.*

Gray, Anna (Project Director/Archaeologist)

[33] *Refuge in the Borderlands*

Political boundaries are often viewed as formidable and concrete. Historically, however, marginalized people have used borderlands as places of refuge where they could, with relative ease, move between nations. Two archaeological sites excavated during the U.S./Mexico border project illustrate the subversive use of the in Southern Arizona by Chinese and Mormon immigrants. This paper summarizes the results of archaeological investigations at these sites and discusses broader historical migration patterns that led to their formation.

Greaves, Russell (Peabody Museum, Harvard)

[119] *How Ethnoarchaeology gets Scientific Eyes: Binford's Dynamic Ethnoarchaeological Tools to build Archaeological Views beyond Static Technology and Just-so Individual Events*

Lewis Binford has helped revolutionize the roles and methods of ethnoarchaeological inquiry into formation of the archaeological record. While other approaches focus on direct analogies with past technologies, his influential work studied people using modern tools in contexts of activities relevant to improving knowledge of past behaviors. Binford's views of technology showed that activities organize associations and roles beyond expectations based on artifact material class and the temporal scale of ethnographic experience. Binford inspired me to examine dynamic ethnoarchaeological relationships of subsistence and technological use moving beyond classificatory orientation to seek patterns addressing deeper time scales of archaeological site formation.

Greber, N'omi (Cleveland Museum of Natural History) and Robert Horn (Earlham College)

[176] *Interpreting Earthen Walls as Markers of Knowledge*

Questions concerning origins and purpose of hundreds of earthen walls that formed the ancient landscape of the Middle Ohio Valley were integral in 19th and early 20th century avocational and ultimately professional publications. Relatively recent field work provides new data on chronology and use of several large earthwork sites. Using old and new data we consider size and accuracy of earthworks built as simple geometric shapes. We discuss context for earthwork construction seen in aspects of the builders' physical, social, and symbolic worlds. We suggest possible contextual changes in interpretations or implementations that resulted in particular earthwork constructions.

Green, Debra [153] *see Junker, Laura L.*

Green, Roger [68] *see Weisler, Marshall I.; [68]* *see Clarke, Andrew C.*

Green, William and Kimberly Nagle

[236] *Digging Deep along the Fall Line: Archaeological Investigations of a Deeply Stratified Early Paleoindian Through Mississippian Site Near Columbia, South Carolina*

The Tree House Site (38LX531) is a large, deeply stratified multi-component site located along the Saluda River near Columbia, South Carolina. Archaeological investigations conducted by S&ME from 2006 through 2008 revealed stratigraphically intact deposits spanning the Early Paleoindian through Mississippian Periods. Artifacts were found as far as 3.25 m below the ground surface, with chronometric dates of cultural deposits ranging from 10,135±60 to 540±40

radiocarbon years before present. This paper summarizes the results of our investigations, and discusses the importance of the site and how it was used during the last 13,500 years.

Green, William (Logan Museum of Anthropology)

[127] *Persistent Placemaking in the Upper Mississippi River Valley: Ritual, Settlement, Interaction, and Appropriation*

The Upper Mississippi River Valley comprises a set of striking landscapes. Yet even within its diverse terrain, certain places literally stand out: mountains that appear to rise from water, mile-long ridges barely wide enough to camp on. While the cultural landscape is by definition a product of human agency, these dramatic natural landforms have served as unique, easily identified landmarks for millennia. Archaeological, ethnographic, and ethnohistoric data from the Turkey River Mounds State Preserve in Iowa and Perrot State Park (Trempealeau Mountain and adjacent Trempealeau Bluffs) in Wisconsin indicate periodic reappropriation of ideologically-charged or ritual space at these places.

Green, William [162] see *Fie, Shannon M.*

Greene, Alan (University of Chicago) and Charles Hartley (University of Chicago)

[240] *The Structure of Ceramic Analysis: Multiple Scales and Instruments in the Analysis of Production*

As the analytical capabilities for the detection and interpretation of pottery attributes have expanded, the essential distinction in ceramic investigation between "structural" and "compositional" data has provided a framework for situating various analyses. In contrast to studies relying solely on compositional attributes, we outline a holistic approach that combines elemental data with information pertaining to formation, decoration, and firing techniques in an anthropological effort to delineate the socioeconomic aspects of particular pottery industries. We argue that the inclusion of such "structural" data is essential to forming a systematic understanding of ceramic production across geographies, political economies, and artistic traditions.

Greene, Alan [240] *First Organizer*; [240] *Second Chair*; [240] see *Hartley, Charles W.*

Greenlee, Diana (U of Louisiana - Monroe), Berle Clay (Cultural Resource Analysts), Evan Peacock (Mississippi State University), Michael Hargrave (ERDC CERL) and Rinita Dalan (Minnesota State University Moorhead)

[251] *Preliminary Results from Excavations in the Plaza at Poverty Point*

In the summer of 2009, a joint University of Louisiana-Monroe and Mississippi State University field school placed small excavation units over four large circular magnetic anomalies in the southern plaza at Poverty Point. The anomalies had been discovered during near-surface magnetic gradiometry survey and further examined via sediment coring and downhole magnetic susceptibility measurements. Our goal was to characterize physically, chemically, geophysically and chronometrically the deposits associated with the anomalies. Here we summarize the fieldwork and compare what we found with what was predicted based on the near-surface and downhole magnetic data.

[251] *Second Chair* [251] *Second Organizer*

Greenlee, Diana [160] see *Chenoweth, Michael Sean*; [251] see *Hill, Mark A.*

Greenwood, Brianne (Missouri Department of Transportation), Jane Lee (MoDOT) and Michael Meyer (MoDOT)

[187] *Defining What's Important: Urban Archaeology in St. Louis*

The planning for the new Mississippi River bridge in St. Louis, a cooperative project between the Missouri and Illinois Departments of Transportation, has required the evaluation of a large segment of the city's industrial center. To avoid the pitfalls of a poorly designed urban archaeological project, MoDOT archaeologists developed a complex

research design for this large-scale project. The research design focuses on deposits, not sites, and depends on defining appropriate methodologies and developing a robust model for evaluation significance. By evaluating interrelated properties, the end result will be research that will define what is significant in St. Louis.

Greer, John (Greer Services Archeology) and Mavis Greer (Greer Services Archeology)

[22] *Graffiti: To Clean or Not to Clean, that is the Question*

Cleaning rock art sites and cave interiors of graffiti is popular and is often supported without question. The practice has been questioned recently due to aboriginal art removed during cleaning and a general lack of professional evaluation before removal. Other assumptions need to be evaluated, such as definition of graffiti versus potentially preservable art; whether use is attracted by previous use (graffiti attracting graffiti) rather than particular places attracting repeated use; what modern graffiti should be preserved; and who determines preservation or destruction of graffiti. Study and evaluation should be done prior to massive impromptu cleaning efforts commonly being done.

Greer, John [171] see *Greer, Mavis*

Greer, Mavis (Greer Services) and John Greer (Greer Services)

[171] *The Record of Northern Plains Warfare in Rock Art*

Conflict scenes on the Plains contain weapons, armor, and fighting postures. Separating warfare from other kinds of physical or spiritual conflict is difficult because these functions are portrayed in similar styles. Early abstract symbolism changed to more figurative dominated by humans, shields, weapons, and eventually scenes showing people pierced with spears and arrows, warriors holding severed heads, mounted warriors taking pedestrian slaves, and groups fighting. This shift in subject reflects changing values and practice, but other indicators are necessary to determine if scenes refer to warfare, simple conflict, rites of passage, ritual behavior, dances, games, hunting, or other group behavior.

Greer, Mavis [22] see *Greer, John*

Greer, Melissa and Linea Sundstrom (Day Star Research)

[220] *Coup Counts and Corn Caches: Contact-Era Plains Indian Accounts of Warfare*

Plains Indian documents such as rock art, winter counts, ledger-book drawings, and hide paintings record a wide range of motives, tactics, and outcomes for intergroup fighting. Different kinds of conflict recorded in these native documents include: large-scale attacks on horticultural villages; small-scale raids for horses, captives, and scalps; sustained campaigns to keep enemies (including non-Indians) out of hunting territories; defensive actions; and at least one captive-rescue operation. Some conflicts are more likely than others to have left archaeological remains: in fact, the archaeological sites known as the Larsen and Leavenworth sites are mentioned in the Lakota winter counts. Other forms of conflict are not likely to show up archaeologically. This raises questions about whether sites like Crow Creek should be considered anomalous or representative of Late Prehistoric Plains life-ways.

Gregg, Michael [126] *First Organizer*

Gregonis, Linda

[40] *Kiva's Contribution to History, Historical Archaeology, and Ethnology*

Since its inception, Kiva has produced writings related to the history, historical archaeology, and ethnology of the Southwest and northern Mexico. Articles have covered a wide range of topics from a census of Tumacacori Mission to the battle of Cibecue to descriptions of the Yaqui Easter ceremonies and the Santa Fe Fiesta. Among the journal's important contributions are the 1962 Johnny Ward's Ranch, an ongoing series of articles on the Seri, and 1994's *The Pottery and Potters of Mata Ortiz, Chihuahua*, which has had popular success. Kiva has been privileged to celebrate the cultures of the region

through such pieces.

Gregory, Danny [85] *see Patch, Shawn*

Gregory, H. Pete [73] *see Ernenwein, Eileen G.*

Gremillion, Kristen

[154] *Cultural Transmission of Botanical Knowledge in Postcontact Eastern North America*

The exchange of plants and botanical knowledge across ethnic lines is a well known feature of culture change following European contact with North America. Such innovations spread partly as a function of their frequency. Limited interethnic contact thus favors cultural inertia because people tend to copy the practices of their parents and peers in the absence of alternatives. Inertia can be overcome by the opportunity to observe and positively evaluate unfamiliar methods of cooking, cultivating, and consuming plants. Archaeological and historical evidence provide partial support for this model, but the absence of resources, individual autonomy, and social equality introduce important constraints.

Grier, Colin (Washington State University) and Patrick Dolan (Washington State University)

[203] *Human Settlement, Coastal Landforms, and Later Holocene Sea Level Change in southwestern British Columbia*

Reconstructing sea level change is critical for modeling ancient settlement on the Northwest Coast. Sea levels have been documented for the early Holocene on the southern British Columbia coast, but fewer data exist to characterize more recent changes. We present data derived from archaeological contexts on cusped spits, an important coastal landform in the southern Gulf Islands. Our data accord well with recent characterizations of later Holocene sea levels as rising gradually over the last five millennia. We stress, however, that human modification and management of coastal environments must be considered to reconstruct how sea levels and human activity correlate.

Grier, Colin [201] *see Benz, Emily J.*; [203] *see Lukowski, Susan M.*

Griffel, David (USDA Forest Service LE&I (Retired))

[86] *Solutions For Successful ARPA Investigations*

A number of important lessons have been learned in ARPA investigations carried out by the Forest Service and other land management agencies over the past 30 years. Recommended investigative practices based on these lessons will be reviewed in this presentation. Future ARPA investigations will benefit from implementing these practices and are far more likely to result in successful prosecutions.

Griffin, Stefanie [258] *see Hall, Lauren*

Griffith, Cameron (Indiana University)

[196] *Recent Advances in Cave Management and Archaeotourism Development in Cueva Borbon (Pomier), Dominican Republic*

Since the very first scientific investigations into the Taino use of cave sites, Caribbean cave archaeology has developed in the midst of burgeoning public interest in subterranean sites. As a result of this interest, in the Dominican Republic, like elsewhere in the world, several archaeologically sensitive cave sites have been opened for tourism. This paper presents the history and latest developments in the conservation efforts and archaeotourism management for the site of Cueva Borbon (Pomier), and focuses on the wider social context of the modern activity occurring within the cave.
[196] *First Organizer*; [212] *Second Organizer*

Griffith, Tabitha (Geo-Marine Inc.), Nancy A. Kenmotsu (Geo-Marine Incorporated), and William Russell (Geo-Marine Incorporated)

[33] *Exploring Classic Period Mimbres Settlement along the Border: Excavations at Columbus Pueblo, Luna County, New Mexico*
Recent excavations at Columbus Pueblo, a Classic Period Mimbres

settlement on the US border, are being used to explore the issue of settlement intensity and migration within Mimbres society. Few southern Mimbres sites have been subjected to subsurface exploration. This paper will explore the extent to which site occupants were casual visitors or migrants from Mimbres settlements to the north who adapted their cultural norms to accommodate an environment and social landscape that differed from ancestral homelands to the north.

Griggo, Christophe [58] *see Boeda, Eric*

Grijalva, Daniel [81] *see Bowser, Brenda J.*

Grillo, Katherine (Washington University in St. Louis)

[53] *"You Can't Cook with a Deaf Pot": Ethnoarchaeological Research into Pottery and Pastoralism in East Africa*

Although pottery is frequently found in association with early pastoralist sites in East Africa, few ethnoarchaeological studies have examined pottery production and use as they may relate to pastoral mobility, subsistence, and/or ideology. This paper details twelve months of fieldwork among Samburu cattle pastoralists in northern Kenya aimed at redressing this problem. The Samburu employ an extensive system of pottery production and use despite their history of relatively high residential mobility. Discussed here will be pottery's perhaps surprisingly central role in Samburu society, one reason for which may be its ability to aid in the mitigation of constant environmental risk.

Grillo, Katherine [53] *see Hildebrand, Elisabeth*

Grimm, Eric (Illinois State Museum)

[224] *Vegetation and Climate Change in the Upper Midwest during the Younger Dryas Interval*

Previous studies in the Upper Midwest have indicated changes in vegetation and climate generally coeval with the Bølling-Allerød and Younger Dryas intervals. New pollen studies with high temporal resolution and dating control indicate that climate change in the Upper Midwest lagged Greenland by 300-400 years. A warming trend began in the late Bølling and peaked in the early Younger Dryas. Near the Great Lakes, a distinct cooling trend is then evident beginning about 300 years after the beginning of the Younger Dryas interval in Greenland. A new modeling study indicates that the Bølling-Allerød and Younger Dryas intervals were very wet.

Grimm, Sonja B. [177] *see Weber, Mara-Julia*

Grofe, Michael (American River College)

[89] *The Copán Baseline and the Outlier Stelae: The Orion Hearthstones and the Solar Zenith*

This paper provides a new interpretation of the purpose of the Copán baseline between Stela 10 and Stela 12 as marking the rising azimuth of the Orion Nebula, the central point of the Maya asterism known as the three-hearthstones. References to these hearthstones appear on monumental texts that discuss the Era Base date of 4 Ajaw 8 Kumk'u, while Stela 12 states that Ruler 12 witnessed the hearthstones "at the edge of the sky" on the date 9.11.0.0.0, when the sunrise also appeared behind Stela 12. Additional astronomical alignments are evident among two other Outlier Stelae commissioned by Ruler 12.

Gronenborn, Detlef (Roemisch-Germanisches Zentralmuseum)

[61] *The Development of Complex Society in Temperate Europe: Lessons from Eastern North America*

The Temperate European Holocene culture history trajectory encompasses the full range of forms of human socio-political organization from small-scale hunter-gatherer groups at the end of the Pleistocene to the Early Modern states. Environmentally Temperate Europe is comparable to Eastern North America but its cultures evolved differently and, from a historical perspective, at a faster pace with complex agrarian societies emerging by 4000 cal BC. Nevertheless similarities are striking albeit not contemporaneous. These similarities are outlined and the possibilities of a mutual

understanding discussed.

[61] *Second Organizer* [61] *Second Chair*

Grote, Todd [29] *see Pedler, David*

Grove, David (Univ of Florida)

[156] *Gateway Communities and the Early Formative period Basin of Mexico*

In 1978 Ken Hirth used the "gateway community" model from geography to elucidate Formative period interaction patterns in central Mexico. This presentation revisits the model in terms of the Early Formative period Basin of Mexico, where two sites dominate the literature: Tlatilco and Tlapacoya. Although separated by 24 miles and a large lake, their ceramic assemblages are usually discussed as if identical. However, significant differences actually occur in those assemblages. The gateway community model aids in understanding those differences and reveals the two sites' contrasting interregional interaction patterns.

Grove, Margaret (Retired Professor/Independent Researcher)

[143] *Archaeomythological, Archaeological, and Theoretical Considerations: A Historicity of Feminism Found in Northern Australian X-Ray Rock Art*

Rock art research in Australia's Arnhem Land has revealed a historical time line of women decorated with marks of honor: the X-ray rock art convention. It dates to approximately 8,000 years ago, and continues into the present day. Massive numbers of female figures replace those of the males in this X-ray convention. This presentation will discuss the rise in number of female figures in the X-ray rock art complex along with the mythological importance and indigenous cultural meaning contained in the body markings. Theoretical considerations become reality as the visual world intersects with oral and written discoveries.

Grover, Margan [164] *see Eldridge, Kelly A.*

Gruber, Thomas [235] *see Toney, Elizabeth M.*

Guasch, Rosa [55] *see Lamuela-Raventos, Rosa M.*

Guderjan, Thomas (University of Texas at Tyler)

[91] *The Blue Creek Project: A Brief History and Current Research Domains*

Since 1992, annual fieldwork has been undertaken in northwestern Belize with the general goal of understanding multiple aspects of the Maya site of Blue Creek and its neighbors. The project's history and dynamics, in terms of both intellectual approaches and fieldwork, are outlined. Then, the current research domains (World Systems Theory; Modeling Maya Cities and Their Political Economies; Collapse: The end of the World as they Knew It!; Wetlands and Dryland Agriculture; Creating a GIS database) are discussed.

