ABSTRACTS OF INDIVIDUAL PRESENTATIONS

Abbott, David (Arizona State University) and Christopher Watkins (Arizona State University)
[270] The Advantages of Dual Petrographic and Electron Microprobe Analyses in Ceramic Provenance Studies
A combination of bulk chemical assays and petrographic analyses of the pottery’s temper has proven to be an effective research strategy for ceramic provenance investigations. Typically, the petrography plays a supporting role for understanding the bulk chemical data. In contrast, when chemical assays of the clay fraction with an electron microprobe are used to test the source sensitivity of the tempering materials, petrography can take the leading role for an accurate, precise, and particularly cost-effective strategy for provenance studies. To demonstrate, we present a cases study focused on the exchange of plain ware pots in central Arizona.

Abell, Natalie [155] see Gorogianni, Eugenia

Aben, Kathrina [69] see Montez, Karina

Abraham, Sarah (University of California, Santa Barbara)
While conversion was central to Spanish colonial rule in Peru, initial missionary work often resulted in a complex religious reality where Christianity was added to but did not necessarily replace local beliefs. This fusion can be seen at La Quinta, an early colonial chapel at Pucará, Peru. Built on top of the Pukara ruins, La Quinta features a mix of European and Andean architectural traditions. Examining the use and reuse of the built environment, this paper demonstrates how architecture can help identify past ritual behavior and discusses how hybrid architectural styles may be indicative of novel forms of worship.

Abrams, Elliot [102] see Freter-Abrams, AnnCorinne

Acabado, Stephen (University of Guam)
[182] The Ifugao landscape: complementary agriculture and the intensification debate
Cultural landscapes often provide information on human-environment relationship. This ethnographic and archeological analysis of the Ifugao landscape (northern Philippines) contributes to the increasing body of research that provides evidence for the disjunctive relationship between swiddening and intensive cultivation in Southeast Asia. Landscape information obtained from the Ifugao of the northern Philippines provides further indication on the complementary relationship between the two systems, rather than an evolutionary one.

Acosta Alejandro, Manuel [58] see Gallegos Gomora, Miriam Judith

Adair, Mary (University of Kansas) and Gina Powell
[223] Steed-Kisker Archaeobotany: New Data, Old Data, and their Regional Context
Archaeobotanical assemblages from Steed-Kisker sites are limited when compared to other Central Plains tradition occupations. Systematically recovered data from recently investigated Steed-Kisker sites in northwest Missouri and northeast Kansas provide updated information on the importance and selection of crop plants, wild plants, and wood resources. When combined with curated materials gathered over the past 40 years, these data provide a more comprehensive view of the plant use by Steed-Kisker populations. In this paper, the authors gather together the old and new data, compare the datasets among the Central Plains tradition sites, and indicate where future research would be fruitful.

[223] First Chair

Adams, Brian (University of Illinois Urbana-Champaign)
While much about the subsistence and settlement systems of Upper Palaeanthic hunter-gatherers has been reconstructed on the basis of faunal, lithic and location data, the belief systems of such groups remain elusive. Cave paintings are the most common source of insight into Palaeanthic belief systems. Portable art objects are more commonly used for insights into social interactions during the Palaeanthic. In this paper, the occurrence of non-human scapula bones in Upper Palaeanthic sites as ritual objects is investigated.

Adams, Dean [96] see Otárola-Castillo, Erik

Adams, E. (University of Arizona), Richard Lange (University of Arizona), Vincent LaMotta (University of Illinois, Chicago) and Elisabeth Cutright-Smith (University of Arizona)
[171] Survey and Excavations by the University of Arizona Fieldschool at Rock Art Ranch
The University of Arizona Fieldschool at Rock Art Ranch (RAR) concluded its initial field season in 2011. Fifteen new sites were recorded in a 1200-acre survey area and, in collaboration with researchers from the University of Illinois, Chicago, excavations were conducted at two small, ca. 1200 CE pueblos. RAR was selected as a new field station due to its location on the boundary between Pueblo, Sinagua and Mogollon cultural traditions and the presence of a major petroglyph site adjacent to the survey area. The surveyed sites match the petroglyphs in age ranging from Middle Archaic to Pueblo III.

[274] Discussant

Adams, Jacob [248] see Adams, Jesse W.

Adams, Jesse (SWCA) and Jacob Adams (Washington State University)
[248] Middle Archaic Lithic Technological Organization in the Little Boulder Basin
Lithic debitage assemblages from excavated sites in North Central Nevada show a reliance on locally available Tosawih chert. Previously excavated sites and extensive site recordation in the Little Boulder Basin
(LBB) have resulted in an archaeology largely biased toward the Late Prehistoric period and Eagle Rock phase. Here we present results from the analysis of lithic assemblages and their implications on lithic technological organization and land use patterns of Middle Archaic hunter-gatherers.

Adams, Karen [35] see Rainey, Katharine D.

Adler, Michael (Southern Methodist University) [249] Ancestral Pueblo Settlement Landscapes Along the Lower Rio Puerco, New Mexico, A.D. 1250-1450

This presentation reviews the place of Hummingbird Pueblo (LA 578) in the settlement and subsequent dispersal of ancestral Pueblo peoples along the lower Rio Puerco drainage during the 13th-15th centuries. Hummingbird and Pottery Mound Pueblos may have served as “beachhead” settlements formed by migrants populating an otherwise underutilized stretch of the Rio Puerco during this time. Questions of where these populations originated, as well as where they may have eventually moved to, are addressed.

[249] First Chair

Adovasio, J. M. [79] see Illingworth, Jeff

Adovasio, James (Mercyhurst Archaeological Institute) and Olga Soffer (Professor Emeritus, University of Illinois) [202] The Appearance of Plant Fiber Artifacts: An Upper Paleolithic Event Horizon

Recent research has conclusively demonstrated that diverse plant-fiber-derived technologies are present in various parts of the Old World by no later than 25,000–27,000 BP. Moreover, these technologies (including basketry, cordage, and textiles) are sufficiently complex and sophisticated that they cannot be considered to be primary essays in their respective crafts. The appearance of this interrelated suite of nondurable technologies is a significant event horizon that marks the beginning of the Upper Paleolithic; it also provides a graphic signal of that definitionally elusive phenomenon called “behavioral modernity.”

Adriano-Morán, Carmen Cristina [62] see McClung De Tapia, Emily S.

Aevarsson, Uggi [263] see Woollett, Jim M.

Agarwal, Sabrina (UC Berkeley) [105] Thinking Outside of the Biological Female in the Box

Traces of health and disease on the skeleton are first viewed within the lens of biological sex, casting observations to reside within normative interpretations of identity. For example, the frequent observation of bone loss (or osteoporosis) in the bioarchaeological record is typically regarded as the inevitable outcome of the female skeleton bound by reproductive hormones. Drawing on empirical studies of bone maintenance in the bioarchaeological record I have conducted using a life course perspective, I demonstrate how patterns of bone loss are not only directed by reproductive biology but uniquely crafted by individual and population-specific gender-related choice and roles.

Agenbroad, Larry (Mammoth Site of Hot Springs, SD) [55] Discussant

Agolli, Esmeralda (Cotsen Institute of Archaeology UCLA) [119] Pottery from the Tumulus of Kamenicë Southeast Albania Toward a Conceptual and Functional Classification System

This paper takes a theoretical and methodological focus on the material classification using as a case study the pottery of Kamenicë tumulus. Two are the basic issues: first an evaluation of the current system of classification in the Albanian studies heavily inspired by the static notion of culture broadly applying subconsciously the type-variety-system, and second the introduction of an innovative agenda which designs a conceptual synchronic and diachronic system of classification reflecting the mental and physical choices of the maker. Such system explores qualitatively and quantitatively the degree of material homogeneity for each significant group. The paper concludes a functional classification scheme which depending on the scientific query is open for multiple considerations.

Agostini, Mark (University of Vermont) and Scott Van Keuren (University of Vermont) [216] Cibola White Ware Pigment Recipes in the Late Pre-Hispanic Period Southwest

This poster presents preliminary the results of a chemical characterization analysis of pigment and slips on Cibola White Ware sherds (AD 1050 – 1325) from sites in east-central Arizona. Time of flight-laser ablation-inductively coupled plasma-mass spectrometry (TOF-LA-ICP-MS) analysis is used to first establish viability for measuring chemical compositions of pigments and slips, and second to infer specific “recipes” used by ancient potters. These analyses contribute to our understanding of long-term changes in the social organization of white ware production in the Western Pueblo region.

Aguilar, Woody [25] see Preucel, Robert W.

Aguilar Bonilla, Mónica (Professor), Silvia Salgado (Universidad de Costa Rica) and John Hoopes (University of Kansas) [122] Cambio Sociocultural en un asentamiento del Caribe costarricense

El sitio arqueológico Nuevo Corinto es uno de los más extensos y arquitectónicamente complejos del Caribe Central costarricense. Investigación desde 2007 a la fecha muestra que fue habilitado desde el 1500 a.n.e. hasta el siglo XVI. A partir del 700 n.e. se dieron manifestaciones arquitectónicas típicas de centros regionales. Discutimos los datos obtenidos en prospección, mapeo topográfico y excavación, que indican cambios importantes en diversos aspectos de la vida social de sus habitantes y del medio en el que desarrollaron durante un lapso prolongado de tiempo que se extiende al menos desde el 1500 a.n.e hasta el siglo XVI aproximadamente.

Aguilar Díaz, Miguel (Universidad de los Andes) [166] Ancient traditions and the use of feasts to legitimize elite status at a kancha residential structure of the Peruvian Cordillera Blanca

I present the case of Keushu, a site located at the central
Andes of Peru during AD 600 to 1100, for a discussion about status, the use of the social memory, and the appropriation of the social space through food-use patterns. A combination of feasting, beverage consumption, and ritual ceremonies in pachamancas associated with kancha structures were used as a way to legitimize elite privilege and reinforce sacred elements of the landscape through reference to the Huascaran Mountain and the Keushu lagoon, which according to local oral histories and ethnohistorical writings were sacred places of mythical origins.


[110] Contrasting Occupations along the Kootenai River in Northwestern Montana: An Examination of Site 24LN2210

Recent archaeological investigations at 24LN2210 in northwestern Montana revealed a multiple occupation site near the Kootenai River. Site 24LN2210 is situated on a recent alluvial terrace and includes three occupations dating from 320-5150 B.P. The faunal and lithic assemblage is indicative of a resource processing campsite. Among the interesting finds at 24LN2210 is a possible pithouse that appears to have been used during the site’s second occupation period. Interpretation of the site was aided by the collaboration of archaeologists from Historical Research Associates, Inc., Bonneville Power Administration, Kootenai National Forest, and Tribal members of the Confederated Salish and Kootenai Tribes.

Aimers, Jim (SUNY Geneseo)

[61] X-Ray Fluorescence Analysis of Postclassic Pottery From the sites of Tipu and San Pedro, Belize.

In May of 2011 I began an X-Ray Fluorescence (XRF) analysis of red-slipped pottery from the sites of Tipu and San Pedro in Belize. In this paper I will report on the results of this analysis, which focused mainly on Red Payil Group pottery of the Postclassic period. The research goals, analytical processes, and statistical treatment of the results will be described, with emphasis on the strengths and weaknesses of XRF for the identification of production groupings and trade patterns. Future directions for this research will also be described.

Aimers, Jim [61] see Simmons, Scott E.

Aliuvalasit, Michael (Southern Methodist University), Tim E. Riley (Texas A&M University), Joseph Schuldenrein (Geoarchaeology Research Associates) and James C. Pritchard (Brockington and Associates)

[37] Geoarchaeological and Palynological Evidence of Late Mississippian (Nodena Phase) Landscape Alteration along the Wapanocca Bayou, Arkansas, USA

Geoarchaeological investigations of an infilling oxbow were undertaken in the Central Mississippi Valley, Arkansas. Wapanocca Bayou is near levees that supported Late Mississippian (Nodena Phase) sites. Three 10+ m cores probed the oxbow and flanking slopes. Our sampling program included palynology, radiocarbon assays, and detailed sedimentology. Objectives targeted Late Pleistocene to Holocene paleo-environmental reconstructions and an assessment of prehistoric anthropogenic impacts. A landscape evolution model documents broad drainage changes over 30,000 years, Early to Middle Holocene erosion, and oxbow formation by 2150 B.P. Significant, late Mississippian shifts in local vegetation may be attributable to agricultural intensification.

Akins, Nancy (Office of Archaeological Studies, Museum of NM)

[116] Developmental and Coalition Period Mortuary Practices in the Northern Rio Grande

Much of the published data on Northern Rio Grande mortuary practices consists of summaries without regards to the age or sex distribution or their placement within the site. Recent Office of Archaeological Studies excavations at sites in the Peña Blanca area and the Tewa and Galisteo Basins of Northern New Mexico have recovered small to significant numbers of human burials. These, combined with smaller samples from the same areas, provide a basis for comparing Northern Rio Grande mortuary practices with those from throughout the Southwest.

[72] Discussant [72] Third Organizer

Akoshima, Kaoru (Tohoku University)

[89] From microblade to arrowhead: function and technological organization through the end of the Palaeolithic in Northeastern Japan

The paper examines functional evidence from Late Palaeolithic to Incipient Jomon industries in Northeastern Japan in terms of technological organizations. Projectile technology is discussed with organizational viewpoints such as assemblage composition, reduction complexes and functional variability. Case studies of the Kamino-A site, the Araya site, and other Tohoku District sites elucidate the role of projectiles as an integral part of technology. Characteristics of sequential assemblages which accompany knife blades, microblades, tanged points, large bifaces and arrowheads respectively, are discussed with reference to subsistence and settlement pattern transition and emergence of pottery through chronological climatic fluctuations.

Alaica, Aleksa (University of Toronto)

[106] Craft Production, Identity and Place-Making in the Jequetepeque Valley of Peru

Recent survey conducted on the south bank of the Jequetepeque Valley points to the close association of specialized mortuary constructions and the production of ceramics and copper during the Moche and Late Intermediate Periods (650-1350AD). The data suggest that local craft production was embedded in a particular religious cosmology and relational ontology specific to pre-Columbian Jequetepeque communities. The association between destruction and regeneration of materials in craft production actively correlates with the material patterns found. This paper will argue that the ideological forging of social identities was intimately linked to the making of places and valued things in ancient Jequetepeque.

Albarracin-Jordan, Juan [231] see Capriles, José M.
Alberti, Benjamin (Framingham State University) [262] What are bodies in first millennium AD northwest Argentina? Theoretical bodies and empirical frameworks
In pre-Inca northwest Argentina human-like bodies exist in a variety of media and forms. I take a critical cue from Aparecida Vilaça and the critique of the embodiment paradigm from the perspective of Amazonian ethnography, and my methodological cue from Marilyn Strathern, who would rather sidle up on “the body” than approach it directly. Does the general paradigm of embodiment survive the encounter with the material from northwest Argentina, or indeed need survive it? The more pertinent question, perhaps, is whether a general concept of body ought to be made to change concretely when faced with these particular, empirical bodies.
[262] First Chair [262] Second Organizer

Alconini, Susan (Brown University) [12] Discussant

Alconini, Sonia (University of Texas At San Antonio) [237] Testing power in the Inka frontiers: elite frontier competition and the empire
In this presentation I will discuss the ways in which the Inka representatives, or border lords, maintained power in frontier regions on behalf of the empire. Despite the Inka frontier variability, ranging from open to militarized perimeters, these emissaries were central in the maintenance of power on such distant, and often contested territories. In addition, complex relations were established between the empire, the frontier elite and the locals. By using the Southeastern Inka frontier as a case study, I will discuss the evolution of distinct elite frontier strategies, their power base and its effects on the local sociopolitical dynamics.

Alconini, Sonia [52] see Warren, Matthew D.

Aldeias, Vera (University of Pennsylvania) and Paul Goldberg (Boston University) [117] Stratigraphy and Site Formation Processes at Contrebandiers Cave, Morocco
Site formation processes at Contrebandiers Cave have not been investigated during previous excavations. Recent (2006-2011) geoarchaeological-oriented studies combined detailed lithostratigraphic observations, clasts orientation, and soil micromorphology techniques to understand the formation processes and diageneric alterations of the deposits. Locally reworked marine deposits at the base of the stratigraphy at Contrebandiers are overlain by Middle Paleolithic layers showing contorial interaction of disaggregation of the cave walls/roof and incorporation of allochthonous sands, with an upward increase of anthropogenic inputs (e.g., ashes and charcoal). Here, we discuss the implication of these various depositional and post-depositional processes on the integrity of the archaeological record.
[117] First Chair [117] Second Organizer

Aldenderfer, Mark (University of California) [95] Beadwork: The Asia-Pacific Bead Trade and Upper Mustang, Nepal
The discovery of a significant quantity of glass beads in a mortuary context in far northern Upper Mustang, Nepal at the site of Samdzong (just south of the border with Tibet) raises a number of questions about trade, exchange, and contact between this remote area and the possible centers of bead production in the first millennium A.D. The results of an archaeometric analysis of these beads is presented with the goal of identifying the likely locus (or loci) of bead production: China, southern India, and SE Asia.
[149] Discussant

Alex, Bridget (Harvard University), Dušan Mihailovic (University of Belgrade), Stefan Milošević (University of Belgrade), Mike W. Morley (Oxford Brookes University) and Mirjana Roksandic (University of Winnipeg) [202] Radiocarbon Sampling of a Middle to Upper Paleolithic Palimpsest in the Balkans
To generate archaeologically meaningful radiocarbon dates, consideration must be given to micro and macro context, taphonomy, and preservation. We present the sampling strategy and implications of radiocarbon dates from Pešturina Cave, a Late Pleistocene site in Serbia. Samples with good contexts and hominin modifications were prioritized. Bones were prescreened for preservation and taphonomy. Preservation in selected samples was further evaluated by percent insoluble fraction and FT-IR analysis. The dates are considered along with sediment analysis to evaluate stratigraphic mixing and to address wider implications concerning the timing of the Middle to Upper Paleolithic Transition in the Balkans.

Alexander, Rani (New Mexico State University) [150] The Archaeology of Place in Ebtun, Yucatan, Mexico
In this paper, I examine how changes in household structure relate to archaeological variation in the life histories of towns, ranchos, haciendas, and land parcels around Ebtun in the 19th and 20th centuries. Ebtun is famed for its corpus of Maya-language documents that describes how descendent communities retained ownership of land from 1600-1833. Ethnographers relied on these documents to fashion an immutable ethnographic past which explained the 20th-century persistence of traditional Maya lifeways. Yet, my analysis of archaeological evidence and census records calls into question assertions of deep continuities in the uses and understandings of the landscape in Ebtun.

Alexandrino Ocaña, Grace (Pontificia Universidad Católica del Perú - PATL) and Krzysztof Makowski (Pontificia Universidad Católica del Perú - Programa Arqueológico Pachacamac) [156] Luxury objects, rank and status of the inhabitants of Pueblo Viejo- Pucará (Lurin Valley)"
The analysis of the residential architecture of Pueblo Viejo- Pucará, a settlement of mitmaquanas of Huarocharí near Pachacamac has allowed distinguished between palatial residences of chiefs, elite residences and common residences, clearly differentiated among others by the number and extent of environments. This paper compares the findings of considered luxury artifacts in order to assess the different access to this kind of property. The results demonstrated a clear difference between the Palace of the curaca and other residences. But such differentiation is not clear in other cases.

Alexandrino Ocaña, Grace [156] see Hernandez Garavito, Carla C.
Alix, Claire [204] see Mason, Owen K.

Allard, Francis (Indiana University of Pennsylvania) [95] The Nanyue kingdom: Assimilation, acculturation, and inter-regional interaction
Established in 204 BCE, the Nanyue kingdom occupied much of present-day Guangdong and Guangxi until its final defeat at the hands of the Han dynasty in 111 BCE. As revealed by research carried out over the past decades, Nanyue’s artifacts and architecture reveal a complex blend of elements of local and distant origins, including metropolitan Han China (to Nanyue’s north) and southeast Asia and beyond. This paper considers the nature and impact of these many instances of interaction, and in so doing comments on the different forms that interaction may take in the emergence and development of complex polities.

Allen, Kathleen (University of Pittsburgh) and Samantha Santt (University of Pittsburgh) [40] Alternative economic activities at two sixteenth century Iroquoian sites: an analysis of lithic tools
Two neighboring Iroquoian sites in central New York State have been interpreted as sequential villages, however, recent studies have suggested alternative settlement strategies at these sites. In this research, analysis of lithic tools is employed to better understand the types of economic activities present. Results show significant differences in the proportions of points, bifaces, types of retouched tools, and cores, which reinforce the interpretation that the sites served different purposes in the local political economy due to seasonal occupation, gendered activities, or changing political landscapes. These alternatives are discussed and implications for understanding Iroquoian settlement strategies are explored.

Allen, Susan (University of Cincinnati) and Ilirjan Gjipali (Institute of Archaeology, Centre for Albanological Studies, Tirana) [119] Wetlands and the Transition to Agriculture in Europe: The 2010 and 2011 Excavations of the Southern Albania Neolithic Archaeological Project (SANAP) at Vashëtëmi, Albania
The Southern Albania Neolithic Archaeological Project’s (SANAP) 2010 and 2011 excavations at the site of Vashëtëmi, Albania shed light on the transition to agriculture in southern Europe. In particular, this research contributes toward understanding the important role of wetlands in this transition and providing a chronological framework for linking the Albanian Neolithic in time and space with other known sequences in Europe. Radiocarbon dates from the site place its earliest occupation in the mid-seventh millennium B.C., contemporary with EN sites in Greece, to its south, and make it one of the earliest farming sites in Europe.

Allentuck, Adam (University of Toronto) [134] Reconciling social and economic strategies of animal consumption at an Early Bronze Age village in the southern Levant:
Social and economic strategies of animal consumption are conventionally represented as mutually incompatible. The former is typically conceptualized as expressive practice, with the latter rooted in practical reason. In many respects, the zooarchaeological data from Early Bronze Age Horvat ‘Illin Tahtit in the southern Levant conforms to an economizing model of livestock exploitation. However, the faunal evidence viewed through a different lens urges inferences of social strategies that are not necessarily antithetical to economic strategies. This leads to the conclusion that these two categories have analytical values, but may not bear a reality in the Early Bronze Age.

Allison, James (Brigham Young University) [51] Low-Frequency Temperature Variability and Native American Horticulture in the Northern Southwest and Eastern Great Basin
Recent paleoclimatic studies reconstruct low-frequency variability in temperature that may have affected the success of Native American horticulture. Potential effects of this temperature variability include shifts in the range of elevations within which horticulture was viable, and changes in the northern limits of horticulture- based economies. This paper examines radiocarbon dates and other chronological data from Fremont and Puebloan sites in Utah, eastern Nevada, and northwestern Arizona, comparing the low-frequency temperature reconstructions with the timing of expansion and contraction in the northern frontier of maize horticulture and temporal shifts in the elevations of farming settlements.

Allison, James [85] see Wilshusen, Richard H.

Alonso Lopez, Elisa (University of Notre Dame) [139] Dietary Variation on the Edge of History: Human Stable Isotopes and Maize Consumption at Protohistoric Caborn-Welborn Villages and the Angel Site in Southern Indiana
The Caborn-Welborn phase was a protohistoric culture in southwestern Indiana composed of large villages, small villages, hamlets and farmsteads. In contrast, the neighboring Angel Site, which collapsed around A.D. 1400, was a heavily maize-dependent Middle Mississippian civic-ceremonial center. Comparisons between these two phases are used to determine the possibility of migration from Angel into the Caborn-Welborn sites during this transitional period. Using stable carbon-isotope ratios from human burials at the large village of Hovey Lake and the small village of Mann, inter-community and individual dietary variations are compared to the patterns of dietary variation investigated at the Angel Site.

Alonzi, Elisa [244] see Lash, Ryan P. [85] see Reese, Kelsey

Alt, Susan (Indiana University Bloomington) [198] The Invisible War: Structural Violence and Fear in the Cahokian World
We usually consider violence as overt acts of physical harm, but violence persists in less visible ways. We are familiar with structural violence in the modern world, expressed as inequality, racism, sexism, hunger and poverty. S. Lekson has suggested that people in the Southwest were being socialized for fear. In this paper I review evidence of inequality, violent death, captive
taking, and violence at Cahokia and in the Cahokian peripheries to explore the possibilities of structural violence and a socialization for fear in the Cahokian world.

Alt, Susan M. [239] see Watts, Elizabeth

Altaha, Mark [67] see Laluk, Nicholas C.

Altaweel, Mark (University College London) [103] Integrating Social-Ecological Theory within Complex System Modeling in Archaeology: Recent Advances and Future Direction of Research

Recent projects spanning different regions have applied complex system approaches incorporating bottom-up and top-down modeling techniques. Advancements made include facilitating computational methods for researchers, visualization, and the application of high performance computing to research. In addition, the emphasis on integrating current social and social-ecological theory within research has helped to ground many technical approaches with theory, making complex system modeling appropriate for a variety of archaeological problems. Given these developments, this paper reviews the state of the art, significant challenges facing researchers, and assesses the future direction in which research advancements are likely to be made.

Altes, Christopher (University of Florida and SEARCH, Inc.) [193] Blood from stone: ballcourts as an integrative dominating set and the implications for social organization in south central Puerto Rico

Taking approaches from set theory and graph theory, this paper outlines the creation of a speculative network of bateys, or ballcourts, in south central Puerto Rico during the early Ostionoid time period. The bateys present an almost perfect dominating set at one link of all settlements within the network, providing access to these constructed landscape features without traveling through a third settlement. This is taken to suggest bateys are not centers from which political power radiates outward, but instead dynamic social places in which people engage and integrate at multiple scales within a broader network.

Altman, Heidi (Statistical Research, Inc./SRI Foundation) [81] Discussant [12] Discussant

Alvarez, Jose [67] see Laluk, Nicholas C.

Alvarez, Maria [96] see Gutierrez, Maria A.

Álvarez, María Clara [8] see González, Mariela E.

