frequency of Precolumbian motifs represented in Salinas graffiti and street murals. Ultimately, findings reveal that 95.5% of those graffiti elements, logos, or emblems identified were produced by graffiti tagging crews or taggers. Overtly gang-related graffiti composed only 4.5% of the total sample, whereas, 60% of street murals exhibited Aztec or Mayan motifs.

Lyman, R. (University of Missouri Co)  
[241] Robert C. Dunnell and Archaeological Systematics  
Robert C. Dunnell’s 1971 “Systematics in Prehistory” is the first book-length treatment of this fundamental step of archaeological analysis. Only four subsequent books are devoted to the topic. Introductory textbooks on archaeology spend on average fewer than five percent of their pages to classification, and advanced texts on archaeological method and theory devote on average less than three percent of their pages to the topic. Clearly, archaeological systematics is perceived as uninteresting, descriptive, and not very sexy. As Dunnell argued years ago, this perception must change if archaeology is to be scientific and to advance our knowledge of humankind’s past.

[96] Discussant

Lynch, Daniel [67] see Hart, Siobhan

Lynch, Elizabeth (University of Wyoming), Laura Holthus (University of Wyoming) and Susan Simons  
The canyon landscape of southeastern Colorado houses a complex distribution of grinding surfaces created between 2500 to 600 years ago on exposed sandstone boulders in rockshelters and along canyon rims. These work spaces represent an important, yet under-studied, aspect of the archaeological record in this region. Archaeologists who document these features record the length, width and basin depth. Level of training and experience recording groundstone differs among archaeologists. This paper tests the hypothesis that there is error between measurements of individual recorders and provides suggestions about how to best incorporate existing data into a regional study of bedrock ground surfaces.

Lynch, Joshua (Center for the Study of the First Americans)  
The middle Tanana valley of central Alaska has long been regarded as a hotbed of late Pleistocene-early Holocene archaeology; however, the upper Tanana basin has not been thoroughly investigated. In 2011 archaeologists from the Center for the Study of the First Americans initiated an archaeological survey of the Tanana’s two major tributaries—the Nubesna and Chisana rivers. We recorded 10 prehistoric sites. Tests yielded lithic artifacts and faunal remains in stratified and datable contexts reaching up to 5 m thick. This poster presents details on the sites, including their stratigraphic contexts, radiocarbon ages, and archaeological contents.

Lynott, Mark (National Park Service), Rolfe Mandel (Kansas Geological Survey), James Brown (Northwestern University) and Bret Ruby (National Park Service)  
Investigations in 2009 through 2011 have yielded important new data about the construction of the embankment wall, borrow pits and mounds at Mound City in Ohio. Geophysical survey, geoarchaeology and archaeological testing have produced evidence of widespread truncation of the upper soil profile prior to the construction of earthen landmark features. The evidence indicates that earthen features were carefully constructed using geo-engineering principles, and the borrow pits and embankment wall represent the final episode of monument building at this site. More reliable radiocarbon dates are needed, but current results reflect at least four centuries of Middle Woodland activities.

Lyons, Kevin [207] see Hicks, Brent

Lyons, Patrick (Arizona State Museum)  
[154] A Behavioral Archaeology of Ancient Migrations  
Over the last two decades, migration has again become an important focus of research by anthropological archaeologists. This is especially true in the US Southwest, where population movements and their causes and consequences are subjects of intensive study. In this paper, I examine recent developments in theory and method relating to the archaeology of ancient migration. I highlight contributions made possible by the “conceptual scheme” of Behavioral Archaeology, established by Michael Schiffer. Key points of discussion include correlates, life history analysis, cultural transmission, and María Nieves Zedeño’s “tridimensional approach” to ceramic circulation, which entails simultaneously investigating style, technology, and provenance.

[48] Discussant

M. Ulrich, Kristi [33] see Tomka, Steve A.

Ma, Xiaolin [60] see Pechenkina, Ekaterina [60] see Pike-Tay, Anne

MacEachern, Scott (Bowdoin College)  
[108] Monumentality in a monumental landscape: the DGB sites of northern Cameroon  
The sixteen DGB sites are complexes of dry-stone architecture located on the slopes of the northwestern Mandara Mountains, in northern Cameroon. The two largest, DGB-1 and DGB-2, are contemporary and form a single monumental site complex over an area of about 2.5 ha: the others are significantly smaller. The functions of the DGB sites are not well understood, but they exist in an intensely-occupied human environment also dominated by dry-stone terrace architecture, albeit an architecture with different characteristics. This paper will consider the trajectories of development of these important archaeological sites in a developing Mandara human landscape.

Machicado, Eduardo (University of Cambridge)  
Between the XIV and XVI centuries, mummified bodies were the focus of social reproduction among Andean
communities. This cult was materialized in specific forms of architecture and social practice. The relationship between ancestor worship and political life was considered a long-lived Andean trait, however, new data question this assertion. In this study, I review available information on burial practices in the southern Lake Titicaca Basin, particularly the Taraco Peninsula, Bolivia. I hypothesize that the relationship between the dead and politics constantly changed throughout the centuries.

Machiccek, Michelle (Smithsonian Institution) [60] Highlighting Variation in Nomadic Pastoralist Subsistence Regimes from the Inner Asian Steppes

This study presents the reconstruction of dietary patterns and subsistence regimes through the chemical analysis of human and faunal skeletal remains. Presented here are the results of stable isotope analyses from archaeological sites located throughout Mongolia. The focus of this research examines patterns in dietary regimes from populations that are commonly considered to be nomadic pastoralists. These results provide a more comprehensive view of direct dietary intake and indicate that the early communities of this region undertook subsistence strategies that varied locally between time and place. This work examines the implications for these findings and discusses areas for further consideration.

MacIntosh, Sarah [84] Assessment Of The Cortex Ratio Model With An Epipaleolithic Assemblage From Jordan

Archaeological assemblages have been long discussed regarding their intensity in cortex reduction and artifact transport. The cortex model proposed by Dibble et al., “The Measurement and Interpretation of Cortex in Lithic Assemblages” in American Antiquity (2005) provided a successful geometric method to quantify the expected and observed amount of cortex in a particular assemblage. To further test the model, the Early Epipaleolithic occupation (Area C) at the site of Yutil al-Hasa was selected to quantify the cortex ratio and prove, along with other evidence, that the occupation site at Yutil al-Hasa was indeed a temporary one during the Epipaleolithic.

Mack, Joanne (University of Notre Dame) [171] Rock Features of the Upper Klamath River, California and Oregon

Rock Features are common in the High Cascades of northern California and the Pacific Northwest. Though some are undoubtedly the result of vision quests and other religious activity during pre-contact and historic times, some can be associated with food storage. Some are also the result of Euro-American activity. Therefore, not all rock features had a sacred purpose. Within Shasta Territory storage features and burial features can be associated with rock features.

Mackay, Alex [83] see Schwartz, Steve

MacKinnon, Michael (University of Winnipeg) [157] The Breeding and Treatment of Pet Dogs in Roman Antiquity: Synthetic Assessments Linking Zooarchaeological, Ancient Textual and Artistic Data

Integration of zooarchaeological, ancient textual, and artistic evidence provides a more holistic assessment of the distribution, perception, and treatment of small pet dogs during Roman antiquity. Smaller breeds register first in Roman cities, reflecting trade networks and urban elite demand. Osteologically, they often record multiple pathological conditions, but also display signs of greater human care. Nitrogen isotopic data indicate higher trophic levels for smaller breeds, presumably with a larger measure of dietary meat, and perhaps fish. Special treatment also surfaces in terms of burial and ritual, with greater attention placed on venerating such breeds in funerary monuments and special graves.

Macpherson, Gwen [37] see Johnson, William C.

Macrae, Scott A. [203] see Lamoureux St-Hilaire, Maxime

MacWilliams, A.C. [183] see Roney, John

Madden, Gwyn (Grand Valley State University), Elizabeth R. Arnold (Grand Valley State University), Jordan K. Karsten (SUNY Albany) and Stanley H. Ambrose (University of Illinois, Urbana-Champaign) [5] Isotopic Analysis in the Re-Proveniening of Undocumented Human Mummified Remains

Four un-proveniened human mummified remains, housed in the collection at the Anatomical Institute at the University of Oslo, were observed to re-establish cultural affiliation in time and space. A preliminary attempt was made to proveience the remains using artifact analysis and body positioning suggesting a Paracas and Nazca cultural provenience. It is expected that current strontium isotope analysis will further refine this determination. Carbon, nitrogen, and oxygen isotopes were also examined for comparative purposes.

Madden, Gwyn [176] see Karsten, Jordan K.

Madsen, Mark (University of Washington) [160] Improving the Fit Between Model and Data: Extreme Value Analysis of Unbiased Transmission

Increasingly, neutral models form the basis for explanatory models in archaeology. Many of these models assume that class frequencies represent a synchronic sample. The assumption, however, is rarely justifiable since archaeological deposits are time-transgressive, and the result of time-averaging changes the distribution of observables. Class richness, for example, is an additive “maximum” value for accretional assemblages. Class frequencies, therefore, should be modeled using extreme value distributions of transmission processes, not central limit behavior. This change points to improvements that can be made to numerical methods that evaluate frequency expectations due to random copying.

Madsen, Mark [241] see Lipo, Carl P.