[91] *First Organizer*, [91] *First Chair*; [91] *see Wolf, Marc*

Gudino, Alejandra (Human Environmental Sciences University Missouri) and Ron Lippi (University of Wisconsin Marathon County)

[23] *How to get along: Lessons from a tropical rain forest*

This paper explore the roles of the archaeologist as a bridge between disciplines and as a custodian of the image of modern days archaeologists researching in laboratories and libraries and digging all around the world as "ownership and keepers of the past. We will explore some thoughts and suggestions on implementing and designing an interdisciplinary research project.

[23] *First Organizer*; [23] *First Chair*

Guengerich, Anna (University of Chicago)

[45] *Regionalism and Political Control at the Inka Border: Ceramics from Posic, Chachapoyas*

The region of Chachapoyas in northeastern Peru was occupied in the Late Horizon by a number of distinct cultural groups who fiercely resisted Inka incorporation. The Chacha-Inka site of Posic was

constructed as part of Inka attempts to consolidate this internally diverse and rebellious province. Unlike elsewhere in Chachapoyas, where Inka political models relied on architectural and ceramic styles from the heartland, administrators at Posic made use of local ceramics in their occupation of the site. This may have resulted from a differential strategy adopted to control a distant area at the borders of their political domination.

Guenter, Stanley (Southern Methodist University)

[77] *The Stelae of El Peru-Waká*

More than 40 stelae have been found at the Classic Maya site of Waká and these present a number of trends over the four centuries in which they were carved. Through an analysis of stylistic elements and technical measurements of these monuments, these chronologically significant features not only illuminate the ways in which the stela cult changed through time, but also provide a method through which archaeologists can date eroded monuments. Furthermore, comparison of this data with similar data from neighboring sites is indicative of the relationships between the elite of Waká and the other kingdoms of northwestern Peten.

[77] *see Lee, David*

Guenter, Marissa (Bureau of Land Management, Burley, Idaho)

[223] *The Two-Faced Trails of Southern Idaho: Legitimate Routes and Bogus Blazing*

Previous volunteer efforts to document national historic trail systems in southern Idaho have greatly contributed to federal land management goals; however, in some cases, this well appreciated enthusiasm has resulted in imprecise interpretations of trail locations. The routes, legitimate and bogus, will be studied by way of a multi-component research design that combines a comprehensive examination of historical documentation, in addition to systematic field investigation. Issues concerning the validity of alternate routes, as well as the continued use of trail systems into the early 20th century will be also be addressed. The objectives of this ARRA project are to refine previous efforts and record the Oregon and California Trail according to Federal Trail Data Standards. These efforts will not only offer trail system details pertinent to federal land management goals and historic preservation laws, but also result in the creation of a maintainable database congruent and communicable with other national historic trail system records.

Guerin, Guillaume (University of Bordeaux), Christelle Lahaye (University of Bordeaux), Norbert Mercier (CNRS) and Pierre Guibert (CNRS)

[8] *OSL and TL dating of the Roc de Marsal (Dordogne, France): Preliminary Results*

In 2005 a first TL dating campaign gave 5 TL ages for burnt sediments and flints, from the base of the stratigraphic sequence. During the 2009 excavation period, the need for further evaluation of the site chronology led us to take a series of samples: sediment samples from three sections and a number of combustion zones are under study for OSL dating, and burnt flints are the object of a TL dating procedure. In this paper we propose to discuss the preliminary results of these luminescence ages for the sedimentary deposits and human occupation periods.

Guernsey, Julia [260] *see Earley, Caitlin*

Guerra Santander, Ericka [188] *see Wernke, Steven A.*

Guibert, Pierre [8] *see Guerin, Guillaume*; [8] *see Skinner, Anne*

Guidi, Katherine [150] *see Weir, Donald J.*; [150] *see Moffat, Charles R.*

Gullberg, Steven (James Cook University)

[89] *Cosmology of Inca Huacas: Designed Effects of Light and Shadow*

The Incas honored and venerated many features of both natural and man-made landscapes that they felt to be endowed with superhuman

powers. In Quechua these shrines were known as huacas, and at the time of the Spanish conquest they numbered in the thousands. Several aspects of Incan astronomy are explored, as well as the context within which it served Incan society. The approach of this research is holistic in that it considers multiple levels of meaning including cultural motifs, topographic and astronomical contexts, sightlines, and light and shadow effects - especially those of solstices, equinoxes, zenith and anti-zenith suns.

Gumerman, George (Northern Arizona University) [209] *First Organizer*; [209] *Discussant*

Gunter, Maddy [185] see Goodale, Nathan B.

Gürsan-Salzman, Ayse [183] see Massey, David

Gusick, Amy (University of California, Santa Barbara)

[56] *The Punta Arena Site: The Early Years*

Michael Glassow began investigations at Punta Arena on Santa Cruz Island in the 1980's. This unique site has deposits dating as early as 8700 BP and as late as 2000 BP. Glassow took advantage of this extended time span to understand the complex relationship between human behavior and environmental change, with a focus on the red abalone deposits that accrued during the Middle Holocene. My current research expands on Glassow's work by focusing on the Early Holocene deposits at Punta Arena in an attempt to broaden our understanding of temporal changes in maritime adaptations and their affect on human behavior.

Gutierrez, Gerardo (University of Colorado)

[156] *Distribution of Teotihuacan-Style Censers in Eastern Guerrero*

In this paper I will address the appearance and distribution of Teotihuacan style-censer in Eastern Guerrero and propose several possibilities to explain the role of Teotihuacan in the mountains and Pacific slope of Eastern Guerrero. I will also analyze the iconography of these "peripheral" censers, so in an attempt to better understand the military and religious ethos of Teotihuacan as seen from a distant region of Southern Mesoamerica.

Gutierrez, Maria (CONICET, INCUAPA), Gustavo Martinez (CONICET-INCUPA-UNICEN), and Heidi Luchsinger (East Carolina University)

[47] *New Evidence for the Survival of Pleistocene Fauna and the Archaeological Silence of the Middle Holocene in the Southeastern Pampean Region (Argentina)*

Two major issues in Pampean archaeology include the survival of Pleistocene fauna into the Early Holocene and the "archaeological silence" of the Middle Holocene. The Paso Otero 4 site (Río Quequén Grande Valley, Argentina) provides direct evidence pertaining to both issues. Faunal remains of extinct armadillo (*Eutatus seguini*) date to ca. 7700 BP and the archaeological record of this site has been radiocarbon dated to ca. 7700-5500 BP. This paper discusses how the evidence contributes to our understanding of these issues as well as the context of the regional archaeological record for the Pampas during the Middle Holocene.

Gutierrez, María de la Luz (Instituto Nacional de Antropología e Historia)

[242] *Las Vírgenes Volcanoes: Social Agents in the Process of Enculturation of Landscape in Central Baja California, México*

Vírgenes volcanoes are the most conspicuous features in central Baja California. Ancient tectonic and eruptive events could have been a sufficient reason for the indigenous to assign them special meaning, however, there is additional evidence that emphasizes their great importance: raw material deposits, springs, and a strange rock art place. Were these landmarks object of special veneration? How these sacred domains did interact with people and structured their habitual and ritual actions? This paper will try to demonstrate that these volcanoes held a deep symbolism for the native cosmivision and acted as social agents in the formation of their identities.

Guzman, Scott [112] see Sinclair, Chloe

Gyucha, Attila [61] see Parkinson, William A.

Haas, Jonathan (The Field Museum), Alvaro Ruiz (Instituto Cultural del Norte Chico) and Winifred Creamer (Northern Illinois University)

[114] *Reuse of Late Archaic (3000-1800 B.C.) Monumental Sites in the Norte Chico Region of Peru*

The Norte Chico region witnessed a florescence of large sites with monumental architecture in the 3rd millennium B.C. The terraced platform mounds, sunken plazas, upright monoliths and U-shaped layout established architectural and site patterns that radiated out and evolved into various manifestations from Sechin Alto, to Chavin de Huantar to Tiwanaku. These sites left an indelible mark not just Andean history, but also on the local landscape. They served as focal points for ceremonies, offerings and burials in later time periods – all intrusions in the archaeological record. The reuse of these sites demonstrates they were recognized as significant ancestral places for more than 2000 years after abandonment.

Haas, Jonathan [138] see Rutherford, Allen

Haas, W.R. [113] see Mills, Barbara J.

Haas, William (The University of Arizona)

[248] *Low-Level Food Producers and the Pursuit of Game on the Rainbow Plateau, Arizona*

In his observations on Basketmaker materials, A.V. Kidder noted an abundance of hunting-related goods amongst a dearth of game consumption evidence. More recent subsistence analyses reveal that Basketmaker cultigen consumption was comparable to that of later Puebloans. Towards reconciling this apparent contradiction, I use optimal foraging theory to show that early agricultural colonists to the Rainbow Plateau would have invested in the pursuit of game species even if they were rarely consumed. A significant correlation between the spatial distribution of Basketmaker sites and the habitats of high-ranked game species on the Plateau further supports this hypothesis.

Haas, Jr., Wm. Randall [200] see Trowbridge, Meaghan A.

Haeusler, Werner [184] see Wagner, Ursel

Hahn, Lauren [178] see Braswell, Geoffrey E.

Hajic, Edwin (GeoArc Research), David W. Benn (Bear Creek Archaeology, Inc.) and E. Arthur Bettis, III (University of Iowa)

[29] *Fluvial History and Archaeological Site Distribution in the American Bottoms, Central Mississippi River Valley*

The CMV reach is characterized by terraces, fans and paleochannel belts that represent a range of valley depositional environments, some strongly influenced by the Missouri River below its mouth. Frequency and density of sites of different periods are examined in relation to landform sediment assemblages (LSAs) and LSA areas, and compared to the 300-mile reach upstream. Results reflect differential impact of a number of factors including a history of surface-oriented survey and testing; episodes of LSA removal and burial; site surface exposure versus burial; cultural preferences for landforms; a long-term research focus on Cahokia; and, the Missouri River.

Hajic, Edwin [146] see Kolb, Mike; [173] see Styles, Thomas R.

Hale, Kelly (Arizona State University)

[34] *Valhalla I am Coming: Viking Masculinity in the English Danelaw*

This paper explores the gendered experience of the Viking men who established and maintained the Danelaw in early medieval England (c. AD 800 - 954) through a contextualized analysis of mortuary behavior. The Viking inhumations of England provide a means for investigating the expression and construction of a masculine identity by individuals participating in a dangerous, conflict-ridden frontier.

The burial data suggest that for the Vikings interred throughout the Danelaw, "warriorhood" and masculinity were intertwined identities that were reinforced through embodied action, symbolic adornment and shared beliefs regarding the afterlife.

Hale, Micah (UC Davis)

[197] *The Ideal Free Distribution and Discontinuous Socioeconomic Shifts*

The Ideal Free Distribution (IFD) model can be modified to predict discontinuous socioeconomic change among hunter gatherers, while retaining original model assumptions. I treat adaptive strategies as qualitatively different niches in the IFD model, one of these having a minimum population density requirement and lower initial niche quality, but higher maximum density thresholds. These conditions predict cyclical colonizing attempts prior to the successful occupation of the new, density dependent niche, followed by rapid depopulation of the original niche. I apply this model to explain an abrupt shift from Time Minimizing to Energy Maximizing in the archaeological record of southern California.

[197] *First Organizer*

Hall, Conor [123] see Boehm, Andrew

Hall, Lauren (CSU Stanislaus), Chelsey Rhudy (CSU Stanislaus), Jenica Szirmay (CSU Stanislaus), Melissa Muñoz (CSU Stanislaus) and Stefanie Griffin (CSU Stanislaus)

[258] *The Manufacture and Use of Ground Stone Implements in the El Paraíso Valley, Western Honduras*

Ground stone implements, the workhorses of domestic food production and processing, provide invaluable information about the daily life and affiliations of the people who made, procured, and used them. In this paper, we examine ground stone tools recovered from Classic period rural settlements in the El Paraíso Valley to explore daily practice and the intra- and interregional interactions in which residents engaged. In doing so, we draw on the analysis of formal attributes, use wear, raw material, and procurement patterns to gain a better understanding of these vital quotidian implements and their role in the household and beyond.

Hall, Robert (University of Illinois at Chicago)

[99] *Those Two Maya Days of Creation: Why 542 Days Apart?*

The Maya creation story of the inscriptions describes a first day of creation on August 11, 3114 BC, and a second day of creation 542 days later on February 3, 3112 BC., with no ties to the agricultural year. The 260-day Chorti Maya agricultural year begins with observance of a first day of creation on February 8 and a second day of creation on April 25 and concludes in late October. Evidence is drawn from Spinden and the Madrid Codex to suggest that the Chorti creation rites may be survivals of observances that predate the Maya calendar.

[140] *Discussant*

Hall, Thomas (DePauw University)

[32] *World Systems Analysis in Eurasian Archaeology: Recent Findings, Questions, Debates, and Speculations*

This paper is intended to be a discussion "stimulus" by reporting recent findings, citing recent literature, raising some questions about Eurasian archaeology, AND asking some questions about world-systems analysis [WSA] derived from Eurasian archaeology, and to do some speculating. There are many questions and debates within WSA, especially WSA that is exploring ancient world-systems and their roles in shaping the modern world-system. These questions and debates are both theoretical and empirical, and typically at that stage where the theory – data – revision – more data – more revision cycle is moving rapidly. Thus, I seek to encourage archaeologists working on Eurasia not only to use recent WSA, but also to add to and/or emend it based on their findings. In short the "stimulus" is aimed toward the inductive side of the scientific process, where revisions of theory are driven by recent data.

Halligan, Jessi (Texas A&M University)

[236] *Preliminary Geoarchaeological Interpretation of a Submerged Paleoindian Site in the Aucilla River, Northwest Florida*

Thousands of osseous and stone Paleoindian artifacts have been recovered from the Aucilla River of northwestern Florida. Many of these lack context, limiting cultural interpretations. In this dissertation research, terrestrial and submerged coring and excavation are used to reconstruct the geoarchaeological context of a submerged sinkhole containing Paleoindian and Early Archaic components. Targeted excavation of Late Pleistocene cultural components are used to discuss human activity at this site. This record will then be compared to data from previously-excavated sites to create a synthetic site formation model for the region and to examine Paleoindian cultural patterns in the Aucilla basin.

[73] see Lemke, Ashley K.

Halperin, Christina (University of Illinois)

[54] *Maya State Collapse and Changes in Household Ritual: History-Making from a Microscale Perspective*

In contrast to the politics of the state, households are often portrayed as the ultimate bearers of "tradition." Nonetheless, when an archaeology of households is considered from a practice-orientated perspective, small-scale reproductions and changes not only become more visible, but can be seen as contributing factors to larger structural transformations. This paper examines household rituals, social practices, and symbolism during and after the so-called Classic period collapse to reveal the dynamic ways in which households negotiated, reproduced, and reinvented traditions. Special emphasis is placed on ceramic figurines, ritual termination deposits, and caches from Belize and Guatemala to highlight ways in which history-making manifested on a household-level.

Halteman, Justin [73] see Lemke, Ashley K.

Hambacher, Michael (CCRG, Inc.), Charles R. Moffat (CCRG, Inc.), Kathryn C. Egan-Bruhy (CCRG, Inc.), and Michael F. Kolb (Strat Morph Geoexploration, Inc.)

[150] *Data Recovery Excavations at 11ST540: Changing Use of Floodplain Environments Reflected at a Multi-Component Archaic Site in the Lower Illinois River Valley*

Large-scale data recovery excavations were conducted at 11ST540, Scott County, Illinois. The site is situated on a buried sand ridge on the Illinois River floodplain. Excavation of over 800 square meters identified a nearly 1 m thick deposits of cultural materials, nearly 100 features, and a large artifact assemblage including floral and faunal remains. Diagnostic artifacts and radiocarbon dates indicate primarily late Helton phase and Titterington phase occupations. Recovered data reflects changes in the settlement/subsistence strategies and use of the Illinois River floodplain during these periods.

Hambacher, Michael [150] see Weir, Donald J.

Hamilton, Tara (University of Nevada, Reno)

[120] *Morphology and Chronology of Pinto series projectile points of the Great Salt Lake Desert, Utah*

The chronology of Pinto series projectile points in the Great Basin and the Mojave Desert has been the subject of much debate. Pinto points have been found in both early and late contexts associated with dates spanning the Prearchaic and Archaic Periods. This lack of temporal specificity may relate to differences in regional morphology through time coupled with misidentification of other point types as Pinto series. These issues will be discussed using a collection of 287 Pinto series points from the Great Salt Lake Desert of northwestern Utah.

Hammerstedt, Scott (University of Oklahoma)

[59] *Works Progress Administration Archaeology in Western Kentucky: Excavations at Annis Village*

The Works Progress Administration archaeology program in Kentucky, under the general direction of William S. Webb, conducted excavations at numerous sites throughout the state. This paper examines work conducted in 1939-1940 by Ralph Brown and in 2002-

2004 by Penn State at Annis, a single-mound Mississippian site along the Green River in Butler County, Kentucky. The varying strengths of WPA and modern archaeological techniques complement each other and allow for a meaningful examination of site structure and organization.

[59] *see Regnier, Amanda L.*

Hammond, Norman (Boston University) [229] *Discussant*

Hancock, Beverlye [76] *see Whittington, Stephen L.*

Handwerk Kurt, Elizabeth (Windsor Museum, Colorado)

[70] *Effigy Mound Culture mortuary practices at the McClaughry Mound Group, Marquette County, Wisconsin*

This paper discusses research from the Late Woodland Period Effigy Mound site, the McClaughry Mound Group, located in Marquette County, Wisconsin excavated by W.C. McKern in 1925. Previous research with Effigy Mounds has focused on the differences between mound groups across the landscape. However, there is no cohesive description of within mound group mortuary variability. Using osteological and statistical methods to examine the various distinctions present at this site; the characteristics of Effigy Mound mortuary practices at this site may be defined helping to inform recent theories on site use and social organization.