Álvarez-Calderon, Rosabella [156] Spaces for few, spaces for many: using privacy to understand site function and complexity in an Inca period site in the middle Lurin valley, Peru

This paper focuses on the architectural and spatial analysis of the Inca period site of Huaycan de Cieneguilla, middle Lurin valley, Peru, using the concept of privacy. This work reveals architecture was actively used to control movement, emphasizing which areas were more open and which areas were accessible only to limited groups of people. Physical boundaries, access, surveillance, and mobility patterns all contributed to diversity of possible uses and activities, relationships and connections between rooms, and how the site changed over time through interplays involving regional manipulations of power, architecture, and space in the Late Horizon central coast of Peru.

Álvarez-Fernandez, Esteban (University of Salamanca) and Teresa E. Steele (University of California, Davis) [117] Exploitation of coastal resources during the Late Pleistocene at Grotte des Contrebandiers (Temara, Morocco)

Investigations into modern human origins have incorporated information about the exploitation of coastal resources into many of the prevailing models. However, until recently, data were only available from the Middle Stone Age of coastal South Africa. Here, we present data on the exploitation of coastal resources during the Late Pleistocene at Grotte des Contrebandiers (Temara, Morocco). With patterns similar to South Africa, during the Mousterian, Aterian and Iberomaurusian, inhabitants exploited the nearby rocky coast, gathering mainly limpets, mussels and marine snails. They also collected different tick-shell species (mostly Nassarius) from the beaches, some of which were used as beads.

Amadio, Ayla (Southern Illinois University-Carbondale) [181] Intra-site Variation in Non-Obsidian Lithics from Formative Tayata, Oaxaca, Mexico

A systematic study of ubiquitous non-obsidian lithics is largely absent from the Mixteca region. The presence and variety of lithic artifacts from several contexts were classified to understand the spatial relationships of lithic technology and craft production at the site of Tayata. Analysis focused on production sequence, form, raw material, and tool type. Evidence presented on intra-site variation in lithics indicates differences in civic, domestic, midden, and ritual contexts. Discussion focuses on the ways these artifacts relate to wider spheres of multicrafting at Tayata during a time of emergent social inequality.

Amador, Fabio Esteban [41] see Rissolo, Dominique
Ambrose, Stanley (U. Illinois, Urbana-Champaign), Jeffrey Ferguson (University of Missouri, Columbia), Michael Glascock (University of Missouri, Columbia) and Philip Slater (University of Illinois, Urbana) [254] Chemical fingerprinting of Kenyan obsidian sources and Late Quaternary artifacts with NAA and XRF Pioneering research by Merrick and Brown (1984-1994) identified 30 obsidian chemical source groups by XRF and microprobe. We resampled many previously known sources and collected new sources in the Kenya Rift Valley in 2008-2010 for neutron activation and XRF analysis. We identified 16 new chemical source groups. Obsidian artifacts were analyzed from three Middle Stone Age and three early Later Stone Age assemblages (N=1290) ranging in age from >110 to 16 ka at four archaeological sites in the central Rift. They provide insights into changes in mobility and interaction during the last stages of the evolution of modern human behavior.

Ambrose, Stanley [60] see Dong, Yu [61] see Freiwald, Carolyn [37] see Wreschnig, Andrew

Ambrose, Stanley H. [5] see Madden, Gwyn D. [254] see Slater, Philip

Ames, Kenneth (Portland State University) [123] Socioeconomic change, darts and arrows on the Intermontane Plateau of North America

The bow and arrow may have been present on the Intermontane Plateau by 8500 BP; but was ubiquitous by 4500 BP, probably undergoing technological changes after 2300 BP. The atlatl was not completely replaced and floresced ca 3500 BP. Around 8500 BP, obsidian patterns became increasingly residential. After 6000 BP, houses are present and mobility was increasingly tethered to fixed locations. Logistical mobility, visible evidence for storage and bison exploitation appeared ca. 3500. Post 2300, wealth and social differentiation increased, along with episodic large aggregations and warfare. In Canada, the large aggregations dissipate sometime after ca. 1000 - 800 AD.

Amore, Maria-Grazia [119] see Deskaj, Sylvia

Amrhein, Laura (University of Arkansas-Little Rock) [275] Processional Narrative and Ritual at Chichén Itzá: An Analysis of Six Bench-Altars

Six bench-altars decorated with reliefs of processional warriors, priests, and captives help to tell the story of ancient Maya warfare, ritual and social status at Chichén Itzá. Five benches, located in the northern portion of the site, are identical in form and share similar but distinct iconographic programs. A sixth bench re-consolidated in 2007 in the southern portion of the site relates stylistically and iconographically to previously known examples. An iconographic and contextual analysis of these benches reveals they served a symbolic, ritual, and narrative function at the site.

Ana Paula, Alcaráz [273] see Stoessel, Luciana

Anderson, David (Tulane University) and Jeb J. Card (Miami University) [56] The Varieties of Pseudoarchaeology

Professional archeologists have long lumped pseudoarchaeological theories into a single category of unsubstantiated “bunk,” yet a closer examination reveals that there is tremendous variety in these theories and in the people that hold them. Building upon a recent survey of American beliefs in the paranormal, we examine the relationship between the content and structure of pseudoarcheological beliefs, and the intensity that they are believed in or practiced. These factors are critical to guiding archaeologists to better understanding and interacting (or not interacting) with creators or promoters of pseudoarchaeology, and more importantly, a general public looking for answers.


Anderson, David [19] see Peniche May, Nancy

Anderson, David G. [84] see Yerka, Stephen J.

Anderson, Derek (Mississippi State University) [100] Invisible hearts: refitting as a means of identifying activity areas at the Topper site

The Topper site is an extensive chert quarry near Allendale, South Carolina and represents one of the largest Clovis and Early Archaic sites in North America. Debitage analysis, including refitting, has identified individual knapping events surrounding a hearth feature on the lower terrace that was unapparent to excavators, and which is associated either with a Taylor or Clovis occupation. Preliminary analyses of upland deposits hundreds of meters away show similar patterns and indicate that the entire site may be relatively undisturbed, providing a unique look at Paleoindian and Early Archaic social interactions in the Southeast.

Anderson, Doug [7] see Urban, Thomas M.

Anderson, Gretchen [185] see McConaughy, Mark A.

Anderson, J. Heath (College of Wooster) [62] Collapse and Regeneration in the Tula Area: What Do We Know? What Would We Like to Know? How Do We Find Out?

Scholars are revisiting research questions involving the processes and patterns related to the collapse and regeneration of complex societies in Central Mexico. Formerly, research only rarely ventured beyond questions of cultural continuity and population migration, diffusion, etc. This is especially true of the Tula area, where complex society reconstituted in the form of the Toltec state after the decline of Teotihuacan. This paper is a summary and synthesis of what we know about the processes of collapse and regeneration in the Tula area and a prospective consideration of relevant questions going forward, and the data we need to address them. [253] Discussant

Anderson, Jason [90] see Quick, Russell S.


While Cochabamba is a key peripheral region for the Tiwanaku state, a lack of radiocarbon dates for the Middle Horizon has left us with an approximate chronology and limited our ability to correlate Tiwanaku
expansion in Cochabamba with the highland Tiwanaku chronology. This poster presents new Middle Horizon radiocarbon dates from Pifami, Cochabamba, resulting in a refined chronology for the Cochabamba Central Valley. Based on this chronology I compare major changes in material culture at Pifami with those at Tiwanaku and other peripheries and address how the chronology impacts our understanding of Tiwanaku expansion.

Anderson, Lars (University of Michigan) [16] Modeling “Modernity” in the Middle Stone Age Still Bay and Howiesons Poort industries of the MSA have recently entered the debate regarding early archaeological manifestations of “behavioural modernity”. Models proposed heretofore have been unable to account for the temporal disconnect between the appearance of AMH and trait list definitions of modernity, or the disappearance of presumably adaptive traits in post-Howiesons Poort industries. A model will be proposed which examines demographic arguments in light of cultural transmission theory and the maintenance of biologically viable populations through formalized social networks. Evidence supporting this model will be examined and new directions in the study of “behavioural modernity” will be proposed.

Anderson, N. John [51] see D’Andrea, William J

Anderson, Shelby (Portland State University) [204] Social Networks and Ceramic Circulation in Northwest Alaska, ca.1000-200 BP Social networks are considered essential to human occupation of Arctic environments. Access to non-local goods through networks is also linked to the development of more complex social organization in northern hunter-gatherers groups. Ceramic geochemical and formal data are used to test hypotheses about the nature and extent of networks over the last 1000 years in Northwest Alaska, a period characterized by significant social and environmental change. Results suggest ceramics were circulating more widely than expected and hint at changes in raw material procurement strategies during the study period that may be related to shifts in mobility or networking strategies.

[204] First Chair

Andrefsky, William (Washington State University) and Jennifer Ferris (Cardno ENTRIX) [127] Chert Formation Process and Geochemical Characterization for Archaeological Interpretation Determining the source location of archaeological toolstone can be a very powerful way to identify aboriginal migration, trade, and land-use. Igneous rock, such as obsidian, has been effectively characterized by geochemical assays and has aided understanding of human movements. However, chert toolstone has not been as successfully characterized. In this paper, we present some information on chert formation processes and how such processes influence the geochemical fingerprinting of source locations. Our analysis reveals that differential processes of chert genesis should be considered before conducting geochemical characterizations and that some cherts are extremely geochemically diagnostic to discrete locations.

Andrefsky, Jr., William [160] see Ferris, Jennifer M.

Andrews, Anthony (New College of Florida) [128] Discussant

Andrews, Courtney [250] see Jones, Sharyn R.

Andrews, E. Wylys (Tulane University) [236] Discussant

Andrieu, Chloé (CNRS Université Paris I La Sorbonne) [151] The unstable geography of the jade and obsidian Classic Maya lowland trading routes Obsidian and jade were both regularly imported from the highlands. Whereas they probably correspond to very different distribution systems, their acquisition required numerous alliances between cities from the highlands towards the major lowlands sites. This paper proposes an understanding the unstable frontiers of the lowlands trading routes through a comparison of the mode of importations and the quantities of each material imported through time in sites such as Cancuen, Naachtun, Calakmul and Tikal correlated with the available epigraphic data.

Andrus, C. Fred T. [220] see Collins, Joe D.

Angel, Alicia [87] see Gasco, Janine L.

Angelo, Dante (Universidad de Tarapacá) [26] Ritual Practice as an Overwhelming Burden of Everyday Life Ritual has been commonly identified within a dualistic schema in which everyday activities are set against and apart from other practices bearing special significance. The latter is often thought to belong to the realm of the ritual in which the mysterious, the symbolically significant and the uncommon becomes institutionalized. In this paper, I use recent approaches to ritual that emphasizing its role as part of social performance attempt to bridge this divide and, through an exploration of contemporary archaeological contexts of ritual in Andean northwestern Argentina, further the political dimensions of ritual.

Anselmi, Lisa (Buffalo State College) [192] Northern Iroquoian Use of Copper-base Metal in the Early and Middle Contact Periods During the Early and Middle Contact Periods, Native peoples throughout Northeastern North America used European-introduced metal trade goods as sources of raw material for the production of forms such as projectile points and pendants. A set of manufacturing techniques used on these materials has been identified and is discussed here along with an analysis of some of the crafted forms in an effort to delineate possible patterns of trade and/or interaction occurring in the Northeast with special emphasis on hollow tubing, “corrugated” metal and expedient forms. Illustrative examples are drawn from N. Iroquoian sites in the Northeast.

Anthony, David (Hartwick College) [91] Persistent Borders in European Prehistory Persistent frontiers or borders, places where cultural and ethnic oppositions have been maintained and reproduced for centuries or even millennia, are places invested with
extraordinary meaning. Most studies of stable borders are associated with states, because in non-state contexts, long-term, stable cultural borders have been dismissed since Eric Wolf as functionally improbable. Yet prehistoric European archaeology provides many examples of such long-term cultural borders in non-state contexts, sometimes correlated with ecological borders. Recent ethnicity theory suggests that they should not have existed, but data suggests that they were salient landscape features even if people moved regularly across them.

**Antoneli, Caroline [62] see Rosenswig, Robert M.**

**Antonelli, Caroline (University at Albany - SUNY) and Cuauhtémoc Vidal Guzmán**

[70] Iguana Management at Mayapan

Iguana consumption is well-documented at the Late Postclassic Maya city of Mayapan. This poster presents evidence for intensive iguana management at the site. We combine ethnohistoric, ethnoarchaeological, and archaeological data recovered from the last ten years of excavations at Mayapan. Both quantitative and qualitative evidence is used to support the conclusion that iguana was an important resource for consumption and possibly ritual activity. Data is presented and discussed from elite and commoner residences, and ceremonial structures at the site.

**Antonites, Annemari (Yale University)**

[164] Excavating a Museum Storeroom: A Collections-based Case Study from South Africa

Material remains from Schroda, a 10th century AD regional centre associated with the development of complex societies in Southern Africa, form part of a dissertation project that centres on the re-analysis of an "old" collection. Access to the data proved challenging as various components of the excavation documentation are now missing and years of selecting samples for specialist analyses has left the collection disorganized. In this paper, I hope to illustrate the rewards of investing time and effort in careful "excavation" and rehabilitation of the Schroda museum collection and present preliminary research results.

**Applegate, Darlene (Western Kentucky University)**

[44] Estimating Time Since Looting: Preliminary Results of a Forensic Archaeology Experiment

Unauthorized excavations in rockshelters occur frequently and profoundly damage cultural resources. Archaeologists need a reliable set of criteria for estimating time since looting, so a forensic archaeology experiment was implemented to collect such data. Two simulated looter pits with associated backdirt piles were created under the dripline and along the backwall of a rockshelter. They were monitored for over one year on a daily or weekly basis for changes in soils, slope, tool marks, footprints, insect and animal activity, plant growth, and other alterations. The resulting data were used to generate laws relating stage of weathering with time since looting.

[44] First Chair

**Aquino, Valorie (University of New Mexico), Victor Polyak (University of New Mexico) and Yemane Asmerom (University of New Mexico)**

[208] Uranium-series Dating of Speleothems for Paleoclimate Reconstructions Applicable to Archaeological Studies

Speleothems are being used globally for continental paleoclimate reconstructions over various time scales that aid in archaeological interpretations of culture-climate dynamics. This paper provides an overview of the methodology related to the precise and accurate dating of cave samples used to establish high-resolution stable isotope records of past climate. Data presented on two southern Belize speleothems exemplify how U-series analyses are used to anchor the chronology needed to carefully compare climate and cultural history.

**Arakawa, Fumiyasu (New Mexico State University), Nathan Goodale (Hamilton College) and Douglas Harro (Applied EarthWorks, Inc.)**

[272] The Village Ecodynamics Project II Lithic Research

As part of a long-term study of resource material use in the American Southwest, this study seeks to expound on previous lithic studies in the central Mesa Verde and northern Rio Grande regions during the Pueblo III-IV periods. This research begins by discussing our ongoing studies of toolstone procurement patterns of obsidian, Pedernal chert, and basalt discovered from the Tsama and Ponsipa sites in the northern Rio Grande region. Second, we investigate whether morphological variations of obsidian projectile points recovered in the northern Rio and central Mesa Verde regions reveal modes of cultural transmission during the Pueblo III period.

**Araujo, Astolfo (Museum of Archaeology and Ethnology - USP)**


Eastern South America poses interesting problems about the early human occupation of the continent. Three totally distinct and contemporaneous lithic technologies, dated between 11,000 and 10,000 14C BP are present in different portions of Brazil: Umbu Tradition, with its formal bifacial industry, including stemmed points; Itaparica Tradition, whose only formal artifacts are limaces; and the "Lagoa Santa" industry, lacking any formal artifact. Such diversity in material culture seems at odds with a simple model of Clovis technology as the origin of these three cultural traditions, given the time elapsed since the first Clovis ages and the expected population structure.

**Araujo, Astolfo [158] see Okumura, Mercedes**

**Arbuckle, Benjamin (Baylor University)**

[228] Is there such a thing as a “Neolithic Animal Economy”?

The Neolithic of southwestern Asia is often associated with the development and spread of a distinctive agro-pastoral “package”. However, significant variation existed in the ways in which Neolithic peoples structured both their animal and plant exploitation systems. In this paper I focus on animal exploitation and explore significant variations within Neolithic herding and hunting systems which perhaps make it reasonable to ask if it is even possible to talk about a generalized “Neolithic animal economy”.

**Arco, Lee [2] see Ortmann, Anthony**
Arco, Lee J. [2] see Jeter, Marvin D.

Ardelen, Ciprian (University of Exeter, United Kingdom)

[100] New Archaeological Investigations on the Younger Dryas Event and the Transition between Pleistocene and Holocene in Northern Zacatecas, Mexico

Early prehistory and the Peopling of America remain as underdeveloped topics in Mexican archaeology. I lead a systematic search for the earliest human occupation in the Northern Highlands, focusing on an endorheic basin near Concepcion del Oro, Zacatecas. A first exploration season allowed us to discover more than 30 new archaeological sites, hunter-gatherer campsites acknowledging a massive human occupation around the extinct lake, spanning over long periods of time. We conducted excavations in order to obtain first-hand data on the environmental and cultural spectrum around the Younger Dryas and the Transition between the Late Pleistocene and Early Holocene.

Ardren, Traci (University of Miami)

[128] Inland/Coastal Circulations and Classic Maya Trade

Archaeological studies of ancient Maya trade have long acknowledged the movement of products between different environmental zones as a cornerstone of Classic period economies. In addition to the transportation of long distance trade goods, inland/coastal traders moved savannah products, foodstuffs and ideas. Bruce Dahlin addressed the importance of “phantom artifacts,” and this paper explores the importance of savannah commodities such as palm thatch within economies of the Classic northern lowlands. Plant fibers were essential components at the household, market and cosmological level. The circulations performed by traders from coast to inland city and back likewise comprised a core component of cultural reproduction.

[128] Second Organizer

Ardren, Traci [58] see Stockton, Trent

Arendt, Nicole (National Park Service)

[38] Climate Friendly Archaeology: Sustainability and Archaeology at Sunset Crater Volcano, Walnut Canyon, and Wupatki National Monuments, Arizona

As part of the process of becoming a “Climate Friendly Park”, Sunset Crater Volcano, Walnut Canyon, and Wupatki National Monuments are developing an Environmental Management System with contributions from all divisions. Within the cultural resources division, this led to evaluating the ways in which climate change and sustainability intersect with archaeology and the preservation of archaeological sites. This includes making daily activities and projects more sustainable in our use of resources and impact on the environment, assessing the effects of climate change on cultural resources, and interacting with the public in discussing sustainability in the past, present, and future.

Areshian, Gregory (University of California) and Pavel Avelisyans (Institute of Archaeology and Ethnography of the National Academy of Sciences of Armenia, Yerevan, Republic of Armenia)


Previous researches had demonstrated that the expansion of the Uruk civilization from Southern Mesopotamia into the Near Eastern highlands occurred within a context of blossoming indigenous Chalcolithic societies. Most recent discoveries at Anarak (Iran), Kyamil–Tepe (Azerbaijan), and especially at Areni-1 and Godedzor (Armenia) allow us to conclude that the distinctive rise of social complexity in the Chalcolithic of the Near Eastern highlands was characterized by a differentiation of specialized sites (economic, ritual) and by the establishment of inter-regional networks of trade and other cultural exchanges within the highlands. Most likely, the Uruk expansion used those earlier long-distance networks.

Arias, Veronica (University of New Mexico)

[183] Spatial Modeling of Site Locations within the Fort Wingate Complex in Western New Mexico

New tools within commercial GIS are facilitating the application of complex spatial statistical techniques to archaeological datasets. Such functionality not only leads to enhanced site prediction modeling but can also serve for knowledge discovery purposes. In this paper, Bayesian statistical methods are used within a GIS environment to explore spatial patterns within the Fort Wingate region of western NM, a former military installation with a well-documented sequence of past human occupation. Influntial cultural and environmental variables in site prediction are identified, and then decision rules are established between different combinations of influential variables.

Arikan, Bulent (Koç University-TURKEY)


There has been growing interest in the study of past human-environment relations. As part of such reconstructive research designs, archaeologists combine data from various fields and explore spatio-temporal patterns of settlement and land use with the help of GIS. This research report focuses on the results of such analyses in the Wadi el-Hasa between the 5th and 1st millennia BC. Using the results of Macrophysical Climate Modeling, land cover data, and geology of the Wadi, it is possible to model the cumulative impacts of both natural and anthropogenic (i.e., agropastoral) impacts on the semi-desert Hasa landscape on the GIS platform.

Arkush, Elizabeth (University of Pittsburgh)

[243] Households at Machu Llaqta: A Late Pre-Columbian Hillfort Town in Southern Peru

Preliminary results are presented from excavations at Machu Llaqta (Ayawiri), a hillfort of the Late Intermediate Period (AD 1100 – 1450) in Peru’s Titicaca Basin. The residential area at this 11 ha. site includes 93 walled compounds, each with several houses. Excavations in 2011 targeted two compounds that may have differed in rank or resources. Exposures of living floors and other contexts revealed a range of domestic and ritual activities. Separate domestic structures within a compound had distinct uses. While there are differences between the two compounds, they do not correspond.
neatly to "elite" and "nonelite" statues.

Arnelagos, George [105] see Zuckerman, Molly K.

Armijo Torres, Ricardo [58] see Gallegos Gomora, Miriam Judith

Armitage, Ruth Ann [101] see Ruuska, Alex K.

Armstrong, Matthew (Applied Earthworks) [126] The Value of the Wide View
Close examination of an individual site often yields important data that can shed light on regional trends and patterns. However, over-reliance on one site, or a small set of sites, can lead to misunderstandings of the same regional trends and patterns. This paper examines the value and use of the Medea Creek Cemetery site in Ventura County. The importance of Linda King's initial work will be discussed, as will the issues inherent on this being among the most-cited work on the Inland Chumash.

Armstrong-Fumero, Fernando (Smith College) and Julio Holl Guttierrez (CIESAS Peninsular) [150] Landscape, Heritage, and the Ontology of Settlement Patterns
This paper focuses on an important intersection between the archaeological notion of settlement patterns, uses and perceptions of space among living communities, and the legal and political context of cultural heritage. Is a settlement pattern a simple heuristic used in modeling the distribution of structures, a reference to the actual distribution of structures in space, or patterned behavior that is reproduced across space and through time? Using examples from our recent research in Yucatan, we explore how different answers to these questions have important political and ethical implications for current understandings of landscape use among descendant communities.

[150] First Chair

Arneborg, Jette [86] see Dugmore, Andrew J.

Arnett, Judith (Durham University and East Carolina University) [94] Piecing together juvenile health from the ossuaries of Coastal North Carolina
This study examines juvenile health from eight ossuaries located on the northern coastal plain of North Carolina, radiocarbon dated to the Late Woodland Period (800 A.D – European Contact) and affiliated with the Algonkian linguistic group. It is hypothesized that the Algonkian children were primarily healthy but did suffer from periods of nutritional and environmental stress. The data suggests that the children were not healthy. It is also hypothesized that the juvenile populations suffered from a form of pre-contact treponematoses. Data suggests that Columbus did not bring treponemal disease to the Americas nor did the indigenous populations introduce this to Europe.

Arnold, Dean (Wheaton College (IL)) [201] Discussant

Arnold, Elizabeth R. [5] see Madden, Gwyn D.

Arnold, Philip (Loyola University Chicago) [201] The Reluctant Ethnoarchaeology of Dean E. Arnold
For over forty years Dean Arnold has published extensively on contemporary pottery making and its potential to inform studies of ancient ceramic production. These contributions have garnered Arnold international acclaim as a leading figure within the field of Ceramic Ethnoarchaeology. Ironically, Arnold rarely calls his work ethnoarchaeology, preferring instead to frame his research as ecological, processual, and comparative. This paper considers Arnold’s reluctant form of ethnoarchaeology, exploring his long-term contribution to ancient pottery studies and examining the intersection of his ecologically oriented approach with the tenets of Ceramic Ethnoarchaeology.

Arroyo, Barbara (Museo Popol Vuh UFM Guate), Lorena Paiz (Universidad del Valle de Guatemala), Adriana Linares (University of Texas - Austin) and Margarita Cossich (Universidad Nacional Autonoma de Mexico) [30] Recent Results From The Preclassic: The Naranjo And Kaminaljuyu Projects
Recent research carried out at Naranjo and Kaminaljuyu, has provided important data on the Middle Preclassic. We have learned about connections with Kaminaljuyu and other sites from the highlands and Pacific Coast. Excavations at Naranjo have contributed with solid data to understand the cultural practices of the Middle Preclassic Maya highland sites. Some of these include the practice of setting plain monuments, a well identified ceramic and figurine complex, and a special site arrangement that is linked to the sacred geography. This paper presents the research results as well as comparisons to other contemporaneous sites on the Pacific Coast and Maya Highlands.

Arroyo, Bábara [30] see Paiz Aragon, Lorena

Arsenault, Daniel (CELAT-UQAM, Montreal, Quebec) [101] Old stories, ancient maps and a few rock painting sites: towards the interpretation of a new kind of "rock art" in the Eastern Canadian Shield!
The North Shore of the St. Lawrence river, Québec, has yielded a few rock painting sites, but just two of them can be identified as real "rock art sites" thanks to their graphic contents. The other sites are rock outcrops with some smudges of red ochre. What can be said about such sites without visual symbols? Indeed some clues are found in Innu traditions as well as in XVIIIcentury’s old maps, but the results of the 2011 summer fieldwork offer additional answers and some insights for the better interpretation of what appears to be rock art sites without graphic.

Arterberry, Jimmy [23] see Fowles, Severin [199] see Montgomery, Lindsay M.

Arthur, Dr. Kathryn (USF St. Petersburg) [261] Ethnoarchaeology Explores the Edge: The Influence of Age, Skill, and Gender on Scraper Use and Reuse
Ethnographic and experimental hideworking studies demonstrate that knappers often rework the edge of a stone scraper during use, which changes the tool’s morphology. However, questions remain concerning the relationship between scraper variation and lithic design,
depletion, salvage, and recycling. In this paper, I will offer explanations for stone scraper transformations through my ethnographic studies among the Zada-Gamo, Borada-Gamo, and Konso hideworkers of southern Ethiopia. In particular, I will inquire whether an individual's age, skill, and gender affects tool-size, working-edge, and breakage rates during use, resharpening, and recycling.