Maestri, Nicoletta (University of California, Riverside) [191] Across the River and into the Trees: Preliminary Results of the Investigations at Boca Chinikihá, a Maya Site on the Usumacinta River

This paper presents the preliminary results of the recent archaeological investigations at Boca Chinikihá, a secondary Maya center on the banks of the Usumacinta
and Chinkihá rivers, in Tabasco, Mexico. I address the role of Boca Chinkihá as a possible riverine port, as well as discuss its social and economic connections within the multifaceted political landscape of the middle Usumacinta river by drawing on excavations and the artifact data, along with settlement layout analysis and comparisons with other centers in the area.

Maggard, Greg (Kentucky Archaeological Survey) [231] Re-evaluating Early Lithic Traditions on the North Coast of Peru

On Peru’s North Coast, the earliest documented lithic traditions are collectively known as the El Palto Phase (~13,800-9,800 calBP). These traditions include early unifacial assemblages, and Fishtail and Pajján complexes. Recent study of El Palto phase sites in the lower Jequetepeque Valley focused on evaluating the interrelationship between these assemblages and the populations who manufactured them. The results of this study indicate a greater degree of intra-type diversity than previously recognized, call into question the descendant relationships between Fishtail and Pajján, and provide new insights regarding early settlement in this region of the Central Andes.

Maggard, Greg [124] see Sharp, William E.

Magnoni, Aline (Tulane University) and Anthony Ranere (Temple University)

[128] Bruce Dahlin in Context: A Peripatetic Scholar on the Ancient Maya and Beyond.

After being a US Navy Deep Sea Diving Officer, Bruce Dahlin decided to become an archaeologist and participated in excavations in Cyprus, Panama, Belize, Guatemala, El Salvador, and Pakistan. His research projects El Mirador, Guatemala and Chunchucmil, Yucatan, together with his research on ancient Maya marketplaces and the paleoclimatic research in Yucatecan lakes and on cave speleothems have yielded a wealth of valuable information on ancient Maya political economy, subsistence, cultural and environmental interactions, and paleoclimatic. This paper presents Bruce’s intellectual contributions to archaeology and paleoenvironmental research, and discusses the impact and future directions of the interdisciplinary projects he guided.

[128] First Chair

Mahaney, Robert [139] see Spencer, Susan D. [114] see Herrmann, Edward

Maher, Lisa A. [228] see Richter, Tobias

Maher, Ruth (William Paterson University) [263] One if by land, two if by sea: the symbology of horse and boat inclusions in the pre-Christian burial of Iceland.

The pre-Christian (late 9th century to c. AD1000) burials of Iceland have a large number of horses included in the burial record as well as at least eight boat burials. Both inclusions represent functional, political and symbolic levels of burial customs and rites; but do they both hold the same meanings and significance for the Icelandic burial context and should they carry different weights during analysis? The horses and boats are examined on all three levels based on their own merits within the Icelandic context and new possibilities presented for the spaces between life and death.

Mahoney, Maureen (Seminole Tribe of Florida THPO) [9] Elevated living in South Florida: New Investigations into Settlement Activities in South Florida’s Tree Islands

Prior to the draining of the Everglades, South Florida’s tree islands were the highest elevated and one of the few dry areas. These islands were rarely inundated and therefore, served as habitation zones for people throughout the prehistoric and historic periods. Although people regularly settled on these islands due to their higher elevation, they did not establish their camp or village following the same guidelines. This study will not only illustrate that higher elevation was insignificant in determining the layout of settlements, but will also discuss how people relied more heavily on environmental variables when constructing their camp or village.

Maillol, Jean-Michel (ArchaeoVision Consulting) and Richard Callaghan (University of Calgary) [276] Using Ground Penetrating Radar on the island of St. Vincent, West Indies

In the winter of 2011 ground penetrating radar was used for the first time on St. Vincent in the southern Lesser Antilles in the Caribbean on two locations. While GPR has been used before in the region the results have been variable. The goals of the survey were to investigate community structure and to test the efficacy of GPR on the island. The two sites tested were the Arnos Vale Swamp site, dating to around AD 400, and the Arnos Vale Field Site, dating from ca. AD 400–1200. Numerous non-geological features were detected and then tested through excavation.

Mainland, Ingrid, Jane Downes (University of the Highlands and Islands/Orkney College) and Julie Gibson (University of the Highlands and Islands/Orkney Isles Council) [86] A ‘bleak and unpropitious climate’: sustainable societies and practises in the prehistoric and early historic Highlands and Islands of Scotland

The Highlands & Islands region of Scotland, by virtue of its location on the ‘edge’ of Europe and its predominately upland and maritime environment has often been considered socially or economically ‘marginal’; yet at various times in the past it has assumed a central role in European and North Atlantic society. Illustrated by examples from the Neolithic/Bronze age and early historic periods, this paper applies an interdisciplinary approach combining archaeological and palaeoenvironmental evidence at diverse spatial/temporal scales to provide insights into sustainability, marginality and innovation not only in the past but for the sustainability of modern communities in this region.

Makarewicz, Cheryl (Christian Albrechts University, Kiel) [228] Breaking the chains of kinship: Re-forging the links between Neolithic social structure and economic change

The so-called process of Neolithization is frequently associated with the development of a complex social structure centered on households and lineage-based
Houses. This model of Neolithic social organization, which is heavily rooted in the structure of later agro-pastoral societies, places primacy on kinship as a way of mobilizing labor. This emphasis on household and kin, which ignores more fluid forms of social organization and task group formation common to hunter-gatherers, and hinders our understanding of how novel developments in ideologies and plant and animal technologies emerged and evolved at varying tempos and forms across the region.

[228] First Chair

Makowski, Krzysztof [156] The temples of Pachacamac and the inca imperial ideology
Excavations under the direction of the author carried out during the 2009, 2010, and 2011 field seasons have revealed that the first wall surrounding the temples attributed to Pachacamac and the Sun-Punchao (Old Temple and Painted Temple respectively), was built during the late Late Horizon, was accompanied by adjacent structures to the south, and was never completed. These newly revealed features, the stratigraphic relationship between the two temples attributed to Pachacamac, and the iconographic program of the Painted Temple call for a revision of the hypothesis that argues for the local origin of the Pachacamac cult.

[156] Discussant


Malainey, Mary (Brandon University) and Timothy Figol (Brandon University)

[64] Functional Analysis of Partially Reconstructed Vessels from Western Canada
Shape, size and contents are strongly correlated to vessel function but whole vessels are rarely recovered and few ethnographic accounts of pottery use exist for Western Canada. In this study, computer-assisted design (CAD) is used to create three-dimensional models allowing for morphological analysis of whole pots. The former vessel contents are established through lipid residue analysis on the basis of relative fatty acid composition and the occurrence of biomarkers and triacylglycerols using high temperature gas chromatography (HT-GC) alone and with mass spectrometry (HT-GC/MS). Intra- and inter-site comparisons of pottery assemblages from Saskatchewan and Manitoba are presented.

[64] First Chair

Malakie, Julia (University of Washington)

[95] Multi-scalar Cultural Connections at Khao Sam Kaoe
Khao Sam Kaoe, an Iron Age industrial site and settlement on the east coast of the Thai-Malay Peninsula, shows definite evidence of participation in the regional trade networks connecting the Indian Ocean and South China Sea. This work focuses on the extent to which diverse cultural groups were living together and interacting at the local/site scale. I use advanced GIS, statistics, and spatial analysis to evaluate the presence of distinct ethnic communities within the site itself, as well as assess the permeability of those community boundaries.

Maldonado, Blanca (Colegio De Michoacan, Mexico)

[96] Metallurgy and the Prestige System of the Tarascan State
Mesoamerican societies were characterized by a highly complex organization with relatively simple technologies. Although the region experienced major cultural transformations, technology proved surprisingly persistent. A reason for this may be the role of the prestige system as a regulator. The development and control of metallurgy was a critical factor in the consolidation of the ruling dynasty in the Tarascan Empire. The present paper uses multiple lines of evidence to address prehispanic copper production in ancient Michoacán. The aim is to gain a better understanding of the dynamics of technology and political economy in the Tarascan state.

Maldonado, Ronald (Navajo Nation Historic Preservation Dept)

[31] Preservation on the Navajo Reservation, Who decides?
On the Navajo Reservation there exists a conflict between tribal code, which mandates that all research benefit the Navajo people, and those who perform the research. Who decides preservation on the Navajo Reservation, is it the Tribal Historic Preservation Officer, the archaeologist, or tribal code? Does conflict create a biased view of preservation or does it reflect the view of a Tribal Nation, thus creating a revisionist history of Native America.

Malischke, LisaMarie (Southeast Archeological Center/Univ of Alabama)

[34] La Louisiane and the Illinois Country: Initial Observations on Variations in French Colonial Cultural Interactions
French cultural interactions within the Illinois Country and Louisiana varied by people, politics, and economics. Northern forts maintained alliances and were a barrier to encroaching English. These mandates never dominated southern fort practices. The northern economy was harvested beaver skins. Southern settlements established tobacco plantations requiring much time and labor. Northern forts were peopled with hardy French-Canadians and surrounded by autonomous, seasonally mobile Native groups. Southern settlements were peopled with unprepared French citizens. The Natchez were culturally and organizationally different from northern tribes. Suggestions will be offered as to how these differences may be reflected in the material record.