Haney, Jennifer [172] *see Herndon, Richard I.; [172] see Cooper, Randall*

Hanks, Bryan (University of Pittsburgh) [32] *Discussant; [184] see Johnson, James A.*

Hanratty, Colleen (Maya Research Program)

[91] *Collapse and Post-Collapse Processes of Blue Creek*

Nearly two decades of multidisciplinary research at the site of Blue Creek has provided powerful insights into the collapse and post-collapse processes of this unique Maya center. The data reflect the populations' adaptation to and manipulation of their environment as well as their response to marked environmental change. The Blue Creek data array emphasizes the importance of human agency in the collapse and post-collapse processes at the end of the Classic period. This paper will examine how these factors directly contributed to a post-collapse model of political and social organization completely distinct from those previously documented at Blue Creek.

Hansell, Patricia [136] *see Ranere, Anthony J.*

Hansen-Speer, Karla (Indiana State University), Jim Speer (Indiana State University) and Lynn Harrell (Bureau of Land Management, Kemmerer Field Office, Wyoming)

[234] *The Antelope Trap and the Juniper Tree: Using Dendrochronology to Investigate Hunting on the High Plains of Wyoming*

The Bridger Antelope Trap is an early historic site on the National Register of Historic places in southwestern Wyoming that was used by American Indians while hunting antelope. Here, we describe the results of a dendrochronological investigation of the trap that explores the trap's age of construction, its use and maintenance, and its time depth. Over the course of two field seasons, we collected wood samples from living juniper trees, ax-cut stumps, and the trap itself. A master chronology of living trees has been built back to A.D. 1754, and analysis continues on the old trap wood.

Hard, Robert (Univ of Texas at San Antonio), A. C. MacWilliams (University of Calgary), John Roney (Colinas Cultural Resource Consulting), and William Merrill (Smithsonian Institution)

[248] *Uto-Aztec Foragers and Farmers in the Cultural History of the Desert West*

Our research on alternative mechanisms for the dispersal of maize agriculture from Mesoamerica to the U.S. Southwest by 2100 B.C. has led us to reexamine the cultural history of the Uto-Aztec language family. Based on linguistic and paleoecological data, we

have concluded that the Proto-Uto-Aztec speech community was located not in Mesoamerica but rather in the western Great Basin and that the foraging bands that comprised it began moving out of this "homeland" around 5500 B.C. Here we consider the current archaeological record from the Great Basin and the Southwest, as well as additional linguistic and paleoecological data, to evaluate the feasibility of this scenario.

Hard, Robert [74] *see Munoz, Cynthia M*

Hardy, Bruce (Kenyon College)

[157] *You Don't Need a Grapefruit Spoon to Eat a Grapefruit: Stone Tool Use in the Aurignacian and Middle Paleolithic of the Swabian Jura*

While we can document clear changes in both organic and stone tool technology between the Middle Paleolithic and the Aurignacian, we do not know how these typological differences translate into functional differences. Use-wear and residue analyses on a sample of over 200 tools from Hohle Fels, Vogelherd, and Geißenkolstérle reveal similar patterns of tool use within the Aurignacian. Tool types are not specialized but are used for multiple tasks. A similar range of materials are exploited from all three sites. Analysis of Middle Paleolithic tools from Hohle Fels suggests that Neanderthals and modern humans were using tools for similar activities.

Hardy, Meredith (National Park Service)

[117] *It's a Small World? Settlement and Interaction on St. Croix, Virgin Islands*

Recent compositional and sourcing studies of pottery and stone objects from across the Caribbean are revealing patterns of settlement, contact, and interaction between prehistoric island societies. Using GIS spatial analyst to provide a site to site least cost path analysis that incorporates a rank size distribution for known sites across the island of St. Croix, a model for Saladoid settlement and interaction has been developed that corresponds with the results of pottery and stone sourcing studies. This paper, employing social theories of practice and complexity, and models of complex adaptive systems, presents the results of this preliminary study.

Hare, Timothy (IRAPP, Morehead State University) and Marilyn Masson (University at Albany)

[20] *Pottery Assemblage Variation at Mayapán Residences*

We examine the city-wide spatial and statistical patterning of the use of different pottery forms within Mayapán houselots. Variation is observed in the utilization of ceramic vessels that have overlapping functions (such as jars), but exhibit different styles and sizes. Residences also vary in terms of low frequency vessels of functional distinction (such as ladle censers) or rare, decorated wares. Correlations that might explain assemblage variation are explored, including neighborhood location, status, affluence, and occupational specialization of particular domestic contexts.

[20] *First Chair [20] Second Organizer*

Hare, Timothy [20] *see Terry, Richard E.*

Hargrave, Eve

[146] *Life and Death in the Early Archaic: Information from the Middle Mississippi Valley*

General health and mortuary behavior of the Early Archaic inhabitants of the Middle Mississippi Valley are not well known. This paper presents new data on health and mortuary behavior from Modoc Rockshelter and the nearby Kaskaskia Mine site – two roughly contemporaneous Archaic rockshelter sites located in Randolph County, Illinois. Results from these analyses are placed within a broader regional context through comparisons with Early Archaic and Middle Archaic populations in the Midwest.

Hargrave, Michael (ERDC CERL), Lewis Somers (Geoscan Research (USA)), R. Berle Clay (Cultural Resource Analysts, Inc.) and Rinita Dalan (Minnesota State Moorhead)

[251] *Recent Magnetic Gradient, Susceptibility, and Resistance*

Surveys at Poverty Point

Ongoing geophysical surveys are providing significant new information on the Poverty Point ritual landscape. Focused on the plaza and surrounding first and second ridges, survey coverage now includes 19.5 ha of magnetic gradient and 3.2 ha of resistance data. Results include the discovery of more than 25 circular anomalies interpreted as post circles that range in diameter from 12 to 120 meters. Down-hole magnetic susceptibility tests investigating the nature and depth of ridge and plaza deposits are being used as an aid in the interpretation of the geophysical surveys and to pinpoint excavations.

Hargrave, Michael [251] see Greenlee, Diana M.; [73] see Ernenwein, Eileen G.; [251] see Clay, Rudolf B; [164] see Carlson-Drexler, Carl G.

Harkey, Anna (University of California - Berkeley)

[137] *The Andean Home in a Shifting World: Ceramic and Architectural Perspectives from the Upper Mantaro Valley, Peru*
The Upper Mantaro Valley, in central Peru, was profoundly involved in a series of dramatic transitions for the Andes. It was part of the widespread movement from valley floors to dense hilltop settlements in the Late Intermediate Period. It was site of an Inka provincial capital, and then colonized again as site of the first Spanish capital of Peru. This research explores the cultural outcomes of this series of shifts and colonial encounters, from a local perspective, through a two-pronged study of architecture and ceramics: artifacts sensitive to stylistic variation, and intimately tied to local lived experience and daily life.

Harkins, Kelly (Arizona State University)

[82] *The Bioarchaeology of Disability Identity*
Despite recent interest in identity, difference, and the body, disability identity remains a largely neglected area of research within archaeology. Human remains can provide a crucial line of evidence to examine disability, as both a pathological process and a cultural phenomenon. In this paper, I evaluate the capacity of bioarchaeology to investigate both physical and mental disability in the archaeological past. The value and limitations of such an approach are illustrated using a case study from pre-industrial Europe, an osteobiography of two individuals with a congenital malformation syndrome from the early medieval (c. AD 500-1000) cemetery of Pottenbrunn, Austria.

Harl, Joe (Archaeological Research Center of St. Louis)

[187] *Remains of 19th Century Flats and Tenements at the Cochran Gardens Site, City of St. Louis, Missouri*
Cochran Gardens Site covers a 2 block area within St. Louis City's near north side. In 1950, the 19th century buildings were razed and replaced by public housing apartments, known as the John J. Cochran Gardens Apartments. Despite the fact that six 12 story tall apartment buildings were constructed on these blocks, remains of the original 19th century buildings, privies, cisterns, and wells still existed about 2 – 3 meters below the surface. Artifacts associated with these features provided information on the Irish immigrant population who originally lived in this area.

[2] *Second Chair*; [2] see Zafe, Zarley B

Harlowe, George [139] see McKillop, Heather

Harrell, Lynn [234] see Hansen-Speer, Karla

Harris, Kathryn

[232] *Obsidian Sourcing of Southeastern Idaho Paleoindian Projectile Points*

Previous obsidian sourcing studies have demonstrated that patterns of obsidian movement across a region can indicate landscape use and mobility of prehistoric people. Using this research as a platform, I asked "What is the pattern of obsidian movement across southeastern Idaho in the Paleoindian time period, and to what extent does this indicate the use of the southeastern Idaho landscape?" After geochemically sourcing obsidian Paleoindian projectile points

found throughout Southeastern Idaho, I statistically analyzed data on point typology, region of projectile point provenience, and obsidian source locations. This analysis suggests a persistent and tethered Paleoindian use of Southeastern Idaho.

Harris, Lucille (University of Toronto)

[108] *Reconceptualizing an Expedient Flake Tool Technology from Interior British Columbia*

Variability in winter housepit economic activities in Interior British Columbia is commonly established through proportional differences in tool types using a morpho-functional classification system. In this paper I argue morpho-functional typologies are inappropriate for expedient flake tools because many of the defined types lack behavioral significance, force analysts into functional interpretations often based on arbitrary or unproven rules, and have the potential to significantly skew quantification and interpretation of the assemblages. Classification of individual worked edges according to edge angle and use damage is suggested as a more accurate and potentially interpretation free approach.

Harris, Lucy [39] see Schirack, Maggie

Harris, Susan (University of Tübingen), Corina Knipper (University of Mainz, Germany) and Lynn Fisher (University of Illinois, Springfield)

[184] *Changes in Chert Acquisition Strategies During the Neolithic at the Asch-Borgerhau Quarry, Southwest Germany*

Sub-surface features revealed during excavations at the Neolithic chert quarry site of Asch-Borgerhau near Blaubeuren, Germany produced secure dates showing that the quarry was used during the Early/Middle, Younger, and Final Neolithic. The lithic assemblages belonging to these features provide an opportunity to compare the lithic production technology and way that material was reduced for further transport during these different phases of the Neolithic. This poster will present an analysis of the tools and cores from the dated features of Asch-Borgerhau to compare the way in which the quarry was used during the different phases of the Neolithic.

Harris, Susan [184] see Fisher, Lynn E.

Harrison, David [185] see Quinn, Colin P.

Harrison, James [231] see Wurtz, Michelle D.

Harrison, Karl (Staffordshire University)

[168] *The Application of Archaeological Techniques to the Forensic Fire Scene*

In a UK context, forensic archaeology has remained focused on the search for and excavation of clandestine burials. There are, however, other areas of integration between archaeology and criminalistics that have yet to be exploited. One such area is the forensic fire scene. This presentation aims to provide a brief discussion of the interrelationships between archaeological practice, the scientific understanding of the nature of structural fire dynamics and the current practice of UK fire investigators. By drawing these disciplines together it seeks to suggest means by which archaeology might be adapted to suit the needs of the forensic fire scene.

[69] *Discussant* [168] *First Chair*

Harro, Douglas [123] see Stevens, Nathan

Harry, Karen (University of Nevada-Las Vegas)

[253] *Exploring the Puebloan Occupation of the Mt. Dellenbaugh Region of the Arizona Strip*

Located on the far northwestern edge of the Colorado Plateaus, the Mt. Dellenbaugh frontier would have been a remote and challenging area to live in. Despite these challenges, research indicates that the area was occupied by farmers associated with the Virgin River Puebloan (VRP) culture. To investigate the nature of this occupation, the University of Nevada Las is conducting a series of ongoing field schools here. This paper explores what we have learned to date

about the nature of the VRP settlement, including issues relating to settlement shifts, seasonality, subsistence, and the nature of the abandonment of the pueblos.

[174] *Discussant* [253] *First Chair*

Hart, Daniel (HDR | e²M)

[165] *The Military Built Environment and Cultural Landscape Assessment in the Hawaiian Islands*

The Hawaii Army National Guard (HIARNG) has armories and facilities in historic coastal defenses, and other facilities spread across the Hawaiian Islands. Many HIARNG facilities were built at sites that hold potential for cultural landscapes associated with native Hawaiian culture and community development, both World Wars, and the Cold War. This poster session will examine the how the landscape was adapted and rebuilt by for military purposes, the range of such landscapes, and their association with buildings and other components of the built environment based on a recent historic buildings survey at HIARNG sites.

Hart, John [4] *see Lovis, William*

Hart, Siobhan (Binghamton University)

[170] *Why Firehouses Matter: The Power and Politics of Heritage Preservation in Deerfield, Massachusetts*

Heritage work is a centuries-old endeavor in Deerfield, Massachusetts. It is a place people visit to experience "heritage," but also a place where people try to make sense of how the past is deployed in their midst. Here, I discuss efforts to engage multiple stakeholders (Native American descendants, heritage institutions, avocational and professional archaeologists, and local residents) in archaeology and preservation activities surrounding a seventeenth-century Native American site. I explore the challenges of sharing and redistributing the power to mobilize the past by reflecting on how the politics surrounding the relocation of a firehouse stymied a long-term preservation plan.

Hartley, Charles and Alan Greene (University of Chicago)

[240] *From Structure to Composition and Back: Digital Radiography and Computed Tomography; Some Cases for Anthropological Contemplation*

Two decades after their debut as tools of archaeological analysis, digital radiographic and computed tomographic techniques have become deft instruments in the acquisition of data relevant to pottery analysis. Innovations in instrument resolution, software development, and filtering techniques now permit an unparalleled level of analytical flexibility, allowing an archaeological analyst to answer specific questions about large ceramic datasets at multiple scales of analysis. In revealing data pertaining to formation techniques and inclusion density and/or variation, these techniques call into question the continued relevance of analytical distinctions between "structural" and "compositional" pottery data.

[240] *First Chair* [240] *Second Organizer*

Hartley, Charles [240] *see Greene, Alan F.*

Hartmann, Gayle (Arizona Archaeological and Historical Society), Brenda Todd (University of Colorado), and William Robinson (Arizona Archaeological and Historical Society)

[40] *Oh, How Things Have Changed!: Kiva Production Over The Years*

This poster traces the dramatic changes in printing technology since 1935, when Kiva began publication. Beginning with typed or even handwritten manuscripts, we trace the route of a manuscript through galleys, cut-and-paste illustrations, and linotype printing. The computer revolution, beginning with "floppy" disks that were actually floppy, completely transformed this process to one that is now entirely electronic.

Haskell, David (Independent Scholar)

[225] *Splitting the Gods: The Significatory Power of Obsidian Idols in the Prehispanic Tarascan Kingdom*

Pieces of obsidian were used as idols of gods, including the patron god of the ruling elite and thus the state as a whole, in the prehispanic Tarascan kingdom of West-central Mexico. Utilizing primarily ethnohistoric (documentary) evidence, I argue that it was the fact that obsidian is easily knapped that allowed pieces of obsidian to simultaneously be direct indexes of kingly power and focal points of historical oratory, ideal metaphors for kingly power, and self-evident agents that allowed conquest and the exercise of power by the elites to be fetishized and mystified as they were recast as divine mandates.

Hastorf, Christine (University of California-Berkeley)

[11] *Sustainability, Decisions and Political Power: What do Long-term, Changing Farming Strategies of the Andes tell us?*

Agriculture developed indigenously and has been practiced throughout the central Andes for at least 6000 years. In any one valley, over time, various political situations have developed and faded. The changing decisions farmers have made over this long time reflect their social and political worlds. While the landscape has remained relatively stable, the perceptions of it and the farmer's interactions have altered, at times radically. I focus on the changing land-use around Jauja Peru and how it reflects changing political situations, farmer's decisions, political decisions and changes on the landscape.

[132] *First Organizer*; [154] *Discussant*; [245] *see Capriles, José M.*

Hatch, Mallorie (Arizona State University) and Kent M. Johnson (Arizona State University, School of Human Evolution and Social Change)

[92] *Assessing the Role of Lineage Competition in the Development of Social Complexity in Ancient Egypt: Biological Affinity in the Predynastic Period at Naqada*

Savage (1997, 2001) has hypothesized that the development of Egyptian social complexity was fueled by descent group competition during the Predynastic period (ca. 3900-3050 BC). This study tests for the presence of distinct biological descent groups at the Predynastic center of Naqada, Egypt. Biological affinity is examined by assessing differences in gene flow and phenotypic variability between three cemeteries at Naqada, Cemetery T, Cemetery B, and the Great Cemetery, using previously published craniometric data (Fawcett and Lee 1902). Results of R matrix and Relethford-Blangero analyses contradict previous analyses by documenting greater endogamy in the Great Cemetery than Cemetery T.

Hauck, Thomas (IPNA, University of Basel) and Dorota Wojtczak (Institute for Prehistory and Archaeological Science, University of Basel)

[58] *Trends and Diversity in the Middle Paleolithic sequence of Hummal (Central Syria)*

The spring of Hummal, El Kowm, is a Paleolithic reference site for the interior Levant because of its archaeological sequence including Lower to Upper Paleolithic deposits. The Middle Paleolithic consists of numerous levels with Hummalian and Mousterian assemblages. Initial investigation in the Eighties showed that the Hummalian is characterized by a non-Levallois blade production alongside blanks obtained by the Levallois method. The latter proffers an association with the overlying Mousterian sequence, which shows a gradual increase in Levallois point production. This paper presents the techno-typological trends between both cultures through their quantitative and qualitative attributes.