[159] Discussant

Artz, Joe [67] see Doershuk, John F.

Asch, David (New York State Museum) and Nancy Asch Sidell (Center for American Archeology) [271] Radiocarbon dating Early Archaic occupation of the Koster site, Illinois: Horizons 11/12 Between 1973–1988, seven samples of dispersed wood charcoal from Koster Horizons 11/12 were dated radiometrically at Illinois State Geological Survey. Age estimates with 1-sigma errors of 75–100 years centered on 8450 RCYBP (calendrical age ca. 9400 BP). Horizon 11/12 hearths were rebuilt several times on accreting surfaces, but former dating techniques were too crude to estimate occupational timespan. New AMS dates have improved measurement precision of 0.2%. Single seeds or twigs were selected to date, as one assumes that carbonization typically soon followed growth. Stratigraphically superimposed samples were selected to aid investigation of the calendrical span of occupation.

Asch, David L. [271] see Asch Sidell, Nancy

Asch Sidell, Nancy (Center for American Archeology Research Associate) and David L. Asch (New York State Museum) [271] Early Archaic Archeobotany of the Koster Site, Illinois: The Horizon 11/12 Occupation From the lower Illinois Valley and Koster site, carbonized plant remains have been recovered systematically from components spanning nine millenia. The oldest well-documented assemblage from Koster Horizon 11/12 contrasts with younger Archaic/Woodland components in that it has (1) no cucurbits; (2) little nutshell, though several kinds are present; and (3) few starchy/oily seeds of the annual species that subsequently compose the pre-maize Eastern Agricultural Complex. Chenopod seeds and giant ragweed kernels were recovered, permitting morphological comparisons with more recent counterparts. Wood and nutshell spectra differences with respect to later assemblages may reflect economically important forest changes.

Ashcraft, Scott (Pisgah National Forest), Chris Espenshade (New South Associates, Inc) And J. Loubser (Stratum Unlimited) [101] The Hiwassee Petroglyphs Riverscape Twelve petroglyph groups and three fish weirs on a 3-mile stretch of the Hiwassee River in Western North Carolina represent an impressive riverscape. Situated 2.4 miles upriver of the Peachtree mound and village site, this area was within the historic Cherokee Valley Towns region. Numerous ethnographic references describe a prominent cultural and spiritual setting. Stylistic attributes indicate the petroglyphs may date from the Middle Woodland through Late Mississippian, yet all could be elements of a single Mississippian complex. The position of these petroglyphs along the Hiwassee River may represent a portion of a spiritual or ritual pilgrimage route to Peachtree.

Ashcraft, Scott [97] see Wettsstaed, James

Ashkanani, Hasan (University of South Florida), Robert Tyktot (University of South Florida) and Tatsuya Murakami (University of South Florida) [134] A Provenance Study of Pottery from Dilmun Sites in Kuwait and Bahrain Using Non-Destructive XRF Analysis Studies have been carried out to reconstruct cultural affiliation and chronological schematics of Bronze Age pottery in Kuwait and Bahrain. Fifty-eight sherds, ranging in date from the early second millennium BC to the mid-eighteenth century BC, were analyzed using a non-destructive, portable X-ray fluorescence spectrometer (pXRF), the first such scientific study in the Persian-Arabian Gulf. The analysis data of potsherds coming from three Dilmun sites from Kuwait (F3, F6 and al-Khidr) and Bahrain (Barbar) are subjected to multivariate classification procedures to examine their provenance and address trade and exchange in the Gulf's Bronze Age.

Ashley, Gail [127] see Malyk-Selivanova, Natalia

Ashley, Keith (University of North Florida), Robert Thunen (University of North Florida) and Vicki Rolland (University of North Florida) [136] Santa Cruz de Guadalquini: A Mission in Transition (1684-1696) Mission San Buenaventura de Guadalquini occupied three different locations along the Atlantic coast during its 95-year history (1607-1702). Between 1684-1696 the mission community had relocated to the south end of Black Hammock Island, Florida, where it was known as Santa Cruz. Excavations by the University of North Florida have uncovered artifactual, ecofactual, and structural evidence of this short-lived mission at the Cedar Point site, including unexpected items such as gunflints and tobacco pipes. This paper examines the site's late mission period material assemblage against a turbulent backdrop marked by threats of French piracy and British-backed slave raiding.

Ashmore, Wendy (University of California, Riverside) [236] A Prosopography of Maya Archaeology, 1972-2012 Borrowing learned prose for the title from Howard R. Hammond, this paper considers his place in the changing terrain of Maya archaeology over the last four decades. Whereas other session contributors focus insightfully on particular aspects of his Belize research programs, writings, and their impacts, I take a step back to look at how the development of Hammond’s research aims, their attainment, and the resulting dissemination of his thinking has articulated with and influenced the archaeological world in which we work, in Belize and beyond.

Asmerom, Yemane [208] see Aquino, Valorie V.

Asouti, Eleni [228] Concepts of subsistence economy in the Neolithic archaeology of Southwest Asia: a critical overview The investigation of the origin of food production has
been a major incentive for fieldwork in Southwest Asia that, as a result, contains some of the best known archaeological sequences of early food producing societies worldwide. However, little critical attention has been devoted to the history and development of the theoretical concepts used for describing and interpreting early plant management practices. This paper will contribute such a critical overview of the history of research on early food production in this world region.

Atalay, Sonja [56] see Feder, Kenneth L.

Atalay, Sonya (Indiana University) and Shannon Martin (Zibiwing Cultural Center - Saginaw Chippewa Indian Tribe of Michigan)
[194] Ezhibigaadek asin/Knowledge Written on Stone
The Ezhibigaadek asin/Knowledge Written on Stone project, funded by the Intellectual Property in Cultural Heritage initiative, is a community based participatory research project aimed at understanding intellectual property concerns related to the Sanilac Petroglyph site in Michigan. Application of Ojibwe cultural practices have already led to new forms of curation and care at the site. Our project is now examining how to share knowledge about the petroglyphs while ensuring they remain safe from exploitation. We will discuss ways that the project has inspired new areas of inquiry in intellectual property law, archaeological ethics, conservation, and sacred site management.

Atalay, Sonya [143] see Martin, Shannon [238] see Ketchum, Sheena A.

Atherton, Heather (Columbia University) and Severin Fowles (Barnard College)
[25] Comanche Archaeology and the Making of 18th-Century New Mexico
The Comanche were a major concern for both Spanish and Pueblo communities during the eighteenth century. Transformed by their adoption of the horse and their migration onto the southern Plains, the Comanche emerged as potent warriors, strategic traders, and savvy politicians whose reach extended from Canada to Mexico and from the Southwest to Louisiana. At their height, the Comanche were arguably the dominant political players in North America. And yet, the archaeology of the Comanche—particularly in the Southwest—is nearly non-existent. We remedy this situation, drawing upon research at both Comanche and Spanish sites in the northern Rio Grande.

Atherton, Heather [85] see Santiago, Emilio A.

Atici, Levent (University of Nevada, Las Vegas)
[94] Commingled Bone Assemblages: Contributions from the world of Zooarchaeology
Zooarchaeologists commonly sort out, record, quantify, analyze, and interpret extremely fragmented animal bone assemblages. This paper presents a multivariate and stepwise taphonomic approach and a comprehensive quantitative matrix. This methodological framework can be applied to both animal and human bone assemblages, can reveal assemblage formation processes, and can identify natural and cultural agents of bone accumulation, modification, and destruction. It is anticipated that the zooarchaeological approach presented here will also aid those who encounter commingled and fragmented human bone assemblages. This paper ultimately seeks to initiate a dialogue between forensic anthropologists and zooarchaeologists and to explore a shared methodological framework.

Atici, Levent [134] see Bobik, Aaron M.

Aubry, B. Scott [239] see Cook, Robert

Aubry, Scott (The Ohio State University)
[21] Interregional interaction in Mesoamerica: a morphometric analysis
Since archaeological correlates of contact may not correlate with the movement of people, biological data provide a unique was to investigate inter- and intraregional migration. Studies have looked into potential population movements, but these studies cannot be synthesized due to numerous methodological issues. This study examines the relationship between central Mexico and the Maya during the Epiclassic-Postclassic period area, by analyzing 17 samples from throughout the region. Estimates of biological distance between sites and of regional levels of genetic heterozygosity support some of the most common archaeological models for migration within and between these two regions during this time period.

Aucoin, Taylor (Louisiana State University) and Heather McKillop (Louisiana State University)
[172] Defining Activities Areas by Transect Excavations at the Eleanor Betty Underwater Maya Site, Paynes Creek National Park, Belize
A transect was excavated at the underwater salt work, Eleanor Betty, to investigate ancient Maya activities. The transect was associated with wooden architecture preserved in a peat bog in Paynes Creek National Park, Belize. The seafloor was densely packed with artifacts and one transect was excavated to determine if the artifacts were associated with saltmaking or settlement. We present our findings regarding the location of artifacts to the outside and inside of a wooden structure as well as an unexpected discovery of a shell midden.

Aura, J. Emilio [135] see Barton, C. Michael

Ausel, Erica (Indiana University Bloomington, Glenn A. Black Lab)
[184] On the Edge: Life and Death at the Angel Site
Although excavated over 80 years ago, the Work Progress Administration legacy collection of human skeletal remains from Mississippian site Angel Mounds (12VG1) has never been fully examined for its pathology. Holding a unique location on the western extent of the Ohio River Valley, Angel has much to contribute to our knowledge of the area. After a midcentury lag, interest in the skeletal collection was renewed in the late 1980s and continues in the form of a more detailed inventory and paleopathological analysis by the author. Presented here are the preliminary results of this work.

Authier, Martin (Southern Methodist University)
[178] Monument, Memory, and Exchange at Huarihanga, Peru
This paper presents data from Huarihanga on the north-central coast of Peru spanning three millennia.
demonstrating complex interrelationships between the construction of monumental architecture and participation in exchange systems. Between 3000 B.C. and 200 A.D. the architecture that defined the social conception of place at Huaricanga changed several times as did the social memory invoked by the monument and its associated activities. These changes coincide with fluctuations in exchange relationships both local and nonlocal. I propose that the social meaning of the built environment was intentionally altered to attract foreign exchange partners while maintaining important access to local subsistence exchange.

Aveni, Anthony (Colgate University) [269] Discussant

Aveni, Anthony [73] see Carballo, David M.

Avetisyan, Pavel [130] see Areshian, Gregory E.

Avila, Florencia and Axel Nielsen (CONICET, Argentina) [26] Ritual as Inter-Action with Non Humans: Mountain Pass Shrines along South Andean Caravan Routes

It follows from the premise of our title that, if the archaeological traces of interaction among humans afford the possibility of studying their social relations, the material contexts structured by ritual offer an opportunity for learning about non-human agents that inhabited the social world of past peoples. To illustrate this general idea we combine archaeological data from mountain pass sites documented along late Pre-hispanic caravan routes in the South Andes with ethnographic information in order to identify some of the non-human agents ancient travelers interacted with, exploring the frameworks of meaning and power that were mobilized in their relationship.

Avner, Uzi [234] see Nadel, Dani

Awe, Jaime (Institute of Archaeology) [236] “Ex Oriente Lux”: Norman Hammond and the Archaeology of Belize.

During the last four decades, few archaeologists impacted Belizean archaeology more than Norman Hammond. His investigations at Lubaantun in the 1970’s, and subsequently in northern Belize, were the first to apply modern analytical approaches to the study of Toledo prehistory, and one of the first projects in Belize to examine ancient Maya political organization at the regional level. Unquestionably, however, Norman’s greatest contribution is the vast amount of knowledge he produced on the Preclassic Maya of Belize. The purpose of this paper is to highlight Norman’s outstanding scholarship, and to publicly recognize the many significant contributions he has made to the archaeology of Belize.


Awe, Jaime [208] see Moyes, Holley [70] see Guerra, Rafael A.

Ayres, William [211] see Levin, Maureen J.

Baca Marroquin, Ancira Emily (University of Illinois at Chicago) [104] Building Wari and Inka Imperial Monumental Architecture: a comparative study in Moquegua and Asia Valleys

In Andean Empires with no written records, monumental architecture constituted an important media to communicate elite ideologies and to validate power among the local population. At provincial areas, proximity and resemblance with core monumental architecture became an important avenue to foster relationships and to associate provincial elites with Imperial administrators. Thus, Empire-Local relationships could be inferred by the quality and amount of labor invested in the construction of monumental architecture. I analyze Wari and Inka construction techniques at two archaeological sites in the Moquegua and Asia valleys to explore strategies employed by provincial elites to establish relationships with their imperial core.

Backhouse, Paul (Seminole Tribe of Florida) [3] Discussant


Interpretations of the Kura-Araxes archaeological phenomenon have passed through several stages: the initial picture of a unified culture was first replaced by investigations of local and chronological variation. This latter framework has itself recently given way to reconstructions of several closely related traditions unified by cultural-historical commonality. In this paper, we argue that the Kura-Araxes was a relatively homogeneous complex in its first stage as it spread from the Kura River to the upper Euphrates around 3500/3350-2900 BC. However, around 2900 BC this unified complex disintegrated into a mosaic of local ceramic styles that prevailed until ca. 2500 BC.

Badilla, Adrian [122] see Corrales-Ulloa, Francisco

Badillo, Alex Elvis [181] see Konwest, Elizabeth R.

Bailey, Amanda (University of Wisconsin La Crosse Alumni) [35] Floral Analysis of an Oneota feature and its implications

The Pammel Creek site (47Lc61) is located at the south end of the city of La Crosse, WI. Pammel Creek is an
Baker, Suzanne (Archaeological/Historical Consultants)
[259] Rock Art as an Untapped Data Source for Nicaraguan Archaeology
Archaeologists have often avoided rock art analysis, because of difficulties with dating and interpretation. Rock art, ubiquitous in Nicaragua, is an important data set that should not be ignored. To be useful, however, classification, a building block of science, is necessary. In archaeology, construction of descriptive typologies to elucidate cultural-historical patterns and temporal-spatial units has been contentious, but few have argued that ordering data through empirical classification is unnecessary. Traditional archaeological methods applied to rock art, such as motif description, classification, and quantification, while often difficult, can yield important data and hypotheses regarding contemporary theoretical questions about Nicaragua’s archaeology.

Balay, Anne (Indiana University Northwest)
[230] Steel Closets: Gay Steelworkers’ Allegiance to a Hostile Workplace
Steel mills as loci around which regional and personal identity coalesce. The mills are often closed, and the towns to which they are attached are empty, impoverished, violent shells. That they are wrecked or no longer in use doesn’t mean they don’t still define us, with pride and a certain suborn honor. This paper quotes from and analyzes accounts of current and retired steelworkers (drawn from interviews with the presenter) to understand how identity can be shaped. Focus is on GLBT steelworkers, who are often brutally harassed, but still proud of their jobs, and our region.

Balco, William (University of Wisconsin-Milwaukee)
[155] Social Entanglement and Mixed-Style Artifacts in Western Sicily
The theory of cultural hybridity has frequently been applied to studies of the relationships between colonizer and colonized in the western Mediterranean, using material culture to differentiate between indigenous, foreign, and hybrid cultural practices. Unlike other material culture studies which have examined social changes within polarized colonial entanglements, this paper examines the development of hybrid cultures resulting from prolonged indigenous interaction with both Phoenicians and Greeks in Iron Age western Sicily. Employing the theory of cultural hybridity, a model of cultural interaction is presented, accounting for changes in 7th to 4th century BC Elymian ceramic assemblages, social dynamics, and economy.

Baldwin, Lisa
[67] Tracing a Monument’s History: Incorporating Historic Inscriptions into the Ruins Preservation Program at Walnut Canyon National Monument
This poster presents the results of a project conducted at Walnut Canyon National Monument, Flagstaff, Arizona. Beginning in the 1880s, Walnut Canyon became a point of national and local interest. Early park visitors documented visits by writing their names within the cliff dwellings. The goals of the project included recording inscriptions and tracing authors to find primary documents, such as photographs and diaries pertaining to Walnut Canyon. Historic inscriptions provide a window into the past that allow us to view how visitors related to the monument and impacted the condition of the ruins.
Material. The spread of the Mississippian Message simultaneously political and religious, practical and the mid

The spread of Cahokian Mississippian ways of life during Cahokia's Big Bang [199]

Champaign) [199] Unraveling Entanglements: Reverberations of Cahokia's Big Bang

The spread of Cahokian Mississippian ways of life during the mid-11th through mid-12th centuries was a negotiated and heterogeneous process that was simultaneously political and religious, practical and material. The spread of the “Mississippian Message” from Cahokia included the mobilization of certain objects and buildings as material “messengers”. However, sometime after the mid-12th century these material, spatial, and human agents with which Mississippian identities were entangled appeared to have become targets of opposition. This paper explores the uneven acceptance of Mississippianism and the historical break with early Mississippian tradition which may represent a revitalization stemming from this earlier opposition.

Bamforth, Douglas (University of Colorado) and Mark D. Mitchell (Paleocultural Research Group) [51] Variable Horticultural Responses To Long-Term Temperature Change On The Great Plains

Two Plains cases highlight the complexity of horticultural interactions with climatic change. In southwestern Colorado and northeastern New Mexico, maize production tracks the rise and fall of temperatures from AD 1000 to 1200, possibly ending in local depopulation and violence. In the Middle Missouri, settled horticulturists relying on indigenous maize horticulture reached their maximum northern extent between AD 1200 and 1300 and remained in place into the 1800’s. These differences may reflect the availability of alternative resources, social changes within horticultural communities, and/or relations with neighboring groups, particularly (in the Northern Plains case) hunting groups.

Banks, Kimball M. [245] see Hull-Walski, Deborah A

Barber, Sarah (University of Central Florida) and Arthur Joyce (University of Colorado at Boulder) [19] Negotiating Political Centralization in Terminal Formative Coastal Oaxaca

In Oaxaca, Mexico, the Terminal Formative period was marked by the initial development of regional polities, characterized by urban centers and ruling elites whose authority extended over large geographic areas. We examine the terms by which this expanded authority was defined and legitimized, with a focus on the lower Rio Verde valley on Oaxaca’s Pacific coast. We assert that early regional authority in Oaxaca was the outcome of negotiations among the diverse social groups that constituted the polities. Rulership was shaped by traditional notions of collective action that both enabled and constrained the expansion of centralized authority.

Barberi, Maira [277] see Silva, Rosicler T.

Bárcena, Joaquin (INCIHUSA-CONICET, FFyL-UNCuyo, UNLaR) [52] Archaeology and ethnohistory of local populations and their relationship with Inka domination, along the extreme southeastern frontier of the Tawantinsuyu

Inka expansion advancing along northeast and central-east Argentina met with populations, who given their socio-political-economic organization, proved difficult to subjugate. This was the case with the Huarepe ethnic group of San Juan and Mendoza, the region of the furthest Inka enclaves in Argentine territory. More labile and particular was the situation in relation with the most southern populations, hunter-gatherers – later equestrian bands – with wide territorial movement, such as the Puelche and Pehuenches ethnic groups, in respect to the Tawantinsuyu frontier along the Río Diamante. This situation led to the Inka establishing what seems a
South suggest that given its abundance, this is unlikely. Furthermore, some Mission Espiritu Santo manufactured the wares; yet Ethnohistoric records indicate that a single group living at Texas missions during the Spanish Colonial period.

Barker, Alex (University of Missouri) [266] The Curious Case of the Gorget That Wasn’t There Engraved shell art from the trans-Mississippi south includes a range of figural depictions with remarkably detailed representations of dress and regalia. Almost all elements of ceremonial dress are depicted in exceptional detail. But despite this consistent richness of detail, one of the most ubiquitous elements—engraved shell gorgets—are conspicuously absent. What are assumed to be gorgets are often depicted, but invariably by a simple circle or circle with a dot at the center. Given the richness and detail with which other elements are regularly depicted, why are shell gorgets—if these are gorgets—consistently represented in this manner?

Barker, Claire (University of Arizona) and Lisa Young (University of Michigan) [216] Ceramics and Exchange Networks: Exploring Social and Economic Interactions at Pueblos and Out of Phase Pithouses Generally, scholars treat the pithouse-to-pueblo transition as a sequential change. However, in some areas, such as Homol’ovi in northeastern Arizona, pithouses were used until the early 1200s, just prior to the period of Pueblo aggregation. This research compares the ceramic assemblages from a pithouse village and a roughly contemporaneous neighboring pueblo to examine the exchange networks used by the residents of these two settlements. This comparison provides insights into the complex relationships that residents of pithouse and pueblo communities had with their neighbors of northeastern Arizona, revealing the exchange networks used by residents of both sites to acquire ceramic vessels.

Barkwill Love, Lori [183] see Hard, Robert J.

Barnes, Monica (Andean Past) [178] Storage in Huánuco Pampa: A Re-evaluation In the mid-1960s, John Murra directed research centered on the Inca site of Huánuco Pampa. Murra and his team worked recorded a field of aligned stone foundations in Muyuwaynin, on the western edge of the site. I suggest that these are the remains of storehouses not included by Craig Morris in his landmark dissertation, Storage in Tawantinsuyu, and publications derived from it. These storehouses resemble those found in the Cochabamba Valleys of Bolivia later studied by Morris and David Pereira. Circular foundations of large stones enclose gravel floors and served as bases for earthen walls and thatched roofs.

Barnett, Kay E. [85] see Reese, Kelsey

Barnett, Kristen [132] see Prentiss, Anna Marie

Barnhart, Terry [56] see Feder, Kenneth L.

Baron, Joanne (University of Pennsylvania) [19] Community Gods and Community Conflicts: Patron Deities at La Corona, Guatemala Although much is currently known about Classic Maya religion, the veneration of patron deities—gods of local importance at particular sites—has been under-explored. Hieroglyphic inscriptions indicate that Maya rulers emphasized this veneration and claimed close, personal relationships with these deities. This paper will explore archaeological evidence for patron deity veneration at the site of La Corona, Guatemala. I will discuss the ways in which different social sectors participated in this veneration and the ways in which the local elite used these religious practices to foster a sense of community while simultaneously enhancing their own authority over rival elites.


Baron, Joanne [151] see Canuto, Marcello A.

Bar-Oz, Guy (University of Haifa) [234] First Chair

Bar-Oz, Guy [234] see nachmias, amnon [234] see Nadel, Dani [234] see Zeder, Melinda A.

Barr, W. Andrew [117] see Reed, Denne N.

Barrett, Thomas (Cultural Resource Analysts, Inc. (CRA)) and Stephen Brighton (University of Maryland) [132] Understanding Patterns and Processes in the Past and Making Archaeology Relevant In The Present: Applying Processual Principles to Prehistoric and Contemporary Archaeologies Binford’s conceptualization of cultural transformation through various processual levels changed the
landscape of archaeology. It also spawned an opposing school of thought (post-processualism) reacting to social patterns and meta-narratives. The latter, focusing on local site-specific context, is where historical archaeology finds itself theoretically. The divisiveness between the two camps creates a rift in archaeology. This paper attempts to bridge that gap by employing our understanding of Binford’s intentions for future archaeology in which temporal and spatial analytic frameworks in unlikely contexts such as Teothuacan and Manhattan can be considered together to form a relevant discourse on the human condition.

Barrientos, Tomas (Universidad del Valle de Guatemala), Arthur Demarest (Vanderbilt University), Marcello Canuto (Tulane University) and Liliana Padilla (La Corona Regional Archaeological Project)

[151] Political Strategies of the Kan Kings: The Role of Palaces along the Calakmul-Cancuen Royal Road

During the VII century AD, the Maya center of Calakmul carried out a major expansionist program that resulted in the control of important cities such as Sak Nikte’, Waka’, Hix Witz’, Dos Pilas, and Cancuen. This allowed Calakmul to create a “royal road” that facilitated commerce and political interaction among its allies. To achieve such unprecedented territorial control, the rulers of Calakmul used military force, but also relied on other political strategies such as marriage alliance. This paper will explore the role of palaces at the sites of La Corona and Cancuen as material evidence of these political strategies.

Barrionuevo Alba, Monika (Universidad Inca Garcilaso de la Vega)

Las actividades diarias a nivel de la unidad doméstica: el caso de la Unidad 17 en Cerro Mejia

Las excavaciones y el análisis de los materiales de una unidad doméstica del Horizonte Medio en Cerro Mejia, Moquegua, Perú han dado luces sobre las actividades diarias realizadas a nivel familiar. Estas actividades estarían relacionadas a la producción de cerámica en un nivel de tratamiento de materiales como arcillas y desgrasantes. Ésto, cruzado con los datos sobre el origen foráneo de sus habitantes nos ayudaría a entender las relaciones interétnicas que se dieron en esta región durante el Horizonte Medio.

Barros, Maria [159] see Messineo, Pablo G.

Barse, William (Smithsonian Institution)

[277] The Orinoco in Prehistory

The Orinoco in Prehistory This paper outlines the preceramic to ceramic cultural sequence in the Orinoco River area based on 27 years of stratigraphic excavations and research into extant museum collections. Small single-component, radiocarbon-dated preceramic sites encapsulated in buried paleosols reflect early Holocene occupation of the Orinoco region. Ceramic components from Barrancas, Ronquin and Arauquin traditions are found in sequent paleosol contexts and reflect a lengthy Formative tradition that was eclipsed at European Contact. Key sites related assemblages and their dates are reviewed. Sequence implications for the greater tropical lowlands are discussed.

[277] First Chair

Bartlett, Shelbie (University of Oklahoma)


In this study, I examine “kill holes” found in Classic Mimbres black-on-white ceramic bowls from the Mimbres Valley in southwest New Mexico. I especially look at those bowls with “kill holes” that were found in burial contexts and compare my findings with similar burial goods and rituals in other archaeological and ethnological settings. I hypothesize that there is a connection between “kill holes” and the images found on those vessels which have been “killed” and placed in burial contexts.

Bartlett, Shelbie A. [140] see Gilman, Patricia A.