Malkinson, Dan [234] see nachmias, amnon [234] see Nadel, Dani

Malyk-Selivanova, Natalia, Gail Ashley, Michael Glascock and Hector Neff

Chert sourcing is based on concept that artifact and geological source have identical geological history and geochemical signatures. A regional database of geochemical signatures is a cornerstone of this. A database should include: major, minor, trace and rare earth element concentrations; elemental ratios;
Manahan, T., Kent State University, Azucena Cervantes Reyes and Roberto Magdaleno Olmos (UNAM) [22] The Dynamics of Transformation at a Late-Terminal Classic household at Xuenkal, Yucatan
The ancient Maya center of Xuenkal, Yucatan, located halfway between Chichen Itza and its north coast port of Isla Cerritos, contains significant occupations associated with Cehpech and Sotuta spheres in discrete contexts spanning the Late Classic – Terminal Classic transition. Recent excavations in an elite residential group detail extensive transformations in architecture, function, and use between occupations. These findings suggest that the relationship between Chichen Itza and its neighbors was more nuanced than current models contend. The data from Xuenkal demonstrate that the primates center’s effects were experienced asymmetrically across sociopolitical and economic boundaries.

Manahan, T. Kam [58] see Stockton, Trent

Mandel, Rolfe (Kansas Geological Survey) [20] The Search for Paleoindian and Pre-Paleoindian Sites in the Central Great Plains of North America: A Soils-Geomorphic Approach
Results of a systematic study of late-Quaternary landscape evolution in the Central Plains suggests that the low number of recorded Paleoindian and pre-Paleoindian sites in the region is a product of the filtering effects of geomorphic processes. Specifically, the geomorphic settings that would have been most attractive to the region’s early residents—stream valleys and playas—were zones of slow sedimentation accompanied by pedogenesis during the terminal Pleistocene and early Holocene, and rapid sedimentation after ca. 8000 B.P., resulting in deep burial. Exploration of those buried landscapes has yielded stratified Early Paleoindian cultural deposits and evidence of possible pre-Paleoindian occupations.

Mandel, Rolfe [37] see Murphy, Laura R. [124] see Lynott, Mark J.

Manne, Tiina [135] see Bicho, Nuno

Mannino, Marcello (Max Planck Institute for Evolutionary Anthropology), Antonio Tagliacozzo (Museo Nazionale Preistorico ed Etnografico “Luigi Pigorini”, Rome, Italy), Vincenzo Formicola (Università di Pisa, Pisa, Italy), Elisabetta Starnini (Soprintendenza per i Beni Archeologici della Liguria, Genova, Italy) and Michael P. Richards (Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany & University of British Columbia, Vancouver, Canada) [176] Mediterranean human diets in the Late Pleistocene: an isotopic study of the Upper Paleolithic hunter-gatherers buried at the Arene Candide cave in Liguria (Italy)
Hunter-gatherers of the Mediterranean Basin intensified, diversified and specialized their subsistence strategies to increase food acquisition during the Late Pleistocene. The role played by marine and plant foods in this process is, however, poorly understood. Carbon and nitrogen isotope analyses have been undertaken on the bone collagen of Upper Paleolithic humans buried at the Arene Candide cave (Italy) to evaluate the contribution of terrestrial, freshwater and marine protein to their diets. Preliminary results indicate that these hunter-gatherers relied heavily on terrestrial herbivores till the end of the Pleistocene and that aquatic, including marine, foods might have occasionally been consumed.

Manzanilla, Linda [58] see Vazquez De Agredos

Marcone, Giancarlo (University of Pittsburgh) [156] Lote B, Pachacamac y el valle de Lurín al comienzo del horizonte Medio
El sitio de Lote B, es el primer sitio asociado a la cultura Lima excavado en el valle de Lurín fuera del Santuario de Pachacamac. Aunque por su cercanía es muy probable que estuvieran íntimamente relacionados. Nuestras excavaciones nos permitió reconstruir la economía doméstica y estrategias políticas de una elite rural asentada en el sitio. En base a estas reconstrucciones, el presente papel evaluará al nivel del sitio las hipótesis actuales sobre el desarrollo socio-político del valle de Lurín, el papel del santuario y rol de la interacción costa-sierra en los cambios reconocidos entre el final del intermedio Temprano y el inicio del Horizonte medio. Concluimos que en general, la falta de trabajos a nivel de sitio para este periodo ha contribuido a perpetuar ideas basadas en reconstrucciones netamente teóricas con poca base empírica. Construidas en base a datos etnohistóricos y proyectadas irreflexivamente al pasado.

Marciniak, Arkadiusz (Institute of Prehistory, University of Poznan) [209] Teaching of Archaeological Heritage in the Distance Learning Environment
The paper aims to present an overview of experience in teaching archaeological heritage in the distance learning environment based upon e-learning course ‘Archaeology in contemporary Europe’. In particular, it will discuss content of the training in the light of changing perspectives on archaeological heritage, strategies of content delivery, use of interactive multimedia e-learning modules in the learning process, overview of didactic process among different target groups such as graduate and extramural students as well as employees of the archaeological heritage sector. The paper will then discussed strengths and weaknesses of this method of content delivery in archaeology and archaeological heritage.

Marchand, Grégor [75] see Tresset, Anne

Marcove, Giancarlo [39] see Stich, Kyle
Marcoux, Jon (coux5821)
[197] Utilizing New Deal Data to Explore the Timing and Tempo of Mississippian Political Centralization in the Middle Tennessee River Valley

We know very little about late prehistoric Mississippian culture in the Middle Tennessee River valley of northern Alabama despite the role these societies played in forging the social, political, and economic landscape of the region. In this paper, I utilize datasets from New Deal excavations at the Walling II site and the Hob's Island site to determine the timing and tempo of political centralization in the region. I also discuss how the excavations at these sites represent different ends of the spectrum in regard to the variable quality of depression-era excavations, reporting, and records curation.

Marek-Martinez, Ora (NAVAJO NATION HPD-RPP)
[31] Archaeology For, By and With the People: The Navajo Nation case.

The Navajo Nation THPO has been established for over 15 years and is one of the largest Native American historic preservation departments in the country. The Navajo Nation THPO has taken a three-prong approach when managing tribal resources by utilizing archaeological, anthropological, and ethnographical methods to locate, manage, and protect tribal cultural resources. For the past three years, I have conducted research at the Navajo Nation THPO, and have found that although the three-prong approach has been effective in the past, the Navajo public has become increasingly dissatisfied with the approach and are demanding changes. This paper examines those issues.

Margaris, Amy [159] organizer

Marin-Arroyo, Ana (University of Cambridge)
[75] Remarkable paleoeconomic changes during the Mesolithic in the Cantabrian coast, Northern Spain

The Mesolithic of the Cantabrian Coast (northern Spain) was characterized by an apparent cultural and economic impoverishment that implied a reduction in human mobility and the abandonment of interior valleys in favour of coastal areas. In terms of subsistence, the diet broadened including a wide range of previously low-ranked prey, such as fast moving or dangerous animals and marine resources. This radical change has been explained both by a demographic crisis and by an environmental shift. The archaeozoological and taphonomical analysis of macromammalian fauna from two shell middens -Mazaculos Rockshelter and La Fraga Cave- are presented here.

Marken, Damien [151] see Eppich, Keith

Markofsky, Steve (University College London)

This paper discusses intensive survey in the Murghab Delta, Turkmenistan, in light of other research frameworks that characterise recent surveys. While intensive surveys have offered much new information, these are often situated within familiar archaeological contexts. But what happens when we apply the established frameworks to completely different regions? Do the familiar approaches even apply? The Murghab delta is a unique survey environment, located in a visually obstructed zone often not amenable to methods of survey-based enquiry that may be effective elsewhere. The implications both for interpretation and transferable methodologies are explored in this paper.

Marks, Theodore (The University of Iowa)

This poster presents results of geoarchaeological investigations at the Middle and Later Stone Age site of Erb Tanks, a rockshelter in the Namib Desert, Namibia. This site is an unusual combination of rockshelter, pond, aeolian and anthropogenic depositional contexts in a hyper-arid climate with a sedimentary record preserving evidence of early modern human/environment interaction. As such, Erb Tanks demonstrates long-term occupation across extremely arid pulses during the Upper Pleistocene. This suggests that early modern humans possessed both technologies and behavioral strategies that allowed them to occupy arid regions of sub-Saharan Africa throughout the Upper Pleistocene.

Markussen, Christine [9] see Pouncett, John

Marler, Clayton [169] see Keene, Joshua L.

Marquardt, William (Florida Museum of Natural History) and Karen J. Walker (Florida Museum of Natural History)
[232] Rethinking The Calusa Of Southwest Florida

Historical documents and archaeological data suggest that the protohistoric Calusa were unusually complex for a society based primarily on fishing as a means of production. Called variously a kingdom, a complex chieftdom, or a weak tribute-based state, the Calusa controlled much of South Florida. For more than 20 years, our interdisciplinary team has conducted research in southwest Florida. We now know that resources were heterogeneous and highly variable due to long-term and short-term perturbations. Based on our accumulated information, we think that changes in settlement, subsistence, technology, and cultural practices were associated in part with environmental fluctuations.

Marquez Morfin, Lourdes [62] see Bullock Kreger, Meggan

Marreiros, Joao (University of Algarve)
Angel Mounds is a Mississippian archaeological site (ca. A.D. 1050) in southwestern Indiana. In the summer of 2011, minimally invasive resistivity readings to identify potential inclusions and/or features inside the mounds. The results of this field project are presented and discussed.