Hauser, Neil (ATSAA), Robert Wunderlich (RMC Consultants, Inc) and Wayne Wilson (ATSAA)

[147] *Web-Based Lithic Source Database*

An operational prototype, web-based lithic source database has been developed to allow archaeologists doing work in the general Colorado region to compare lithic materials from their sites with high quality, color photographs of material samples from lithic quarries around Colorado. The interface allows a user to query by Smithsonian site number, Munsell rock color code, and general location. The database includes points of contact for comparative collections that contain

samples from the quarry of interest. To protect sources, the source locations are only given in grids of 100 km x 100 km squares. The Smithsonian site numbers for the quarries enable archaeologists to easily obtain exact locations by contacting Colorado State Historic Preservation Office. The archaeological community is being solicited for suggestion on other information that should be added. Possibilities, as available, include reflective spectra, laser breakdown spectroscopy (LIBS) spectral profiles, thin section photographs, and reports on the source. Issues associated with populating this database will also be discussed.

Hawkins, Meredith (Archaeological Research Center of St. Louis, Inc.)

[2] *A Hearth and Sickles: An Examination of Feature 22 at the Squire Site (11MS2244) Granite City, Illinois*

Feature 22 of the Squire site (11MS2244) is the remnant of possibly a deep kitchen or smokehouse. There is no evidence, thus far, that this style of building has been found in the American Bottom. Through the theoretical framework of landscape archaeology, this paper will investigate whether Amos Squire's early life in Maryland and his few years amongst the French in Cahokia, Illinois might have led him to erect this unusual building. Additionally, it will try to determine how this homestead was organized and might have reflected the influence of the Squire family in the Six Mile Prairie community.

Hawkins, Nancy (Louisiana Div of Arch) and Recca Jones (University of Louisiana, Monroe)

[38] *Louisiana Avocationalists*

Louisiana has a tradition of avocational archaeologists making significant contributions in North American archaeology. Dr. Clarence H. Webb's contributions include the Poverty Point culture, the Caddo culture, and the San Patrice culture. He received the Crabtree Award in 1985. Avocational archaeologist Bill Baker recorded over 100 sites in Central Louisiana and contributed to the preservation of significant sites, including Cowpen Slough, Troyville and Caney Mounds. Recca Jones has been an avocational archaeologist since 1960. She has recorded and promoted the preservation of mounds in Northeast Louisiana, particularly in the Ouachita River Valley. She was the first to publish information on Watson Brake, a Middle Archaic mound complex, and has actively protected the site since 1981. Recca served as president of the Louisiana Archaeology and in recognition of her work received the Crabtree Award in 1998.

Haws, Jonathan (University of Louisville)

[16] *Human-environment interaction during the Upper Paleolithic in central Portugal*

Throughout the Pleistocene climatic shifts repeatedly impacted the Mediterranean region. In response to these perturbations, the Mediterranean bioclimatic zones evolved as some of the most diverse, dynamic and resilient in the world. The appearance of modern humans in western Iberia after 30,000 BP co-occurred with important environmental changes, especially regarding animal communities. This paper combines data from zooarchaeological, paleontological and paleovegetation records to identify patterns in human-environment interaction at different spatial and temporal scales. Evidence suggests that modern humans transformed their environment creating long-term dynamic and resilient socio-natural systems during the Upper Paleolithic.

Haws, Jonathan [177] see Bicho, Nuno

Hayashida, Frances [138] see Strawhacker, Colleen A.

Hayes, Joanna (Kenyon College) and Edward Schortman (Kenyon College)

[258] *The Organization of Early Ceramic Manufacturing along the Rio Chamelecon*

In 2008, a simple open or shallow pit firing area was discovered at the site of Las Canoas in the Middle Chamelecon-Cacaulapa area. The area, found under a complex sequence of Late and Terminal Classic

construction, appears to be eccentrically located, away from probable storage and manufacturing areas. The earliest known firing facility at La Sierra in the Naco Valley to the north has both a different configuration and a different location with respect to workshop remains. This presentation addresses those contrasts.

Hayes, Katherine (University of Minnesota, Twin Cities)

[175] *Mineralogical Routes to Social Interactions: Investigating Locally-made Earthenwares at the Sylvester Manor Site*
Shantok ceramic wares are an archaeological type defined by stylistic elements and distribution in southern coastal New England in the early colonial period. Generally thought to be of Native American manufacture, a large quantity of this ware-type was recovered at Sylvester Manor, documented to have been a plantation employing enslaved African labor. Stylistic and functional analyses yielded no new insight to the role of the ceramic in the plantation setting, but application of chemical and mineralogical analyses demonstrated a drastic technological shift. This information opens new avenues of interpretation which relate to poorly-documented interactions between enslaved Africans and Native Americans.

Haynes, Gary (University of Nevada-Reno)

[22] *Puzzling Over The Bumbusi Spoor Engravings In Zimbabwe*
Twelve of Zimbabwe's 14 sites with engravings of animal foot-prints are in or near Hwange National Park. Eight rockshelters close to the Bumbusi Late Iron Age Site contain pecked, incised, ground, and drawn/painted forms. Engraved animal spoor recognizable to species dominates. Zebra spoor is most abundant. Excavations in two rockshelters produced an enormous amount of Wilton lithics and organics, suggesting the engravings were made by Later Stone Age foragers. Most deposition in the rockshelters occurred 2-4,000 years ago, but a thin overlying deposit contains Late Iron Age materials. Some of the engravings may have been created by agropastoralists.

Haynes, Gary [53] see Wriston, Teresa A.

Haynes, Jr, C. Vance [21] see Ballenger, Jesse

Hays, Christopher, James Stoltman (University of Wisconsin-Madison), Richard Weinstein (Coastal Environments, Inc.) and Robert Tykot (University of South Florida)

[251] *Investigating the Exchange of Poverty Point Objects and Pottery in the Poverty Point Culture Using X-Ray Fluorescence and Petrographic Thin Sectioning*

The Poverty Point culture is justly famous for its far-flung exchange network that extended throughout the eastern United States. In this paper we report on our use of a non-destructive Bruker X-ray fluorescence spectrometer and petrographic thin sectioning to investigate the movement of St. Johns pottery and Poverty Point objects between a variety of areas including eastern Florida, the Gulf Coast, and the Lower Mississippi Valley. We examined over 40 artifacts from major archaeological sites such as Tick Island in Florida, Claiborne and Jaketown in Mississippi, and Poverty Point in Louisiana.

Hays, Christopher [251] First Organizer; [251] First Chair

Hays, Justin [27] see Proue, Molly

Hays-Gilpin, Kelley (Northern Arizona Univ), Elizabeth Ann Morris (American Museum of Natural History), and Sally J. Cole

[51] *Ann Axtell Morris: Art and Archaeology in the Southwest and Mesoamerica*

In the 1920s, archaeology was not a common career choice for women. Art was not a common topic for archaeologists to study. Ann Axtell Morris boldly researched rock art, mural painting and textiles, and wrote for the public as well as for scholars. Her popular books, "Digging in the Southwest" and "Digging in Yucatan," inspired generations of men and women to explore archaeology. Her rock art, murals, and textile research has not yet reached a wide audience. In

this presentation, we will bring to light the important roles Ann Axtell Morris played in the history of American archaeology.

[242] *Discussant* [174] *Discussant*

Hayward, Michele (Panamerican Consultants), Frank Schieppati (Panamerican Consultants) and Michael Cinquino (Panamerican Consultants)

[22] *Late Ceramic Religious and Political Organization in Puerto Rico: Caguana, PO29 and Vivi*

The location of rock art sites and the relative ordering of the figures at sites are critical to the interpretation of both the function and specific meaning of rock art assemblages. Past analyses of these components at Caguana in the central highlands of Puerto Rico indicate that the ball court anthropomorphs and zoomorphs reflected an increasing sophistication in the use of religious imagery and rituals by the political elite to further their influence. Rock art from the ball court site of PO29 in the south and those of Vivi also in the central highlands offer opportunities to further explore the intersection between religious and political organization in the Late Ceramic period.

He, Kunyu [155] see *Flad, Rowan K.*

He, Yuling [155] see *Campbell, Roderick B.*

Healan, Dan (Tulane University)

[221] *Obsidian Bifaces Seen from Both Sides*

In Mesoamerica two different biface industries involving obsidian can be distinguished, one of which involves conventional bifacial thinning and pressure flaking of a nodule or blank, producing symmetrical, thin, and aesthetically pleasing implements. The other features the use of high-angle "edging" confined to the margin that largely shapes rather than thins, whose products exhibit a casual and often seemingly mediocre workmanship although their abundance indicates they were adequate for their purposes. This paper considers contextual and other information that may shed light upon different technological, social, ideological, and other cultural milieu in which the two industries may have operated.

Healy, Paul [54] see *Powis, Terry G.*

Hearne, Carol [234] see *Cannon, Kenneth P.*

Heath, Margaret (Bureau of Land Management)

[223] *Past Strides and Future Steps: Heritage Discovery, Science, Education, and Outreach on the Bureau of Land Management's National Landscape Conservation System*

In the ten years since the creation of the National Landscape Conservation System (NLCS), the Bureau of Land Management (BLM) and its research partners have created a body of work that has made strides in the science of archaeology and the understanding of heritage resources. BLM has been a leader in Native American involvement in planning, research, and outreach and broadened the field of heritage education. These have created a solid foundation for future steps toward a deeper understanding of the heritage of the treasured landscapes of NLCS.

[75] *First Organizer*, [223] *First Organizer*

Heaton, Ashley (Tulane University) and Stacy Dunn (Tulane University)

[98] *New Research on Local Elite Control in the Huaura Valley, North-Central Coast of Peru*

This paper addresses community-level political and economic organization during the Middle Horizon (A.D. 600-1100) and Late Intermediate Period (A.D. 1100-1435) in the Huaura Valley, north-central coast of Peru. Previous interpretations, based on minimal systematic investigation, assume valley occupation consisted of small populations subjugated under successive Wari, Chimú, and Inca empires. This idea is challenged by recent excavations, architectural studies, and artifact analyses at three sites--Caldera, El Carmen, and Quipico--undertaken to clarify the functions of adobe compounds

suspected to be elite residences and administrative structures, providing a preliminary description of local control within communities throughout these dynamic periods.

Hedman, Kristin (ITARP-UIUC)

[214] *Mississippian Diet—Stable Isotope Evidence for Dietary Variation in the American Bottom*

Recent stable isotopic analysis of bone collagen and apatite provide insight into Mississippian subsistence at Cahokia and surrounding sites. Previous stable isotope research has identified temporal, regional, status- and sex- based differences in the diets of Mississippian populations in the American Bottom. New data will be presented and comparisons drawn exploring temporal changes in diet, as well as sex- and status-related variability.

Hegberg, Erin (University of New Mexico)

[240] *X-Ray Fluoroscopy in your own Backyard: A Method for Analyzing Ceramic Formation Techniques*

Ceramic formation techniques such as coiling, slab building, or using molds are directly related to learning lineages and muscle memory. As a result, the study of the structure and formation of ceramics may provide important information regarding identity and production groups. This paper will discuss how x-ray fluoroscopy can be a cheap, non-destructive and readily available technique for researchers to study ceramic structure, which can be combined with other analyses to answer questions regarding technological style and identity. The characterization of 18th and 19th century New Mexican Hispanic and Pueblo ceramics will be presented as a case study.

Hegmon, Michelle (Arizona State University)

[14] *From the Inside Looking Out: What is the Influence of Southwest Archaeology Beyond the Southwest?*

What is the Influence of Southwest Archaeology Beyond the Southwest? Southwest archaeology made important contributions to the development of method and theory in the era of the New Archaeology. This paper asks whether, how, and in what subject areas, the importance of Southwest to general archaeological method and theory continues today. Research is based on analyses of articles published and cited in major journals. It considers which theoretical and methodological subjects are being emphasized by Southwest specialists, and whether the influence of those contributions is reaching beyond the Southwest. This in turn suggests trends and advice for what we should be doing.

Heilen, Michael (Statistical Research, Inc.) and Jeffrey Altschul (Statistical Research, Inc.)

[164] *Analyzing Archaeological Data Quality: Recent Results from Military Installations in the United States*

In a pilot study aimed at establishing key data quality indicators for archaeological data, Statistical Research, Inc. explored three issues of concern to DoD military installations: survey reliability, site location, and site boundaries. The application of key data quality indicators was illustrated with survey data from four DoD installations. The study recommended that: (1) archaeological data and metadata on survey methods, recording techniques, and instrumentation should be maintained and archived regularly; (2) standard data quality metrics should be used at other installations; and (3) some problems with data quality stem from problems with the site concept.

Heinsch, MF (University of Chicago)

[240] *Wheel-Finished versus Wheel-Formed: Inferences and Implications from Radiographic Evidence of Ceramic Forming Techniques at Velikent*

The adoption of wheel-forming techniques in potting communities is typically accompanied by a host of changes in social networks of production. Finding locally produced wheel-turned pottery therefore, holds many implications for site interpretation. While the use of a wheel is often inferred from ceramic characteristics observed in the field, radiographic analysis in the laboratory produces finer distinctions in the application of wheel techniques in pottery production sequences. In the case of Velikent Fine Wares, pottery once identified in the field as wheel-formed was later revealed

through radiographic analysis to be wheel-finished, thereby revising expectations for patterns of local craft production.

Heitman, Carrie (University of Virginia)

[128] *Learning the Vocabularies of Vernacular Architecture, Chaco Canyon, NM, A.D. 850-1180*

The nuanced vernacular of prehistoric architecture has much to tell us about how structures are layered with differential meaning from the moment of construction to the time of abandonment. While traces of these processes often leave complex archaeological signatures, tenth through twelfth century occupations of Chaco Canyon offer an intriguing and discernible case study. This paper evaluates the contexts and content of deposits demonstrating acts of ritual dedication and closure from twelve Chacoan sites and evaluates these deposits at three levels: their distribution across site types, their utility for assessing social inequality, and their meaning as informed by ethnographic analogy.

Helmke, Christophe [148] see *Brady, James E.*

Hemmings, C. (Mercyhurst College), Jon Lohse (Texas State University) and Michael Collins (Texas State University)

[210] *The Hogeye Cache, Bastrop County, Texas: A Snapshot of Clovis Technology*

Over the course of several years a group of 25 diagnostic Clovis bifaces, made of Edwards Plateau chert, was recovered from a two meter wide strip in a sand pit near the Colorado River, approximately 30 miles southeast of Austin, Texas. Most Clovis caches contain a broad range of bifaces, preforms, and points, representing multiple loci on an attritional reduction sequence. The Hogeye cache is composed of a narrow segment of this reduction sequence with near equal numbers of well developed point preforms and unfinished Clovis points, lacking only basal grinding. This rare 'snapshot' is discussed within broader Clovis contexts.

Hemmings, C. Andrew [90] see *Illingworth, Jeff*, [210] see *Lohse, Jon C.*

Henck, Amanda [155] see *Lu, Hongliang*

Henderson, A. Gwynn [105] see *Pollack, David*

Henderson, Lucia (The University of Texas At Austin)

[99] *A Journey to Fire-Mountain: Lake Amatitlán in Teotihuacano Belief*

Analysis of the material and iconographic records of Lake Amatitlán and Escuintla, Guatemala, indicate that ritual may have played a key role in bringing Teotihuacanos to this area during the Early Classic. The physical properties of the Lake Amatitlán region would have resonated strongly in Teotihuacano belief, recalling the three hearthstones of creation and the Flower Mountain paradise. This paper considers the impact Maya ideology may have had on Teotihuacano ritual by investigating Lake Amatitlán as a point of multicultural interaction, incorporating pilgrimage, procession, and the reverence accorded particularly sacred landscapes into discussions of Teotihuacán presence in the Guatemalan highlands.

Hendon, Julia (Gettysburg College)

[260] *Social Contexts of Textile Production in Formative Maya Lowlands*

Textile production in Prehispanic Mesoamerica must be studied indirectly as the fabrics themselves are only rarely preserved. If textiles are fugitive, at least some of the tools used to produce them are more durable. This paper considers the evidence for spinning, weaving, and other fiber arts, such as paper making, in the archaeological record of the Maya Lowlands during the Formative period in order to understand the social context of production. This social context includes the relations and identities that textiles mediate as well as the processes of embodiment that develop from the merger of technology and materials.

[65] *Discussant*

Henecke, Jennifer (Stony Brook University), Jennifer Everhart (Stony Brook University) and Kathryn Twiss (Stony Brook University)

[74] *Long Bone Cross-Sectional Geometry As a Method for Investigating Ancient Herd Mobility*

Recent trends in the study of ancient animal husbandry have introduced new methodologies for examining management practices. Our project uses long bone cross-sectional geometry (CSG) to investigate ancient herd mobility. Studies performed on various species have demonstrated that mobility-induced stress alters cortical bone distribution in long bones. Differential distributions, measured using CSG, reflect differential locomotor behaviors. However, musculoskeletal design differs greatly between taxa, and relevant data for caprines are limited. We present CSG data on modern American and British sheep with known life histories as a pilot study for exploring the extent of variation in relation to mobility patterning.

Henning, Joachim (Goethe University Frankfurt am Main, Germany)

[243] *A Small Town Experiences the Fall of the Roman Empire: (1) New Archaeological Strategies and Answers for an Old Question*

An integrated strategy was developed to explore the archaeology of Tarquimpol with an eye to the great debate about Rome's fall: remote prospection (geomagnetic and GPR), palaeoenvironmental investigation, GIS, exploratory trenches. The results of three campaigns have changed dramatically our picture of the end of empire in eastern Gaul (France). Although the Roman small town and road station of Decempagi was destroyed by fire in the third century and completely leveled, it surged back to life in the later fourth century as a fortified place still situated at the Roman road. It survived essentially as long as the Roman state was able to protect the old order. Its demise sheds important new light on the archaeology and history of communications systems of the late Roman and post-Roman period.