Barton, C. Michael (Arizona State University), Valentin Villaverde (Universidad de Valencia), Joao Zilhao (Universidad de Barcelona), J. Emili Aura (Universidad de Valencia) and Oro Garcia (Universidad de Valencia)

[135] In glacial environments beyond glacial terrains: human adaptation in Mediterranean Iberia 22,000 – 12,000 cal-BP

The Iberian peninsula south of the Ebro River enjoyed one of the mildest climates of Pleistocene Europe, but still experienced significant and rapid environmental shifts caused by global climate regimes. We combine information from sites across eastern and southeastern Spain with systematic survey data from an intensive study area within this larger region to examine behavioral adaptations to the extreme environmental shifts of the last two Pleistocene stadials (GS2 and GS1). We focus on the interplay between technological, social, and land-use dynamics as culturally mediated responses to extreme climate change outside the periglacial zone.

[103] Discussant

Barton, C. Michael [103] see Bergin, Sean M.

Barton, Kevin [9] see Davis, Stephen R.

Barton, Loukas (University of Pittsburgh)

[273] Plague or promotion? Pastoralism comes to arid East Asia.

Arid lands adaptive strategies are often modified through the intensification of labor. Pastoralism however provides an alternative solution, and both the origin and expansion of it have been linked to heightened aridity and volatility in already marginal areas. The same may be true in northern China where extensive pastoralist economies appear to replace intensive agricultural ones in the face of mounting mid-Holocene aridity. This tenuous pattern is evaluated here with stable isotope biochemistry. Intensification and adaptation are further evaluated by considering the economic trade-offs between agriculture and pastoralism in arid environments and the potential for evaluating them with archaeological data.

Barton, Loukas [141] see Chisholm, Linda C.

Bartone, Robert (Northeast Archaeology Research Center), Ellen Cowie (Northeast Archaeology Research Center), Michael Brigham (Northeast Archaeology Research Center)
Archaeology Research Center) and Arthur Spiess (Maine Historic Preservation Commission) [268] Four Newly Identified Paleoindian Sites: New Insights into the Early Paleoindian Period of Central Maine
Recent research conducted in Auburn, Maine has identified four newly recorded Paleoindian sites within the Androscoggin and Royal River drainages. The Taxiway, Beacon Hill, Lamontagne and Keogh sites are within 2.0 km of each other, and in close proximity to three other known Paleoindian sites, notably including the Michaud site. This site cluster spans approximately 500 years based on discernible projectile point forms. The four sites exhibit similarities and distinct differences in setting, lithic raw material use and the general suite of artifacts, suggesting temporal differences as well as variation in lithic procurement strategies and site function.

Bartone, Robert [268] see Cowie, Ellen R.

Bartosiewicz, László [75] see Bonsall, Clive

Bar-Yosef, Ofer (Harvard University) [163] Late Pleistocene foragers' subsistence in south China
Foraging strategies during the Late Glacial Maximum and Terminal Pleistocene in south China are best recorded in cave excavations. Animal bones are abundant but much less is known about plant remains. The scanty evidence is presented with additional comments concerning seasonality, mobility, and indications for semi-sedentism. Stone tools, pottery, bone tools as well as experiments with the use of bamboo are taken into account in reviewing life ways of late hunter-gatherers in this region.

Bar-Yosef Mayer, Daniella (Tel Aviv University) [63] Mollusc shell research at Çatalhöyük, Turkey
Shells in Neolithic Çatalhöyük in Anatolia include local freshwater sources from lakes and rivers, and shells from the Taurus mountains and the Mediterranean coast. Species used as ornaments and artifacts form about 10% of the assemblage throughout the site and species selection reflects a Palaeolithic tradition. Freshwater shells are dominated by Unio that served as a food source, especially in the lowermost level of the site, and as a raw material for various artifacts. Brick, mortar and plaster include numerous micro freshwater snails that reflect lentic and lotic environments.
[63] First Chair

Barzilai, Rebecca (Indiana University, Bloomington) [184] Painting walls in the Lower Ohio River Valley: Investigating the perceived landscape of the Angel Site (12Vg1) and beyond
Patterns painted on daub walls or on clay floors are seen archaeologically in the prehistory of the Lower Ohio River Valley, but are critically under reported. In his 1967 publication of the excavations at the Angel Site (12Vg1), Glenn A. Black mentions the presence of painted daub found during excavation, but does not expand on its significance or associated features. This poster attempts to trace the ideological implications of this practice through ethnohistoric and archaeological sources from the American Southeast as well as through mineralogical and component analysis of the painted daub at the Angel Site.

Basgall, Mark (CSU Sacramento), Peter Veth (Australian National University) and David Zeannah (CSU Sacramento) [273] Understanding Economic Intensification in Arid North America and Australia
North America and Australia offer venues for comparing the intensification of foraging economies in arid environments. archaeological research in the southwestern Great Basin reveals a punctuated sequence that challenges simple predictions of foraging models, appearing to result from the interplay of mobility and technological organization within complex resource landscapes. While arid Australia has not been documented in the same detail, the broad framework of technological change is commonly ascribed to intensification and organizational responses to climatic stochasticity. We consider implications for Australia based on our understanding of how intensification played out in the Great Basin.

Bassie, Karen [4] see Hopkins, Nicholas A.

Bastakoti, Dinesh [111] see Nelson, Aimee M.

Bate, Emma (Indiana University) [165] Of Abaco Redware and Crooked Island Ware: Lucayan Ceramic Technology at the Long Bay Site, San Salvador Island
Ceramics constitute more than 90% of the artifacts from prehistoric sites in the Bahamas, yet the ceramics used by the prehistoric Lucayans of the Bahamas are incompletely understood. To address this issue, a methodology that included thirty-two different attributes was used to examine the ceramics from the Long Bay Site, San Salvador Island. The analysis indicated that the traditional division of Lucayan ceramics is oversimplified. Slipped ware types, though underreported in the literature, constitute a significant portion of the Long Bay assemblage. This approach illustrates the need to reexamine preconceived ideas about the variability of Lucayan ceramics.

Bates, Brian (Longwood University) [124] Mortuary Practices at 44CH62 – The Randy K. Wade Site
Archaeological investigations at the Wade Site have resulted in the examination of a number of intact human burials. This paper will discuss the research protocol that is in place to deal with human remains in a manner that is respectful of the concerns of both the native and scientific communities. The paper will then turn to the variety of evidence of mortuary variability at the Wade site and what that may indicate about social stratification, among other cultural phenomena.

Bates, Brian [6] see Garcia, Joseph E.

Bates, Lennon (University of Central Arkansas), Carolyn E. Boyd (Shumla School) and Karen L. Steelman (University of Central Arkansas) [255] How old is the Pecos River Style? Radiocarbon dating a pictograph from Black Cave
A Pecos River Style image from Black Cave (41VV76) was radiocarbon dated using plasma oxidation and accelerator mass spectrometry. We collected a 2 cm2
paint sample from an image of a black deer impaled by a red spear. We obtained an age of 1465 ± 40 years BP, corresponding to a 2s range of 535 - 660 calAD. Although many radiocarbon dates have been obtained for rock art in the Lower Pecos River Region of southwest Texas, detailed stylistic information for these dates is unknown. This younger result for the Pecos River Style suggests that additional dating studies are needed.

Batten, David [218] see Durand Gore, Kathy

Battilino, Jenna (Washington State University) [88] Re-examination of Quantitative Mortuary Data from Hawikku Cemetery
A mortuary dataset from the Zuni site of Hawikku was quantitatively examined. Temporal change in mortuary practices and factors dictating burial richness were of particular interest; analyses were aimed toward elucidating such patterns. Associations were found between time period and richness, burial type, and flexure. Certain age groupings were also significantly correlated with these variables. Individual cemeteries demonstrated associations with burial richness, but potentially as a result of differences in time period representation (over 300 years occupation) and relative sample size. Increasing burial richness over time may be demonstrative of changes in social stratification and leadership during post-contact periods.

Bauer, Alexander [212] see Casson, Aksel

Bauer, Andrew (DePauw University) [91] The Nature of Place: An Historical Ecology of South India's Iron Age Landscapes
In this paper I detail how the human modification of landscape features (e.g., rock pools, weathering pits, and erosional check dams) produced both an historical ecology and a symbolic spatial field that constrained and enabled socio-political actions during the South Indian Iron Age. I make the point, however, that the meaningful landscape was not solely a product of cultural activities, political actions, and symbolic forms, but also a product of other dynamic environmental constituents (e.g., soils, stones, and animals) that contributed to the historical uses, maintenance, and social histories of the places that comprised it.

Baumann, Timothy (Glenn A. Black Laboratory, Indiana University) and G. William Monaghan (Glenn A. Black Laboratory of Archaeology, Indiana University) [164] New Research with Old Data at the Glenn A. Black Laboratory of Archaeology
The Glenn A. Black Laboratory of Archaeology (GBL) was established in 1965 at Indiana University as an independent research center to promote the study, preservation, and education of Indiana’s rich archaeological heritage. The core of the GBL’s archaeological collection was transferred from the Indiana Historical Society, who began sponsored research in the 1930s, including WPA excavations at Angel Mounds, a large Mississippian site near Evansville. The GBL collection now contains nearly 12,000 archaeological collections, representing millions of artifacts, from Indiana and the Midwest. Contemporary research is reanalyzing these older collections with advanced multidisciplinary methods and new research questions/paradigms.

Baumann, Timothy [114] see Herrmann, Edward [239] see Schilling, Timothy M. [184] see Kruis, Anthony M.

Baustian, Kathryn (University of Nevada, Las Vegas) [94] Third Organizer

Baustian, Kathryn [94] see Osterholtz, Anna J. [116] see Martin, Debra L. [105] see Roth, Barbara J.

Bautista, Stefanie (Stanford University) and Jessica Kaplan (University of California, Santa Barbara) [26] Seeing the Sacred: Investigating Early Andean Ritual Practice Using Visibility Analysis
Archaeological theories about pre-Inca ritual practice are strongly influenced by modern day ethnographic accounts of mountain worship and historical accounts of Inca (1400-1532 A.D.) religion. Andean archeologists have commonly considered Cerro Blanco, a white sand dune located in the Tierras Blancas Valley, Peru, to be an apu or sacred mountain for the Nasca people (1-700 A.D.). Using GIS viewed analysis, this paper will test whether Cerro Blanco is visible from known Early Horizon (800 B.C. – A.D. 1), Early Intermediate Period (1-700 A.D.) and Middle Horizon (550 - 900 A.D.) sites in the Southern Nasca Region.

Baxter, Carey [9] see Hargrave, Michael L.

Baxter, Jane (DePaul University) [224] Investigating Absence: Assessing the Cumulative Effects of Casual Collecting at a 19th Century Bahamian Plantation
Recent investigations at Prospect Hill Plantation, San Salvador, The Bahamas, showed the quantity and quality of artifacts in the residential areas associated with the planter family and the enslaved population were inverted, and suggested significant alterations had occurred after the site’s abandonment. The site of Prospect Hill has been a destination for tourists and students since the mid-20th century, and the areas of the site accessible to these visitors are those with surprisingly low artifact counts. The possibility that this consistent visitation involved casual collecting was investigated historically, and also tested using artifact assemblages from archaeological work at Prospect Hill.

[143] Discussant

Baxter-Stolzfus, Amelia [59] see Lozada, Maria Cecilia

Bazaliiskii, Vladimir (Irkutsk State University), Robert Loose (University of Alberta), Mietje Germonpre (Royal Belgian Institute of Natural Sciences), Mikhail Sablin (Zoological Institute of the Russian Academy of Sciences) and Sandra Garvie-Lok (University of Alberta) [157] New Data on and Interpretation of Dog Burials in Siberia’s Cis-Baikal
The Lake Baikal region of Eastern Siberia is well known for its large hunter-gatherer cemeteries, many of which have been intensively studied through the Baikal Archaeological Project. This same area also has
produced several elaborate dog burials, almost always within human cemeteries. This paper examines these practices through a suite of new data, including that from osteological analyses, radiocarbon assays, and stable isotope analyses. These data indicate substantial variability in dog diets, some being dominated by terrestrial mammals, others by fish. Further, dogs only appear to have been buried during time periods during which human burials also were made.

Bazaliiskii, Vladimir [251] see Losey, Robert J.

Beach, Tim [66] see Flood, Jonathan M.

Beach, Timothy (Georgetown University), Sheryl Luzzadder-Beach (George Mason University), Richard Terry (Brigham Young University) and David Dixon (Tulane University) [167] Bruce Dahlin and Subsistence in Maya Soil Research

Bruce Dahlin contributed to our understanding of Maya subsistence from his work on ancient Maya Wetlands, to the Petén Bajos, and to what he called the “depauperate” Northern Coastal Plains of Yucatán. We consider the meaning, role, and limits of subsistence in soil archaeology at Pakbeh and the northern Belize wetlands. These two regions provide different ranges of possibilities and limits, from perennial wetlands to the driest part of the Maya world; yet the drier region had a higher population density. We consider evidence for whether these regions played contrary roles: one of an importer and one of a breadbasket.

[167] First Chair

Beach, Timothy [167] see Luzzadder-Beach, Sheryl [167] see Dunning, Nicholas P.

Beahm, Emily (University of Georgia) and Kevin Smith (Middle Tennessee State University) [266] Hero Twins and The Old Woman Who Never Dies: Mythic Themes in Middle Cumberland Iconography

Scholars recognize that the Mississippian world can be divided into "style regions" based on differential expression of certain iconicographic motifs and themes. Simply put, Mississippian people drew from a shared corpus of mythic story cycles, but in geographic areas they emphasized different themes to create distinct sets of objects accentuating regional identity. Peoples of the Middle Cumberland region emphasized (at least) two significant themes -- "Hero Twins" and the "Old Woman Who Never Dies" -- that link many iconicographic object types. The notion of mythic themes makes the sometimes enigmatic nature of individual iconicographic objects more transparent and interpretable.

Beardmore, Rebecca (University College London) [103] Perspectives on Iron Age agropastoralist landscape use in Semirech'ye from phytolith and geoarchaeological analysis: a comparison of two different ecological zones

This paper will present comparative data from Iron Age sites in the Semirech'ye region: the high-mountain ‘temporary camp’ of Turgen II, and sites located on the Talgar alluvial fan. Results of phytolith analysis will be presented together with conclusions drawn from geoarchaeological investigations to consider agropastoralist landscape use in these two different ecological zones. The contribution of these analyses to the interpretation of pastoralist landscapes will be explored with reference to other archaeological research methods. The aim is to illustrate how these ‘spotlights’ on past activity contribute to wider interpretations of pastoralist choices relating to economic activity and landscape use.

Beatty, Katherine [59] see O'Donnabhain, Barra

Beaule, Christine (Univ of Hawaii at Manoa) [219] Ceremonial Drinking and Feasting in Cross-Cultural Perspective

Andean indigenous leaders used maize beer as part of reciprocal exchanges that affirmed their authority and the solidarity of ayllu (kinship group or community) members at the time of Spanish contact. The drinking vessels used for chicha consumption are found in contexts from the Middle Horizon to the present. This study employs a set of keros, queros and aquillas from museum collections and archival data from several Prehispanic and Colonial Period cultures to explore long-term patterns in ritual drinking and feasting. In the process, I build a model of cross-cultural contact, colonialism, and material styles for application to other regions.

[219] First Chair

Beauregard, Esther (Trent University) and Gyles Iannone (Trent University) [61] Explaining Middle Level Settlement Variability in the Ancient Maya World

The middle level of the ancient Maya settlement continuum consists of a diverse array of settlement units exhibiting varying size, organizational complexity, function, and proximity to city-state capitals. Traditionally referred to as “minor centers,” these sites are both smaller, and more specialized, than the city-state capitals, and larger, and more complex, than the myriad of lower level settlement units inhabited, and/or used, by the majority of commoners. Three competing models have been offered to explain the variability inherent in this level of the settlement continuum. This presentation will critically evaluate these models using a variety of archaeological data sets.

Beauregard, Esther [61] see Schwake, Sonja A.

Beck, Charlotte (Hamilton College) and George T. Jones (Hamilton College) [241] Dunnell’s Selectionist Vision: Why did it not have more of an Impact on the Discipline?

Robert Dunnell was first and foremost a theoretician, and while some of his ideas like paradigmatic classification have seen relatively wide use, others, like his evolutionary program, have not. One of the primary problems with the selectionist approach has been the difficulty in applying it archaeologically. It is telling that the majority of selectionist publications are theoretical rather than substantive. When the latter is the goal, most archaeologists favor transmission, within the behavioral ecology paradigm. Why has this been the case? Here we explore possible reasons why the archaeological community gave Dunnell’s evolutionary program such a lukewarm reception.
Beck, Charlotte [84] see Bennett, Kathryn A.

Beck, Del [268] see Stewart, R Michael

Beck, Jess (University of Michigan - Museum of Anthropology)
[141] Diachronic Change in Avifaunal Exploitation at Four Late Pueblo Village Sites in Southeastern New Mexico
This poster explores diachronic change in the exploitation of avifauna at four late prehistoric pueblo village sites in southeastern New Mexico—Fox Place, Rocky Arroyo, Henderson, and Bloom Mound. A variety of artifactual and faunal evidence indicates that between AD 1250-1450 these villages underwent significant changes in economy and organization, as they became increasingly involved in long-distance bison hunting and Plains-Pueblo exchange. By analyzing the species composition, skeletal part representation and proportion of avifauna relative to bison and other taxa, the impact of subsistence practices, environmental change, and ritual selection on avian assemblages at these sites is investigated.

Beck, Robin (University of Utah) and Douglas J. Kennett (The Pennsylvania State University)
[141] Inferring Prey Population Histories with Ancient DNA: A Case Study in Molecular Zooarchaeology
Zoarchaeologists interested in the complex relationships between prehistoric hunters and their prey routinely work to develop population histories of exploited taxa. Animals maintain a molecular record of their histories and ancient DNA methods provide access to this record. This poster summarizes research that uses the genetic record of Guadalupe fur seals (Arctocephalus townsendi) from Middle and Late Holocene assemblages at four sites on California’s Northern Channel Islands to develop a long term history of these populations. These data are then used to evaluate a longstanding debate in California archaeology about the effect of prehistoric hunting of these animals.

Beck, Charlotte (University of North Carolina, Chapel Hill)
[105] Labor, Gender, and Identity: Bioarchaeological Activity Patterns in Individuals from the Tiwanaku State (AD 500-1100)
Organized labor is a known key component to the development of state-level societies. However concepts of labor in prehistoric societies can sometimes overshadow the actual individuals involved in activity and production. I provide a comparative framework of specific skeletal evidence to the archaeological record using biological markers to infer how habitual activity varies within Tiwanaku state formation both in the Titicaca Basin, Bolivia and the Moquegua Valley, Peru. These bioarchaeological activity data add specific insight into the routine of individuals and their contributions to the social groups, revealing divisions of labor such as status and gender differences.

Beddows, Patricia
[227] Exploring the Hydrogeology and Hydrogeochemistry of the Holbox Lagoon
The north coast of the Yucatan Peninsula is intersected by the extensive Holbox Fracture Zone that includes N-S seasonally flooded depressions. The potential for significant fresh water discharge from the regional fresh water aquifer exists notably at fracture intersections in this karst system, yet the water sources necessary to the inhabitants of Vista Alegre over 3 millennia remain unknown, and may have been blocked by rising Holocene sea levels. The possible residual sources of fresh water around Vista Alegre are explored using hydrogeochemistry, and evidence for obscure paleo sources sought in geochemical analysis of a series of sediment cores.

Beddows, Patricia
[227] see Goodman Tchernov, Beverly N.

Beekman, Christopher (University of Colorado Denver)
[21] El Grillo and Epilogue. The Reestablishment of Community and Identity in Far Western Mexico
Far western highland Mexico may provide the earliest evidence for the disruptions that emerged elsewhere during the Epiclassic. The distinctive Teuchitlán culture of the Late Formative and Early Classic was replaced with strikingly different architectural traditions, burial patterns, and ceramics (the El Grillo complex) with apparent origins to the east. I reconsider this material in light of recent proposals as to how community and identity are reestablished or reorganized after migration. Unlike central Mexico, the area remained politically fragmented at the time of the Conquest and no language ever became associated with greater prestige.
[237] Discussant

Beeton, Tyler (Colorado State University), Anna Trainer (Colorado State University), Michelle Glantz (Colorado State University) and Sayat Temirbekov (Natural Resource Ecology Laboratory)

[202] Reconstructing hominin water access in Pleistocene Central Asia
Although the Paleolithic occupation of Central Asia is well documented, explanatory models that rely on multiple lines of evidence to characterize hominin land use is currently lacking. The present study applies GIS analytical tools and spatial statistical modeling to better understand the relationship between occupational intensity, water access, climate and range size. The working hypotheses are two-fold: 1. occupational intensity and proximity to water are inversely related and, 2. range size changes as a function of climatic oscillations. Results indicate that occupational intensity does not predict proximity to water. Additionally, hominin range size contracts in response to climate deterioration.

Begley, Christopher (Transylvania University)

[56] The White City of the Mosquito Coast: What the Legend Says about Ancient and Modern Honduras
A persistent legend of a lost city in the jungles of the Mosquito Coast of Honduras provides an important means by which to explore the relationship of the present and past. An examination of various versions of this legend, from 16th century Spanish accounts to modern versions told by indigenous peoples like the Pech and Tawahka, reveals significant differences in the content, origin, meaning, and utility of the myth in its various iterations. These differences can be related to specific prehistoric, historic and modern contexts and help explain how the legend endures and remains compelling.

Begley, Christopher [41] see Crane, Eli R.

Begun, Erica (University of Iowa)

[98] Exploring the Michoacan Presence at Teotihuacan
A presentation of my dissertation research looking for evidence for the construction and maintenance of a distinctly West Mexican ethnic identity at the N1W5:E19 apartment compound at the site of Teotihuacan (Mexico). Analysis of household material, along with the burials from the compound, was done in order to identify markers that may indicate an ongoing or ethnically unified presence of people from Michoacan during the Classic period occupation of the site.

Behrensmeyer, Anna K. [96] see Du, Andrew

Beier, Zachary (Syracuse University)

[276] The Materialization of Military and Black Identity at the Cabrits Garrison, Dominica (1765-1854)
The West India Regiments, raised by the British in 1795 and composed of recently imported African slaves, began their tenure at the Cabrits Garrison shortly thereafter. Archival research along with shovel test data and intra-site comparisons have provided unique insights into the lives of Afro-Caribbean soldiers in this British outpost, which, due to a variety of factors, earned its reputation as a “black garrison.” The following paper situates this case study within global systems of distribution to demonstrate the materializations of these regiments, as well as their crucial role in testing the boundaries of colonial identities in the Atlantic World.

Bejko, Lorenc [119] see Deskaj, Sylvia

Belardi, Juan Bautista [132] see Goni, Rafael

Belisle, Veronique (Trent University)

[92] When the State Meets the Community: Rethinking Wari Impact in Cusco, Peru (AD 600-1000)
During the Middle Horizon (AD 600-1000) Wari polychrome pottery started to appear at villages throughout Peru, leading many scholars to believe that the Wari state conquered widely and established control over several provinces across Peru. My research documents how families living outside the Wari heartland experienced Wari state expansion into their area. In the Cusco region (south highlands of Peru), excavations at Ak’awillay show that local families were little affected by Wari presence; they continued to practice the same kinds of domestic and ritual activities as they had before and continued to procure pottery and stone through regional exchange networks.

Bell, Alison (Washington and Lee University), Donald Gaylord (Monticello) and Erika Vaughn (Washington and Lee University)

[214] Site Dating and Ceramic Use Wear: Variability in Socio-Spatial Mobility and Consumer Strategy
Archaeological excavations at domestic sites occupied by enslaved and free residents of central Virginia plantations suggest variability in the degree to which mean ceramic dates coincide with site occupation periods documented in historic sources. We explore this issue focusing on the late 18th and early to mid 19th centuries through archival sources, ceramic use wear analysis, and artifact data in the Digital Archaeological Archive of Comparative Slavery. We hypothesize that discrepancies between site dates derived from archaeological and archival data stem largely from varied consumer strategies linked to prospects for socio-economic and physical mobility.

Bell, Colleen (University of Tulsa)

[63] Hafting Techniques in Southern Jordan: An Analysis of Natufian Lunates
This paper will investigate the hafting techniques and lunate types of Southern Natufian sites in Jordan. Particular attention is paid to the co-variation between the retouch varieties of lunates and hafting mechanisms. Additionally, contact areas will be examined for residues through chemical analysis. Sites representing both early and late settlements are examined to explore these potential changes over time. Previous research has been conducted on Northern Natufian sites (Yaroshevich et al, Journal of Archaeological Science 37, 2010). This current project will build on that research and examine those findings with the results from Natufian settlements in the south.

Bell, Colleen [232] see Odell, George H.

Bell, Matthew J. [226] see Morrison, Alex E.

Bello, Charles (Federal Emergency Management Agency (FEMA-DHS)) and Brooke Persons (U.S.)
Virgin Islands State Historic Preservation Office [276]


The impact of weather events on cultural resources is a well-known phenomenon throughout the Caribbean, and local governments are often challenged in their ability to address such concerns. Accordingly, this presentation will focus on a recent collaboration between Federal Emergency Management Agency, the Virgin Islands State Historic Preservation Office, and the Government of the US Virgin Islands, to analyze cultural resources and repair historic properties that were damaged during flash flooding events in the fall of 2010 in Frederiksted, St. Croix.

162 Discussant

Bollorado, Benjamin (Winston Hurst Inc., Abajo Archaeology) [255]

Leaves Only Footprints: The Dating and Context of Pueblo III Sandal Imagery in the Comb Ridge and Cedar Mesa Areas

Sandal and depictions of sandals or sandal tracks held special meanings to ancestral Puebloan peoples. Analyses of Comb Ridge area survey data and tree-ring dating of intact kiva roofs on Cedar Mesa suggest that a tradition of rock art and kiva murals depicting sandals or sandal tracks was pervasive in southeastern Utah between A.D. 1200-1250. Many of these sandal images show a repertoire of distinct tread design layouts and construction techniques that may identify individuals and group identities across the landscape. This presentation discusses the dating and context of sandal imagery throughout Comb Ridge and Cedar Mesa in Southeastern Utah.