Marshall, Maureen (University of Chicago)
[130] Regional Practices and Local Experiences: An Osteobiographic Approach to Late Bronze Age Human Remains from the Tsaghkahovit Plain, Armenia
Since the late 19th-century, thousands of Late Bronze Age (1500-1150 B.C.) and Iron I period (1150-800 B.C.) tombs have been excavated in the South Caucasus. These excavations have provided detailed descriptions of the great variability present in mortuary rites at the time. However, they have rarely linked mortuary practices to the practices of everyday living. This paper uses an osteobiographic approach drawing on osteological and mortuary data from excavations at a Late Bronze Age cemetery in the Tsaghkahovit Plain, Armenia in order to examine the lives – the practices and experiences – of subjects in early complex polities.

Marshall, Maureen [59] see Ghazal, Royal O.

Martin, Andrew (University of Bournemouth)
The Centrality of Borderlands: Contexts of clarity in Early Bronze Age Wessex. Studies of Late Neolithic and Early Bronze Age Wiltshire have tended to focus on large ceremonial monuments to the exclusion of over 900 excavated burial mounds, due to problems with classifying mounds. Instead of using formal typology, stylometric techniques from forensic linguistics were used to classify these mounds according to similarities in context rather than objects alone. Once groups were identified more clearly, borderlands between groups were identified and instances of interaction located. It is argued that borderland interactions, involving the appropriation and re-appropriation of mounds, are extremely useful, as cardinal beliefs and political maneuvers are often plainly delineated.

Martin, Andrew (Cultural Resource Analysts, Inc.), Randall Cooper (Cultural Resource Analysts, Inc.), Russell Quick (Cultural Resource Analysts, Inc.) and Andrew Bradbury (Cultural Resource Analysts, Inc.)

Mapping Kentucky Chert Sources

Knowing the abundance and distribution of chert sources in relation to archaeological sites provides important local and regional context for archaeological assemblages and allows for a better understanding of prehistoric lithic technologies at those sites. This paper describes the ongoing process of incorporating data from the geological quadrangle maps of Kentucky into a geographic information system database. Lithic studies from various regions of Kentucky show how the statewide chert data help address research topics such as lithic procurement and use strategies, as well as settlement patterning through time.

Martin, Debra (University of Nevada/Las Vegas), Kathryn Baustian (University of Nevada, Las Vegas), Ryan Harrod (University of Nevada, Las Vegas) and Anna Osterholtz (University of Nevada, Las Vegas)

Looking for Patterns in a Sea of Variability: Mortuary Contexts from Disparate Southwest Groups as Correlated with Age-at-Death, Sex and Trauma

There is little doubt that variability in mortuary context exists within synchronic slices as well as across diachronic swathes for archaeological sites in the Southwest. Mortuary data from Black Mesa (PI-II, Kayenta), La Plata (Pll, La Plata River Valley) and Grashopper (PII-IV Salt River Drainage) represent different regions and time periods. We examined the notion of "unusual"/deviant versus "normal"/considerable burials (term used often in the literature). Specifically, burials whose social identities included violent trauma and injury recidivism were compared with burials without trauma to tease out the role of violence on mortuary ritual and context.

Second Chair [94] Second Organizer

Martin, Debra [105] see Crandall, John J. [105] see Harrod, Ryan P. [94] see Osterholtz, Anna J.

Martin, Houston (University of California, Davis) and Marcel Kornfeld (University of Wyoming)

Hell Gap Modified Chipped Stone: An attribute-based analysis

Interpretations of Paleoindian use of chipped stone rely upon the realization of a tool’s trajectory from initial manufacture until it is discarded. The analysis of the employable unit (EU), a tool component appropriate for a specific task, can assist in identifying patterns in Paleoindian technology. This is especially true when factors such as occupation duration and function can be interpreted from other available data. In this analysis, multidimensional contingency tables are analyzed and interpreted in regards to Paleoindian technological organization, adaption and evolution. EU analysis provides an alternative to other techniques, revealing aspects of a site previously unknown.

Martin, Lana (University of California Los Angeles)

Cultivation and Consumption in Western Panamá: Testing Hypotheses of Plant Food Use at Sitio Drago

Proyecto Arqueológico Sitio Drago (PASD), based in Boca del Drago, a small beach community located in the Bocas del Toro province of Panamá, evaluates the subsistence economy, external trade and exchange relations, and social organization of site occupants beginning in AD 900. Paleobotanical analysis from Sitio Drago promises to provide additional information concerning diet, labor organization, and regional interaction. This poster uses preliminary data to assess four assumptions concerning pre-Columbian plant use in Boca del Drago: a) absence of maize agriculture, b) reliance on tuber crops, c) cultivation of cacao fruit, and d) intensification of domesticated palm species.

Martin, Lauri (The University of Texas -Austin)

Medicinal Trail Group B: Perspectives on an Elite Hinterland Community and Postclassic Visitation

Group B, a formal courtyard located within the Medicinal Trail site, is a proposed Hinterland Elite community. The group is situated in Northwestern Belize and is approximately 6-8 km east of the major site of La Milpa. Although Group B contains architecture that is interpreted as ceremonial in function, the proximity to such a grand center such as La Milpa, it is remarkable that Group B exhibits evidence for Postclassic visitation. Excavations from the 2007, 2008, and 2009 seasons provide the unique opportunity to examine a significant Hinterland Elite community existing in the shadow of a known power center.

Martin, Lucius (Fowler Museum at U.C.L.A.)

The Rise of the Corporate Resort on Santa Catalina Island and its impact on prehistory, 1892-1919.

The Santa Catalina Island Company, which incorporated in 1894, offered many opportunities for thrill seekers that attracted thousands of Southern California tourists to the many beaches, guided hunting excursions, “Indian Village Tours” and stage coach rides into the interior of the island. In this paper I will draw upon extensive archival research and material culture to understand this important time and how it impacted the perception of Catalina’s prehistory and encouraged its commodification.

Martin, Paul (Western Carolina University), John Sullivan (Bureau of Land Management) and Blair Tormey (Western Carolina University)

Cadaver Dogs as a Tool for Archaeologist: Fact or Fiction?

This presentation focuses on the research to determine
the feasibility of utilizing cadaver dogs as a remote sensing tool to assist in the location of historic and prehistoric human burials to prevent unintentional excavation or to better assist salvage operations. Training, testing, and practical applications and the results will be highlighted along with presenting best practices for the utilization of cadaver dogs in the archaeological survey process. Archaeologists will become more informed on the capabilities of cadaver dogs and how to evaluate the claims of the handlers.

Martin, Shannon (Saginaw Chipewa Indian Tribe of Michigan) and Sonya Atalay (Indiana University) [143] Learning Together: Core Tribal Values and Shared Benefits at the Flint Stone Street Ancestral Recovery Project

How does a tribal community-driven museum and cultural center effectively partner with archaeologists on mutually beneficial projects? The Flint Stone Street Ancestral Recovery Project, a mitigation effort near downtown Flint, Michigan, is a prime example. The project was conducted using a community based participatory research (CBPR) methodology. It was community driven; conducted with core Anishinabe cultural values in mind; and aimed to mutually benefit all partners. We will share lessons learned from this successful CBPR partnership, and will detail how graduate students in a service-learning course on CBPR methods at Indiana University helped develop plans for the site’s future.

Martin, Shannon [194] see Atalay, Sonya L.

Martin, Worthy (IATH, University of Virginia), Stephen Plog (University of Virginia), Abigail Holeman (University of Virginia), Carolyn Heitman (University of Virginia) and Adam Watson (University of Virginia) [164] Legacy Data, Digital Archives, and New Directions for Chaco Canyon Archaeology

Early expeditions to Chaco Canyon yielded substantial archival holdings in numerous repositories. The physical dispersion of these archival materials has led many modern researchers to rely upon published monographs from those expeditions rather than the more detailed archival records. Through collaborations with repositories, the Chaco Research Archive is making digital surrogates of the archival materials available via a searchable on-line relational database. We will discuss the spectrum of CRA data, highlighting the utility of digital archives in the re-evaluation of topics such as room usage at great houses and the variety of burial practices across the canyon.

Martin Medina, Geiser (Facultad de Ciencias Antropológicas-UADY / INAH-Yu), Lourdes Toscano Hernandez (Instituto Nacional de Antropología e Historia, Centro Regional Yucatán), Victor Manuel Ramirez Valencia (Instituto Nacional de Antropología e Historia, Centro Regional Yucatán), Arturo Ismael Victoria Pérez (Instituto Nacional de Antropología e Historia, Centro Regional Yucatán) and Oscar Enrique Herrera Gorocica (Instituto Nacional de Antropología e Historia, Centro Regional Yucatán) [58] Dispositivos GNS Y Su Aplicación En Arqueología: Resultados Obtenidos En El Salvamento Arqueológico Tixcacal

La expansión urbana genera la necesidad de intervenciones arqueológicas de emergencia para estudiar los vestigios arqueológicos antes de su destrucción. Por tanto los salvamentos son limitados en tiempo de investigación, donde las excavaciones son el 95% del objetivo; el mapeo y registro de los asentamientos son formas básicas y contornos geométricos, los cuales modifican las estructuras, inclusive, la inclusión de elementos de afectaciones históricas son desechados por los objetivo del salvamento. Por lo cual el uso de dispositivos GNS, permite un rápido registro y su manipulación en AutoCAD, a través de cual se insertan datos complementarios que surgen durante las excavaciones y recorridos.