Henrikson, Lael (Bureau of Land Management)

[223] *Going with the Flow: The Impact of Holocene Fissure Eruptions on Obsidian Source Use in Southeastern Idaho*

A chemical analysis of diagnostic projectile points from the Craters of the Moon National Monument and Preserve in southern Idaho suggests that direct procurement of raw material from local obsidian sources was a long-term pattern in the region. However, significant trends in the frequency of specific sources associated with particular projectile point types were noted in this study. Statistical tests suggest that these trends are linked with atlatl versus bow and arrow technology. Although changes in mobility or population movements could have influenced this pattern of distribution, a more reasonable explanation for fluctuations in the frequency of particular sources suggests that they may be due to barriers created by Holocene lava flows that coincidentally prevented access during specific time periods.

Henry, Amanda (The George Washington University), Alison Brooks (The George Washington University), Dolores Piperno (The Smithsonian Institution) and Timothy Rose (The Smithsonian Institution)

[151] *Assessing Dental Calculus as a Source of Archeological Plant Microfossils Using ESEM/EDS*

Plant microfossils recovered from dental calculus have been used to recover diet. However, calculus may be affected by diagenetic processes, and material adhering to the surface of teeth may not be calculus. We examined modern, recent historic and the Shanidar III Neandertal teeth with an ESEM/EDS to identify the molecular components of enamel, calculus, root and surface particles. Calculus was predominantly calcium phosphate, confirming its biological origins, and unlike the root it showed little chemical alteration. Surface particles were clearly distinguishable from calculus. No microfossils were visible on the surface, confirming that recovered microfossils were from the calculus matrix.

Henry, Edward (University of Mississippi)

[36] *The Archaeology of the LeBus Circle and Some Comments on the Implications of Large Early Woodland Circular Earthen Enclosures in the Ohio Valley.*

Circular earthen enclosures constructed throughout the Ohio Valley during the Late-Early and Middle Woodland periods have long been poorly understood. Archaeological research conducted at the LeBus Circle in Bourbon County, Kentucky focused on assessing site integrity through geophysical prospection and excavations. Carbon samples from three contexts across the site were submitted for chronometric dating. Data from the radiocarbon dates and artifact analysis suggest that the LeBus Circle is an Early Woodland earthwork with a Late Fort Ancient occupation. The data from this research is used in a subsequent discussion highlighting the evidence for Early Woodland ritualism in the Ohio Valley.

Hensley, Kyle (Illinois State University)

[125] *An Archaeological Investigation and Comparison of the Daily Lives of the Military during the British Occupation of Fort Michilimackinac*

This study utilizes archaeological evidence such as faunal remains, ceramics, clothing remains, and lead shot to determine differences in the standard of living between officers and enlisted soldiers during the British occupation of Fort Michilimackinac from 1761 to 1781. The archaeological data utilized in this study is from Houses A-B, C, and D of the Southeast Row House and House One of the South Southeast Row House. This study looks at the daily lives of the inhabitants of Fort Michilimackinac, providing insight into how the soldiers and officers functioned and how they may have influenced the activities at other sites.

Hensley, Scott [160] see *Blom, Ronald G.*

Hepp, Guy (University of Colorado) and Ivy Hepp (Florida State University)

[260] *Continuity and Change in Dress and Ornamentation in Oaxaca: Late Formative and Beyond*

Perishable remnants of ancient dress are frequently lost in Mesoamerican archaeological assemblages. This paper will explore evidence for bodily adornment in various regions of Oaxaca, Mexico, beginning in the Late Formative period. Ceramic figurine collections, stelae, and other public art will serve as iconographic bases for this discussion. Archaeological evidence of jewelry, weaving practices, colonial period historical documents, and modern ethnographic information will serve as additional lines of evidence to explore bodily adornment as related to sociality. These considerations will all be interpreted in light of wider spheres of interaction and influence resulting in continuity and change in Oaxacan dress.

Hepp, Ivy [260] see *Hepp, Guy D.*

Herhahn, Cynthia (Bureau of Land Management) and Ronald Towner (Laboratory of Tree-Ring Research)

[223] *Successful Collaboration in the El Malpais National Conservation Area, New Mexico*

For the past four years, the New Mexico BLM (Rio Puerco FO), Laboratory of Tree-Ring Research (University of Arizona), and Manzanares Research, Inc. have collaborated on projects in the El Malpais NCA in western New Mexico. Goals of the collaboration have included site documentation, research, and student training. New technologies and approaches have improved site documentation for preservation purposes, while research has identified early 20th century Navajo use of the area and delineated additional aspects of a later Anglo-American occupation. International and US students and professionals have been trained in the collection, analysis, and interpretation of archaeological tree-ring samples.

Hernance, John [123] see *Urban, Thomas M.*

Hernandez, Christine [178] see *Vail, Gabrielle*

Hernandez, Hector (Universidad Autonoma de Yucatan)

[17] *Gendered Labor and Daily Life Economy in Classic Maya Households from Siho, Yucatan, Mexico*

The excavation and archaeological analysis of two elite maya households at Siho Yucatan, have provided evidence about men's and women's daily labor organization during Late and Terminal Classic period (800/850-900/950 AD) in western Yucatan. Gender, as an analytical category, has promoted a reevaluation of the different roles that individuals played in complex past societies. At Siho's maya households we can find a variety of labors ranging from the so called subsistence activities through a craft production that could relate individuals who occupied the inside as well as the outside household with the entire community. Thus, the purpose of this paper is to discuss the implications of a gender division of labor, the organization of production, and subsistence activities of domestic groups in the daily life economy of the ancient maya community of Siho, Yucatan.

Hernández Arana, Jonathan [254] see *Donner, Natalia R.*

Hernandez Espinoza, Patricia (Escuela Nacional De Antropología E Historia, INAH) and Lourdes Márquez Morfin (Escuela Nacional de Antropología e Historia, INAH)

[241] *Mayan Paleodemography: Results and Methodological Limitations*

This paper addresses some of the sampling problems in paleodemography and life table mortality schedules and fertility in the context of stable population theory. We review our results on Mayan paleodemography and methodological issues we have developed to solve problems like size of skeletal samples and its representativeness. The skeletal series selected for this purpose come from different mayan prehispanic sites and chronologies: from Late Classic, Palenque, Chiapas and Jaina, Campeche; from Postclassic period we analyzed Xcaret and Chac Mool, Quintana Roo.

Hernando, Almudena (Universidad Complutense, Madrid, Spain.)

[143] *'Dependent' versus 'Independent' Individuality: An Analysis of Men and Women's Modes of Constructing Individuality in the Western World*

Women and men's identities have followed different historical trajectories. While men have developed individuality gradually, women did not develop individuality until Late Modernity. This fact explains the existence of important differences in both kinds of individual identities. I will refer to them as "dependent individuality" (for men) and "independent individuality" (for women), and I will try to explain their main structural features, points of fragility and contradiction. My aim is to reveal the patriarchal bias that also exists in studies about identity, as when "individuality" is addressed, it usually refers to the kind of "dependent individuality" developed by men.

Herndon, Richard (Cultural Resource Analysts, Inc.), Brian DelCastello (Cultural Resource Analysts, Inc.) and Jennifer Haney (Cultural Resource Analysts, Inc.)

[172] *Overview of Prehistoric Pottery: Early Woodland through Late Woodland*

Prehistoric ceramic material was recovered from 21 sites during CRA investigations. Components identified at these sites included Early Woodland Black Sand and Middle Woodland Havana-Hopewell and Late Woodland Weaver and South Branch. All ceramic analysis was recorded using a hybrid system that incorporated both typological and attribute-based techniques. This paper provides an overview of the results of the ceramic analysis that includes, among other things, the first large-scale excavations of well dated Havana-Hopewell and South Branch phase ceramic assemblages in northeastern Missouri. With the addition of Black Sand, these data will then be used to refine regional systematics.

Herndon, Richard [150] see *Bundy, Paul D.*

Herndon, Richard L. [172] see *Cooper, Randall*

Herold, Hajnalka (VIAS, University of Vienna, Austria)

[243] *Fortified Centres of the 9th-10th c. AD in Central Europe*
In Central Europe in the late phase of the Early Middle Ages, in the 9th – 10th centuries AD, the formation of archaeologically well detectable social differences can be observed. This is first of all marked by the appearance of fortified settlements. A similar social differentiation cannot archaeologically be shown for the 8th century in this region. In the presented paper the development, the structure and the possible function(s) of these settlements are discussed, based mainly on current research on the site of Gars-Thunau in Lower Austria.

Herr, Sarah (Desert Archaeology, Inc.) and David Wilcox (Museum of Northern Arizona)

[40] *Worth Reading: The Enduring Traditions of Southwestern Archaeology Journals*
In its 75th year, *Kiva: The Journal of Southwest Anthropology and History* purports to be the premier regional publication for Southwest archaeologists and ethnographers. This poster examines the historical trajectory of this product of a Tucson-based non-profit, the Arizona Archaeological and Historical Society. We look at authors, institutions, and the content of this journal, and compare it to the regional journals published by institutions such as the Museum of Northern Arizona, the Museum of New Mexico, the University of New Mexico and the Southwest Center to consider trends in the publication of Southwest anthropology today.

[40] *First Organizer*; [40] *First Chair*

Herrera, Anayensy [191] see *Solis, Felipe*

Herrmann, Edward

[29] *A Geoarchaeological Approach to Paleoindian and Early Archaic Period Settlement and Subsistence in South-Central Indiana*
This poster presents the preliminary results of an analysis of Paleoindian and Early Archaic site locations in six counties in central and south-central Indiana. The region is characterized by diverse physiographic zone with heavily dissected uplands and late Pleistocene drainages. Analysis of site taphonomy is often complicated by a high frequency of multicomponent sites found in eroded uplands. However, most reported sites in the study area are found along the two forks of the White River Valley, and this alluvial setting presents an intriguing landscape for chronologic controls and paleoenvironmental reconstruction.

Herrmann, Nicholas [22] see *Sherwood, Sarah C.*; [24] see *Yerka, Stephen J*

Hicks, Brent (Historical Research Associates) and Kevin Lyons (Kalispel Tribe of Indians)

[207] *Archaeological Testing Results and the Latest Prehistoric Period in the Lower Pend Oreille Valley, Northeastern Washington*
It is axiomatic that regional archaeology has certain consistencies and known and/or anticipated exceptions. For the Columbia Plateau region in latest prehistory, the material record of the Pend Oreille is one such exception. In an otherwise xeric region this watershed has consistently been mesic and lacked anadromous fish due to barriers. Given this, the Pend Oreille's history of human use and occupancy should differ from the balance of the region in archaeologically measurable ways. Recent archaeological investigations are presented that contribute to proxy datasets allowing construction of a more cogent statement about the human experience in the lower Pend Oreille valley.

Hicks, Pat [211] see *Slaughter, Mark C.*

Higelin, Ricardo (Zona Arqueologica de Monte Alban, INAH)

[103] *Que nos Dice la Muerte: los Restos Esqueléticos de Atzompa, Oaxaca*
Durante las tres temporadas de campo del Proyecto Arqueológico del Conjunto Monumental de Atzompa (2007 – 2009) se han exhumado

más de diez restos esqueléticos adultos e infantiles. A través de su análisis antropofísico y bajo su contexto arqueológico en este trabajo se mostrará parte de la calidad de vida que tuvieron estos habitantes durante el Clásico por medio de los estudios de salud y nutrición. Con estos resultados se podrá comparar con la población de la antigua ciudad de Monte Albán que habitó en el Clásico y así saber si hubo no diferenciación alimenticia entre ambas poblaciones.

[103] *Second Organizer*

Higgins, Jim [185] see *Goodale, Nathan B.*

Higgins, Sean [5] see *Rosenswig, Robert M.*

Higgs, Samantha (Australian National University)

[22] *Past and Present: Art of the Canning Stock Route*
The Canning Stock Route is a 1781km track through the deserts of Western Australia. Originally created for drovers it is now popular with off road drivers. Rock art adorning boulders and caves tell stories of the Dreamtime. A new Indigenous art movement tells the same stories through acrylic on canvas art produced for sale. How does this new art tradition relate to the old? By comparing the rock art with the contemporary art, using ethnography and formal archaeological methods to study the evolution in motif and story, a greater understanding of the rock art and its meaning may be reached.

Higueras, Alvaro (American University Rome)

[94] *Tiwanaku Times in the Valleys: Interaction and Dealings in Andean Prehistory*

In this paper I will attempt an ecological and political assessment of the Middle Horizon in Cochabamba in light of the research made in the last decade. Research in the valleys of Cochabamba is a complex affair. The mini-valleys that compose it differ much in its resources and attractions. Thus, in prehistory societies have settled differentially in each part producing hence a varied archaeological record. The models or hypothesis proposed seem to be fine tuned for those variations rather than fit a single form of prehistoric settlement, as is the case for the ramifications of Tiwanaku society in the region.

[94] *First Organizer*; [94] *First Chair*

Hil, J. Brett [192] see *Huntley, Deborah L.*

Hildebrand, Elisabeth (Stony Brook University), John Shea (Stony Brook University), Katherine Grillo (Washington University in St. Louis) and Veronica Waweru (University of Connecticut)

[53] *Social complexity among prehistoric African herders: Test excavations at four pillar sites in West Turkana, Kenya*

The prehistoric emergence of social complexity has been studied in numerous places throughout the world, but agrarian societies have received more attention than prehistoric hunter-gatherers and herders without domestic plants. Around Lake Turkana, "pillar sites" with megaliths and platforms, attributed to early herders, present an opportunity to examine social complexity prior to plant food production. 2008-2009 excavations in West Turkana enable comparison of dates, material culture, and depositional sequences among four pillar sites. We use this information to probe the social and economic contexts of their construction and use, suggest different possible functions, and propose strategies for future research.

[53] *First Chair*

Hildebrandt, William [154] see *Ruby, Allika*

Hildebrandt Iffert, Emily (Minnesota State University)

[105] *Archaeologists as Generators: The Secondary Context at the Bartron Site (21GD02)*

Archaeologists have periodically excavated at the Bartron Site, an Oneota village situated on the shores of the upper Mississippi River beginning in 1948. In 2008, archaeologists excavated both primary (Oneota, Late Woodland) and secondary (archaeologist-generated) contexts. A marked difference in the recovered and retained artifact

assemblages from 1968 and 2008 is demonstrated by preliminary artifact analysis of the secondary context. Viewed through a garbology perspective, these artifact recovery rate differences potentially illuminate the disjunctions between actual and reported on-site behaviors. This work places archaeological behavior in the context of formation processes, and has practical implications for site interpretations.

Hilditch, Jill (University of Toronto)

[101] *Deconstructing Minoanization: Ceramic Technology and Social Practice in the later Middle Bronze Age Cyclades*
 'Minoanization', or the perceived increase in Minoan influence outside Crete, is once again a popular theme within Aegean archaeology. However, rather than document static changes in material culture, recent studies have sought to understand the dynamics responsible for community engagement with, or rejection of, Cretan ways of 'doing things'. This paper examines the ceramic evidence from Akrotiri (Thera) and offers a better understanding of the choices this community was making in the lead up to 'Minoanization', so these material phenomena can be approached from a more localised, site-based perspective rather than a traditional Creto-centric viewpoint.

Hill, Christopher [259] see *Blackwell, Bonnie A. B.*

Hill, David [87] see *Bogges, Douglas H M*

Hill, David V. [161] see *Woods, Julie A.*

Hill, Mark (Ball State University), Diana Greenlee (Poverty Point Station Archaeology Program), and Hector Neff (California State University, Long Beach)

[251] *Sourcing Poverty Point Copper: Testing the Lake Superior Hypothesis using LA-ICPMS Analysis*
 It has long been assumed that copper in Archaic and Woodland contexts in eastern North America chiefly originates in the geological sources around Lake Superior. Recent research using LA-ICPMS techniques has now characterized the chemical composition of several of these Lake Superior sources as well as others in Appalachians and Canadian Maritimes. In this study, a sample of copper artifacts from the Poverty Point site was submitted for LA-ICPMS analysis and the results compared with the compositional profiles of these known sources. While additional source data is needed, these results provide important insight into the sources of Poverty Point copper.

Hill, Matthew (University of Iowa), Cerisa R. Reynolds (University of Iowa) and James M. Mayer (Southern Methodist University)

[234] *Reevaluation of the Site Formational History of the Finley Bison Bonebeds*

The Finley site in southwestern Wyoming consists of at least two Cody age bison bonebeds. Prior interpretations suggest the site consists of a large multi-animal bison kill and an associated carcass-processing locality. The current project involves a taphonomic analysis of the bison remains from both components at the site and a geoarchaeological investigation of site stratigraphy. This work is being undertaken in order to 1) improve our understanding of the natural and cultural formational histories of the deposits, 2) evaluate prior interpretations concerning site function and season of occupation, and 3) evaluate how the Finley site improves our understanding of regional Paleoindian chronostratigraphy and paleoenvironments.

Hill, Matthew (Iowa State University), David W. May (University of Northern Iowa) and Thomas J. Loebel (University of Illinois-Chicago)

[210] *The Carlisle Clovis Cache from Central Iowa*
 Most Clovis caches are from the Far West and Great Plains. The Carlisle cache, from along the Des Moines River in central Iowa, extends this interesting aspect of Clovis behavior to the eastern Plains. The character, composition, and location of the cache suggests it was established to supply a lithic-poor landscape with tool

preforms made from a high quality, nonlocal raw material that could be quickly converted into projectile points and unifacial tools. It offers new knowledge on Clovis mobility, land use, subsistence, and technology in the Midcontinent.