Bement, Leland (Oklahoma Archeological Survey, OU) and Brian Carter (Oklahoma State University) [55]

Folsom Bison Hunting on the Southern Plains of North America

Landscape evolution, site stratigraphy, animal behavior, and hunting technology highlight and help define archaeological investigation of Paleoindian sites across the North American Plains and describe some of the critical expertise and topics contained in the legacies of George Frison and C. Vance Haynes, Jr. The methods developed and applied by these researchers continue to shape archaeological inquiry as we illustrate through a discussion of Folsom bison hunting adaptation along the Beaver River in northwest Oklahoma. Reconstructing the timing, environment, and distribution of arroyo development is integral to improving our understanding of the Folsom bison hunting adaptation.

Bement, Leland [234] see Carlson, Kristen

Benden, Danielle (University of Wisconsin-Madison), Robert Boshardt (Independent Scholar) and Timothy Paukert (University of Illinois-Urbana/Champaign) [198]

To the Mountain Whose Foot is Bathed in Water: Cahokia’s First Colony 850 Km Up River

The Trempealeau Bluffs are a unique landmark on the Upper Mississippi River, 530 miles upstream from Cahokia. A series of Mississippian platform mounds were initially mapped at Trempealeau well over a century ago, but very limited archaeological investigations were undertaken until 2010 and 2011. Excavations at habitation locals and within the platform mounds revealed that Mississippian settled in Trempealeau coinciding with the dawn of Cahokia. Based on imported ceramics, lithics, architectural style, and intentional solstitial alignments of mounds and houses, this occupation appears to be a mission of Cahokians who entered into the Effigy Mound world of Wisconsin.

48 Discussant

Bender, Susan (Skidmore College) [209] Discussant

Benedetti, Michael [135] see Haws, Jonathan A.

Benfer, Adam (University of Kansas) [122]

Interregional “Landscapes of Movement” from the La Unión Archaeological District of Northeastern Costa Rica

While archaeologists have documented some pre-Hispanic roads and footpaths in Costa Rica, few pre-Hispanic interregional landscapes of human movement have been identified. Through archival research on historic interregional roads as well as archaeological surveys and limited remote sensing of pre-Hispanic features, I hypothesize possible late pre-Hispanic routes of interregional communication between an archaeological district at La Unión in the northeastern Caribbean Lowlands and the Central Highlands of Costa Rica. I discuss what the functions of such routes may have been and evaluate their role within the larger network.

122 Second Organizer [122] First Chair

Bengtson, Jennifer [105] see O’Gorman, Jodie

Benitez, Alexander (George Mason University) and Francisco Corrales Ulloa (National Museum of Costa Rica) [205]

The Old and New Roads of the Minor C. Keith Collection: Collecting, Museum Policies and National Identities

In the late 19th and early 20th centuries, Minor Cooper Keith was one of the most influential U.S. citizens in Central America. As a railroad tycoon, vice president of the United Fruit Company, and founding trustee of the Museum of the American Indian- Heye Foundation, Keith amassed one of the largest ever private collections of Costa Rican antiquities. The journey of Keith’s 15,000-piece collection to three major U.S. institutions and the later dispersal of parts of the collection to several countries, including back to Costa Rica, allows us to reflect on the historical and social circumstances of this journey.

205 First Chair [205] Second Organizer

Benn, David [37] see Hajic, Edwin R.

Bennett, Gwen [200] see Chen, Pochan

Bennett, James [264] see Haney, Jennifer M.

Bennett, Kathryn (Hamilton College), George T. Jones (Hamilton College) and Charlotte Beck (Hamilton College)
Although convention holds that Western Stemmed lithic technology is derived from Clovis, Beck and Jones (2010) propose that they were produced by different but contemporaneous human populations entering the intermountain region about 11,000 rpy BP. If Beck and Jones are correct, Western Stemmed lithic technology should exhibit the use of reduction techniques distinct from those of Clovis. To evaluate this hypothesis, we analyze two Western Stemmed workshop assemblages consisting of several hundred bifaces and related flakes and compare them to the Clovis reduction technique. Results are used to draw generalizations about the migration of people into western North America.

Benson, Benjamin [112] see Hughes Markovics, Michelle

Berch, Marlaina [114] see Horne, Christopher

Berdan, Frances (California State University San Bernardino) [98] Discussant

Bereziuk, Darryl [9] see Woywitka, Robin

Berger, Sean (School of Human Evolution and Social Change, ASU), Isaac I. Ullah (School of Human Evolution and Social Change, ASU), C. Michael Barton (School of Human Evolution and Social Change, ASU) and Claudine Gravel Miguel (School of Human Evolution and Social Change, ASU) [103] Human-Environment Interactions in a Changing Environment: A Computational Model of Agropastoral Practices and Landscapes in Neolithic Spain

We explore the complex interrelationship between land-use, landscapes, and climate using a computational modeling environment: AP-SIM. AP-SIM couples an agent-based model of small-scale agropastoralists with GIS models of landscape evolution to systematically study socio-natural interactions in agropastoral systems. Agropastoralists are represented as household-level agents that make farming and herding decisions based upon the conditions of the surrounding landscape; their economic decisions in turn impact dynamic landscape and vegetation models. Using the AP-SIM computational model, we probe the consequences of different land-use and climate-change scenarios for a Neolithic village and surrounding landscape of the Penaguila valley in eastern Spain.

Berman, Mary Jane (Center for American and World Cultures) [165] Temporal and Spatial Variability in Lucayan Ceramics

Regional and temporal variability in Early Lucayan and Late Lucayan ceramics will be discussed. Temporal differences, which have been largely overlooked in the archaeological literature, are not solely stylistic (i.e. decorative). Variation in thickness, surface finish, rim shape, temper characteristics, manufacturing techniques, and decoration are discussed in terms of different colonization histories, communities of practice, and cultural transmission modes. Three production areas, corresponding to specific environmental zones, are explained in terms of Lucayan place-making, territorial boundaries, social group affiliation, and participation in different interaction networks and political economies.

Berna, Francesco (Boston University) [274] Sacred places or animal enclosures? Microstratigraphic analysis of dung floors.

Ethnographic records report the use of dung for flooring domestic and sacred places. Recent micromorphological studies of Iron Age sites show that some of the “floors” of monumental buildings are composed of phytoliths and contain dung remains such as calcite spherulites. This paper will discuss the implication of the microstratigraphic characterization of ethnographic dung floors to comprehend the archaeological significance of the archaeological “dung floors” in large, unique architectural spaces.

Berna, Francesco [22] see Simms, Stephanie R. [93] see Miller, Christopher E.

Bernbeck, Reinhard (Freie Universitaet Berlin) [265] What is post-operaisit archaeology?

Marxist archaeology displays a reflexive attitude towards archaeological labor. This preoccupation leads Marxist approaches to conceptualize the past as a temporal relation rather than an objective foreign country.” Marxism’s critical reflection about unjust and violent conditions in capitalism requires constant theoretical repositioning. A strong voice in current debates is Italian operaismo/ post-operaismo. Antonio Negri’s work, derided by some and applauded by other Marxist scholars, merits a close reading by archaeologists. I focus on two issues, „immaterial labor” and what it means for our concept of labor in general; and potential consequences of thinking about the social as a multitude.”

Berrey, Charles (University of Pittsburgh) [122] Organization and Growth among Early Complex Societies in Central Panama

Much of what we know about early complex societies in Central Panama comes from ethnohistoric descriptions and archaeological research focused on the regions surrounding Parita Bay. Investigations in other areas have revealed that cultural traits were shared across many Central Panamanian regions, but these studies also hint at important aspects of variation. Unlike the strong hierarchies that developed in some regions around Parita Bay, data from the Río Tonosi valley suggest that less hierarchical societies may have developed there. This paper examines regional settlement data from the Río Tonosi and Río Parita valleys, and compares their trajectories of community growth.

Bertone, Gabriela [39] see Stich, Kyle

Bertone, Gabriela C. [166] see Quave, Kylie E.

Bettencourt, Nichole (Washington State University), Adam Rorabaugh (Washington State University) and Colin Grier (Washington State University) [37] Characterizing Crystalline Volcanic Rock (CVR) Deposits from Galiano Island, B.C., Canada: Implications for Lithic Material Procurement at the Dionisio Point Locality

This study provides crystalline volcanic rock geochemical
signatures from two locations on Galiano Island near the precontact Dionisio Point locality. Elemental composition analyses were performed to determine whether local secondary CVR deposits may have yielded potentially utilized tool stone. Glacial till cobbles analyzed in this study were collected from the shoreline of Parry’s Lagoon and from an exposed wave cut bank. Samples were analyzed utilizing WDXRF in the WSU Geoanalytical Lab and compared to other regional sources. This analysis serves as a baseline for characterizing lithic sources from archaeological sites at the Dionisio Point locality and in the Gulf Islands.

Bettencourt, Nichole [37] see Goodman-Elgar, Melissa

Bettex, Michelle [270] see Masucci, Maria A.

Bettinger, Robert (University of California-Davis) [123] Effects of the Bow on Social Organization in Western North America

Bow technology was a true technological breakthrough – difficult to invent but hugely advantageous; differences in accuracy make one hunter with a bow more than twice as effective as two with atlatls. The consequences of its advent by diffusion varied in western North America however. The effect was less among Northwest Coast fisherfolk and Southwestern farmers than in California and the Great Basin, where hunting was a full time male pursuit. While the bow permitted both larger and smaller groups, the dominance of gathering strongly favored the latter and an evolutionary trajectory of decreasing social complexity verging toward anarchy.

[273] Discussant

Betts, Matthew (Canadian Museum of Civilization), Herbert Maschner (Idaho Museum of Natural History), Corey Schou (Idaho State University), Robert Schlader (Idaho State University) and Jonathan Holmes (Idaho State University) [129] Virtual Zooarchaeology of the Arctic Project (VZAP) Phase II: Building a comprehensive digital vertebrate reference collection.

Virtualization technology (technology which produces a digital representation) is increasingly being employed in basic archaeological documentation. Researchers are using these virtualized records for increasingly complex analyses that would be difficult or impossible using traditional records or assemblages. At the same time, archaeologists and museum professionals are developing means and standards for organizing and disseminating these data. This session will draw together a wide array of professionals that create, utilize, and distribute the virtual archaeological record. Papers will address virtualization technology and techniques (3D, 2D, etc.), research applications of virtualized data, and projects focused on creating accessible virtual databases and collections.

[129] First Chair

Betts, Matthew [129] see Ryan, Karen [129] see Schou, Corey D.

Beugnier, Valerie [238] see Chevalier, Alexandre

Bevan, Andrew [200] see Conolly, James

Bey, George (Millsaps College), Evan Parker (Tulane University), Jiyan Gu (Millsaps College), Timothy Ward (Millsaps College) and Tomas Gallareta (INAH) [201] An ICP-MS analysis of early Maya pottery from the northern Maya lowlands

Middle Preclassic ceramics from four sites in northwest Yucatan are examined using ICP-MS to determine the chemical variation that exists between and within these samples. Over the last decade, evidence of a complex and wide-spread occupation during the Middle Preclassic has been identified throughout the northern Maya lowlands. Beyond typological information based on visual examination of paste, slip, and surface treatment, little is known about the nature of the ceramics or the pottery economics associated with these sites. This study indicates it is possible to identify the origin of Preclassic ceramics by their chemical signature and that compositional variation existed at the site level over time.

Bey, George [128] see Gallareta Negron, Tomas

Bey III, George J. [242] see Kohut, Betsy M.

Bey, III, George J. [22] see Simms, Stephanie R.

Beyer, Renate (Indiana University of Pennsylvania), Ben Ford (Indiana University of Pennsylvania) and Michael Whitehead (Indiana University of Pennsylvania) [170] Digitizing Historic Hanna’s Town: Translating Legacy Data into Digital Data

Historic Hanna’s Town (ca. 1770-1800) has been the site of intermittent archaeological investigations for more than four decades. These excavations, both professional and amateur, have produced nearly a million artifacts, approximately 15 linear feet of notes and artifact catalogs, and many maps. Recent efforts to make this data more accessible have included entering artifact information into a relational database and the construction of a GIS. While the project is in its early phase, this poster presents the initial methodology and challenges encountered, and is intended to elicit comments while the methods are still flexible.

[170] Second Chair

Beyers, Doug [141] see Derr, Kelly M.

Bezerra, Marcia (Universidade Federal do Pará/CNPq/Brasil), Caroline Fernandes Caromano (Museu Paraense Emilio Goeldi/CNPq) and Leandro Matthews Cascon (Museu Paraense Emilio Goeldi) [28] Modern-day Amazons: The historical construction of Amazonian archaeology by woman’s hands, eyes and minds.

Over the past decades, archaeological thought has increasingly turned its attention to the role of gender not only in the formation of the archaeological record, but also to its interpretation in the present. Such approaches have at times dramatically changed collective views of past cultural contexts, as well as provided new parameters for understanding the processes under which archaeological method and theory are constructed. However, there are many areas of archaeological research where, despite its relevance, the discussion on the role of gender in the construction of knowledge has
not been discussed, fully or to any small extent. Amazonian archaeology is such an area. Research of the Amazonian cultural past has frequently been conducted by female archaeologists. These women many times possessed leading roles in such studies, contrasting with a male-oriented approach common to archaeological research done in neighboring areas. In not explicitly recognizing such unique characteristic, Amazonian archaeology has a historical debt to these ‘modern-days Amazons’. Based on bibliographical survey and interviews the present work intends on stimulating discussions of feminist approach in Amazonian archaeology while also paying a small homage to these brave women that shaped the forest’s past.

Bicho, Nuno (Universidade do Algarve), Tiina Manne (University of Queensland), João Marreiros (Universidade do Algarve), João Cascalheira (Universidade do Algarve) and Telmo Pereira (Universidade do Algarve)

[135] The ecodynamics of the first modern humans in Southwestern Iberia: the case of Vale Boi, Portugal

This paper focus on the ecology of the first modern humans in SW Iberia based on the rockshelter of Vale Boi (Portugal), a site with a stratigraphical record with Late Mousterian, Gravettian, Solutrean, Proto-Solutrean and Magdalenian. The Gravettian is dated to c. 28,000 YBP corresponding to the earliest modern humans in the region, provably coming from the Mediterranean coast as suggested by bone technology and body ornaments. With the Gravettian occupation, subsistence was mixed with both marine and terrestrial elements (both already present in the regional Middle Paleolithic), to which grease-rendering was added corresponding to its earliest evidence in Europe.

[135] Second Chair [135] Second Organizer


Bies, Michael [226] Discussant

Bigelow, Nancy [204] see Mason, Owen K. [180] see Graf, Kelly E.

Bigga, Gerlinde (Gerlinde Bigga) and Brigitte Urban (Institute of Ecology, Landscape Change, Leuphana University of Lüneburg)

[93] Moving beyond the wooden spears: Paleolithic plant use in Schöningen

Plant use is an elusive issue in Paleolithic archaeology. Due to poor organic preservation in many sites, botanical material is nearly invisible. The sediments in Schöningen, however, contain abundant macromerains, which offer the opportunity to reconstruct the local vegetation. Combined with results from pollen analysis it is possible to reveal the full potential of this environment. Ethnobotanical studies of hunter-gatherer societies living under similar conditions illustrate the importance of plants for subsistence purposes. The identified taxa from the “Horse Butchery Site” include a broad spectrum of usable species, which provides important sources of food, raw material and firewood.

Bikoulis, Peter (University of Toronto)

[83] Geographically Based Network Creation Strategies: a comparison of two approaches

This poster compares two geographically based Social Network creation strategies set within the late prehistory of south-central Anatolia (4500-2000 BC). The first relies on a node’s Nearest Neighbors, while the second uses Least-Cost Pathway Analysis between selected sites computed in a GIS. Each represents a different way of conceptualizing social interaction, namely proximity versus accessibility. Common measures derived from both networks are then compared to results obtained from randomly generated graphs. The results suggest that archaeologists must carefully select the relations between sites and how these are used to generate Social Networks.

Bilheux, Hassina [109] see Ryzewski, Krysta

Billman, Brian (UNC & MOCHE, Inc), Jesus Briceño Rosario (Ministerio de Cultura Peru), Julio Rucabado Yong (Pontificia Católica Universidad de Peru) and Alicia Boswell (University of California, San Diego)

[24] Community-based Heritage Preservation on the North Coast of Peru or How MOCHE, Inc is Saving the Past by Investing in the Future

Uncontrolled urban expansion and the development of export-based agriculture are destroying archaeological sites in Peru at an unprecedented rate. With so many important sites on the brink of destruction we founded MOCHE, Inc. in 2007 (www.savethemoche.org). Results of our work with MOCHE demonstrate that archaeological sites can be preserved by forming community partnerships that integrate development, education, and preservation. This community-based approach is key to stemming the tide of heritage destruction in Peru and beyond. We discuss the causes of the dramatic acceleration of site destruction and methods we use to save sites and help communities.

Billman, Brian [243] see Mullins, Patrick James

Bilyeu, Chase [140] see Byers, David A.

Bingham, Paul (Stony Brook University) and Joanne Souza (Stony Brook University)

[123] Comparison of theories predicting social change in response to the bow

Globally, the archaeological and historical records often indicate intimate relationships between new weapons technologies and striking changes in human social scale and structure. These relationships have potentially profound general implications. The prehistoric North American record is one of the great treasures of the world’s archaeological repertoire, a unique opportunity to explore the causal sequence of human historical change. We examine competing theories explaining these empirical relationships with the powerful level of rigor and opportunity for theory testing made possible by the robust North American record. Theoretical fecundity and generality will be explored with application to this rich empirical record.

[123] First Chair

Binning, Jeanne (California Department of Transportation), Craig E. Skinner (Northwest Research Obsidian Studies Laboratory) and Jennifer
J. Thatcher (Northwest Research Obsidian Studies Laboratory)
[161] An Obsidian Biface Cache from Southern Utah
An obsidian biface cache of twenty-nine bifaces was recovered from the Mineral Mountains in southern Utah. For each biface, the source of the raw material, the width of the hydration rind, and the distinguishing lithic technology were determined. The resulting data contribute to the long-standing discussion of the function of these phenomena in various geographic and temporal contexts.
[161] First Chair

Birch, Jennifer (University of Georgia)
[40] Precontact Northern Iroquoian Warfare and Emergent Political Complexity
This paper employs a recent survey of evidence for settlement aggregation and violent conflict from across the precontact Lower Great Lakes to explore the relationship between warfare and emergent political complexity in Northern Iroquoian societies. Widespread conflict characterized the late fifteenth and early sixteenth centuries throughout Iroquoia, bringing about the coalescence and redistribution of settlements, the elaboration of sociopolitical organization, alliance-building and, ultimately, confederacy formation. The common representation of the seventeenth century Huron and Iroquois as traditional enemies is complicated by the historical development of these political formations and their constituent parts.

Birch, Jennifer [192] see Carnevale, Andrea

Bird, Douglas (Stanford University), Brian Codding (Stanford University) and Rebecca Bliege Bird (Stanford University)
[234] Megafauna in a Continent of Small Mammals: Martu Camel Hunting in Australia's Western Desert
Archeologists often assume that because of their size, megafauna would have been highly ranked prey, especially attractive to hunters using sophisticated capture technologies common after the late Pleistocene. Between 1880 and 1907 over 10,000 dromedary camels were imported to Australia, and today feral populations number well over a million. These megafauna are regularly encountered by contemporary Aboriginal hunters in the Western Desert, but they are rarely pursued. We present data on the efficiency of camel hunting relative to common alternatives, evaluating hypotheses concerning the determinants of prey rank and the technological and social contexts that influence resource value.
[273] Second Chair [273] Third Organizer

Bird, Douglas [273] see Zeannah, David W. [273] see Codding, Brian F.

Birmingham, Bob (University of Wisconsin Waukesha)
[97] The Effigy Mound Ceremonial Landscape of the Wisconsin "Four Lakes" Mound District
Between A.D. 700 and 1100, Late Woodland people of the Upper Midwest created vast ceremonial landscapes of earthen mounds sculpted into animals and supernatural spirits important in the traditions and cosmologies of more recent Indian people. This paper reports the results of a study of the "Four" Lakes district at the heart of the effigy mound region around Madison, Wisconsin, tracing mound landscape origins to earlier Woodland times, describing the use of topography and natural features to create three dimensional maps of ancient cosmology.

Birmingham, Robert A. [187] see Sharpless, Megan S.

Bishop, Ronald (Smithsonian Institution)
[201] "Does compositional standardization of ceramic paste really mean specialization? --a revisit"
The natural and social factors that form the basis for Arnold's concern are examined as they relate to the data obtained through instrumental means. Attention will be given to the nature of compositional data, pattern recognition, nature of source "group" and cream-skimming presentation. Issues of complexity that preclude unambiguous response to the question are illustrated through examples drawn from compositional investigations of ceramic variation in the pre-Spanish contact US southwest and the Maya region.

Bishop, Ronald L. [242] see Werness-Rude, Maline D.

Bissett, Thaddeus (University of Tennessee, Knoxville)
[197] New interpretation of site use at Eva during the Middle Archaic: AMS dates from the Three Mile phase.
New Deal excavations of Archaic shell mounds such as Eva in the western Tennessee Valley produced extensive, well-documented assemblages. However, these projects were completed before the development of radiocarbon dating. Because early dating methods were expensive and required large samples, few dates were obtained from these sites even after 14C dating became available, limiting their utility for addressing modern research questions. In light of recent hypotheses concerning cultural practices associated with shell mound use, this paper presents new dates from Eva, and a preliminary re-interpretation of the site's occupational history based on the depositional rates of the two earliest strata.

Bissett, Thaddeus [16] see Miller, D. Shane

Biwer, Matthew (University of California, Santa Barbara)
[104] Chicha and Wari: A Macrobotanical Analysis of Features from Cerro Baul in the Moquegua Valley, Peru
In this paper I consider implications of molle use at the site of Cerro Baul in the Moquegua Valley, Peru. A strong link exists between chicha and Wari at Cerro Baul. The presence of a brewery atop Cerro Baul attests to this importance. Using statistical analysis, I present preliminary data concerning the fruit of the Molle tree. I compare botanical remains from ritual and domestic contexts, ideas of performance, identity, and power, to understand the importance of chicha de molle to the Wari state.

Biwer, Matthew [104] see First, Darcie L.

Black, Stephen (Texas State University, San Marcos)
[246] Hot Rock Cooking in the Lower Pecos Canyonlands
Hot rock cooking, especially plant baking in earth ovens, was a fundamental dimension of prehistoric life in the Lower Pecos Canyonlands of southwest Texas for at least eight millennia. While the veracity of this assertion is demonstrated by the overt character of archaeological record and by previous research, we do not have in hand most of the data needed to evaluate many of the inferences and explanations that have been put forth. This paper summarizes extant data and prevailing hypotheses, and highlights new research on earth oven subsistence and technology on the northeastern periphery of the Chihuahuan Desert.

Blackman, M. James [242] see Werness-Rude, Maline D.

Blackmore, Chelsea (University of California, Santa Cruz) [233] Commoner Households, Agency and the State Traditionally, households are defined either as autonomous units apart from the state or ones tied to its fate. In terms of commoner households, these relationships are defined largely by elite (e.g. state) action and intention, with farmsteads and smallholders as passive recipients. What archaeologists rarely consider is how these households are political bodies in and of themselves. Their role and interaction in the state is better understood as a process of change over time, one that is as much initiated by commoners as by elite. In this paper, I examine the mutable nature of commoner households and their role in state organization. As lower status groups, how did these households and communities engage with the state? In what ways, did commoners reject or accept larger socio-political relationships? And finally, how may they have even altered the very nature of these state and political interactions?

Blackwell, Bonnie (Williams College), E.K. CHO (RFK Science Research Institute), J.J. Huang (RFK Science Research Institute), Anne R. Skinner (Williams College), J.I.B. Blickstein (Williams College) and J.I.B. Blickstein (U. Pennsylvania) [117] ESR Dating at Grotte de Contrebandiers, Témara, Morocco
Grotte de Contrebandiers (aka Smugglers’ Cave) has yielded anatomically modern hominin remains, associated with Iberomaurusian, Aterian, and North African Mousterian deposits in a stratified context within sandy-silty matrix-supported conglomerates. ESR signals in mammalian tooth enamel are the most stable of all those used by the trapped electron dating methods. Total station shot plots and volumetric averaging were used to determine the effects from sediment inhomogeneity (“lumpiness”) and the cave’s thin layers on the external dose rates for 11 teeth from five Mousterian and Aterian layers. ESR ages correlate well with early Oxygen Isotope Stage (OIS) 3 to late OIS 5.

Blackwell, Bonnie [37] see Skinner, Anne

Blair, Christopher [268] see Dignam, Darcy J.

Blair, Susan (University of New Brunswick) and Tricia Jarratt (University of New Brunswick) [159] Colour and choice in raw material procurement in the Maritime Peninsula of the Northeast
A key characteristic of the late precontact period in the northeastern-most part of North America was the movement of goods through regional networks, with lithic tools and copper being primary preserved elements. Examination of site components suggests there was a preference on the part of ancestral Mi’kmaq and Wolastoqiyik for particular colours (red, yellow, white) driving the circulation and procurement of objects and materials. This paper will explore the role of colour preference in raw material procurement, the functional and ideological components of these choices, and how they may have articulated with other systems, such as regional interaction and exchange.

Blair, Susan [141] see Webb, William J. [185] see Jarratt, Tricia L. [268] see Dignam, Darcy J.

Blake, Emma (University of Arizona) [155] From social networks to ethnic groups in pre-Roman Italy
This paper proposes an interactionist model for ethnic group formation in later prehistoric Italy. While instrumentalist approaches emphasize outside pressures or internal resource control, I focus on communication between members as a prerequisite of ethnic groups. This paper applies social network analysis to uneven distributions of non-local artifacts to reconstruct the regional networks preceding the ethnic groups of pre-Roman Italy. Regional clustering of foreign objects in the Late Bronze Age suggests that the roots of Italy’s ethnic groups are older than previously thought. Through a process of path dependence, early connectedness may serve as a predictor for later ethnicity formation.

Blakeslee, Donald [232] see Odell, George H.

Blankenship, Kate [66] see Carter, Nicholas P.