Martinez, Desiree (Cogstone & Harvard University) [74] Discussant [74] Second Organizer

Martinez, Gustavo (CONICET-INCUAL-UNICEN), Maria A. Gutierrez (CONICET, INCUAPA, Facultad de Ciencias Sociales (UNCPCA), Avda. del Valle 5737, B7400JWI Olavarría, Buenos Aires, Argentina) and Eduardo P. Tonni (División Paleontología de Vertebrado, Facultad de Ciencias Naturales y Museo (UNLP), Paseo del Bosque s/n, 1900 La Plata, Argentina) [158] Sudden Changes In Zoarchaeological Assemblages During The Late Pleistocene-Early Holocene In The Argentinean Pampas: The Role Of Humans In Extinction

Paso Otero archaeological locality (Argentina) provides detailed faunal and paleoenvironmental records. Paso Otero 5 (12 593-11 353 cal BP) and Paso Otero 4 (10 667-7982 cal BP) sites show a dramatic change in extinct and modern species representation that occurred in only 2500 cal years. The objective is to present this case study in order to discuss processes of extinction and survival of mammals. It is proposed that not only hunting pressure, but the mere presence of humans as a factor that introduces ecosystem disturbances, would be the most parsimonious explanation regarding the process of extinctions and faunal replacements.

Martinez, Jorge G. [112] see Pintar, Elizabeth L.

Martinez, Maria (Univ. of Texas at Austin), Michael Brandl (Austrian Academy of Sciences, Vienna) and Estella Weiss-Krejci (The University of Vienna) [131] Hunters or warriors? A Late to Terminal Classic Maya specialized wood workshop in Northwestern Belize

Located five km east of the city of La Milpa, Belize, lies the Aguada Lagunita Elusiva, a multi-phase water management feature and chert quarry. Situated in an area of low residential density, by the Terminal Classic period, the aguada seems to have served as specialized wood workshop for what appears to be the production of arrow shafts and other specialized tools. This paper will attempt to address if an extensive production of arrow shafts was due to an increase in hunting during the final occupation of the region before its total abandonment, or an increase in the production of weaponry.
Marzahn-Ramos, Betsy (Brandeis University)  
[87] Pots in the Periphery: Results from the Analysis of Middle Usumacinta Ceramics  
This paper presents results from the analysis of Maya pottery recovered by the Sierra del Lacandón Regional Archaeology Project (SLRAP). The ceramic evidence was collected from a number of settlements in the hinterlands between the Classic period (AD 250 – 900) and the Integration period (AD 1000 – 1532) site revealed a shaft tomb with three funerary urns containing secondary interments of human remains and associated offerings, as well as an additional tomb with rich deposits of hearths, middens, and evidence for structures. The complex nature of this site allows us to better understand how mortuary practices varied within a site as well as how the Mantén culture not only buried their dead, but also lived with their dead prior to impending European contact.

Martinez, Valentina, Nikki Jastremski (Binghamton University, SUNY) and Yann Graber (University de Neuchatel)  
[235] The Interplay between Mortuary and Habitational Sites in Coastal Ecuador: Evidence from Site 305. Archaeological site 305, located on the border of Salango, Ecuador, represents a dual-function mortuary and habitation site. Excavation of the Integration period (AD 500-AD 1532) site revealed a shaft tomb with three funerary urns containing secondary interments of human remains and associated offerings, as well as an additional tomb with rich deposits of hearths, middens, and evidence for structures. The complex nature of this site allows us to better understand how mortuary practices varied within a site as well as how the Mantén culture not only buried their dead, but also lived with their dead prior to impending European contact.

Mason, Owen [123] see Maschner, Herbert

Massigoge, Agustina [96] see Gutierrez, Maria A.

Massom, Marcus (Louisiana Division of Archaeology)  
[148] Submerged Cultural Heritage: Effects of Popular Media on Recreational Diver Perceptions. This paper examines perceptions about submerged cultural resources held by recreational divers in the U.S. and how popular media has influenced these perceptions. Data were collected using an online survey that was available to divers across the country. The data analysis takes a statistical look at the diver responses based on demographic variables such as age, race, gender, education, and income. It also examines how much, and which aspects of, popular media each respondent engages with. The data analysis also explores diver perceptions spatially by collecting the respondents’ postal zip code and utilizing the U.S. Census Bureau’s TIGER/Line files.

Masucci, Maria (Drew University) and Michelle Bettex (Drew University)  
[270] Ceramic Technology Through Time: Ceramic Petrography applied to a comparison of Early Neolithic to Bronze Age ceramics, Rio Maior, Portuguese Estremadura. Early Neolithic through Bronze Age ceramics were recovered at seven sites excavated in the late 1990s in the Rio Maior Valley, Portuguese Estremadura. Petrographic analysis of samples from all time periods founded on a regional resource survey provide a long term perspective on technology, resource use and issues
such as intra and inter-site relationships. Sourcing was of central concern in the study but also technological choices and evidence for region-wide traditions were examined. Relationships across time and regionally in technology and production are discussed.

Masucci, Maria [235] see Middleton, Abigail S.

Matadamas Diaz, Raúl (Raul Matadamas) and Sandra Liliana Ramirez Barrera (Centro INAH Oaxaca) [210] Huatulco, Oaxaca: La cerámica de los mareños En el caso del asentamiento precollonial de Copalita, Huatulco, se observa una tradición cerámica que sigue los patrones estilísticos dados en otras regiones, desde el precónclico tardío hasta el postclásico, el uso de cerámica similar a la de los Valles Centrales, de la Mixteca, el Istmo de Tehuantepec, etc., permiten pensar que en esta parte de la costa oaxaqueña se constituyó (C) en una esfera de interacción cultural con otros asentamientos contemporáneos, sin embargo los nexos iban más allá, con sitios ubicados en Chiapas, Tabasco y Veracruz, sin un predominio evidente de cualquiera de los anteriores mencionados pero evidenciando la multiplicidad de su desarrollo.

Matheny, Ray [70] see Thornton, Erin Kennedy

Matney, Timothy (University of Akron) [63] Rethinking Cheshmeh Ali and Late Neolithic/Chalcolithic Village Life in Northern Iran

The Late Neolithic/Chalcolithic village of Cheshmeh Ali in northern Iran was excavated by Erich Schmidt from 1934-1936. Although Schmidt only published brief preliminary reports on his work, Cheshmeh Ali is widely cited due to its inclusion as a ceramic horizon in early formulations of the prehistoric chronology of Iran. This paper presents the results of a collaborative publication project preparing a final report on Schmidt’s excavations using his field notes, photographs, and plans. This paper discusses domestic architecture and finds from the site and briefly assesses the value of Cheshmeh Ali in understanding early village life in the region.

Matos, Carlos [58] see Zimmermann, Mario

Matson, RG [132] see Lipe, William D.

Matsumoto, Go (Southern Illinois University at Carbondale) [166] Quotidian meals or ceremonial feasts?: Large-scale food practices at the Great Plaza of the Middle Sican capital, northern North Coast of Peru

Our recent excavations at the Great Plaza of the Middle Sican capital documented traces of large-scale food preparation and consumption. There are a few possibilities to account for these activities. They may have supported artisans and maintenance personnel who were engaged in craft production and construction work in and around the plaza, or they represent feasts or communal activities among people different in social class (and possibly ethnicity) for consolidating the stratified, multiethnic state. I will test these working hypotheses in terms of the morphological and compositional characteristics of food vessels used and the compositions of food remains consumed.

Matsumura, Hirofumi [60] see Oxenham, Marc F.

Matternes, Hugh (New South Associates) [72] Discussant

Matternes, Hugh [168] see Vanderpool, Emily M.R.

Matthews Cascon, Leandro [28] see Bezerra, Marcia

Mauldin, Raymond (UT San Antonio), Leonard Kemp (Geo-Marine Inc.) and Cynthia Munoz (UT San Antonio/ Center for Archaeological Research) [127] Assessing variation in chert through digital photography

We present a digital photography based method of recording chert colors using the RGB color scale. While the procedure necessarily reduces variability present within an assemblage, it is inexpensive, replicable, quantitative, and provides a record of color variation that is cumulative and easily stored and shared. We demonstrate the utility of the approach by considering color variation in over 7,400 pieces of debitage, bifacial tools, and formal items (e.g., projectile points) from prehistoric sites in Central and South Texas. Debitage RGB patterns seem to reflect local sources, while during some time periods formal tools are dominated by non-local cherts.

Mauldin, Raymond [183] see Hard, Robert J.

Maxwell, David (Simon Fraser University) [70] Temporal Patterning in Stingray Spine Use in Caches and Problematical Deposits from Tikal

Stingray spines are a frequent component of caches and problematical deposits at Tikal, particularly during the Early and Late Classic periods. Stingray spines are found in both complete and fragmentary condition, and these two states show a remarkably consistent pattern: whole and fragmentary stingray spines are NEVER found together in the same deposit. This is argued to represent a fundamental difference in treatment, and thought to relate to differences in depositional history not previously noted.

Maxwell, David [234] see Driver, Jonathan

May, J. (Schiele Museum of Natural History) [162] Charcoal Blast Furnaces: the Early Iron Industry in Piedmont North Carolina

During the mid 18th century as Euro-colonials were moving into the North Carolina backcountry the need for cheap iron goods was self evident. Poor transportation, high cost, and the absence of capacity became the impetus for the North Carolina colonial government to encourage the formation of “iron plantations.” Local entrepreneurs made efforts to take advantage of easily dug ores, abundant water sources for power, and large woodland tracts for the production of charcoal to manufacture iron for both local consumption and wider markets. Archaeological investigations and historical sources document the interaction of distant and local communities.