Hill, Sara [118] see *Yoder, David T.*

Hill, Jr., Matthew E. [234] see *Baine, Keelin E.*

Hilton, Michael (Black Hills National Forest)

[123] *Petrographic Thin Section Analysis of Plaster Floor Construction and Pyrotechnology from the Site of Ashkelon, Israel*
 This study utilizes thin-section petrography to examine a series of sediment samples containing undisturbed Late Bronze and Early Iron Age plaster floors. Soil micromorphology is an analytical technique well suited to illuminate a variety of architectural characteristics such as mineralogical composition, thermal alterations, and construction techniques. The disparate temporal contexts permit a comparative analysis of changes in pyrotechnological practices and fabrication methods over time. The data obtained from this study are compared and contrasted with a growing body of literature from similar studies in the Eastern Mediterranean region that shed light on the use of lime plaster in archaeological contexts.

Hirshman, Amy (West Virginia University)

[169] *Appraising the Data: Resolving Multiple Inquires into the Nature of the Tarascan Ceramic Pastes*

Initial visual and low-power binocular inspection of ceramic pastes from archaeological contexts in the Lake Pátzcuaro Basin, Michoacán, Mexico, indicated greater paste diversity than expected. Chemical compositional, petrographic, and refining analyses have separately evaluated this complexity, with somewhat differing results. This paper provides a synthesis of the current results and assesses the implications of paste composition on our understanding of the organization of ceramic production and distribution in the cultural tradition leading up to and including the Late Postclassic Tarascan state.

[169] *First Chair*

Hirst, K. Kris (Archaeology at About.com)

[180] *God's Truth and Public Archaeology: Would You Like Syrup with that Waffle?*

In communicating archaeology to the public, a universally held truth is that you should leave the waffle out, that waffle words like "suggest" and "possible" and "maybe" should be omitted from public resources describing science. The argument is perfectly valid in some media: it makes a far less complicated book if you can get off the fence. After more than a decade of presenting public archaeology on the Internet, and interacting directly with members of the public in numerous ways, I have come to the conclusion that the waffle is where it's at. Science has a card against creationists that we seldom play--that of creativity, possibilities and open-ended questions, and that, I believe, is an effective tool for stimulating both children and adults, and introducing archaeological concepts and the scientific method.

Hitchcock, Robert (Michigan State University)

[56] *From California to the Kalahari: Adaptive Variability and Environmental Management among Mobile and Sedentary Foragers*

Drawing on lessons from the work of Michael Glassow and his students on the archaeology and history of coastal and island foragers in the Santa Barbara region of California, this paper examines adaptations of mobile and sedentary San foragers in the Kalahari Desert of southern Africa. Like the Chumash, the San peoples of the have had to cope with local and regional environmental variability, sedentism, contacts with non-indigenous populations, and competition for resources. Archaeological, ethnohistoric, and ethnographic data indicate that San foragers employed a variety of environmental management strategies in the face of complex processes of ecological and socioeconomic change.

Hively, Ray [36] see *Horn, Robert L*

Hoak, Megan (University of Tennessee)

[247] *Analysis of the Lithic Materials from Late Prehistoric Through Pre-Clovis Strata at the Topper Site, Allendale County, South Carolina*

Analysis of the lithic materials from late prehistoric through pre-Clovis strata at the Topper Site, Allendale County, South Carolina was conducted to identify those attributes which distinguish culturally produced material, or artifacts, from those objects produced by natural processes. A comparison of materials found throughout the stratigraphic column is used to evaluate the stratigraphic integrity of the site, and specifically the extent of vertical movement or artifacts in the deposits. Dense Paleoindian through later Holocene age artifacts occur stratigraphically above a much sparser, presumed pre-Clovis artifact assemblage, mixed amid naturally produced lithic debris.

Hoard, Shanta (Illinois State University)

[125] *The First Black Church In The Midwest: The Wayman African Methodist Episcopal Church*

The Wayman African Methodist Episcopal (A.M.E.) Church is located in Bloomington, Illinois, and is believed to be the oldest African American church still in existence in Illinois. The church was excavated in the summer of 1992 by archaeologists of Illinois State University. The primary questions that I am going to address in this paper are the kind of activities that were carried out at the church; the average economic position of the congregation based on the materials they purchased as a group; and the roles the Wayman A.M.E. Church played in the African American community between 1850 and 1930.

Hockett, Bryan (Bureau of Land Management)

[16] *Nutritional Consequences of Middle Paleolithic Diets on Pregnant Neanderthal Women*

Across most of Europe Neanderthals evolved socially and physiologically to hunt large terrestrial vertebrates. This interpretation fits early Neanderthal populations throughout Europe, and many later populations as well. Traditional evolutionary ecology models, particularly those relying on cost-benefit analysis that track energy or calories as the prime driving force behind demographic success, would suggest that these Neanderthals should represent the pinnacle of human health and vigor. This paper models the nutritional and physiological consequences of this subsistence strategy, particularly on pregnant Neanderthal women, in order to shed light on why Neanderthals did not survive competition with in-coming populations of AMHS.

[224] see Goebel, Ted

Hocquenghem, Anne

[67] *El Spondylus princeps en el Extremo Norte del Perú a Partir del Período Intermedio Tardío*

Se presentaran los resultados de las investigaciones llevadas a cabo, desde unas dos décadas, en torno a las fuentes, modalidades de intercambio, técnicas de talla y usos de las conchas de *Spondylus princeps* a partir del inicio del Período Intermedio Tardío. Esto en base a evidencias arqueológicas provenientes de los sitios extremo norte del Perú, departamentos de Tumbes y Piura, así como a informaciones etnohistóricas contenidas en los documentos coloniales.

Hodell, David [153] see Brenner, Mark

Hoekman-Sites, Hanneke (Florida State University)

[55] *How did Animal Product Use Change through time on the Great Hungarian Plain during the Neolithic and Copper Age Periods?*

The answer to the title question will be explored by examining residues taken from 10 archaeological sites across the GHP. These sites date from the Early Neolithic (when domesticated animal use became visible regionally) to the Late Copper Age, a span of approximately 3000 years. This paper summarizes my dissertation work, showing how animal product use has changed through time, with a specific focus on dairy residues. I will examine dairy use as

part of the larger economic intensification pattern. I suggest that domestication and secondary product use (specifically dairy products) impacted how communities worked economically and socially.

[55] *First Organizer*; [4] *First Chair*

Hoffman, Amy (University of North Texas), Kristin Kuckelman (Crow Canyon Archaeological Center), Lisa Nagaoka (University of North Texas) and Steve Wolverton (University of North Texas)

[235] *Dietary Use of Animal Resources Prior to the Pueblo III Depopulation of the Mesa Verde Region*

In villages such as Sand Canyon Pueblo in the central Mesa Verde region, higher proportions of wild animal remains were deposited in abandonment versus non-abandonment contexts at the end of the Pueblo III period. Domestic resources, such as turkey, appear to have declined just before the region was depopulated. These data, along with other lines of evidence, suggest that dietary stress might have played an important role in regional depopulation. To determine whether such stress occurred in other settlements, we examine the faunal assemblage from Goodman Point Pueblo, which is similar in chronology, size, and location to Sand Canyon Pueblo.

Hoffman, Brian [79] see Funk, Caroline

Hoffman, Curtiss [38] see Crowley, Suanna Selby

Hofman, Corinne (Faculty of Archaeology) and Menno L.P. Hoogland (Leiden University)

[116] *Rituals for the Dead: Socializing with the Ancestors in the Precolonial Caribbean*

Burial assemblages from the Lesser Antilles yield unique data on complex and varied mortuary practices performed by Caribbean Amerindians between AD 1000 and 1492. Together, the burial assemblages from the sites of Lavoutte, St. Lucia, Anse à la Gourde, Guadeloupe and Kelbey's Ridge, Saba comprise more than 150 burials. Detailed taphonomical analysis of these assemblages in the field has led to distinguish different steps in the burial ritual and revealed particular mortuary practices reflecting the creation and expression of social identities of the buried populations. The physical remains can be considered as holding material agency emphasizing the role of the deceased community members amongst the living, congruent with themes in Caribbean mythology.

Hofman, Jack [259] see Mandel, Rolfe D.; [72] see Williams, Emily G.

Hofman, Jack L. [72] see Adair, Mary J.

Hofreiter, Michael [157] see Muenzel, Susanne C.

Hoil Gutierrez, Julio (Centro de Investigaciones y Estudios Superiores en)

[212] *Cenotes: Biocultural Patrimony of the Maya at the Crossroads between Abandonment and Tourist Sites*

The Cenotes of what is today the state of Yucatán have played an important role in the formation of settlements and as a source of water for ritual and quotidian purposes since pre-Hispanic times and through the colonial period. During the distribution of collectively-held land grants after the Mexican Revolution of 1910, cenotes played a crucial role in determining the foundation of new settlements. Taking a longer historical perspective on the social importance of cenotes, this paper will document some of the particular strategies that have been employed by Maya communities to preserve this element of their biocultural heritage.

Hoil Gutiérrez, Julio Cesar [212] see Lizama Aranda, Lilia Lucia

Hokanson, Jeffrey (e2M, Inc.)

[33] *Social Networking in Mimbres Society*

Jesse Walter Fewkes initially defined the Mimbres Cultural Area based on ceramics found near Deming, New Mexico. Subsequent researchers including Brody, Hauray, LaBlanc, and Hegmon have

presented their own culture area boundaries based on the distribution of ceramics, architectural styles and the environment. However, the utility of the "culture area" concept has not been seriously questioned. This paper presents relationship mapping as an alternative to the cultural area concept. In place of an enclosed culture area, relationship mapping produces a spider web of associations in which sites are linked and Mimbres society examined as a social network.

[33] *First Organizer*; [33] *First Chair*

Holdaway, Simon [119] see *Wandsnider, LuAnn*; [73] see *Douglass, Matthew J.*

Holeman, Abigail (University of Virginia)

[64] *The Parrots of Paquimé: A New Look at the Role of Aviculture in 13th Century Northern Mexico*

At Paquimé, a 13th century village in northern Chihuahua, Mexico, strong evidence exists for long distance exchange in and husbandry of macaws (*Ara militaris* and *Ara macao*). While interpretations of the ritual importance of these brightly-hued birds are undisputed, the archaeological evidence of their husbandry at Paquimé provides a unique opportunity to place these animals into a specific belief system. In this paper I demonstrate how these birds are closely tied with the symbolic system at Paquimé through a contextual analysis of the bird burials. This symbolic system is where difference and hierarchy are created and maintained, and thus key to understanding any form of prehistoric social organization.

Holen, Kathleen and Steven Holen (Denver Museum of Nature & Science)

[190] *Experimental Elephant Limb Bone Breakage as an Analogy for Mammoth Bone Breakage Patterns: Implications for the Early Peopling of North America*

Two separate experiments are reported in which elephant femurs were broken and flaked to replicate mammoth bone breakage patterns observed at several Last Glacial Maximum mammoth sites in the Central Great Plains. Video and still photography documents that adult elephant limb bone is difficult to break with hammer stones and that the use of an anvil facilitates the process. This research suggests that observed mammoth bone breakage patterns are indications of human technology, because no natural taphonomic process can break fresh cortical mammoth limb bone in these patterns. Mammoth sites with these breakage patterns are therefore diagnostic of human presence.

Holen, Steven [210] see *Muniz, Mark P.*; [190] see *Holen, Kathleen A.*; [259] see *Mandel, Rolfe D.*

Hollenback, Kacy (University of Arizona), Christopher Roos (University of South Florida) and Maria Nieves Zedeno (University of Arizona)

[198] *Climate Change, Applied Historical Ecology, and Traditional Ecological Knowledge: The Ethical Issues Surrounding Collaborative Research and Co-Management*

An important nexus exists between indigenous concerns, collaborative archaeology, and management issues connected to global climate change. Indigenous people are often disproportionately affected by climate change related environmental degradation and indigenous voices are necessary to appropriately conceptualize problems for research. The rich contributions of archaeologists to applied historical ecology are made richer by incorporating indigenous perspectives in the development of research and appropriate methodologies. Ethical issues arise, however, in the recording and presentation of often sensitive data related to traditional ecological knowledge and indigenous management strategies. We explore these issues using examples from the American Southwest and Northern Great Plains.

[198] *First Chair*

Hollenback, Kacy [7] see *Cutright-Smith, Elisabeth*

Hollenback, Kacy L. [228] see *Murray, Wendi F.*

Holliday, Vance (University of Arizona), David Meltzer (Southern Methodist University) and Todd Surovell (University of Wyoming)

[224] *Did a Younger Dryas Extraterrestrial Impact Affect Paleoindians (or Even Happen)?*

An extraterrestrial impact at the onset of the YD (~12.9ka) was hypothesized to explain the end of the Clovis occupation, as evidenced by the lack of post-Clovis-age components at Clovis sites. Yet most later Paleoindian localities also lack immediately succeeding occupations. Where multiple components do occur, stratigraphic hiatuses between them are due to geomorphic processes. Calibrated radiocarbon ages demonstrate continuous occupation across the span of the purported "YD event." A YD impact is an unnecessary 'solution' for an archaeological problem that does not exist. More problematic, purported physical and chemical impact signatures were not reproduced in independent tests.

Holliday, Vance [224] see *Meltzer, David J.*; [21] see *Sanchez Miranda, Guadalupe*

Holliday, Vance T [21] see *Ballenger, Jesse*; [235] see *Arroyo-Cabrales, Joaquin*

Hollinger, R. Eric

[171] *Conflict and Culture Change on the Plains: The Oneota Example*

The Oneota tradition was one of the most successful cultural patterns to emerge onto the Great Plains due in large part to war. After first appearing on the prairies and woodland borderlands of the Midwest the Oneota people and cultural practices spread rapidly by various means, including conquest, to dominate the region from central Kansas and Nebraska to central Indiana and from Canada to southern Missouri by AD 1300. Then by AD 1400, Oneota territories retracted to consolidated village complexes strategically positioned along the major rivers and lakes enabling complete control of trade and territory for the next 225 years. European contact dramatically altered the balance of power through the introduction of guns, new diseases, and new political alliances.

Holly, Donald (Eastern Illinois University), Christopher Wolff (Arctic Studies Center, Smithsonian Institution) and John Erwin (Provincial Archaeology Office, Government of Newfoundland and Labrador)

[60] *Interactions and Encounters with the Beothuk in Southeastern Newfoundland*

Some of the earliest encounters between Europeans and the Beothuk Indians took place in Southeastern Newfoundland. These early encounters, most famously documented by John Guy in the early seventeenth century, suggest that relations between the Beothuk and Europeans were initially amicable, and that the prospects for further trade were good. However, such relations soon soured, and the Beothuk eventually retreated from this area to points north and west. This paper examines this process as it is evident in the archaeological record of the region, and discusses preliminary results from our excavations at a late prehistoric/early Beothuk site in Trinity Bay.

Holmberg, Karen (Brown University)

[237] *A Heritage of Loss and Imagination*

In 1859, the discovery of thousands of graves containing gold artifacts prompted a gold rush in the Chiriquí Province of Panamá and excited a flurry of popular attention. Ceramics taken from the graves during the looting formed the basis of important museum collections throughout Europe and the US. Despite this clear material richness, however, the Chiriquí area was archaeologically interpreted to be materially poor through much 20th century academic literature. This paper addresses the shifting and conflicting values placed upon objects and landscapes by pre-Columbian peoples, looters, collectors, archaeologists, and a burgeoning ecotourism market.

Holmes, Charles [27] *see* Potter, Ben A.

Holstad, Emily (Washington State University) and John Jones (Washington State University)

[84] *Cooking With Limestone: Does it Enhance Maize Nutrition?*

It has long been known that processing maize with lime enhances the availability of nutrients such as lysine in human diets. Basketmaker II groups on Cedar Mesa were heavily dependent on maize, and did not have beans as a complementary protein source. Their habitation site middens typically have numerous chunks of limestone. It is hypothesized that in the absence of pottery, Basketmaker II groups used limestone in stone-boiling maize-based meals, and that this enhanced the nutritive value of the maize. This paper reports the results of experiments that investigate this hypothesis by stone-boiling maize with limestone versus other stone types as heating elements.

Holt, Julie (Southern Illinois University Edwardsville), Ashley Cisneros (Southern Illinois University Edwardsville), Jessica Robart (Southern Illinois University Edwardsville), Katie Leslie (Southern Illinois University Edwardsville) and Lori Belknap (Southern Illinois University Edwardsville)

[36] *SIUE Field School Investigations at the Gehring Site (11MS99) in the American Bottom*

Despite deep plowing and severe erosion, Middle Woodland features remain intact at the Gehring site. Existing models suggest the American Bottom was a "shatter zone" during this period, lying between the Havana and Crab Orchard traditions. Analysis of cherts and ceramics from Gehring shed light on Middle Woodland trade and migration patterns between these regions. Sediment analysis indicates that older components could exist deeply buried at the site.

[36] *First Chair*

Holt, Julie [162] *see* Lorenzini, Michele

Hoogland, Menno [97] *see* Laffoon, Jason E.; [116] *see* Hofman, Corinne

Hopkins, Maren (Northland Research, Inc.), Douglas Craig (Northland Research, Inc.)

[33] *Uncovering the Prehistory of Southeastern Arizona: A Comparative Look at Upper San Pedro Village*

As part of cultural resources mitigation efforts for the construction of a pedestrian fence along the U.S.-Mexico border, archaeological investigations were conducted by Northland Research at Upper San Pedro Village, a large prehistoric settlement in southeastern Arizona. Analysis of material remains from the site reveals a population that was both physically and culturally diverse. Indeed, the site appears to be located at the convergence of a number of Southwestern cultural traditions, including Hohokam, Dagoon, San Simon, Trincheras, Mogollon, and Mimbres. This paper provides a comparative framework for understanding prehistoric adaptive strategies in this poorly known part of the borderlands region.