Blazier, Jeremy (Weaver, Guy Weaver (Weaver & Associates, LLC) and Anna Lunn (Weaver & Associates, LLC) [45] Refining Prehistoric Chronologies on the Buffalo River, Western Highland Rim, Tennessee
Recent investigations of stratified sites in the Buffalo River Valley have resulted in a refinement of regional chronologies and cultural sequences in the western Highland Rim of Tennessee. Stratified cultural deposits dating from the Paleolithic through the Mississippian periods are examined in light of a series of new AMS dates, with an emphasis on features and cultural remains dating from the late Paleolithic and the late Middle Woodland periods. This presentation also examines site genesis and cultural contexts of the Buffalo River sites.

Blazier, Jeremy [173] see Cyr, Howard J.

Blick, Jeffrey (GCSU, & Virginia Foundation for Arch. Research) and Eric Kjellmark (Florida Southern College) [165] Human Impacts on a Small Island Ecosystem: Lessons from the Lucayans of San Salvador, Bahamas for This Island Earth
Prehistoric San Salvador exhibits human impact on declining land crab populations. Overexploitation of
intertidal fauna includes declining top shell and chiton. Marine resources experience declines in: sizes of parrotfish grinding molars; chronic decline in grouper atlas sizes; and chronic declines in number of identified marine taxa and average trophic levels of marine fauna indicative of declining biodiversity and fishing down the marine food web. Pollen and charcoal analysis reveal human disturbance of island flora via swidden cultivation and alteration of plant communities near habitations. Thus, even minor prehistoric human populations can have significant environmental impacts on small, vulnerable island ecosystems.

**Bloch, Lindsay** [214] see Semon, Anna M.

**Blom, Deborah** [28] see Bruno, Maria C.

**Blomster, Jeffrey** (George Washington University) and **Kristina Short** (George Washington University)

[181] *Figurines, Ritual, and Social Complexity: Diachronic Shifts in Quantity and Content in Formative Oaxaca, Mexico*

Prevalent throughout Early and Middle Formative Oaxaca, figurines materialize identity and figure prominently in domestic ritual. Late Formative transformations to a stratified society include an increasing focus on public ritual, often associated with the disruption of figurine traditions and domestic ritual. We test this relationship with figurine data from the Mixteca Alta, determining the endurance of Late Formative figurines in quantitative terms as well as diachronic changes in their formal properties, such as embodiment and costume. Changes in figurine frequency and content correlate with underlying social transformations but also reflect the resilience of figurines and domestic ritual in stratified societies.

**Blinkman, Eric** (NM Archaeology)

[201] *Ceramic Theory and Cultural Process: Realized and Unrealized Potential in the Southwest Pottery has been part of Southwestern material culture for more than 2000 years, and its study is integral to most contemporary archaeological research programs. Anna Shepard laid a broad foundation for ceramic studies in the 1930s and again prodded the discipline in the 1960s with the potential of ceramic ecology. Beginning in the 1970s, Dean Arnold’s contributions helped catalyze a new era in Southwestern studies with both archaeological templates for interpretation and a corpus of ethnographic comparative data. Regional programs studying pottery production and exchange are strong, and now attention is turning toward issues of cultural style and affiliation.*

Blitz, John (University of Alabama) and Eric Porth (University of Alabama)

[123] *The Temporal and Spatial Distribution of the Initial Appearance of the Bow in Eastern North America* The bow in North America presents an interesting problem for examining the distribution of a technological innovation through time and space. The change in hafted bifaces from large forms to smaller, thinner, and lighter projectile points is the criterion archaeologists have used to identify the appearance of the bow. In this study, we plot the century-scale chronology of this size-function shift across multiple regions of North America. The resulting map exhibits a pervasive, rapid, and directional time-space pattern for the initial appearance of the bow. [123] Second Chair

**Bloch, Lindsay** (UNC-Chapel Hill)

[64] *Waste Not: Chemical Characterization of Historic Coarse Earthenware Wasters from North Carolina Kilns* Lead glazed coarse earthenwares offer a challenge to provenience studies. The vessels or sherds found archaeologically often lack distinctive stylistic elements, rendering them homogenous at a macro scale. Chemical characterization techniques allow archaeologists to determine the composition of a vessel's clay body, obtaining a marker of its geologic origin. This paper presents the results of a pilot study to conduct elemental composition using three techniques: ICP-MS, XRF, and pXRF. Waster sherds from five eighteenth and early-nineteenth century kiln sites in the piedmont of North Carolina were tested. Results indicate that vessels produced at these sites have identifiable compositional signatures.

**Blick, John** (Texas A&M University)

[169] *Prehistoric Upland Adaptations in the Upper Susitna Basin, Central Alaska* The Alaska Range uplands play an important role in understanding human settlement of central Alaska, from reconstructing hunter-gatherer adaptation to evaluating current explanations of lithic assemblage variability. In summer 2011 we continued archaeological survey and testing of the upper Susitna basin, documenting human use from earliest to latest Holocene. Since 2010, we have recorded 19 new prehistoric sites. We initially tested three of these, along with two previously recorded sites in the study area. With this information, we are exploring variation in lithic technology and subsistence activities, and how these may relate to local environmental change and upland land use.

**Blundell, Valda**

[194] *Wanjina and Gwion Gwion Paintings of Northwest Australia: Tensions and opportunities for collaborations between Aboriginal Traditional owners of this rock art and outsiders* Anthropomorphic paintings of Wanjina and paintings of delicate figures called Gwion Gwion and Gurrigorro are key components of contemporary cultures of Aboriginal people of northwest Australia. This paper contrasts the significance of this rock art to its Traditional Owners, on the one hand, and non-Aboriginal outsiders, on the other. Areas of tension as well as opportunities for collaborations between Traditional Owners and outsiders are discussed with regard to: interpretations of paintings by Western researchers; heritage designations of paintings by state agencies; and uses of rock art images by non-Aboriginal artists and tourism operators.

**Boada, Ana** (University of Pittsburgh)
Recent settlement patterns research in the Sabana de Bogotá indicates that the uta and sybyn, indigenous social units, were community building blocks in the central place of the Bogotá chieftdom. While these patterns generally exist throughout the region, there are spatial differences between Muisca societies. Comparing settlement patterns derived from systematic regional surface surveys, using the methodology developed by Peterson and Drennan (2005), I will test the existence of how Muisca social units and variations in their distribution and organization throughout the sequence. I will also analyze the degree of integration among these social units. Differences in their spatial distribution will provide insights of how Muisca chiefdoms described by the 16th century Spanish documents developed.

Boaventura, Rui (UNIARQ, Lisbon / Penn State, PA)

[32] Changing identities in Central-South Portugal between the 4th and 3rd millennia BCE? How funerary data can be interpreted.

A set of funerary practices with common traits has been verified for almost all the territory of Iberian Peninsula during the 4th and 3rd millennia BCE – among researchers the expression Megalithism is used to classify that phenomenon. It is seen as a complex set of magical and religious rules that are related to death and not only strictly to a type of funerary architecture. With the available data from tombs of the regions of Central-South Portugal chronology and cultural characteristics are discussed, to evaluate trends and changes on these collective funerary practices throughout the 4th and 3rd millennia BCE.

Bobik, Aaron (University of Nevada, Las Vegas) and Levent Atici (University of Nevada, Las Vegas)

[134] After the Collapse: Rethinking Continuity and Disruption in the Zooarchaeological Record in Central Anatolia during the Early Iron Age

Iron Age marks the collapse of the Hittite Empire in Anatolia around 1200 BCE and signifies the onset of a “Dark Age.” Discontinuity and disruption in social, political, and economic systems and institutions in the Iron Age Anatolia are conspicuously evident in the archaeological and textual records. This paper seeks to answer whether we can identify continuity and disruption in the zooarchaeological record. We investigate animal exploitation patterns of the preceding Middle and Late Bronze ages in Central Anatolia developing a “centralized and regulated” economic model and discuss continuity and disruption in animal exploitation patterns within this theoretical framework.

Bobik, Courtney [264] see Westmor, Colleen J.

Bocancea, Emanuela [250] see Harrington, Katherine

Bocherens, Hervé [93] see Kuitems, Margot

Bocinsky, R. Kyle (Washington State University) and Tim Kohler (Washington State University)

[272] Suboptimal Foraging Theory (It’s the Best)

‘Rational’ beings are mythological creatures. Humans—with limited cognitive capacity—use ‘rules of thumb,’ either to approximate optimal decision-making or to act in a way that is merely satisfying. These simple heuristics are always less efficient than their ‘optimal’ counterparts, under solo employment. We demonstrate, however, agents employing several of these heuristics in competition on the same landscape actually forage more efficiently than a population of ‘optimal’ foragers; we expect that suites of foraging heuristics will evolve for a given landscape. We create a competition on the NSJ Village landscape to generate a landscape-specific suite of optimal foraging heuristics.

[51] First Chair

Bocinsky, R. Kyle [88] see Newbold, Bradley [51] see Kohler, Tim A. [85] see Reese, Kelsey

Boehm, Andrew (Southern Methodist University), Casey Dukeman (Western State College) and Lauren Willis (University of Oregon)

[96] Bone as Fuel: A Study of North American Species

Previous research has examined the thermal properties of bone and the resulting physical changes to burned bone. However, no previous study has used North American, large mammal species. This study utilizes these species to examine the variability in heat production between different species, different elements, and different portions of the same element, in varying differing states of desiccation. Additionally, we varied the species of wood and the relative quantities of wood to bone to identify the most efficient tree species and the most efficient ratio. We use our results to interpret a high-elevation Folsom campsite from southern Colorado.

Boehm, Andrew [96] see Willis, Lauren M.

Boeke, Bruce [245] see Willis, Lauren M.

Böhner, Ulz [93] see Lang, Joerg

Boileau, Ariane (Trent University)


This paper examines the exploitation of animal resources at the Maya site of Pacbitun, Belize, during the Middle to Late Preclassic. The faunal remains analyzed were recovered from various domestic structures associated with the production of shell artifacts. To analyze the remains, the diet breadth model and the central-place foraging prey choice model, used in conjunction with an analysis of the eczones available to the ancient population of the area, were used to reconstruct the foraging behaviors at the site. These behaviors are interpreted in the context of broader subsistence strategies during the Preclassic period in the southern Maya lowlands.

Boisvert, Richard (NH Div. of Historical Resources)

[268] Jefferson VI - A newly defined component of the Israel River Complex

The Jefferson VI site was identified in July 2010 and intensively investigated in the summer of 2011. Initial data indicated that it is a low density site, strategically located on a primary vantage point overlooking the Israel River Valley in close proximity to other Paleindian sites. Excavations have yielded a narrow range of tool forms and a broad range of lithic raw materials. Interpretations of site function and external contacts over substantial
distances are presented and evaluated within the context of the site cluster known as the Israel River Complex.

[268] First Chair

Bolender, Douglas (Northwestern University)
[91] Landscape Capital, Rent, and Embedded Places: Farm Investment Strategies in Viking Age and Early Modern Iceland
During the Viking Age, Iceland and other North Atlantic islands were settled for the first time. Colonists quickly transformed these unsettled landscapes into productive farming properties. In many cases, the original farms established in the Viking Age are still in operation over a millennium later. Based on regional survey and excavation in the Skagafjörður region of northern Iceland this paper explores the impact of early settlement on the long-term development of Icelandic farms and political economy. In particular, it will examine the changing incentives for land intensification between freeholders and tenant farmers.

Bolting, Christopher (Texas State University - San Marcos)
This paper addresses how a matrilineal interpretation of power and an emically-based contextualization of archaeological evidence provide new insights into the lifeways of Mississippian peoples. Conventional explanations of Mississippian society, such as that of Moundville, posit chiefdoms with men holding political power. However, most southeastern tribal groups are matrilineal. Additionally, interpretations of what has been assumed to be the archaeological evidence of these powerful chiefs, such as Mound B at Moundville, have little basis in the context of southeastern peoples. Expressly, I posit that the evidence supports Mound B as the residence of Moundvillian Priests rather than a chief.

Bollwerk, Elizabeth (University of Virginia)
[185] Seeing What Smoking Pipes Signaled: An Examination of Late Precolonial and Early European Contact Period (A.D. 900-1665) Native Social Dynamics in the Middle Atlantic
This poster explores the integral role Native tobacco smoking pipes played in the processes of interaction, individual and group expression, and innovation that were part of Native social networks in the Middle Atlantic region of the U.S. during the Late Woodland and Contact periods (A.D. 900 to 1665). Using ArcGIS software I examine the spatial distributions of pipe stylistic attributes from 62 archaeological sites spread throughout the region. This investigation reveals that Native communities were using pipes to maintain and perpetuate certain aspects of communal identity while simultaneously facilitating the exchange of ideas and materials with outside groups.

Bollwerk, Elizabeth [164] see Watson, Adam S.

Bond, Julie [56] see Feder, Kenneth L.

Bond, Julie (AGES, University of Bradford, UK) and Stephen Dockrill (AGES, University of Bradford)
[86] Site to island: case studies in sustainability and resilience
This paper explores two island studies in Orkney. Toft Ness, a multi-period settlement on Sanday, provides an insight into the core issues of sustainability and resilience, and illustrates the potential of a new project using the island of Rousay as the study zone. Due to the northerly position of Orkney, the islands are marginal for agriculture with cool temperatures and a short growing season. These factors allow the study of the long-term influences of climate change on survival and the resulting adaptive strategies from the first farmers over 5,000 years ago to the clearances of the 19th century

Bond, Julie [263] see Dockrill, Stephen J.

Bonhage-Freund, Mary, Leslie Branch-Raymer (Paleobot Consultants) and Scot J. Keith (New South Associates)
[45] From Indiana to Georgia: Evidence of Significant Pre-Maize Gardening in the Lower Southeast
Peoples of the Midwest and Mid-South cultivated a suite of native plants as early as the Late Archaic Period. By the Middle Woodland Period indigenous gardens were well-integrated into subsistence systems. Until recently, no evidence of substantial gardening existed for the lower Southeast. We submit that a growing body of evidence documents significant Woodland Period pre-maize cultivation throughout an area that today encompasses Northwest Georgia and Southeastern Indiana. Moreover, reliance on indigenous crops within a late Woodland context unexpectedly persists in the Whitewater River valley which is geographically and temporally located within the Ohio River Valley Fort Ancient settlement-subistence system.

Bon-Harper, Sara [67] see Smith, Karen Y. [67] see Ferro, Angelina G.

Bonsall, Clive (University of Edinburgh), Catriona Pickard (University of Edinburgh), Peter Groom (University of Edinburgh), László Bartosiewicz (Lóránd Eötvös University, Budapest) and Maria Gurova (Bulgarian Academy of Sciences)
[75] What’s in a Midden? Changing perceptions of the Mesolithic of W Scotland
Coastal shell-middens are a prominent feature of the Mesolithic (9500–4000 BC) archaeological record of western Scotland, reflecting a maritime economy based on fishing and shellfish collecting. Heavy fish consumption is also indicated by stable C-isotope analysis of human remains from these sites. The middens themselves have been variously interpreted as seasonal base camps, logistical camps and even ritual monuments. Our paper will review the evidence relating to seasonality and site function, and report on experiments designed to reconstruct the equipment and methods used by Mesolithic people to procure fish and other marine resources along the Atlantic seaboard of Scotland.

Bonzani, Renee (University of Kentucky)
[136] New Meets Old: Botanical Evidence of Dietary Interactions during the Spanish Mission Period on Sapelo Island, Georgia
In contexts of contact between different groups, botanical remains can point out which plants may have been
involved in changing dietary patterns. Evidence of macrobotanical remains recovered during the Spanish Mission Period (1568-1684) from the Sapelo shell ring complex (Site 9Mc23) on Sapelo Island, Georgia, yields evidence of this early use and exchange of dietary plants from both the New and Old Worlds. The recovery of corn (Zea mays), a New World domesticated grain, and peaches (Prunus persica), from an Old World fruit tree, provides evidence on these exchanges and food choices between different societies.

Boon, Andrea (Indiana University of Pennsylvania) and Sarah W Neusius (Indiana University of Pennsylvania) [271] New Approaches to Interpreting Koster Faunal Assemblages

Abundant faunal remains were recovered from the various horizons at Koster. Currently additional analyses of materials from the Early Archaic Horizon Eleven are being conducted and incorporated with the work of earlier researchers. These analyses contribute to the debunking of old ideas about the simplicity and uniformity of Early Archaic peoples in the Midcontinent. Koster faunal remains also are being incorporated into efforts to build a large regional faunal data set from the interior Eastern Woodlands in conjunction with the Digital Archaeological Record. This dataset will allow rigorous explorations of changing human choices concerning animal usage across time and space.

Boone, Cristie (University of California, Santa Cruz) [141] Hungry or Full: How a Forager’s State Influences Subsistence Decisions

Based in behavioral ecology and widely used in animal ecology, dynamic state variable modeling (DSVM) permits the exploration of which factors are important to a forager’s decisions, how costly it is for the forager not to reach optimum fitness, and, importantly, how the forager’s state affects which choices are optimal. I develop a patch choice DSVM that incorporates the forager’s level of energetic reserves (state), the risk of injury or death during foraging, and the stochastic nature of the environment. I then test the DSVM’s predictions using archaeological material from the Central Coast of California, emphasizing acquisition of fishes.

Booth, Laura (The University of Western Ontario), Christine D. White (The University of Western Ontario), Fred J. Longstaffe (The University of Western Ontario), Lisa Hodgetts (The University of Western Ontario) and Zoe Morris (The University of Western Ontario) [141] An isotopic analysis of faunal remains from suspected ritual deposits on Ontario Iroquoian Tradition sites

Ethnographic evidence for the capture of bear cubs and ritual deposition of bears, deer and dogs by the Ontario Iroquois suggests these animals had social meaning. We use isotopic analysis of bone and tooth collagen (C, N) and carbonate (C, O) of animals from special (i.e. non-midden) deposits from Ontario Iroquoian sites to test the hypothesis that purposeful feeding of maize augmented an animal’s social value. Because most animals (except dogs) apparently consumed a wild C3 diet, we surmise that ideological significance was more commonly expressed through acts of animal procurement and communal feasting than purposeful feeding of captured animals.

Boozer, Anna [267] Tracing Daily Life in Roman Egypt

Archaeological residues provide us with clues about past agents and the events of their daily lives. These fragmentary traces illustrate how individuals consciously presented themselves, as well as the subconscious influences that individuals performed within daily life. Exploring these negotiations within a Romano-Egyptian context, we might effectively disentangle instances of intentional from unintentional identity displays. This paper examines material traces from two houses from Roman Egypt in order to understand the often-contradictory ways in which individuals adapted their material world amid protracted social changes.

Borck, Lewis (University of Arizona), Jeffery J. Clark (Center for Desert Archaeology), Barbara J. Mills (University of Arizona) and Matthew A. Peeples (University of Arizona/Center for Desert Archaeology) [260] The Structural Setting of Migration: Network Organization and the Kayenta Area Depopulation of the Late 13th Century

Archaeologists know that migration happened. Sometimes we know how. Rarely do we know why. When explanations are offered, they are often environmentally deterministic. Social network analysis can facilitate an understanding of causation that reaches beyond ecology. We will analyze diachronic network changes in the Kayenta region, and in relation to neighboring regions, by applying modularity and External-Internal (E-I) indices at regular temporal intervals. These two analyses quantify community structure, and the relational structure between communities, within social networks. These analyses will help us understand the social changes, if any, that led up to the Kayenta migration.

Borck, Lewis [260] see Mills, Barbara J.

Borejsza, Aleksander [233] see Lesure, Richard [167] see Joyce, Arthur A.

Boric, Dusan (Cardiff University) [251] Göbekli Tepe imagery and the classificatory system of the PPN world in Upper Mesopotamia

The paper discusses imagery found at the PPN site of Göbekli Tepe in Upper Mesopotamia (c. 9000-7800 BC). Firstly, the abundant evidence of animal imagery from the site is contextualized with other available archaeological data. Secondly, a wider anthropological interpretive framework is employed and the notions of corporeal instability and metamorphosis are examined in relation to this imagery. The paper sketches elements of a particular cosmogony shared across a large area of southwest Asia at this time. Finally, these considerations are tied back to a particular historical and social context in which this site and its extraordinary features emerged.

Boric, Dusan [202] see Cristiani, Emanuela

Borojevic, Ksenija (Boston University) [57] Exploring the role of and evidence for plants in...
feasting models in the Neolithic of Southeast Europe
This paper examines plant evidence from two late
Neolithic settlements in central
Southeast Europe. Systematic retrieval of plant remains
has provided an exceptional opportunity to study the
processing and storage of plant foods and to assess the
evidence for feasting at Opo a small hamlet, and
Vinca, a major tell site. Recovered plants provide
evidence for different taphonomic processes or for
household food processing and storage. The results
underscore the difficulties of differentiating feasting from
quotidian foodways using vegetal data and limit our
ability to examine feasting within its larger cultural and
social networks.

Borrero, Luis (CONICET)
[89] Before and after the bow & arrow in South
Patagonia and Tierra del Fuego: guanaco bones and changing strategies
The main weapon of the Aonikenk of Patagonia at the
time of European contact was the bow. Judging from the
size of archaeological projectile points, the time of their
introduction can be estimated in 2000 years. Larger
projectile points probably propelled by atlatl are recorded
since 3500 BP. There is no evidence of replacement of
one weapon system by another in Patagonia, and it
appears that they were used simultaneously. In order to
evaluate possible differences we present a comparison
of faunal remains associated with both weapon systems
in the Continent and with bow technology in northern
Tierra del Fuego.

Bosquet, Dominique [238] see Chevalier Alexandre
Boswell, Alicia [24] see Billman Brian R.
Boszhardt, Robert [198] see Benden, Danielle M.
Boudreaux, Sarah (Texas Tech University) and
Marisol Cortes-Rincon (Humboldt State University)
[70] A Hinterland Inquiry on the Dos Hombres to Gran
Cacao Archaeological Project
A vast amount of the Programme for Belize
Archaeological Project (PIBAP) permit area is unexplored
terrain. As a result, the location, number, and size of ancient
settlements is unknown, and the relationship between settlements is not well understood. Projects
such as the Dos Hombres to Gran Cacao Archaeological
Project (DH2GC) are trying to create a detailed picture of the
PIBAP area by way of an interdisciplinary inquiry
including: archaeological, ecological, and
geoarchaeological survey efforts. This poster presents the
preliminary results of a complementary project
exploring the interactions and influences of the larger site
centers on the hinterlands between them.

Boulanger, Matthew (University of Missouri)
and Michael O’Brien (University of Missouri)
[160] Cultural Transmission among Eastern Fluted-Point Cultures
Fluted projectile points are the quintessential temporally
diagnostic artifact, occurring only during the Paleolithic
period (ca. 13000–11000 ybp), yet a diversity in fluted-
point forms occurs in the eastern United States
compared to that found in the Plains and Southwest. One
explanation for this occurrence may lie in varying
processes of cultural transmission: Did individual learning
take priority in the West, whereas various forms of social
learning governed transmission in the East?
Phylogenetic analysis is used to evaluate spatio-temporal
patterns of Eastern fluted-point forms and to evaluate
hypotheses concerning processes of cultural
transmission.

Bourrillon, Raphaëlle [11] see White, Randall
Boutin, Alexis (Sonoma State University)
and Whitney McClellan (Sonoma State University)
[94] Collection, Curation, and Commingling: The Stories
of Two Near Eastern Museum Assemblages
Recent bioarchaeological research at the Hearst
Museum of Anthropology and the Badè Museum of
Biblical Archaeology interrogates not only the interpretive
limitations that commingling places on collections of
human remains, but also the concept of commingling itself. Skeletons may be commingled throughout
excavation and curation; or, individuals may be kept
separate, while their contextual information is lost. The
former situation applies to one tumulus in eastern
Bahrain, while the latter describes the remains from Tell
en-Nasbeh. The interpretive challenges and opportunities
posed by both assemblages will be compared, shedding
light on a common issue in museum collections research.

Bovy, Kristine (University of Rhode Island) and
Jessica Watson (University at Albany-SUNY)
[141] Comparative Analysis of Late Prehistoric Bird Use
Along the Oregon Coast: Examining Umpqua/Eden and
Whale Cove
There is relatively little archaeological and ethnographic
information available on bird use in the Northwest Coast.
Bird bones, an often-neglected artifact type, can help us
clarify issues such as site seasonality, foraging location
(offshore vs. nearshore), hunting strategies, and
processing techniques. We will report on our recent
zoooarchaeological analyses from the estuarine Umpqua/
Eden site (35-DO-83) and Whale Cove (35-LNC-60),
located on Oregon’s outer coast. We will compare and
contrast data from these two sites and other available
sites to synthesize our existing knowledge of late
prehistoric bird use on the Oregon Coast and identify
future research needs and questions.

Bow, Sierra [241] see Simek, Jan F.
Bow, Sierra M. [6] see Sherwood, Sarah C.
Bowes, Jessica (Syracuse University)
[133] Social Dimensions of Slaves’ Uses of Plants at
Thomas Jefferson’s Poplar Forest
Botanical remains from Thomas Jefferson’s Poplar
Forest highlight various aspects of the slave community
living and working on the plantation from slave
subsistence to plantation social relations. This paper will
discuss the relationship between environments accessed
by the slaves and their subsistence while under the
ownership of Thomas Jefferson and the later
management of Edward Hutter. I draw on charred
botanical remains from eighteenth and nineteenth
century slave contexts to understand the past
environments and those who utilized the archaeological
plants. I will demonstrate how the slaves’ relationship to the landscape was impacted by differing management styles.

Boyar, Brenda (CSU Fullerton) [201] Continuities and Discontinuities in Pottery-Making Traditions in the Upper Amazon: Contributions toward Anthropologically-Informed Archaeology
Arnold’s long-term commitment to field studies in contemporary pottery-making communities, an ecological approach, and cross-cultural analysis of behavior have transformed our knowledge of the archaeological past. His research has provided a rich understanding of how and why the archaeological record may be confounded by variations in behavior, but yield meaningful patterns nonetheless. Building from Arnold’s work, this paper describes long-term, micro-scale ethnoarchaeological research among potters in the Ecuadorian Amazon, synthesized with oral history and linguistics, to reconstruct Zaparo ethnogenesis, the spread of a pottery-making tradition, and the migration of people into this region over the past 4,000 years.