Mayle, Francis [39] see Iriarte, Jose

Mazow, Laura [109] see McCandless, Kyle
McAllister, Martin (ADIA), Larry E. Murphy, James E. Moriarty, IV and David E. Giffel

[14] Digging, Defacement, Damage and Dealing: Case Studies of the Use of the Archaeological Damage Assessment Methodology as an Application of Forensic Archaeology in Criminal and Civil Prosecutions

Archaeological Damage Investigation & Assessment (ADIA) recently conducted four archaeological damage assessment projects, three for criminal violations of the federal Archaeological Resources Protection Act and one for a civil damage case under state law. Two involved monetary determinations for the severity of unauthorized damages to archaeological sites and two involved determinations of the market values of seized artifacts. Brief synopses of these projects will illustrate the use of the archaeological damage assessment methodology as an important application of forensic archaeology in criminal and civil prosecutions.

McAllister, Martin [115] see Moriarty, James E.

McAllister, Martin E. [115] see Murphy, Larry E. [14] see Jones, Tate

McAnany, Patricia (University of North Carolina, Chapel Hill) [128] Discussant


McCafferty, Geoffrey (University of Calgary), Sharisse McCafferty (University of Calgary) and David H. Kelley (University of Calgary)

[4] Xochicalco and the Epiclassic Writing Systems: Dave Kelley has the Final Word

Xochicalco was one of the major highland centers during the turbulent period following the disintegration of the Classic period Teotihuacan empire, and based on complex iconography it was engaged in long-distance contact with Maya groups. During weekly glyph workshops at the University of Calgary, David Kelley developed an intricate interpretation of glyphic texts from Xochicalco and related Epiclassic sites from central Mexico, with linkages to the Maya region. Based on recordings, annotated transcripts, and Dave’s distinctive charts, we will present Kelley’s perspective on political relations during the Epiclassic, with reference to Tula, Tollan, Cholula, Cacaxtla, and beyond.

[195] Discussant [259] Discussant

McCafferty, Geoffrey [195] see McCafferty, Sharisse D. [259] see Dennett, Carrie L.

McCafferty, Sharisse (University of Calgary) and Geoffrey McCafferty (University of Calgary, AB, Canada)

[195] Costume & Identity in the Mixtec Codices

Pictorial manuscripts from the Mixtec region of southern Mexico provide several thousand images of historical actors in detailed costume. This paper considers dress patterns and design motifs in relation to various aspects of social identity, including gender and occupation. Specifically investigating the hypothesis that regional patterns identify specific cultural groups. Our conclusions suggest that the upper body garment for men and skirt decoration for women were of particular significance for the communication of social identification.

McCafferty, Sharisse [4] see McCafferty, Geoffrey

McCafferty, Harliss [88] Dietary Reconstruction of the Ancestral Puebloan Domestic Turkey

The Middle San Juan Region of the southwestern United States was populated by Ancestral Puebloan communities A.D. 900-1300. Evidence of domestic turkeys exists at many of these sites, and the use of turkeys was intensified in the Pueblo III Phase. The degree to which turkeys depended on maize has implications about this human-domesticate relationship and its evolution. Here stable carbon and nitrogen isotopes were analyzed in about 50 turkey bones from 3 sites, revealing a high dependence on maize. No significant difference across time was detected. This suggests that an existing husbandry practice was intensified in Pueblo III.

McCall, Ashley (University of Cincinnati)

[232] Stable Isotopes, Pathologies, and Agriculture of the Turpin Site Population

Carbon, nitrogen, and strontium isotopes from the collagen of 50 individuals will indicate the diet and movement of the Turpin population, located in the Ohio River Valley. The development of agriculture is displayed through the introduction of maize or corn in the diet, which shows a differing isotopic value in the collagen of bone. If the diet is agriculturally based then the strontium isotopes will support a more sedentary lifestyle typically associated with agriculture. Additionally, the relationship between pathologies and a distinct carbon isotopic marker that shows a vegetal-based diet indicates a homogenous diet with a limited nutritional value.

McCall, Grant (Tulane University)

[89] Poison Arrow Hunting Revisited: Kalahari Ethnoarchaeology and its Implications for Southern African Prehistory

In this paper, I present a comparative analysis of ethnoarchaeological data on Kalahari forager poison arrow hunting. Based on this examination, I show that poison arrow hunting is linked with very labor-intensive hunting tactics and represents a low-return subsistence activity. In thinking about this phenomenon historically, I argue that recent periods in which poison arrow hunting has surged in its frequency have corresponded with the failure of other major food resources. Therefore, poison arrow hunting has functioned as an important risk-reducing technology in the contexts of food stress that seem to typify the Holocene Later Stone Age.

McCandless, Kyle (East Carolina University), Laura Mazow (East Carolina University), Anthony Kennedy (East Carolina University), Susanne Grieve (East Carolina University) and Kim Tillapaugh (East Carolina University)

[109] Control Methodology In Organic Residue Analysis Using FT-IR Spectroscopy

In this paper, I raise concerns about the impact of contamination on organic residue analysis projects, particularly those using FT-IR spectroscopy. A current residue analysis project at East Carolina University provides a case study for contamination research.
Control experiments have been developed with the goal of ascertaining sources of contamination in the project’s sampling and laboratory methodologies. Preliminary results suggest that many of the methods used during the project introduce analytically significant contaminants. The results of these experiments will be used to modify existing sample and laboratory methodologies, while also addressing the larger issues of contamination in residue analysis projects.

McCarty, Donna [197] see Sullivan, Lynne P.

McCarty, Elizabeth (University of Missouri) [213] Obsidian and Chert Cut Mark Morphology Analysis
Means to differentiate cut marks made with metal tools from those made with stone have long been known. Recently, research has sought to determine if differentiation of stone material is possible. Previous research indicates that distinguishing marks made by different stone material is difficult, even with a scanning electron microscope (SEM). I suggest it is possible to distinguish different stone materials via the marks they make on bone. Ten characteristics, viewed under a light microscope, separate marks made by obsidian flakes from those made by chert flakes.

Mccarty, Rita (Mississippi National Guard) [42] Condition Survey and Assessment As An Initial Step In World War I Training Trench Preservation At The Camp Shelby Joint Forces Training Center, Camp Shelby, MS
Cultural resource surveys in training areas at Camp Shelby, MS have revealed extensive networks of World War I training trenches excavated by soldiers from the 38th Division. The trenches were excavated in preparation for action on the Western Front in Europe. Although World War I trenches have been recorded and preserved on both the European continent and England, training trenches within the United States are very rare. Because of this, it is important to conduct a detailed survey in order to document construction strategies and formulate a preservation plan so that this important resource is not lost forever.

McCary, Sue Ann (University of Virginia) [212] Pot, Kettle, Black: Ceramics and their Inter-Household Distribution at Kazane Hoyuk, Southeastern Turkey
The distribution of ceramic forms, wares and design elements suggest that inter-household variability in status existed in the Late Neolithic/Halaf occupation at Kazane Höyük in southeastern Turkey. Comparison of the assemblages from five excavated structures and their exterior pebble surfaces will be used to ask questions about the nature of status variability during the Late Neolithic period. Naturalistic depictions of animals on fine ware sherds include goats or gazelles, bulls and onagers. What did these animals mean to the people of Kazane? These naturalistic representations on ceramics will be compared to the faunal assemblage, including a cattle astragalus cache.

McClaran, Mitchel P. [38] see McNamee, Calla

McClellan, Whitney [94] see Boutin, Alexis

McClung De Tapia, Emily (IIA-UNAM MEXICO), Carmen Cristina Adrian Morán (IIA-UNAM Mexico) and Emilio Ibarra Morales (IIA-UNAM Mexico) [62] Prehispanic Vegetation and Environment in the Teotihuacan Valley, Mexico
The demise of Teotihuacan in the NE Basin of Mexico has been attributed to resource degradation from deforestation, intensive agriculture, and climate change. Paleoenvironmental studies in the region include plant macro- and microfossils, stable carbon isotopes and radiocarbon dating of organic sediment and charcoal together with soils to understand vegetation change and human impact. We report the analyses of pollen and phytoliths from a soil profile, comparing results with stable carbon isotopes. 13C ratios indicate the predominance of C4 taxa; pollen and phytoliths suggest an abundance of C3 taxa. The significance of these proxies is considered.

 McClure, Sarah (Penn State) [160] Cultural Transmission Theory and Abrupt Change: A View from Dalmatia
Neolithic pottery assemblages from sites on the Dalmatian coast of Croatia exemplify clear stylistic and technological shifts in decoration, form, and manufacturing techniques between the Impresso (ca. 6000-5300 BC) and Danilo (ca. 5300-4800 BC) pottery traditions. This paper uses new data to explore the potential underlying mechanisms of rapid change from the point of view of cultural transmission theory and discusses the relative roles of long-distance exchange, population expansion, and transhumance as a communication mechanisms in models of shifting learning environments.