Hoppa, Kristin (University of California, Santa Barbara) and Jennifer Perry (Pomona College)

[56] *Middle Holocene Variability on Santa Cruz Island: Implications for Coastal Foraging*

Decades of research conducted by Dr. Mike Glassow and his students have resulted in a growing body of data regarding the trans-Holocene occupation of Santa Cruz Island, the largest and most environmentally diverse of the California Channel Islands. In particular, evidence of Middle Holocene (6500-3500 BP) settlement and subsistence is widely dispersed, with significant variability between coastal and interior locales as well as the island's western and eastern coastlines. In this paper, I discuss examples of this patterning, how these data relate to Middle Holocene trends elsewhere on the Channel Islands, and general observations about coastal foraging.

Horlings, Rachel (Syracuse University)

[53] *A Great Conflagration on the Sea Discovered by Micro-Sampling and a Portable XRF*

Perhaps, as those who champion micro-histories and micro-sampling contend, we do miss a great deal of the "macro" when we overlook the "micro." Surface and excavation investigations of a shipwreck in Ghana gave no indication of what must have been an intense fire aboard the vessel, but evidence in the form of melted metals and other materials recovered in sediment cores (through micro-sampling) tell another story. Use of a portable XRF analyzer verified the elemental components of the burned artifacts, confirming the blaze. These techniques and theoretical frameworks have proven powerful tools and invaluable complements to maritime archaeological research.

Horn, Robert (Earlham College) and Ray Hively (Earlham College)

[36] *Hopewell Astronomy at Newark and Chillicothe*

Analysis of available evidence shows that the geometry of the Middle Woodland earthwork complex at Newark, Ohio, and its relation to features of the surrounding terrain can be understood in terms of horizon alignments to periodic 'standstills' of the Sun and Moon. The number and unprecedented accuracy of the Newark alignments together with Monte Carlo studies showing low likelihood of chance producing such results requires comparative study of other Hopewell geometric sites. Results at Newark are compared with recent findings at sites near Chillicothe, Ohio.

Horn, Robert [176] *see* Greber, N'omi B.

Horn, Sherman (Tulane University), Grant McCall (Tulane University), Jonathan Thomas (University of Iowa), Kurtis Kettler (University of Iowa) and Merritt Sanders (Tulane University)

[35] *An Analysis of the Middle Stone Age Artifacts from Erb Tanks, Namib Desert, Namibia*

This paper presents a preliminary analysis of the Middle Stone Age artifacts recovered from the site of Erb Tanks, located in the central Namib Desert, Namibia. Excavations of The Namib Archaeological Project in 2009 focused on the rockshelter of Erb Tanks, where materials of the Middle Stone Age (and other periods) were observed on the ground surface. The Middle Stone Age represents an important, yet understudied portion of the human past in this area of southwestern Africa, and it is hoped that this analysis will contribute to our understanding of human technological and social development in this important area.

Horn, Sherman [35] *see* Kettler, Kurtis H.; [35] *see* McCall, Grant S.

Horne, Stephen (Basin and Range Heritage Consultants)

[81] *Rethinking Lithic Technology of the Inland Chumash and their Antecedents*

Prehistoric archaeological sites in interior San Luis Obispo, Santa Barbara, and Ventura Counties often are comprised entirely or largely of flaked stone tools and debitage. Analysis of such sites has focused on their associations with the natural environment and with other sites or on morphological typologies of formed artifacts. A few analyses in the interior area conducted during the 1990's focused on lithic procurement systems and technological lithic analysis but the results have never been published. A re-analysis of debitage from sample of these sites focuses on reduction technology, site activities and technological change through time.

Horowitz, Rachel (Tulane University)

[120] *Bifacial Reduction and Curation Indices: A Comparison*

Seen from the standpoint of reduction, manufacture and retouch form parts of a continuum, yet in practice they are analyzed separately using different indices with diverse scales. As such, indices used to measure both reduction and curation have diverse scales and are sensitive to different parts of the reduction and curation continuums. In this study six measures of biface reduction and curation were applied to archaeological assemblages to determine their

effectiveness as measures of biface production and use. Of these measures, four are useful measures of biface reduction and curation, although each has its limitations.

Horsley, Timothy [155] *see Flad, Rowan K.*

Horton, Elizabeth (Washington University in St. Louis)

[222] *The Ties That Bind: Fabric Production and Fiber Use in the Ozark Plateau.*

This paper presents recent findings regarding fabric production and fiber use in the Ozark Plateau between 3000 BP and 500 BP. Fiber analysis of perishable artifacts from University of Arkansas Museum's Ozark Bluffshelter Collection yielded 300 samples identifiable to genus. In addition, 17 radiocarbon dates were obtained from a variety of fabric types. These data provide insight into both long-term utilization of fiber plants and shifts in fiber preference. This paper highlights the critical economic role of non-subsistence plant resources in the Southeastern United States, specifically the intensive and selective use of *Eryngium* sp. (Rattlesnake master) and *Arundinaria* sp. (Rivercane).

Hosoya, Leo (Research Institute for Humanity and Nature)

[151] *Processed Food in Neolithic: Experiments and Ethnography on Wild Food Plant Processing for reconstruction of Prehistoric Subsistence Strategies in East Asia*

By recent archaeobotanical research, it has been pointed out that wild food plants, such as nuts and fruits, took important parts of subsistence not only for hunter-gatherers but also for early farmers. Some of commonly excavated wild food plants from East Asian Neolithic sites require complex processing procedures for making them edible, and thus well-organized working systems for them must have existed. In this paper, experimental and ethnographic research on the processing procedures is presented to reconstruct the Japanese and Chinese Neolithic working systems with wild food plants and how they coped with newly-introduced crop farming routines.

[132] *Discussant*

Hostenske, Mary (University of Pittsburgh)

[258] *The Role of Storage and Food Preparation Structures in Elite Residential Contexts at El Cafetal, NW Honduras*

The elite residents of Los Naranjitos, a residential site associated with El Cafetal a Late Classic center in NW Honduras, employed two distinct U-shaped structures as storage facilities. This paper will examine the roles that these structures played in ritual and feasting events at the elite residential site. Comparisons will also be made to structures that may have served similar purposes at the El Cafetal, the main site.

Hotujec, Cynthia (University of Georgia)

[200] *Mineralogical and Compositional Analysis of Geologic Sources for Cultural Turquoise in New Mexico*

The inherent mineralogical variation in cultural turquoise has prevented its chemical characterization by bulk analytic methods. Trace elements will vary with mineral variability and therefore may differ widely within an individual source. An approach that identifies mineralogy and focuses chemical analysis on the most homogenous turquoise areas provides a unique set of information about the chemical composition of each geologic occurrence. This study compares samples from prehistoric turquoise mines in New Mexico to cultural turquoise artifacts using petrography, X-ray diffraction, and electron microprobe analysis to assess the ability of this approach for identifying the geologic source of cultural turquoise.

Houk, Brett (Texas Tech University) and Gregory Zaro (University of Maine)

[112] *Architectural Change and Stasis at an Ancient Maya Center: Evaluating Construction History at La Milpa, Belize*

Recent excavations at La Milpa, Belize targeted the fifth largest pyramid at the site, an enigmatic building previously characterized as being "abandoned unfinished." Although not previously investigated,

Structure 21 figured prominently in interpretations of La Milpa's architectural evolution and ninth century abandonment. Our 2008 excavations encountered an older, buried building beneath the final phase of construction, suggesting a much more complicated architectural history than previously believed. Ultimately, the results of Structure 21 excavations and a contextual consideration of our findings call into question our understanding of the evolution, completion, and abandonment of ancient constructions.

[112] *First Chair*

Hovers, Erella (The Hebrew University of Jerusalem), Anna Belfer-Cohen and Nigel Goring-Morris

[186] *Like Chaff in the Wind: Comments on Groundstone Tool Systematics*

The quantities of groundstone tools and installations (GST) increase markedly during the course of the Epipalaeolithic and Early Neolithic (PPN) in the Near East. The approach used to create classification systems for these items often resembles that applied to chipped stone tool typologies. Yet, the guidelines for GST classifications are more diverse than those applied within the framework of lithic studies. GST represent long-term investment in production and are heavily curated. Given ethnographic analogues to prehistoric items, definition of the latter pertains mostly to their assumed functions. Here we consider alternative frameworks for studying GST.

Howard, Jerry (UC Berkeley) [66] *Discussant*

Howe, Mark (Sequoia National Forest), Karen Miller (Sequoia National Forest) and Tim Kelly (Sequoia National Forest)

[59] *The Civilian Conservation Corps in California: Uncovering Our History*

The Civilian Conservation Corps in California was instrumental in helping construct infrastructure and buildings for many National Parks, National Forests and other public lands around California in the 1930's. The camps were instrumental in economic recovery from the Great Depression and, though not intended as such, helped prepare men for the demands of World War II. This paper will address the outcome of many of these projects, people involved, costs, camp life, oral history and some of those surviving structures constructed on the Sequoia National Forest by the original CCC in the 1930's.

Howell, Todd

[158] *Legitimizing Power at Hawikku*

At the ancestral Zuni settlement of Hawikku, the dead were buried in spatially-discrete cemeteries. Dental data have been used to show that each cemetery was used by a kin group, such as a clan. Village leaders, identified by a high diversity of grave goods, and special body or grave preparations, were produced by two of the kin groups. In this paper I examine the Hawikku burial data for evidence of mortuary ritual performances that might reflect kin groups' attempts to enhance and justify their ability to produce leaders through connections to the supernatural.

Howey, Meghan (University of New Hampshire) [225] *First Chair [225] Second Organizer*

Howey, Meghan [163] *see Frederick, Kathryn M.*

Hranicky, William

[247] *The Sandy Hill Adena Cache of Dorchester County, Maryland*

This illustrated paper is a report of the author's work to move the Sandy Hill Cache from a private collector to the Maryland Historic Trust. The cache was found in 1927 in Dorchester County, Maryland. It has 178 artifacts, many of which are outstanding examples of the Adena culture which include tube pipes, gorgets, copper, large bifaces, and a variety of miscellaneous items. Numerous artifacts have engraving. It is called by Dennis Stanford (Smithsonian) and the author – a "U.S. National Treasure."

Hruby, Zachary (Humboldt State University)

[221] *The Multivalent Symbolic Elements of the Production and Use*

of Obsidian Goods in Classic Maya Society

Obsidian, like most materials used by the Classic Maya, was used to convey multiple meanings in ritual settings. Since the social context of the production of these meanings is key, this paper will elucidate meanings that may have been core to Maya belief systems, at least in elite contexts. Associations with the setting sun, darkness, the underworld, lightening, and bloodletting will all be explored via an iconographic and technological analysis of obsidian goods from the Southern Lowlands with special reference to Central Mexico as an external influence on religious belief and the role of obsidian in Classic Maya religion.

Hu, Di (University of California, Berkeley)

[137] *A Study of Chincha Commerce through their Scale Weights*
The ancient Chincha of Peru (Late Intermediate Period) were renowned as merchants. They were one of the few Andean pre-Columbian peoples who probably had a market system as well as sea-faring traders who sometimes reached as far as Ecuador. However, other than a few studies on the value of metals of the Chincha, their system of weights and scales have not been studied. This project is a preliminary study of the excavated and curated pebbles, used as weights, that are housed in the Phoebe A. Hearst museum. Was there a standardized scale weight system or several?

Hu, Yaowu [214] see *Dong, Yu*

Huang, Jennifer [100] see *Simon, Arleyn*; [72] see *Lincoln, Thomas R.*

Hubbell, Zachariah (University of California, Santa Barbara), and Michele R. Buzon (Purdue University)

[122] *Humeral Asymmetry in the Tombos Sample: An Investigation of Work Activities*

Three-dimensional imaging was used to examine length, torsion, and retroversion asymmetry in paired humeri from the New Kingdom cemetery of Tombos (1400-1040 BC), located in northern Sudan. The Tombos cemetery site was used during the Egyptian occupation of Nubia and although originally thought to be a colony of Egyptian immigrants, has been shown using craniometrics and isotope analysis to be composed of both Nubians and Egyptians. Using these features of the humeri, the goal of this study is to provide information regarding the patterns of possible work activities of individuals as well as the function of this multi-ethnic community.

Huckell, Bruce (Maxwell Museum of Anthropology) and David Kilby (Eastern New Mexico University)

[210] *But How Do We Know It's Clovis? Perspectives from North Dakota on the Attribution of Caches*

In recent years a handful of new caches has been discovered and attributed to Clovis, and not always for obvious reasons. As the range of cache artifact variability expands, it is important to assess how caches can be assigned to Clovis, particularly in the absence of Clovis fluted points. This is also true in an age where skilled knappers can "replicate" Clovis artifacts and "package" them as caches. Based on our experience analyzing the Beach (North Dakota) and other caches, we offer suggestions for technological signatures on artifacts that should permit more objective assessment of how to attribute caches to Clovis.

Huckell, Bruce B. [210] *First Organizer*; [21] see *O'Brien, Matthew J.*

Huckleberry, Gary (Geoarchaeological Consultant)

[44] *Early Prehistoric Canals Identified along Rillito Creek and the Santa Cruz River, Tucson, Arizona*

The Pima County Plant Interconnect Project provided an unprecedented 8+ km stratigraphic slice of the Santa Cruz River floodplain resulting in the identification of three prehistoric canals. One canal originates on the Santa Cruz River and two on Rillito Creek. Based on a preliminary 14C date of 3470±40 14C yr BP (1890-1690 BC) on charcoal located within the fill of one of the Rillito

Creek canals, an aggressive dating program for defining the ages of the canals was conducted that combines 14C and optically stimulated luminescence methods. I will describe these canals and present the results of the chronological analysis.

[44] see *Lindeman, Michael W.*

Hudson, Paul [123] see *Woods, William*

Hull, Sharon (University of Manitoba), Joan Mathien (Maxwell Museum), and Mostafa Fayek (Maxwell Museum/University of Manitoba)

[123] *Fingerprinting Turquoise Deposits in the American Southwest*
To successfully identify provenance regions of turquoise artifacts, all known turquoise sources need to be geochemically fingerprinted. We developed a database containing the hydrogen and copper isotopic compositions for many of these regions. Overall our technique is robust. However, there is some overlap between some source signatures which are further separated by unique trace element concentrations. Turquoise artifacts are analyzed by our relatively non-destructive technique and their isotopic composition is compared with the database. This information can then be used to develop models of turquoise exchange and procurement and the artifacts returned to their original collections.

Hulse, Eva (University at Buffalo)

[117] *Jill of All Trades and Master of None?: The Challenges of Doing Soil Chemistry Analysis as an Archaeologist*

This paper examines applications of, and problems with, spatial analysis of soil chemistry data at archaeological sites dating to Finland's Neolithic. The practical issues of interpreting soil composition are unique to each site. To identify subtle patterns, I use multivariate statistical methods which do not have an explicitly spatial component to them. I identify spatial patterning using GIS layers. At the core of this research is a struggle between the need to acquire extremely specific, non-anthropological knowledge in order to understand a dataset, and the need to produce an anthropological narrative about the past.

[117] see *Zubrow, Ezra B.*

Humphries, Amy

[190] *When a Rock Pile Ceases to Be a Rock Pile: A Test of the 1985 Sullivan and Rozen Study Utilizing Experimentally Created Assemblages*

Sullivan and Rozen (1985) proposed a method for making a distinction between activities associated with core reduction and tool manufacture utilizing an "interpretation-free" system of debitage classification. Debate over the use of this method centered on whether or not it could be used to describe prehistoric human behavior and if experimental archaeology could be used to validate the findings. In this paper I present a test of the Sullivan and Rozen model utilizing data taken from experimentally produced assemblages and compare the findings with those of Sullivan and Rozen in order to determine whether or not their findings are replicable.

Hung, Ling-yu (Washington University) and Jianfeng Cui (Peking University)

[175] *Investigating Majiayao Painted Pottery Production with LA-ICP-AES*

Painted pottery vessels represent a dominant type of craft specialization among the Majiayao communities living in the upper Yellow River region, ca. 5,300–4,000 BP. However, with regard to the social and economic dimension of pottery production, we know almost nothing more than that Majiayao painted pottery was made by specialized craftspeople. A critical issue still left to us to investigate is how the increasing demand for vessel quantity was fulfilled in terms of production. Based on visual observation and chemical analysis, this paper provides new evidence to discuss changes in the production of Majiayao painted pottery in late Neolithic northwestern China.

[95] *Discussant*

Hung, Ling-yu [189] *see Liu, Haiwang*

Hunt, Terry (University of Hawai'i)

[206] *Late and Rapid Colonization of East Polynesia*

Archaeological and palaeoenvironmental field research in the far-flung islands of East Polynesia has confirmed a late chronology of colonization over a nearly simultaneous time-frame. The late and rapid settlement of East Polynesia denotes high population growth rates, great mobility, and opportunistic subsistence strategies. Shorter chronologies raise implications for direct and indirect ecological impacts, human competition, demographic transitions, and other evolutionary dynamics.

[206] *First Chair*

Hunt, Timothy (SASA) and Carl Lipo (California State University Long Beach)

[251] *Technological and Formal Analyses of Stone Plummets from Poverty Point, Louisiana*

Carefully shaped and polished plummets constructed of magnetite and hematite are commonly found artifacts of the late Archaic in Louisiana. While often assigned functions as weights for fishnets or as thrown objects used to catch waterfowl, little in the way of empirical evidence has been generated to explain their form and features relative to performance in prehistoric behavior. Here, we provide an analysis of the variability in shape and surface finishing of plummets as a means for studying the technology of their manufacture and performance constraints inherent to their use.