Boyer, Brenda [250] see Gray, Jamie R. [111] see George, Richard J. [235] see Schreyer, Sandra

Boy Sr, Alvin Windy [250] see O’Boyle, Robert C.

Boy, Carolyn (SHUMLA/Texas State University) and J. Phil Dering (SHUMLA Archeobotanical Services) [17] The Science of Art: Systematic Approaches to Recording and Analyzing the Structure and Symbols Inherent in Red Linear Style Pictographs of the Lower Pecos Canyonlands, Texas and Mexico
The scientific process requires systematic observation and analysis—prerequisites for recording and detecting patterns in Archaic Period pictographs of the Lower Pecos. Field and laboratory protocols include scale drawings, photographic enhancement, legacy photographs, and attribute data entered into a searchable database. These data have transformed our understanding of Pecos River and Red Linear style pictographs. Many examples of Pecos River style imagery superimpose Red Linear style, which was presumed to be 1,500 years younger, and color and morphological variants identified within the style. This has prompted a reassessment of the age, form, structure, distribution and symbolism in Red Linear pictographs.

Boy, Carolyn [101] see Castaneda, Amanda M.

Boy, Carolyn E. [255] see Bates, Lennon N.

Boy, Gary (Consulting Archaeologist) [87] Settlement Pattern Correlates of Social Complexity on the Pacific Coast of Guatemala
A mid-1980s survey of 168 sq km surrounding the site of La Blanca on the southwestern coastal plain of Guatemala identified nearly all archaeological sites in the survey area. The present study revisited the survey data using weights-of-evidence, spatial cluster analysis, and testing of inter-settlement alignments to investigate settlement pattern correlates of social complexity from the Early Formative through the Late Classic periods.

Settlements during all time periods were found to be dispersed rather than clustered, with no preference for agriculturally productive soils. Inter-settlement alignments toward prominent volcanoes suggest ideology as a possible basis for elite power.

Boyd, Jon [111] see O’Brien, Helen L.

Boytner, Ran (USC) [12] Discussant [12] First Chair

Boytner, Ran [59] see Lozada, Maria Cecilia

Boz, Basak (Thrace University Edirne) and Lori Hager (Pacific Legacy, Inc and Catalhoyuk Research Project) [84] Making Sense of Social Behavior from Disturbed and Commingled Skeletons: A Case Study from Catalhöyük, Turkey
The main burial custom at Catalhöyük was primary-single interment; however, usage of the same places within the houses resulted in many individuals being buried in the same pit at different times, causing commingling of bones. The degree of the commingling depends on the amount of decay of the body and the number of times the graves were reopened. To understand the complex nature of the human remains, the bones were examined under six depositional categories which reflect the complexity of the interaction of the Catalhöyük people with human bones from the time of the original disposal of a body.

Bozarth, Steven (University of Kansas) [271] Biosilicate Analysis of H11 at the Koster Site, Illinois
Opal phytoliths were analyzed for evidence of plant subsistence in 35 midden sediment samples collected in the early Archaic Horizon (H11). Evidence of food producing taxa includes Celtis (hackberry), Helianthus (sunflower), and Iva annua (marshelder). The presence of Eupatorium perfoliatum (boneset)-type achene phytoliths provides evidence for the utilization of this medicinal species. Sediment samples were not oxidized as part of the standard phytolith isolation procedure so as not to destroy pollen and particulate charcoal. Significant amounts of culturally important pollen and pollen aggregates (Ambrosia, Iva, and cheno-am) were present in several samples.

Bradbury, Andrew (Cultural Resource Analysts, Inc.) [261] Discussant

Bradbury, Andrew [127] see Martin, Andrew V. [90] see Quick, Russell S.

Bradley, Bruce (University of Exeter) and Raphael Suarez [225] A Fishy Tale: Clovis and Cola de Pescado technologies in the Americas
For decades archaeologists have recognized striking similarities between Clovis and Cola de Pescado (Fishtail) points and theorized how the former led to the latter. How did similar these technologies, at practically the same time (ca. 11,000-10,800 RCYBP) appear in two different regions of the hemisphere as much as 10,000 km (6,000 miles) apart, and more importantly, separated by a wide range of ecological zones? Understanding the
possible connections between the regions should significantly influence current models that suggest, perhaps incorrectly, that Clovis was the progenitor of the early colonizers of the eastern side of South America.

Bradley, James (ArchLink)
[192] From the Edge to the Middle, The Onondaga Iroquois in 1550 and 1675
This paper has two purposes: to introduce the overall session and its main themes - cross-cultural exchange and regional interactions over time, and the relationship between traditional high value materials (marine shell, copper, and red stone) and the forms they take. Second is to examine these themes in detail by comparing two Onondaga Iroquois sites, one mid 16th century, the other occupied between 1663 and 1682. The changes in the frequency and distribution of these materials, and the forms in which they occur, provide a useful framework for reconstructing the complex social interactions that took place after European Contact.
[192] First Chair [192] Second Organizer

Bradtmüller, Marcel [135] see Weniger, Gerd-Christian

Brady, Conor [9] see Davis, Stephen R.

Brady, James (Cal State L.A.) and Jeremy Coltman (Cal State L.A.)
[179] Have We Learned Nothing Since Seler? A Critical Rethinking of the Meaning of Bats in Classic Maya Iconography.
Over a century ago, Eduard Seler identified an anthropomorphic bat image on a Chama vessel as a camazotz and associated bats with death, blood, sacrifice, and decapitation. The unchallenged application of this model since that time has inhibited our understanding of the meaning of bats in Classic Maya ideology. We argue that the identification of bat images with the camazotz is largely mistaken and the association with death, blood, sacrifice, and decapitation is drawn principally from Late Postclassic Central Mexican sources. Bats appear to have functioned as messengers associated with earth deities and fertility.

Brady, James [179] see Cobb, Allan B.

Brady, James E. [208] see Kieffer, C. L. [179] see Licitra, Valentina

Brady, Liam (University of Western Australia)
[194] A Powerful and Active Legacy: articulating rock-art's relevance in contemporary settings
This paper argues that by examining ways rock-art is used, perceived, and managed by Indigenous groups today we develop a greater awareness of how rock-art is made meaningful in contemporary settings. Using case studies from northern Australia I explore how Indigenous communities are (re)engaging with rock-art in the context of identity politics, land disputes, and cultural maintenance to demonstrate how its legacy remains relevant. By focusing on how rock-art's significance and symbolism is being (re)negotiated today I contend that researchers will be in a better position to understand the powerful and active nature of rock-art's legacy in the present.
[194] First Chair [194] Second Organizer

Braje, Todd (Humboldt State University), Jon M. Erlandson (University of Oregon), Torben C. Rick (Smithsonian Institution) and Keith Hamm (University of Oregon)
[164] Crescents on California’s Islands: Curios, Collections, and Current Research
Museum collections from around the world contain hundreds of chipped stone crescents from California’s Channel Islands. None of these came from datable contexts or known sites, but recent field research has shown that island crescents are part of a sophisticated Paleocoastal technology dating between ~12,000 and 8000 cal BP. We compiled a database for over 500 island crescents from museum collections and recent field work, demonstrating that the vast majority come from the northern (Santarosae) islands, with far fewer from the southern islands. Our research demonstrates the value of integrating current field research with the study of museum collections.
[74] Discussant

Braje, Todd [164] see Glassow, Michael A.

Bray, Bobby (University of Tennessee)
[197] The Tennessee Valley Authority and the Norris Reservoir: The Beginning of over 75 years of TVA Archaeological Research
In 1933 the Tennessee Valley Authority began construction on Norris Reservoir, their first high water dam. Large scale archaeological excavations at this time and later during construction of Melton Hill Reservoir in the same area recovered enormous amounts of archaeological data, including the excavation of 29 mounds, recovery of nearly 24,000 ceramic artifacts, and the first dendrochronology project in the eastern United States. An analysis of these materials, coupled with a suite of twelve new radiometric AMS dates, examines fine scale sociopolitical changes over time in the area. This paper attests to the usefulness of extant Works Progress Administration collections.

Branch-Raymer, Leslie (New South Associates)
[107] Archaeobotanical analysis of Late Archaic to Late Woodland components at 40MI70, Marion County, Tennessee
This study examines Late Archaic to Late Woodland plant use and assesses relative contributions of indigenous cultivars and gathered plants, changes in subsistence over time, anthropogenic landscape alteration, and wood use patterns. Analysis suggests gardening was fully developed by the Middle Woodland and increasing anthropogenic landscape management in later occupational periods. Patterns of plant use appear to resemble those of contemporary Cumberland Plateau sites, which suggests 40MI70 occupants were more closely related to the Duck and Elk river drainage inhabitants than other areas of east Tennessee, at least insofar as use of plant foods was concerned.

Branch-Raymer, Leslie [45] see Bonhage-Freund, Mary Theresa

Brandl, Michael (Austrian Academy of Sciences, Prehist. Commission), Chistoph Hauzenberger (University of Graz, Austria) and Walter
Postl (Universalmuseum Joanneum, Graz, Austria) [127] Chert Source Provenance Studies: A Multi-Layered Approach
The present case study presents a three-step model of analysis, which advances the characterization of chert raw materials. Macroscopic features permit a pre-classification of chert sources, while microscopic analysis coupled with SEM - imaging provides detailed information concerning fossil inclusions in cherts. The geochemical analysis produces the highest resolution. In the present study, LA-ICP-MS was applied. Practical experience has shown that it is not sufficient to rely on a single method of analysis for chert sourcing. Only a combination of methods with different layers of resolution can lead to a successful determination of the provenance of chert artifacts.

Brandt, Michael [131] see Martinez, Maria M.

Brandon, Robert [226] 100 Years of Kite Aerial Photography: Finally it's easy, economical, and ready for you to use
Sir Henry Wellcome pioneered using kites for acquiring aerial photographs of archaeological sites in 1912/1913 at Jebel Moya, Sudan. The process proved laborious and expensive and balloons and airplanes became the default tool for archaeologist to acquire aerial photographs. With the advent of automatic cameras in the 1970's and 1980's Kite Aerial Photography (KAP) began a renaissance which grew exponentially with the introduction of strong light kites and programable digital cameras in the 1990's and 2000's. Today KAP is an economical easy to deploy tool ready for widespread adoption by research institutions and CRM firms.

Brandt, Steven (University of Florida) and Abiyot Debebe Seifu (University of Florida) [108] A Landscape Approach to Monumentality: The Megaliths of Southern Ethiopia
Scattered across southern Ethiopia’s highlands are thousands of ancient megaliths. Ranging from small, undressed single stone blocks to dense clusters of tall, elaborately carved anthropomorphic figures, they were probably built by ranked agrarian societies ~500-1500 CE. Those few scholars attempting to provide meaning to the stelae have usually invoked unicausal explanations: gravestones, territorial markers, or symbols of gender and/or authority. Drawing upon archaeo/ethnoarchaeological, ecological, geographic, and ethno/historic data, we instead take a landscape approach to viewing these monuments as “places” that provided necessary social and natural meanings, at multiple scales, to communities undergoing rapid cultural, economic and political change.

Brannan, Stefan (University of Georgia), Stephen Kowalewski (University of Georgia), Laura Stiver and Ellen Turck (Ohio State University) [181] The mapping of Cerro Verde, in the Valley of Coixtlahuaca, Oaxaca, Mexico
During the regional survey of the valley of Coixtlahuaca in 2011 we mapped Cerro Verde, a well-preserved hilltop terrace site of 197 ha. The major occupations date to the Early Classic and the Late Postclassic. This paper reports on the methods used to record the architecture and pottery distributions. The integrated use of GPS and GIS facilitated rapid and efficient mapping. We describe changes in site occupation through time and compare Cerro Verde to other major hilltop sites in the region, including Cerro Jazmín, Yuculudahui, Yucuita, and Niaxugue-Naduz.

Brasher, Janet (Grand Valley State University) [28] Working at Archaeology in Government, Academia and CRM: A Cross Cultural Perspective on Gender in the Archaeology Work Place
The last 50 years have been transformative for women professionals in archaeology for a variety of reasons, including the development of feminist thinking in US culture and discipline; the rapid expansion of alternative career paths with the development of CRM and federal historic preservation programs, compared to earlier times; and the demographic shift whereby more women are both getting college degrees and choosing archaeology as a career. This presentation looks at gender and archaeology based on over 40 years of experiences in academia, government and CRM comparing each setting where I have been privileged to work at archaeology.

Braswell, Geoffrey (UC San Diego) [275] Discussant

Braswell, Geoffrey [61] see Fauvelle, Mikael

Braun, David [258] see Hlubik, Sarah

Bray, Tamara (Wayne State University) [52] At the Edge of Empire: A Comparative Look at Inca Pucas and Imperial Practice around Tawantinsuyu
The focus of this paper is the role of pucaras (hilltop fortresses) in the imperial Inca project, with special emphasis on northern frontier. As a principal apparatus of state order, I suggest pucaras were integral sites for the social processes attending the growth of Tawantinsuyu. To explore these processes as well as evidence for diachronic change in state strategies, I examine the distribution of Inca pucas with respect to historic narratives of imperial expansion, the ethnic landscape, and local geography. I also consider the archaeological evidence pertaining to “pucara-camayoc” and their relationship to local populations on the edges of imperial control.

Bray, Tamara [235] see Krull, Amy

Brennan, Michael (Graduate School of Oceanography, URI) and Leslie Shaw (Bowdoin College) [70] Preliminary geochemical assessment of limestone resources and stone use at the Maya site of Maax Na, northwestern Belize
Stone use and the movement of quarried stone across the Maya landscape is poorly understood. This poster reports on geochemical analysis of 45 limestone samples from the site of Maax Na in northwestern Belize. Samples were collected from bedrock exposures, quarried areas, and megaliths identified as possible monuments from the site. These samples were put into solution with acid digestion, then analyzed with ICP-MS and ICP-AES for trace and bulk chemistry. Our results indicate that both the sourcing of monuments to quarries
and the identification of stone imported from outside Maax Na are possible with these geochemical methods.

Brennan, Tamira K. [239] see Butler, Brian M.
Brenneman, Dale [25] see Jelinek, Lauren

Brenner, Mark (University of Florida)
[167] Reconstructing Holocene Environments on the Yucatan Peninsula
In the 1980s, Bruce Dahlin assembled a team to: 1) explore Holocene archaeological and environmental changes in the Mayan lowlands, 2) link empirical data from paleoenvironmental archives to North Atlantic climate, and 3) use archaeological and paleoenvironmental records to understand interactions among climate, environment and humans, with the goal of developing future management strategies. Bruce’s research on past environments of the Yucatan Peninsula set the stage for the detailed paleoclimate studies that followed. I will present findings that came out of Bruce’s paleoenvironmental research, and some of my own recollections of our field collaborations.

Brenner-Coltrain, Joan [145] see Salazar-Garcia, Domingo Carlos

Breslin, Jason (University of Florida)
[141] Shellfish Use and Extraction at two Inca Period Sites in Coastal Southern Peru
The antiquity of shellfish gathering along the Andean coast dates from the earliest inhabitants through many complex civilizations. I examine invertebrate assemblages from two coastal sites in Southern Peru; Tacahuay Tambo, a provincial Inca way-station, and Punta Picata, a late intermediate-Inca period littoral fishing village. I quantify spatial and temporal variations at intra and inter-site levels, and use ethnography and ethnohistory to place mollusk gathering in the unique socio-historical context of these Inca period sites. Specifically, how shellfishing reacted to, yet also helps interpret, the dynamic social, environmental, and political landscapes before and during the expansion of the Inca Empire.

Brewer, Jeffrey (University of Cincinnati)
[131] Ancient Maya Water Management at the Medicinal Trail Site, Northwest Belize
A small depression located at the Medicinal Trail site in northwest Belize, near the major site of La Mina, has been excavated and evaluated to determine its probable function. The elevation, size, and coordinate location in relation to structures and site boundaries established by GPS, combined with archaeological excavation within the reservoir and comparison with previously investigated water features in the region, indicates that the depression served in some capacity as both a water reservoir and an area for working lithic material, as well as a probable trash dump.

Brewington, Seth (The Graduate Center, City University of New York)
[86] Sustainability and resilience in the Norse North Atlantic: An example from the Faroe Islands
The Norse westward expansion (c. 800 – 1000 CE) from Scandinavia into the offshore islands of the North Atlantic involved the transplanting of European people, crops and animals into new, marginal environments. The application of a farming-based economy on these islands did not always prove entirely viable in the long run, but recent research has found evidence that the Norse settlement in the Faroe Islands represents an example of relatively successful, long-term sustainability. Multidisciplinary research on the island of Sandoy, in the Faroes, is helping to shed light on the development and maintenance of this system.

Bria, Rebecca (Vanderbilt University)
[26] Remodeling the Landscape, Remodeling the Ceremony: Changing the place and practice of ritual during a period of agricultural intensification at late Formative Period Hualcayan, Callejón de Huaylas Valley, Peru
This paper explores how religious beliefs and practices are often reconceptualized with changes in economic production, particularly when new patterns of daily practice, social organization and cooperation emerge. Recent mapping and excavation data from Hualcayan, north-central Peruvian highlands, will be used to identify and assess the significance of changes made to the place and character of religious ceremonies during a period of agricultural terrace and canal construction in the late-terminal Formative Period (900-200 BC). These data illustrate that, rather than one being the cause of the other, changes in religion and economy are in some cases coeval and mutually reinforcing.

Bria, Rebecca [8] see Gravalos, Marie E. [5] see Witt, Rachel G
Bria, Rebecca E. [8] see DeTore, Kathryn E. [29] see Pink, Christine M.
Briceño Rosario, Jesus [24] see Billman, Brian R.
Bricker, Harvey M. [269] see Bricker, Victoria R
Bricker, Victoria (TULANE/U FLORIDA) and Harvey M. Bricker (Tulane/U Florida)
[269] Some Alternative Eclipse Periodicities In Maya Codices
Anthony Aveni’s Skywatchers provides a table of possible eclipse cycles based on multiples of the lunar synodic month. Of the 25 eclipse periodicities listed, only two appear in the Pre-Columbian Maya codices. However, several tables and almanacs in the surviving codices contain evidence of alternative and apparently culturally more salient eclipse periodicities that commensurate more directly and in shorter time periods with the Maya sacred calendar known as the tzolkin, even though they are not close to integral multiples of the lunar synodic month.

Bridges, Elizabeth (University of Michigan) [82] Discussant
Brigham, Michael [268] see Bartone, Robert N. [268] see Cowie, Ellen R.
Brighton, Stephen [132] see Barrett, Thomas P.
Brin, Adam [129] see Richards, Julian D.

Bringelson, Dawn [240] Under the Radar: Historic Land Use in the Apostle Islands
A series of recent historic (mid-19th – mid-20th century) sites recorded at Apostle Islands National Lakeshore indicate uses of the archipelago about which little is known. Unlike much of the industrial and homesteading record of the Apostles, these assemblages are unrepresented in documentary data. Members of local Ojibwe communities might provide key information for some sites, but archeological data are likely the sole sources of information for others. Understanding who utilized these locales is pivotal to a more comprehensive understanding of the history of the islands, as well as to management and interpretation of park resources.

Brink, Jack (Royal Alberta Museum) [55] Stone drive lane construction and communal hunting strategies at the Ross Buffalo Jump, southern Alberta, Canada
George Frison pioneered the recognition of stone drive systems as integral features of communal bison hunting. However, drive lanes have received little attention by archaeologists. Study of a network of rock drive lanes at the Ross site in Alberta provides insight into Aboriginal manipulation of aspects of bison biology and behaviour in order to achieve successful kills. The placement and density of drive lane rocks at the Ross site exhibit distinct patterns, ones that must have been grounded in knowledge of bison habits with respect to travel, flight response, predator avoidance, vision, smell, stampede behaviour, and other traits.

Brink, Jack [234] see Dominey, Erna

Brinkman, Adam (Thomas Jefferson’s Poplar Forest) and Lori Lee (Thomas Jefferson’s Poplar Forest) [133] People’s Remedies: Nineteenth Century Health and Consumer Practices at Poplar Forest
A wave of medicinal tonics swept across America during the nineteenth century. The inhabitants of Poplar Forest were not immune to the influence of these health practices. The bottles these concoctions were sold in are distinctive within the archaeological record. They also provide an opportunity to analyze the consumption patterns and offer a look at the daily lives of the residents of Poplar Forest. By examining medicine bottles from two discrete contexts at the Poplar Forest plantation we analyze the changing health and consumer patterns in the first half of the nineteenth century.

Britton, Emma and Michael Whalen (University of Tulsa) [216] Preliminary analysis of paste and temper types of Casas Grandes ceramics
Preliminary visual analysis of paste-temper types of Casas Grandes Polychromes and Plain ware sherds recovered from a rare midden context at Site 204, Chihuahua, Mexico indicates a considerable diversity in paste-temper types in Polychrome sherds not observed in Plain ware sherds. Diversity of paste composition suggests that Polychromes possessed a more dynamic social life than Plainwares, being created and circulated widely. Coupled with iconographic messages carried by polychromes, especially Ramos Polychrome, vessels may have actively assisted in the integration of the Casas Grandes regional system. However, the dominating presence of jars suggests a departure from traditional interpretations of feasting.

Broadfield, Douglas [139] see Philmon, Kendra L.

Brodie, Laura (University of WI-Madison) [122] Sociopolitical Organizations on the Osa Peninsula, Costa Rica: Understanding Pre-Columbian Settlement Patterns and Materials
The Osa Peninsula, part of the Diquís archaeological subregion in Costa Rica, is known as a historic and prehistoric gold resource area. However, it has not been systematically surveyed nor been the focus of intensive archaeological research. In this presentation, I discuss exploratory research conducted in the summer of 2011 in which I identified four possible unrecorded Pre-Columbian sites. I propose future studies that will focus on mapping settlement patterns to develop a culture history and address questions of sociopolitical organization.

Brookes, Samuel (national forests in miss.) [76] Discussant

Brooks, Alison [6] see Zipkin, Andrew M.

Brooks, Jason (Georgia State University) [240] Into the Hell Hole
On May 25, 1864, the town of New Hope, Georgia was transformed into a deadly field of battle. General William T. Sherman attempted to out maneuver confederate general Joseph E. Johnston by taking the road through New Hope to reach Atlanta, but the confederates reached the road first. The fierce fighting here led the federal troops to refer to the place as the Hell Hole. This research will focus on the historical records along with the archaeological fieldwork to provide a more complete explanation of the actions and events that took place during the Battle of New Hope Church.

Broughton, Jack [248] see Cannon, Mike

Brouwer, Marieka (Michigan State University) [16] Dynamic Landscapes, Dynamic Decision-Making: Hunter-Gatherer Land Use Strategies in the Central River Valley of the Netherlands
Over generations, Mesolithic hunter-gatherers living in the central Netherlands adapted to dramatic changes in landscape configuration and character. This paper discusses the results of a multi-criteria decision-making model that was developed to gain insight into the land use choices of these groups. The model identifies areas most likely to have been used by hunter-gatherers for specific resource provisioning and settlement purposes. In addition to shedding light on the decision-making processes of past hunter-gatherers, the model also allows practical predictions to be made concerning areas of high potential for future hunter-gatherer research and heritage management.

Browman, David [144] see Miller, Melanie J.
Brown, Brooke (Bureau of Land Management-Oregon)
[53] The Gerber Family’s Legacy in Southern Oregon
Louis Gerber began homesteading in 1895 in southern Oregon. The Gerber’s quickly became one of the largest cattle operations in the area. Louis’s son, Henry Gerber, became a driving force for range improvements via reforms in Oregon. Henry’s tenacity led to the establishment of the “Bonanza Grazing District,” the first grazing district in the nation under the Taylor Grazing Act of 1934. Today, members of the Gerber family still graze on public lands within “The Gerber Block,” and this homesteading family’s legacy is seen and felt on a daily basis.

Brown, Claire (Binghamton University), Ian Kuijt (University of Notre Dame) and Casey McNeill (Boston University)
[244] Patterns of Stone: Land use and property on Inishark, Co Galway, Ireland
This poster examines 19th and 20th century land use on the island of Inishark, Co. Galway, Ireland. Drawing upon collected oral histories, LiDAR research, and Ordnance Survey maps from 1838 and 1898, we explore the continuity and change within field systems, household ownership, and modification of the landscape through changing national policy. Government intervention in the early 20th century by the Congested Districts Board and corresponding Land Purchase Acts reorganized field walls, changed the construction of houses, and allowed for tenant property ownership, physically and economically inscribing the isolated landscape of this island with the public policy of the mainland.

Brown, Clifford (Florida Atlantic University), Larry Liebovitch (Queens College), April Watson (Florida Atlantic University) and Urszula Strawinska (Queens College)
[128] Changing Inequality in Ancient Maya Society
We investigated the evolution of inequality in ancient lowland Maya society by examining changes in the distribution of wealth at four sites from different periods: Komchen (Late Formative), Palenque (Late Classic), Sayil (Terminal Classic), and Mayapán (Late Postclassic). We used the sizes of houses as a proxy for household wealth. We calculated several statistical measures to summarize the wealth distributions: the Gini coefficient and probability density functions. We found that the wealth distributions had some characteristics of an approximate power law at all these sites, yet the exact distributions were statistically different from each other at each site.

Brown, Clifford [259] see Williams, Michele

Brown, David (University of Texas at Austin)
[178] Water, power and culture on the northern frontier: Inka water systems in Ecuador
In addition to their more immediate functions, Inka water systems seem designed to emphasize imperial power over landscape and the hydrological cycle. State water projects, ranging from agricultural engineering works to water delivery systems for ritual and aesthetic ends such as baths and fountains, are spread throughout Ecuador, albeit less common than in the heartland. There are subtle differences in their distribution in northern Ecuador, however, that suggest shifts in discourse during the final decades of imperial control. These differences are probably due to a combination of changing imperial strategies and local cultural, historical and environmental influences.