 McClure, Sarah B. [32] see Garcia, Oreto

McConaughy, Mark (PA Historical and Museum Commission), Gretchen Anderson (Section of Anthropology, Carnegie Museum of Natural History) and Deborah Harding (Section of Anthropology, Carnegie Museum of Natural History) [185] A Close-up Look at Two Early Woodland Copper Objects from West Virginia and Pennsylvania
Two Cresap phase Early Woodland Period sites, McKees Rocks Mound, Pennsylvania, and Cresap Mound, West Virginia, provided the copper objects used in this study. A copper imitation bear canine from McKees Rocks Mound and a copper quadriconcave gorget from Cresap Mound were examined using a Dino-Lite digital microscope. Object materials and residues were digitally photographed. Fabric was preserved on the McKees Rocks copper bear canine. Residues of hide and hair were found adhering to the Cresap Mound gorget. The preserved materials provide insights into the perishable goods placed with Cresap phase burials.

 McCorvie, Mary [101] see Wagner, Mark J.

McCown, Anna [250] see Jones, Sharyn R.

McCoy, Curtis (University of Memphis) [9] Revisiting the Great Island Site in Clinton County, PA Through Non-invasive Means
Private collections are an essential tool for archaeologists in locating and identifying archaeological
sites. One such collection consists of a prehistoric mound and palisaded settlement on the west end of Great Island, Pennsylvania. LIDAR data were used to create topographic, slope, and local relief model (LRM) maps in an attempt to locate these now unobtrusive earthworks. Additionally, a private collection of coarsely provenienced materials from Great Island, Pennsylvania consisting of nearly 467 projectile points, hundreds of ceramic sherds, and dozens of faunal remains was analyzed. Projectile points and ceramics were analyzed by style, function, and typological age.

McCrady, Melinda (San Francisco State University) [24] First Chair

McCrady, Brian (Vanderbilt University) [36] Settlement Strategies and Trade in Northeastern Peru

Previous analyses have assumed that control of trade routes between the lowland Amazon and the highland Andes played an important role in the emergence of "classic" Chachapoya society, a Late Intermediate Period (800-1400 CE) group in the montane forests of northeastern Peru. This poster evaluates how Chachapoya sites may have been laid out on the landscape in order to control trade routes. It is hypothesized that site locations would incorporate views of important East-West trade routes, thus this model uses predictive modeling to model East-West trade, and viewed analysis to identify locations that oversee large portions of routes.

McCurdy, Leah (University of Texas at San Antonio) [203] Maya Site Plans of the Belize Valley

Previous work on site plans of Maya monumental centers suggests that organizational principles were drawn upon to locate structures within a larger site. This paper will present analyses of 17 site plans from the Belize Valley region with the goal to elucidate any patterns in site planning across these densely located sites. Preliminary analysis suggests that conclusive patterns relating to shared worldview are not as strongly evidenced as many Belize Valley scholars expect. Further analysis will incorporate site plans from further afield to investigate whether political affiliation plays a larger role in the planning of cities in the Belize Valley.

McDonald, Jo [194] see Paterson, Alistair G.

McDonald, Josephine (Australian National University) [194] How contemporary meanings can improve the archaeology of rock art

Archaeologists view rock art sites as an assemblage of motifs. Archaeological understandings are gleaned by analysing stylistic information, the spatial arrangement of motifs with temporal trends defined by superimpositioning and dating. The assemblage as a whole has archaeological meaning because this is a palimpsest of graphic gestures which have survived through time. Traditional custodians in the Western Desert view a rock art assemblage very differently, with often only one or a few motifs having valency in any particular narrative. This disjuncture provides anthropological insight into how rock art is produced and the recursive nature of particular graphics through time.

McDonald, Josephine [255] see Steelman, Karen

McEwan, Colin (The British Museum), Catherine Higgitt (British Museum), Thibaut Deviese (British Museum), Christophe Moullherat (Musée du Quai Branly) and Paz Núñez-Requeiro (Musée du Quai Branly) [213] A Multi-Disciplinary Approach for the Study of Andean Textiles

The British Museum and the Quai Branly Museum house two of the largest collections of Andean textiles outside Peru comprising pieces ranging from the Early Horizon through the Colonial Period. A detailed study of the organic colourants and dyeing technologies is currently underway to complement the "traditional" study of iconography and weaving techniques. While addressing key questions about Andean textile production, the research will demonstrate the wider potential of colourant analysis to explore art historical, archaeological, anthropological and cultural questions. It will additionally provide new analytical methodologies, better understanding of deterioration processes and improve conservation and display strategies.


In this study, magnetic susceptibility profile data maximized the limited archaeological information from six subsurface excavations. Data were used for National Register of Historic Places evaluations of two archaeological sites. In addition to providing information on paleoenvironment and site formation processes, and stratigraphic integrity, they helped correlate data between the six 1x1 excavation units and two sites with little effort. Magnetic susceptibility results were verified by sediment analyses, including: calcium carbonate percentage by weight, oxygen isotope ratios from calcium carbonate, and sediment particle size distribution analysis. Additional data included a radiocarbon date, and reference to regional paleoenvironmental literature.

McGill, Alicia (Indiana University) [209] Assessing Student Learning: What Does It Mean for Students to "Understand" Archaeological Concepts? Assessment is integral to addressing student learning. Assessment involves identifying measurable verbs linked to student achievement and skill development, resulting from course activities. Collecting manageable and meaningful "data" about student learning is especially complex when teaching about sensitive issues that involve myriad opinions, epistemologies, and values such as those related to heritage and archaeological ethics. In this paper I discuss Classroom Assessment Techniques on archaeological ethics that I implement in introductory undergraduate anthropology courses. Through these techniques I evaluate student learning about archaeological practices and assess student development of broader skills such as: teamwork, critical thinking, and decision-making.

McGill, Dru (Indiana University) and Staffan Peterson (Indiana Department of Transportation)
[239] Social Contexts of Mississippian Plainware Production at Angel Mounds Indiana

Angel Mounds (12Vg1) has been the subject of archaeological investigation for over 70 years. This paper presents insights from analyses of legacy collections and recent subsurface imaging surveys and excavations into social organization and craft production. Specifically, a new developmental narrative of Angel Mounds will be discussed that includes spatially distinct neighborhood groups within the town's palisaded borders. The existence of these apparent neighborhood groups is currently being tested via analysis of culturally meaningful patterns of variation within Mississippi Plain vessel morphology attributes (e.g. rim angle, lip shape) from samples representing various spatial and chronological contexts at the site.

McGimsey, R. Game [112] see Speakman, Robert J.

McGovern, Thomas (Anthropology Dept), Ramona Harrison (CUNY), Konrad Smiarowski (CUNY) and Orri Vestiinsson (U Iceland, Arch. Inst. Iceland) [263] Sorting Sheep & Goats in Medieval Iceland and Greenland: Local Subsistence or World System? Large archaeofauna recovered from Viking Age-Medieval sites in Iceland and Greenland have demonstrated a diverging pattern in caprine management after ca. 1200 CE. Initially both settlements kept flocks that had substantial numbers of goats. By the later 13th century Icelandic flocks become nearly all sheep, and sheep bones increase dramatically compared to all other domesticates in the Icelandic archaeofauna, while the Greenlandic collections maintain the old Viking Age pattern. The Icelandic pattern relates to intensified wool production aimed at a marketable surplus. Does this divergence reflect participation in an early Pax Mongolica world system or local subsistence requirements? [86] Discussant

McGrath, Sally [155] see Gloux, Sabrina

McGuire, Randall (Binghamton University) [120] Modern Material Culture and Ruins in Ambos Nogales (Arizona and Sonora)

Michael Schiffer redefined archaeology as the use of material culture to study human behavior. This definition established modern material culture studies and has promoted creative archaeological studies of the contemporary world that extend beyond Behavioral Archaeology. But the Modernist Project writ large often leads to devastation, and the United States-México border wall is one material example. The wall has failed to create an impregnable border but rather has generated material debris. Contemporary ruins on both sides of the border in Ambos Nogales, Arizona and Sonora, exemplify the destruction both caused and hidden by the wall.

McGuire, Randall H. [265] see O'Donovan, Maria [265] see Wurst, Louann

McGuire, Sara [168] see France, Christine

Mclivvaine, Britney (Ohio State University) and Lynne A. Scheperz (University of the Witwatersrand) [119] The contribution of bioarchaeological analyses to current developments in Albanian archaeology

Previous research on human remains from Albanian archaeological sites is limited and largely focuses on skeletal description and potential population affinities. New bioarchaeological research addresses areas of wider anthropological interest relating to nutrition, disease and environmental interactions, population diversity, and behavioral diversity derived from the study of skeletal remains in their mortuary context. These new emphases are contributing to understandings of variation by sex, age, and social status in order to reconstruct the life histories and lifeways of ancient Albanians. Specific examples are drawn from research at Iron Age Lofkënd and the Bronze Age through Hellenistic periods at Apollonia.

McKechnie, lain [207] see Szpak, Paul

McKee, Brian (University of Arizona) [154] Invisible Structures: Earthen Architecture, Formative Processes, and Archaeological Recognition

Earthen structures were preserved and identified under unusual circumstances in two regions. At the Cerén site in El Salvador, rapid burial by volcanic tephra led to exceptional preservation of wattle-and-daub structures, their contents, and surrounding activity areas. In the Virgin River area of southeastern Utah, wattle-and-daub structures were preserved and recognized due to their burial by aeolian sand. In both areas, these structures are rarely documented. They have implications for understanding demography and the ecological and social adaptations of their occupants. I examine the role of cultural and noncultural formation processes in the structures’ preservation and their archaeological recognition.

McKenzie, Chantal [42] see Mt. Joy, Kristen E.