Huntley, Deborah (Center for Desert Archaeology), J. Brett Hill (Hendrix College), Jeffery Clark (Center for Desert Archaeology), Katherine Dungan (Center for Desert Archaeology) and Robert Jones (Center for Desert Archaeology)

[192] *If You Flake It, They Will Come: Obsidian Circulation and Postclassic Occupations in the Upper Gila Region*

Current research by the Center for Desert Archaeology focuses on late Postclassic community formation and dissolution in the Upper Gila region of New Mexico, including the Mimbres Valley. In this paper we examine regional demography and local settlement histories after AD 1130. We use data from our test excavations at several sites along Mule Creek, a well-known obsidian source, to track the scale and timing of Kayenta and Salado migrations and explore the size and cultural affiliation(s) of Postclassic occupations. We also employ a large obsidian source database to explore connections within and among Salado and contemporaneous groups.

Huntley, Deborah L. [113] *see Mills, Barbara J.; [200]* *see Trowbridge, Meaghan A.*

Hurcombe, Linda

[256] *Recognising and Valuing Skill in Perishable Material Culture*

Though our world is full of organic material culture, the skills of manufacture in prehistoric artefacts of these materials may not be apparent to a modern audience. This is partly due to biases in evaluating craft items and partly due to a lack of familiarity with the exploitation patterns and production techniques necessary to make the object. Ethnographic and experimental evidence will be used to elucidate some of the ways in which skill-level could be read and archaeological case studies will be used to show how cultural values can be realigned to factor in sophistication in perishable material culture items.

Hurley, Andrew [187] *see Baumann, Timothy E.*

Hurst, Stance (Museum of Texas Tech University) and Eileen Johnson (Museum of Texas Tech University)

[21] *Gearing up at Adair-Steadman: A Look at Folsom Stone Tool Production on the Southern Plains, U.S.A.*

Adair-Steadman was an important stopping point for Folsom hunter-gatherers to replenish their stone tool kit. From the local gravels along the Clear Fork of the Brazos River in Texas, Folsom flintknappers spent considerable time and effort in making projectile points, bifaces,

and unifaces attested by numerous failed preforms, bifaces, and debitage. Curtis Tunnell's analysis of lithic material from Adair-Steadman helped to discover the Folsom projectile point production sequence. Currently, Folsom manufacturing strategies for gearing up have been examined. The results presented provide an important glimpse into Folsom technological organization in relationship to Paleoindian landscape use on the Southern Plains.

Hurst, Winston

[160] *The Spider Woman's Matrix: Ancient Puebloan "Roads" in Utah as Integrative Monumental Features*

Constructed linear swales ["roads"] have been widely identified in association with ancient Puebloan sites on the Colorado Plateau, including the Utah portion of the northern San Juan region. Although the study of Utah's ancient roads is in its early stages, extant data are sufficient to suggest that the roads and associated features were important elements of an integrated cultural landscape of natural and monumentally constructed features. These man-made lines in the land physically linked places of importance to the local Pueblo communities, simultaneously expressing and reinforcing culturally important ties among communities and significant features of the natural landscape.

[84] *Discussant*; [160] *see Tilton, James C.*

Hurt, Brandy [165] *see Stone, Suzanne*

Huster, Angela (Arizona State University)

[13] *Changes in Cloth Production at Calixtlahuaca as a Result of Aztec Conquest*

Maguey and cotton spinning artifacts at the Postclassic Central Mexican site of Calixtlahuaca show distinctly different spatial and temporal patterning. Maguey fiber production occurred extensively across the site throughout its occupation. In contrast, evidence for the production of cotton cloth occurs only during the later portion of the site's occupation. I relate the appearance of cotton production technologies to the imposition of tribute demands after the site's conquest by the Triple Alliance.

Hutchinson, Robert (University at Albany, SUNY)

[20] *The Sociopolitical Structure of Mayapán: An Analysis of the City's Burial Patterns*

During the Late Postclassic Period Mayapán was the preeminent economic and political power within northern Yucatán, Mexico. Ethnohistoric sources indicate that this city was governed by a coalition of lineages that unequally shared power (a *multepal*), and that these kin-based identity groups maintained a presence within Mayapán's wall. Alternately, scholars have proposed a more centralized governmental structure supported by a politically unifying elite cult that crosscut corporate group membership. By comparative analyses of burial patterns within and without Mayapán's Ceremonial Center this paper addresses each of these models. These analyses suggest that a segmentary sociopolitical structure is indicated.

Hutira, Johna (Northland Research, Inc)

[50] *Monica and Bill! Ross and Rachel! OJ and Nicole! Daniel Jackson and Lara Croft? What the 90s Knew About Archaeologists Gen Y, the Clinton years, and ethnic cleansing. The decade of the 90s was a roller coaster of emotion. How did world and national events affect the portrayal of archaeologists in the media. This presentation explores the various incarnations of our favorite profession.*

[86] *see Craig, Douglas B.; [180] Discussant*

Hutson, Jarod

[129] *Hunting or Scavenging at Open-Air Sites during the Middle Stone Age in Southern Africa?*

A reevaluation of the open-air faunal accumulation at Kalkbank (Limpopo Province, South Africa) reveals that carnivores, not humans, were the primary agent of accumulation. Although the Kalkbank site offers little value for interpreting hunting behavior during the MSA, other open-air MSA sites in southern Africa reveal a similar

pattern of carnivore activity and scant evidence for systematic hunting interpreted from coastal cave sites. Possible explanations for this inconsistency involve poor preservation, lack of open-air surveys, or actual behavioral differences reflected in subsistence practices of those populations living within the interior and along the coast of southern Africa during the MSA.

Hutson, Scott and Miguel Covarrubias (Proyecto Ah Kin Chel)

[109] *Causeways in Context: Settlement Dynamics of the Uci-Cansahcab Sacbe, Yucatan*

Northern Yucatan contains several intersite causeway systems. These causeways—also called sacbes—represent close relations among the sites they connect. However, systematic surveys along the lengths of these sacbes are rare. An 18 km long causeway connects the sites of Uci and Cansahcab. The Uci-Cansahcab Sacbe Archaeology Project has mapped Uci, surveyed an 8 km by 0.5 km transect following the causeway, and documented newly discovered archaeological sites not connected by the causeway. These data help understand the political, social, economic, and ritual transformations that both resulted in and resulted from the construction of the causeway.

[109] *First Chair*

Hutson, Scott [178] see *Magnoni, Aline*

Hutt, Sherry (National Park Service) [86] *Discussant*

Hyland, David (Mercyhurst College)

[190] *What Is Cordage? Terminological Obscurity in the Field of Fiber Artifact Studies*

Although as archaeologists we tacitly acknowledge that every classification system carries with it a theoretical stance, we rarely, if ever, question the terms we use to describe and label our finds, which inform our classification methods. We do not wonder whether the terms we use are imbued with theory or even mean something we do not intend them to mean. Within the realm of perishables studies cordage analyses reveal consistent conceptual problems. In an example drawn from the nautical arts, a close re-reading of the concept of cordage informed by an analysis of myth reveals hidden levels of cultural meaning.

[190] *First Chair*

Hylkema, Mark [81] see *McKenzie, Dustin K.*

Iannone, Gyles (Trent University) and Jaime Awe (Institute of Archaeology, Belize)

[153] *Socio-Environmental Dynamics in the Southern Maya Lowlands: A Case Study from the North Vaca Plateau, Belize*

In recent years, a variety of data sets have emerged which, for the first time, allow for a multi-faceted perspective on the development and denouement of ancient Maya communities in the North Vaca Plateau of west central Belize. These include archaeological data from twelve years of detailed research in association with the Minanha epicentral court complex, surrounding settlement zones, and associated terrace system, environmental and climatic proxies from the Macal Chasm and Reflection Caves, and an analysis of changing ritual practices at Chechem Ha Cave. This paper synthesizes the preliminary results of this transdisciplinary research.

Iannone, Gyles [54] see *Longstaffe, Matthew S.*; [54] see *Powis, Terry G.*

Ibarra, Eugenia (Eugenia Ibarra Universidad de Costa Rica)

[191] *An Ethnohistorical Interpretation of the Mesoamerican Impact on the Rio San Juan and Western Central Valley of Costa Rica Surroundings in the 16th Century*

History and archaeology have focused mainly on the Mesoamerican presence in Pacific Central America. This is understandable when the ethnohistorical sources and the archaeological records offer more and clearer descriptions of that area. However, recent research on warfare and prisoner capturing in Lower Central America undertaken

by the author posits new interpretations on the expanding activities of the Mesoamerican descendent people in the 16th century.

Ikehara, Hugo (University of Pittsburgh)

[114] *Intrusiveness and Constructed Landscapes in the Andean Formative: A Case Study from Nepeña*

This paper examines the plurality of intrusiveness and its archaeological significance as viewed through Formative Period sites located in the Nepeña Valley, north-central coast of Peru. I explore patterns of abandonment, reuse, and intrusion at monumental centers focusing on their place within local landscapes. Different types of sites, originally built and occupied during the first millennium BC, appear to have been imbued with a multitude of meanings which played an active role in guiding local practices of intrusiveness. I attempt to identify and define the material signatures of intrusiveness in order to gain a dynamic understanding of the complexity of constructed landscapes in the Andes.

[138] see *Chicoine, David*

Illingworth, Jeff (Mercyhurst Archaeological Institute), C. Andrew Hemmings and James Adovasio (Mercyhurst Archaeological Institute)

[90] *Geoarchaeological Explorations on the Inner-Continental Shelf of the Florida Gulf of Mexico*

Geoarchaeological exploration of the inner-continental shelf in the northeastern Gulf of Mexico has documented two lengthy paleo river systems and identified numerous infilled karst features. The research has specifically delineated the relict Suwannee River channel in nine separate areas extending 150 km into the Gulf of Mexico southeast of the Florida Middle Grounds. During the 2009 field season, scuba divers working adjacent to the channel recovered bedrock limestone samples from several locations, three of which contained desilicifying chert and thus would have attracted prehistoric human use. The results of current analyses are detailed and plans for future exploration are articulated.

Inanez, Javier (Smithsonian Institution), Jeremy Bellucci (University of Maryland), Richard Ash (University of Maryland), Robert J. Speakman (Smithsonian Institution)

[161] *Pb Isotope Characterization of Majolica Pottery from Spain and the Americas*

Majolica is a glazed ware largely found in many American archaeological sites related to the Spanish colonial period. Majolica glazing technology required of high concentrations of lead and silica in order to achieve its characteristic glaze coating, along with SnO₂ for opacification. This study focuses on the characterization of the different Pb isotope ratios from lead glazed majolica from different established production centers from Spain, Mexico, Panama, and Guatemala. Discrimination between productions according to the lead fingerprint of their glazes, and the use of Pb isotope characterization for revealing ambiguous provenances, are discussed.

[161] *First Organizer*; [123] *Second Organizer*

Ingram, Scott (Arizona State University)

[100] *Regional Influences on Central Arizona Population Dynamics*
Settlement on Perry Mesa is investigated in the context of regional-scale demographic, climatic, and environmental conditions in the late 13th and early 14th centuries. Results establish the attractiveness of Perry Mesa and central Arizona for people leaving the northern Southwest in the late 1200s, identify conditions that encouraged and sustained population growth throughout the region, and propose a basis for the formation of settlement clusters and unoccupied zones that does not engage rising hostilities. Results strongly suggest that the settlement patterns of Perry Mesa and central Arizona were part of much larger phenomena than currently conceptualized.

Innes, Phillip J. [55] see *Malainey, Mary*

Inomata, Takeshi (University of Arizona)

[110] *Burned structures at the Classic Maya sites of Aquateca and Ceibal, Guatemala*

Excavations at Aguateca and Ceibal revealed evidence of burning at the time of abandonment. At Aguateca, elite structures were burned along with numerous objects left behind at the end of the Late Classic period. At Ceibal, the royal palace of the Terminal Classic period was emptied and then burned. Excavations results from these sites provide important information on the Maya practice of burning and its relation to political change and abandonment.

Iovita, Radu (Roman-Germanic Museum Mainz, Germany) and Shannon McPherron (Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany)

[58] *The Handaxe Reloaded: A Morphometric Reassessment of Acheulian and Middle Paleolithic Handaxes*

Handaxes have always been considered one of the most important index fossils of the Paleolithic. First associated with the Acheulian, they were subsequently found in Middle Paleolithic contexts, leading to speculations of filiation or convergence. In this paper, we explore the relationship between Acheulian and Mousterian handaxes by first examining their historical research context and then tackling the differences from a morphometric point of view. We demonstrate that there is a discontinuity in the presence of handaxes from the LP to the late MP, and that the two kinds of handaxes are subject to different treatments during use and discard.

Isbell, William (SUNY – Binghamton) and Hartmut Tschauert (Binghamton University)

[145] *Conchopata: Domestic and Political Economy in the Huari Heartland*

Analysis of the spatial distribution of artifact classes from architectural spaces at Conchopata reveals important new insights into domestic and political economies at this small Huari heartland city.

Understanding Middle Horizon interactions based solely on evidence from peripheries will always be incomplete, requiring balance from core perspectives. At this time, Conchopata provides the best available heartland data for a more inclusive view. Our analyses draw on a relational spatial database of the Conchopata Archaeological Project that will soon be available on line.

Iseminger, Bill (Cahokia Mounds) and Mary Vermilion (St. Louis University)

[140] *Pursuing Cahokia's Central Palisade*

Since the mid-1960s, a number of institutions and organizations have revealed various segments of the Palisade around the eastern, southern and western portions of central Cahokia. Recent projects have extended our knowledge of one of the walls forming a north wall heading behind Monks Mound, and probably the fourth of four constructions of the wall. The Palisade is a reflection of other socio-political changes characterizing the Moorehead Moment at Cahokia.

Ishihara, Reiko (Dumbarton Oaks) and Pakal Balam (Museo Kumatzim Jay)

[212] *From Relic to Artifact to Educational Tool: Developing Educational Modules and Building a Local Museum in Tecpan, Chimaltenango, Guatemala*

In public primary education in Guatemala, although multicultural education is highlighted in the newly developed curriculum in line with the Peace Accords, the current status of formalized teaching of local history and cultural identity issues in the classrooms remains minimal. The objectives of the Kumatzim Jay project in Tecpan, Guatemala, consist of building an interactive museum and educational center along with developing educational modules that help make local history and culture relevant to students. To date, the first phase has been implemented, which include artifact analysis and documentation as well as initial development of the modules.

Ishihara, Reiko [196] Second Organizer; [212] First Organizer

Iwaniszewski, Stanislaw (National School of Anthropology and History, Mexico)

[242] *Where the Rain is Mobilized: Mountain Sanctuaries from Central Mexico*

Among the Aztecs, the mountain cult was closely connected to the cult of meteorological phenomena, water and the earth, and both the ritual tools and the entities and events perceived in the sky or in the surrounding landscape were regarded as objects of agency and carriers of tonalli. The ritual places themselves were charged with agency, because their design was made to provide an appropriate scheme for making these ceremonies effective. This, in turn, required the detailed knowledge of the physical world, interpreted in terms of relationships between gods, destinies and ritual acts. The paper discusses the symbolic as well spatial relationship between the sites and the landscape, and gives a special attention to the visibility and inter-relationship between the ritual sites and specific landforms.

[242] First Chair [242] Second Organizer

Izuho, Masami [177] see Nakazawa, Yuichi

Jackson, Edwin (U Southern Mississippi)

[64] *Animals as Symbols, Animals as Resources: Relating the Faunal Record to Ritual and Hegemony in the Mississippian World*

In the Mississippian world, the political economy fueled intensive ceremonial efforts such as mound-building, supported ritual and provided elite with items rarely afforded low status people. Meat and other animal products were a part of the flow of commodities that supported the elite and their activities. Zooarchaeological studies of Mississippian assemblages from sites in the Mid-South demonstrate that no single animal resource distinguishes elite from non-elite diets or meals. Rather, unique combinations of resources and rare items, often imbued with inferred symbolic significance, offer clues as to how animal resources articulated with the complex social setting of Mississippian culture.

Jackson, Sarah (University of Cincinnati) and Lindsay Argo (University of Cincinnati)

[54] *Second Thoughts about Secondary Centers: A Classic Maya Case Study from Say Kah, Belize*

Investigations in Group B of the Classic Maya site of Say Kah, Belize, a small center near La Milpa, raise questions about our understanding of regional site hierarchies and the interrelationships between neighboring residential groups of varying complexity. An ostensibly secondary center, Say Kah displays architectural, ceramic, and mortuary trappings of substantial elite resources, suggesting a need to examine assumptions about status and influence based on settlement hierarchies. The ceramic record provides a useful way to compare sites in the region and assess the meaning of variability in ceramic assemblages in relationship to site function and identity of its occupants.

Jacobson, Lou (Bureau of Land Management)

[75] *Protecting Cultural Landscapes and Managing Multiple Use*

Canyons of the Ancients is a component in the Bureau of Land Management's National Landscape Conservation System, emphasizing the protection of cultural and natural landscapes rather than fragmented ecosystems and individual cultural resource sites. In addition, the Monument was established with the intent of continuing multiple use. Management requires balancing conflicts between valid existing rights for fluid mineral development, protecting a landscape with over 100 sites per square mile, and honoring Native American Tribal affiliation with Monument cultural and natural resources. This presentation will review conflicting management mandates and the process for resolution of these conflicts.

Jacobson, Michael (Public Archaeology Facility Binghamton University)

[167] *The Conflicts of Place: The Application of Military Terrain Analysis on the Landscapes of the Colorado Coalfield War*

The Colorado Coalfield War has been defined as a conflict over labor relations and community in Colorado's coal camps. Such research is helpful in understanding the enduring tensions inherent in class relations. However, this conflict was more than just a strike. Participants identified it as a war and its climax as a massacre. This paper builds on previous landscape analysis of the Ludlow strikers'