Brown, Emmett (AMEC)
Archaeologists have traditionally used faunal evidence to support the application of optimal foraging theories to describe local adaptations post Clovis. The presence of domesticated dogs in the Americas can be evidence for larger structural shifts including population movement and territoriality. Dogs are not ubiquitous during the Early Holocene; they first appear in the archaeological record in certain environmental niches in the Americas circa 9500 BP. The presence of dogs in the Americas is evidence for the exploitation of marginal environments and may represent the arrival of new groups that settled these sparsely inhabited niches circa 9500 BP.

Brown, James (Northwestern University)
[266] The Architecture of Cosmic Access at the Spiro Great Mortuary
The Great Mortuary at the Spiro mound center, located at the edge of the Eastern Woodlands in Oklahoma, was a massive ‘Center of the Universe’ monument that was materialized by a series of interconnected tableaus. The famous hollow chamber appears to have represented the sky vault and its floor was staged with sculpted images of important spirits or deities and with chests of precious sacred objects. Imagery on copper and marine shell spelled out details of this imago mundi tableau and even depicted the anticipated moment of divine revelation to supplicants approaching the cosmic pole connecting earth and heaven.

Brown, James [196] see Kelly, John E. [124] see Lynott, Mark J.

Brown, Kyle [142] see Schoville, Benjamin J.

Brown, Leslie E. [29] see Turner, Benjamin J.

Brown, Linda [203] see Jackson, Bethany L.


Brown, M. Kathryn (The University of Texas at San Antonio)
[61] Preclassic Ritual Practices and Place Making at Xunantunich, Belize
Recent investigations at the site of Xunantunich, Belize have uncovered a large Preclassic ceremonial center located just outside the Classic period site core. This location, designated Group E, has been the focus of excavations by the Mopan Valley Preclassic Project. The Group E monumental architecture appears to have been initially constructed during the Middle Preclassic and abandoned by the Terminal Late Preclassic. Excavations of the easternmost pyramid structure and the associated plaza area have revealed a series of Preclassic ritual deposits. This paper presents these data and our current understanding of Preclassic ritual practices and place
making at Xunantunich.

Brown Vega, Margaret (Penn State University) [199] Weaving Together Evil Airs, Sacred Mountaintops, and War
Central Andean fortified hilltops are sites of an ambiguous nature, interpreted as having either nothing to do with war, or everything to do with war. This dichotomous thinking stems from conceptualizations of the world as a composition of bounded, discrete entities and practices. Drawing on Timothy Ingold’s concept of “meshwork”, this paper examines the entanglement of harmful winds, spirited peaks, ritual spaces of defense, and war in the late prehispanic Huaura Valley, Peru. Animated environments and practices that link worldly relationships are relevant for interpreting fortifications, people’s experiences in them, and the role of war in culture change.

Brownstein, Ian [213] see Herringer, Susan N.

Brunefiel, Elizabeth (Northwestern University) [23] Artifact Decoration and Multiple Social Identities at Xaltocan, Mexico
This paper explores art as a means of developing and communicating multiple social identities. Specifically, it examines how spindle whorl decoration defines and declares individual, “personal” identity and how serving bowl decorations define and declare the existence of a collective household group. Contextualizing these designs within the sphere of daily practice at Middle Postclassic Xaltocan, Mexico, allows us to see how artifacts can promote a single hegemonic world view within households or provide the means to formulate alternatives. Artifact decoration also enunciates the coming into being of new individual and collective identities in response to political economic change.

[267] Discussant

Bruning, Susan (Southern Methodist University) [249] Cultural Affiliation Among Western Pueblo Peoples: Multi-Faceted Relationships and Perspectives
Hummingbird Pueblo is situated within a region of high significance and ongoing relationship to present day Pueblo peoples. My poster will focus on perspectives about cultural affiliation between present day and past peoples, as shared by, and discussed with, cultural heritage experts from Acoma, Hopi, Laguna, and Zuni Pueblos who participated in a multi-year collaboration with colleagues at the Hummingbird site.

Bruno, Cristina [209] see DeBlasis, Paulo

Bruno, Maria (Dickinson College), Nicole Couture (McGill University) and Deborah Blom (University of Vermont) [28] Challenges and Accomplishments of Multi-disciplinary, Female, Co-Directorship at Mollo Kontu, Tiwanaku, Bolivia
Since 2001, the authors have co-directed an interdisciplinary archaeological research project at the Mollo Kontu sector of Tiwanaku, Bolivia. As three female co-directors, our goals were to construct a project that fostered collaboration and scientific rigor amongst our diverse group of North American and Bolivian students and colleagues but also support our various stages of professional and personal development. As this inclusive approach challenges frequently male-dominated, “lone-ranger” paradigms, it presents challenges of its own. These challenges are outweighed by the revelations that have been produced about Tiwanaku through true collaborations in an era of increased specialization in archaeology.

Bruno, Maria C. [238] see Fritz, Gayle J.

Brunstedt, Jonathan (St. Antony’s College, Oxford) [230] Between Nostalgia and Experience: Moscow’s Poklonnaya Hill as Site of Second-World-War Remembrance
This paper will explore Soviet remembrance of the Second World War through the lens of a long-drawn-out project for the national Victory Memorial in Moscow. In particular, the paper focuses on the memorial’s chosen building site, Poklonnaya Hill, a location only speciously affiliated with the Second World War but intimately connected to Russia’s pre-socialist conflict with Napoleon. Contrary to the widely held view that the decision was a cynical appeal to popular Russian sensibilities, this paper argues that it was in fact the product of bureaucratic dysfunction and disorganization. Thus, the paper highlights the ambiguities associated with public commemoration.

Bruseth, James, Tiffany Osburn (Texas Historical Commission) and Jim Bruseth (Archaeological Consultant) [17] Magnetic Survey at the George C. Davis Site: Interpretations from the Indian Mound Nursery Property
In 2008, magnetometer surveys were conducted by the Archeology Division of the Texas Historical Commission over a portion of the George C. Davis site (41CE19) at Indian Mound Nursery, then operated by the Texas Forest Service. The George C. Davis site was a major Caddo village and ceremonial in eastern Texas. Dee Ann Story spent a significant part of her professional career working at the site. The results of the magnetometer survey indicated that very significant archaeological features still existed on the Indian Mound Nursery property, despite decades of intensive agricultural practices.

Bruseth, Jim [17] see Bruseth, James

Bryce, Julie [137] see Harrison-Buck, Eleanor

Buchanan, Briggs [84] see Ruttle, April F. [279] see Collard, Mark

Buchanan, Meghan (Indiana University) [199] The Mississippian Vacant Quarter: Conflict, Vanished Mississippians, and Missing Agents
During the 14th and 15th centuries, large portions of the Middle Mississippi and Lower Ohio River Valleys were abandoned, creating a “Vacant Quarter.” Demographic shifts throughout the region resulted in portions of the Midwest largely devoid of human occupation. These abandonments have been attributed to environmental shifts and chiefly cycling, with less attention paid to violence and warfare. In this paper, I explore the role of violence in Mississippian population movements with evidence from the Common Field site and the roles non-
human agents may have played in the creation and maintenance of landscapes of violence. 

[199] First Chair

Buchanan, Meghan [199] see Skousen, Benjamin J.

Buchner, C (Panamerican Consultants, Inc.)

[232] 2011 Excavations at the Foster Site (3LA27), a Late Caddo Component on the Red River in Southwest Arkansas

The Foster site is a large (48 ha) multi-component site in the heart of the Southern Caddo culture area that contains widespread evidence for a Late Caddo occupation. It is probably best known for C.B. Moore’s (1912:591-619) investigation of three mounds there that produced a treasure trove of Caddo ceramic vessels. This paper presents data recovered during 2011 in advance of a Corps levee rehabilitation project. Work conducted included a geophysical survey, formal excavation of sixteen 2-x-2 m units, and mechanized striping totaling 720 m in length that revealed multiple house patterns and over 300 features.

Buck, Paul (Nevada State College/Desert Research Institute), Donald Sabol (Desert Research Institute) and William Meyer (Desert Research Institute)

[77] Remote Sensing for Detection of Prehistoric Landscape Use in NW Arizona, USA

Remote sensing is used to estimate soil type, vegetation, soil moisture, and surface roughness to identify productive prehistoric maize agriculture areas in the Mt Trumbull region of NW Arizona. A crop/ habitation model is constructed showing optimal areas for maize agriculture. Important factors include high soil moisture to support germination and taseeling; specific soil associations; sufficient precipitation during the summer; and a plant community dominated by rabbit brush. The hydrologic model FLO-2D was used to evaluate the hydrology of two watersheds in the study area both rainfall and soil type. The model indicates areas where topographic and soil conditions provide high flow depth and high infiltration, likely resulting in more soil moisture available for maize.

Buckler, Edward [35] see Swarts, Kelly

Bueno, Lucas (Universidade Federal de Santa Catarina) and Agueda Vialou (Museum National d’Histoire Naturelle)

[231] Unilateral Lithic assemblages from Central Brazilian Plateau in the Early Holocene: implications for the study of Early Peopling of South America

The research about peopling of America has been dominated by discussions about lithic technology from a typological framework centred in a specific artifactual category: bifacial projectile points. In this presentation we intended to show and compare the lithic assemblages from 3 different regions of Central Brazilian Plateau that are pointing to a different direction: Jangada, Lajeado and Lagoa Santa. In all these 3 places there are lithic assemblages made by an essentially unifacial technology, but presenting technological variability. For these regions we have a well known chronology for the beginning of the Holocene, between 8,000 and 10,500 BP. Based on this data we intend to present some questions about early peopling of South America, emphasizing the necessity to discuss the existence of a dynamic process that could involve different peopling routes, adaptative strategies and historical trajectories.

Bueno, Lucas [158] see Ribeiro, Loredana

Buikstra, Jane (Arizona State University), Douglas Charles (Wesleyan University) and Jason King (Center for American Archeology)

[59] Don’t Forget the Outliers: Lessons from James A. Brown

In the seminal 1971 SAA Memoir 25, “Approaches to the Social Dimensions of Mortuary Practices,” James A. Brown’s Introduction explicitly contrasts statistical with formal approaches to the study of cemetery sites. He emphasizes that uniqueness is only discoverable in formal approaches and provides an elegant example from three North American Mississippian sites. Most studies of mortuary sites, however, continue to emphasize statistical approaches. In this paper, we explore a chronological sequence from the rich archaeological record of the Lower Illinois Valley for unique and anomalous mortuary features, and we face the challenges and opportunities inherent in interpreting them.

[271] First Chair [271] Second Organizer

Buikstra, Jane [271] see Wiant, Michael D.

Buikstra, Jane E. [124] see King, Michael D.

Bullock Kregger, Meggan, Lourdes Marquez Morfin (Escuela Nacional de Antropologia e Historia, Mexico) and Patricia Hernandez Espinoza (Escuela Nacional de Antropologia e Historia, Mexico)

[62] Life and Death in the Chinampas of Xochimilco: Mortality in the Postclassic Population of San Gregorio Atlapulco

New paleodemographic techniques, including transition analysis and the Siler model, were used to evaluate mortality in 408 skeletons from the Postclassic population of San Gregorio Atlapulco, Xochimilco, a community of chinampa agriculturalists that provided much of the food supply for Tenochtitlan. The age-at-death distribution indicates large numbers of juveniles, suggesting both a growing population and high infant and early childhood mortality. Adult mortality peaks in the 70s, indicating that individuals who survived into adulthood typically lived into old age. Unsanitary lacustrine conditions and exploitation by the Aztec center appear to have negatively affected the health of the inhabitants of Xochimilco.

Bundy, Paul [90] see Quick, Russell S.

Buonasera, Tammy (University of Arizona) and Margie Burton (San Diego Archaeological Center)


A recently proposed model of technological investment is adapted and applied to ground-stone form and raw material choices among mobile hunter-gatherers. The model employs empirical data from replicative grinding and manufacturing experiments to compare the efficiency of two different tool designs as expected use-time changes. Predictions generated support and expand
upon intuitive arguments that ground-stone form and material choices are related to duration of use and, by implication, patterns of land use among mobile hunter-gatherers. Although data and applications are provisional, they provide a starting place for further experimentation and modeling.

Burbank, Joshua [203] see Michael, Amy

Burden, Rick
[16] The Waning of the Shell Midden Phenomenon and Subsequent Late Archaic Occupation at Two Archaic Sites in the Lower Ohio River Valley
In the North American Midcontinent, Archaic hunting and gathering people begin to use a variety of new resources that became increasingly abundant during the Middle Holocene. Of note was intensive harvesting of freshwater mussel, beginning about 6500 B.P., resulting in the accumulation of dense shell middens along many interior waterways. The investigation of two co-located Archaic sites along the Ohio River provides a relatively continuous view of hunter-gatherer life from around 5800 B.P. until about 4200 B.P. including the late Middle Archaic shell midden phenomenon, its decline, and the subsequent Late Archaic occupation and use of the area.

Burghardt, Lucy [104] see Hicks, John J.

Burger, Richard (Yale University), Lucy Salazar (Yale University) and Victor Vasquez (University of Trujillo, Peru)
[156] Rethinking Agricultural Staples for the Initial Period Populations of the Lurin Valley: Scraping the Bottom of the Olla
In the Lurin Valley, research at Initial Period sites produced several detailed studies of plant remains using macrobotanical, phytolith and pollen analysis. These indicated use of a range of wild and cultivated plants, but few of these were a rich source of calories. Recent studies of food residues from Cardal, Mina Perdida and Manchay Bajo identified starch grains from foods previously unidentified or underrepresented in earlier analyses, most notably manioc, sweet potatoes, achira, potatoes, and maize. The prominence of root crops capable of yielding large amounts of calories is noteworthy, and their absence from previous studies reflects methodological bias.

[108] Discussant

Burgess, Robin [53] Discussant

Burke, Ariane (Université de Montréal) and Dario Guiducci (University of Montreal)
In this paper, we examine some of the issues related to the visual representation of climate variables for the purpose of archaeological analysis. Information about past climates, whether it consists of data obtained from climate-proxies (pollen counts, faunal communities) or data generated by simulations, is notoriously difficult to display. This is becoming more of an issue as climate data becomes available at finer and finer resolutions. In an age when the visual representation of space has become quite sophisticated and almost three-dimensional, the inclusion of climate variables is still a knotty problem for archaeologists.

[93] Discussant

Burke, Chrisiss (University of Nevada - Reno)
[96] Neotaphonomic Analysis of the Feeding Behaviors and Modification Marks Produced by North American Felids
Examination of felid hunting and scavenging behaviors, coupled with observations of physical feeding behaviors and measurements of masticatory anatomy can assist in explaining tooth marks exhibited in zooarchaeological assemblages. African felids have been the focus of much research in taphonomy, but North American felid research in very limited. This paper presents the results of actualistic feeding experiments with mountain lions and bobcats, which were fed stripped and articulated cow and lamb limb elements. Additionally, the hunting and scavenging strategies and bite forces of Pleistocene and extant North American felids will be compared.

Burke Davies, Clare (University of Sheffield), Peter Day (University of Sheffield), Anno Hein (Institute of Materials Science N.C.S.R. ‘Demokritos’), John Cherry (Joukowsky Institute for Archaeology & the Ancient World Brown University) and Daniel Pullen (The Florida State University)
[270] The Early Helladic Ceramics of Korinthia: An Integrated Approach
Forming part of a broader programme of analysis of Early Bronze Age ceramics from Korinthia and the Argolid, this paper will examine the results of macroscopic, petrographic and SEM analysis of samples from sites within Korinthia, mainland Greece. It will discuss our current understanding of the nature and organisation of Early Helladic production and exchange based upon NAA work undertaken in the 1970s (Attas 1981; Attas et al. 1987) and the contribution that the present integrated analytical programme can make to discussions of ceramic technology and patterns of consumption.

Burke-Davies, Clare T. [270] see Gilstrap, William

Burks, Jarrod [9] see Hargrave, Michael L. [240] see Hoag, Elizabeth

Burnett, Jacquelin (University of Memphis)
[127] Holographic Modeling of Late Paleozoic Chert Deposits in Northern Wyoming
The Bighorn Mountains of Wyoming host multiple deposits of high quality lithic material that have proven difficult to characterize with specificity. Using the “Phosphoria” chert as a case study, this paper examines the problem of characterization from multiple perspectives: How might we reframe our approach from the archaeological and geochemical lens, to that of paleoenvironmental storytelling, or hypothesize a pattern-recognition rubric of the prehistoric prospector? Multi-perspective and multi-scalar narrative approaches, both scientific and humanistic, with their attention to meaningful variability, may increase not only the feasibility but also the pertinence of our characterization methods.

Burnett, Katherine (Indiana University-Bloomington)
[125] The Nostrum Springs Stage Station, A Turn of the
Twentieth Century Stagecoach Stop in Rural Northwestern Wyoming: Thoughts on Merging Historical and Indigenous Archaeologies

Located southwest of Thermopolis, Wyoming, the Nostrum Springs Stage Station was in existence well after the mythic time of stagecoaches roaming the West in constant peril. This station has many stories of its own to tell; in fact, the stage station is a historical archaeologist’s playground. Its location on the border between the Red Canyon Ranch and the Wind River Indian Reservation, however, also makes this site a prime location for practicing a historical archaeology with roots in indigenous archaeology. This paper will explore the research questions derived from applying the principles of indigenous archaeology in a “historical” setting.

Burnett, Paul (SWCA Environmental Consultants) and Erik Otarola-Castillo (Iowa State University) [84] Geometric Morphometrics: Expanding our Understanding of the Rosegate Projectile Point

The Rosegate point type is thought to be among the first arrow points to be commonly distributed across the Great Basin and Intermountain West. However, differences in Rosegate morphology across regions are poorly understood. Geometric Morphometrics is used to study Rosegate shape variation in over 430 points from the Colorado Front Range, the Wyoming mountains, and the Great Basin. This technique fits specimens to a two-dimensional Cartesian (x, y) grid, which allows the shape differences to be statistically evaluated. Rosegate points were found to be shaped significantly different in each region, indicating that this style may have geographic idiosyncrasies.

Burnett, Paul [110] see Kennedy, John D.

Burnett, Scott [35] see Stone, Jessica H.

Burnette, Mae [67] see Laluk, Nicholas C.

Burton, James (University of Wisconsin), T. Douglas Price (University of Wisconsin) and William S. Folan (Universidad Autonoma de Campeche) [58] Measuring Mobility in Mesoamerica

In the last two decades, new methods have appeared for directly assessing human movement in the past. Focused on dental enamel, these methods have employed isotopic ratios of strontium, oxygen, and lead to examine the mobility of the inhabitants of ancient Mesoamerica. Investigations have focused on both individuals and groups to assess questions such as migration and mobility with regard to age, sex, and status. In this presentation, examples of isotopic studies of migration from Copan, Palenque, and Calakmul will be discussed in detail to document the utility of these methods.

Burton, Margie (San Diego Archaeological Center) and Adolfo Muniz (San Diego Archaeological Center) [159] Patterns in Grinding Tool Lithic Choice among Hunter-Gatherers: A Case Study from San Diego County

The mobile lifestyles of hunter-gatherers present social and technological opportunities and constraints that differ significantly from those of settled food producers. These lifestyle factors can be expected to impact choices of lithic raw materials for bulky grinding tools. With this in mind, we examine lithic material choices made by pre- and protohistoric hunter-gatherer societies of the San Diego region as reflected in groundstone assemblages. We explore ideas about how mobile hunter-gatherer societies balance concerns with local availability and relative performance characteristics in selecting lithic materials for grinding tools. We also introduce a new geochronological technique for sourcing sedimentary rock artifacts.

Burton, Margie [159] see Buonasera, Tammy

Butler, Brian (Southern Illinois University), Corin C. O. Pursell (Southern Illinois University) and Tamira K. Brennan (Southern Illinois University) [239] Kincaid in the New Century—Recent Investigations of A Prehistoric Illinois Metropolis

Until recent years, Kincaid, the great Mississippian mound center at the confluence of the Tennessee, Cumberland, and Ohio rivers, was known largely through the pre-World War II investigations by the University of Chicago. Beginning in 2003, SIUC archaeologists returned to the site for a program of small-scale targeted excavations guided by a large-scale geophysical survey. This presentation will focus on the key results of those excavations, which have examined mounds, palisade constructions, and domestic architecture, while developing much needed chronometric information.

Butler, Michelle (University of California, Riverside) [181] Early Terminal Formative and Early Classic Contexts at Charco Redondo, Oaxaca

Charco Redondo, located in the lower Río Verde valley on the Pacific coast of Oaxaca, is a key site from which to examine political authority and communal identity in the region. Charco Redondo had been a traditional focus of authority throughout the Late Formative, but is inferred to have been subject to Río Viejo during Terminal Formative political centralization. Communal burial contexts from the Early Terminal Formative and Early Classic periods inform interpretations regarding authority and identity during and after political transformations in the region. This paper focuses on excavations conducted at the site the 2009 and 2011 field seasons.

Butler, Michelle [181] see Paul, Kathleen S.

Butler, Virginia [241] see Campbell, Sarah K.

Buvin, Ian, William H. Hedman (Bureau of Land Management), Steven R. Kuehn (Illinois State Archaeology Survey, Prairie Research Institute) and Jeff Rasic (Museum of the North, National Park Service) [110] Stratigraphy, Archaeology and Late Quaternary Geological History of Raven Bluff, A Late Pleistocene Age Fluted Projectile Point Site in Northwest Alaska

Raven Bluff is the only fluted point component in Alaska within a buried, stratified context with well-preserved faunal remains. Excavations allow us to better understand paleoenvironments at the site, as well as to propose a detailed stratigraphic sequence and general, late Quaternary geological history of this unique location. The oldest cultural material, including fluted points and
microblades, are associated with radiocarbon dates that range between 13,180 and 10,220 cal B.P. Post-depositional processes are evident but have not distorted the sequence of major stratigraphic units. Ongoing research continues to refine the site’s geochronology, and define a more highly resolved occupation history.

Byers, A. Martin (Retired Research Affiliate McGill University) [97] Reclaiming the Hopewell Interaction Sphere Notion: Is the Hopewell Interaction Sphere notion a “has been” concept distorting more than enlightening our understanding of this most unique archaeological assemblage? This paper insists that the core notion must be reclaimed. It argues the HIS mediated widespread and critically important ceremonial practices that sustained regional ceremonial spheres. These regional spheres were constituted as composite sets of autonomous of world renewal rituals performed by ecclesiastic-communal cult sodality heterarchies; and these heterarchies in turn interacted trans-regionally. This understanding stands in stark contrast to the view that the HIS was the consequence of personal self-aggrandizing pursuits of esoteric knowledge and exotic resources.

Byers, David (Missouri State University), Chase Bilyeu (Missouri State University), Sean Capps (Missouri State University), Heather Craig (Missouri State University) and Brad Stefka (Missouri State University) [140] Site 24CB1677: An Upland Lithic Workshop in the Pryor Mountains, Montana

Missouri State University, in cooperation with the Custer National Forest, conducted fieldwork in the Pryor Mountains of Montana during July 2011. These investigations focused on survey and excavation in the Bear Canyon drainage. A portion of this project focused on excavations at site 24CB1677. This site, located in an alpine meadow produced a large artifact assemblage including debitage, middle Archaic projectile points, bifacial blanks, and large preforms, the vast majority knapped from quartzite quarried from a nearby source. Analysis of the lithic assemblage suggests the site represents a bifaces production and retouching station in an upland setting.

Byers, David [141] see Petinaris, Lydia Y.

Byrd, Rachael (University of Arizona, Arizona State Museum) [139] Phenotypic Variability and Microevolution of the First Farmers in the Sonoran Desert

Cranial phenotypic variability reflects the genetic diversity of Early Agricultural period (circa 2100 B.C.-A.D. 50) people living throughout the lowland desert southwest United States and northwest Mexico. Shared material culture, increasing sedentism, mixed foraging-farming subsistence, and long distance trade are found during this time throughout the region. Cranial morphometrics provide a method for understanding how microevolutionary processes affect phenotypic variation within and between site populations. Here we test the hypothesis that post-marital residence patterns and interactions through trade and migration occurring at Early Agricultural sites contribute to a widespread genetic diversity underlying a shared cultural continuity.

Byrd, Rachael [116] see Watson, James T.

Byrnes, Allison [84] see Pedler, David

Cable, Charlotte (Michigan State University) [83] A Multitude of Monuments: Characterizing and interpreting the distribution of 3rd millennium BC monuments in north-central Oman

GIS is a useful tool for characterizing monument distributions in a landscape analytical framework. The people of 3rd millennium BC Oman were extraordinary monument-builders, acting from within a wide-ranging network of social and exchange systems. Although their tombs are abundant across the region there is a great deal of variation that we are only beginning to recognize. Even less well understood is the contemporary tower tradition whose distribution overlays the tombs. This research applies innovative statistics to traditional survey methods, comparing distributional patterns to ethnoarchaeological models of land use in north-central Oman, in order to present potential cultural explanations.

Cagnato, Clarissa (Washington University in St. Louis) and Gayle J. Fritz (Washington University in St. Louis) [13] Strolling through Madame Mandeville’s Garden: The Real and Imagined Landscape of 18th Century New Orleans

Paleoethnobotanical samples from 18th century French and Spanish colonial contexts at the Rising Sun Hotel site, New Orleans, were collected and analyzed to further understand the colonial garden landscape and to assess whether or not the plants cultivated there reflect creolization. Results indicate that while there was no dramatic change in plant composition over time, the garden as a constructed landscape was modified to suit the needs and values of the inhabitants. Moreover, the garden probably did not represent the city planners’ ideal vision of what the constructed landscape should look like: one that replicated Versailles and other European gardens.

Cain, David [213] Sticks with Stones: Controlled Experimentation in the use of the Weighted Atlatl

Multiple experimental studies over the past century have attempted to determine if and how the atlatl weight mechanically affected atlatl performance. I aim to resolve uncertainty in their conclusions through a systematic experimental test of the hypothesis that the weight affects power and precision. I do this by conducting controlled experiments in the use of both the weighted and unweighted atlatl. I control for human sources of variation in atlatl performance with the construction of an atlatl launch machine, testing the weapon effects instead of human ones such as skill, temporary physiological conditions, and the projection of expected results.

Cajigas, Rachel (American Museum of Natural History) and Christopher Stevenson (Diffusion Laboratories)