McKillop, Heather (Louisiana State University) and Terance Winemiller (Auburn University Montgomery) [172] Ancient Maya Salt Works, Paynes Creek National Park, Belize: Constructing and Using a GIS for Field Research and Analysis

The Paynes Creek Salt Works provide a case study of the merits of integrating GIS into research. A GIS, Underwater Maya, was created using Geomedia by Intergraph (now Hexagon) to house the geospatial data from the discovery and mapping of wooden architecture and artifacts preserved in a peat bog below the seafloor, in Paynes Creek National Park, southern Belize. Georeferenced maps, air photos, and satellite imagery placed the archaeological finds in the real world. The GIS updated spatial data added to existing attached excel spreadsheets, which proved useful for entering information on dimensions of building posts, ceramics, and descriptive data.

[227] Discussant

McKillop, Heather [172] see Aucoin, Taylor [172] see Heim, Kelly N. [172] see Robinson, Mark [172] see Sills, Elizabeth C. [172] see Harrison, Jessica [172] see Spann, Tamara

McLay, Eric [139] see Grier, Colin
McLeester, Madeleine (University of Chicago) [232] Reconstructing the Protohistoric Landscape: Restoration, Land Use, and Environmental Change Due to the juxtaposition of unique ecological diversity and degradation, the Calumet Region is undergoing extensive restoration efforts. However, despite the efforts, restoration targets are not met, and ecosystems continue to degrade. In the Calumet Region, restoration targets often resemble the protohistoric and early historic Calumet; however, archaeological data is often left out of the restoration discourse. This presentation will explore protohistoric land use strategies and their lasting impact on the contemporary Calumet Region’s ecological zones. I will discuss signals of anthropogenic change in the paleoenvironmental record and how indigenous groups were strategic co-creators of the Calumet world.

McLellan, Alec (Trent University) [61] Settlement Survey at the Ancient Maya Site of Ka’Kabish in Northern Belize Investigations of the settlement surrounding the monumental center of the ancient Maya site of Ka’Kabish have revealed several areas of dense occupation, with significant residential variability. Over the course of the 2010 and 2011 field seasons, field survey and test-pit excavations identified 75 mounded structures, along with evidence of non-mounded artifact scatters. These investigations revealed that occupation in the area began by at least the Late Preclassic (300BC-AD100) and continued until the Late Postclassic (AD1200-1521). This paper will discuss the results of these investigations and how they demonstrate changes in the community over time and space.

McManamon, Francis (Center for Digital Antiquity) [12] Discussant [149] Discussant

McNamara, Britt (Utah State University) [250] Another Door into Southeastern Idaho’s Paleoindian Past: Learning from a Citizen Collector Archaeologists often encounter enthusiastic artifact collectors, some of whom have amassed hundreds and even thousands of artifacts. While some dismiss collectors and private collections as data sources for a variety of reasons, many others have reaped significant benefits by working with citizen collectors. This poster shares Utah State University archaeologists’ experiences working with a 90-something year-old individual from southeastern Idaho and his collection of dozens of well-provenanced Paleoindian projectile points as a case study illustrating the challenges and rewards of working with collectors.

McNamee, Calla (University of Calgary), Daniel C. Laughlin (University of Waikato), Margaret M. Moore (Northern Arizona University) and Mitchel P. McIlrnan (University of Arizona) [38] Soil phytolith assemblages and historical quadrats: using phytolith analysis to investigate vegetation change in Arizona and New Mexico Phytolith analysis is a prominent microbotanical technique employed in archaeological research to identify prehistoric plant use and to reconstruct past environments. However, few studies have examined the ability of phytolith assemblages to reflect short-term trends in changing vegetation communities. This study examines soil phytoliths from vegetation quadrats in New Mexico and Arizona with records of dramatic vegetation change during the historic period. Through fine resolution soil sampling, the study assesses the ability of soil phytoliths to characterize vegetation communities and to detect historical vegetation change. The poster addresses the importance of sample size and location to interpretation.

McNees, Lance [100] see Smith, Craig S. [20] see Prasciunas, Mary M.

McNeil, Cameron (Lehman College, CUNY) [167] The Maya of Ancient Copan: Destroyers or Preservers of Natural Resources? As far back as the 1970s Bruce Dahlin encouraged scholars to investigate the interactions between the Maya and their environment, and to define the differences in the ways specific pre-Columbian Maya communities utilized natural resources to feed themselves. Research at Copan highlights the importance of defining the environmental context of the rise and fall of the southern lowland centers. Whereas previous theories proposed that the Maya destroyed their environment by the Late Classic period, thus contributing to the collapse the ancient city, more recent scholarship has supported the conclusion that they employed a more sustainable approach to agriculture.

McNeil, Jessica (National Park Service) [34] Potsherds and Power: Early 18th Century French and Indian Interaction along the Natchez Bluffs During the early part of the 18th century Fort Rosalie sat high along the Natchez Bluffs overlooking the Mississippi River, less than four miles from the ceremonial center of the Natchez culture. Its purpose was to provide protection to the French colonists from attacks by England, Spain, and Native Americans. Since 2005, the National Park Service, Southeast Archeological Center has been conducting excavations in and around the remains of the Fort Rosalie. This paper will examine the interactions between the French colonists and the Natchez Indians as manifested through the pottery remains recovered during the excavations at the fort.

McNeil, Jessica [193] see Persons, A. Brooke

McNeill, Casey [244] see Brown, Claire J. [244] see Shakour, Katherine E. [244] see Conway, Meagan

McNiven, Ian (Monash University, Australia) [251] Between the living and the dead: ritual relationships between hunters and dugongs of Torres Strait All humans have special relationship with animals - it is part of how we ontologically define and position ourselves. Archaeologists gain some access to ancient animal-human relationships through the ways ancient hunters treated animal remains, particularly bones. Torres Strait Islanders of NE Australia created remarkable mounds of dugong bones (a tropical marine mammal) between 500 and 100 years ago. These mounds relate to how hunters ritually enhanced hunting success. Interrogating how we define and understand the ritual and spiritual dimensions of the hunter/live dugong/dead dugong triad is the focus of my paper.
McNutt, Charles (University of Memphis) and Terry Childs (Arkansas Archeological Society) [189] A Distinctive Ceramic Motif in Mississippi County, Arkansas
Five closely clustered sites in southeastern Mississippi County, Arkansas, produce pottery from very late Mississippian or Protohistoric contexts that bears a distinctive motif of punctates in a triangular field. The distribution of this decorative motif is suggestive of social interaction between restricted patrilocal groups over a short period of time.

McNutt, Charles [189] see Childs, Terry

McPherron, Shannon [274] see Goldberg, Paul

McReynolds Shebalin, Theresa (Durham Academy and Exploring Joa Foundation) [232] Household Variation at Catawba New Town, ca. 1790-1820
The Catawba Nation’s endurance to the present day can be attributed largely to its members’ creative adaptations to the sociopolitical and economic circumstances of the eighteenth and early nineteenth centuries. Archaeological data from one community indicate that Catawba families employed a variety of social and economic strategies between 1790 and 1820. This paper examines some of this intra-community variability by comparing the organization and use of domestic space by two households. The results suggest that some Catawba families embraced western social and economic practices while others intentionally emphasized or even exaggerated differences between themselves and their Anglo-American neighbors.

McSwain, Rebecca (Independent Scholar) [236] Maya Lithics after 35 Years: Charting Islands, Wrecks, and Reefs in the Sea of Ignorance
Formal lithics studies in the Maya area have been conducted for about 80 years. There have been various motivations for such studies, beginning with the establishment of site and regional chronologies. Over time, the emphasis shifted to economic and political analyses, accompanied by a range of theoretical approaches influenced by and influencing research design and findings. The results of 8 decades of research have been mixed, but the continuing effort to integrate Maya stone tool data with other lines of archaeological evidence, building upon past work, points towards rich possibilities for the future of Maya lithics.

Means, Bernard (Virginia Commonwealth University), Clinton King (Virginia Commonwealth University) and John Haynes (Marine Corps Base Quantico) [129] Virtual Artifact Curation: 3D Digital Data Collection for Artifact Analysis and Interpretation
The Department of Defense (DoD)’s Legacy Program has funded a project to develop protocols for creating three-dimensional digital collections of diagnostic artifacts from DoD installations and relevant repositories in the Middle Atlantic states. A major goal of the project is to enhance access to archaeological materials curated from DoD installations that are located in distant or inaccessible collections repositories. We also consider the impact that “virtual curation” has on how archaeologists approach the study and preservation of digital data collected from tangible remnants of the past.

Meierhoff, James (University of Illinois at Chicago) and Cynthia Robin (Northwestern University) [267] Everyday Lives of Maya Farmers at Chan, Belize
This presentation explores the everyday lives of Maya farmers at the farming community of Chan, Belize across a 2000 year period of time to illustrate how
understanding everyday life is crucial for interpreting organization and change in human societies. Far from passive acts and mundane practices the things that Chan’s farmers did on a day-to-day basis constructed a long-lived community and had implications for the development of Maya civilization. The significant material traces of farmers’ everyday lives allow archaeologists today, as they did for ancient people, to interact with the material record and understand life and change in the past.

Meierhoff, James [153] see Golitko, Mark L

Mein, Alicia [37] see Johnson, William C.

Melgar, Emiliano (Posgrado UNAM)

[152] Identifying Technological Styles of Lapidary Objects: The Los Angeles County Museum of Art’s Mesoamerican Collection

In general, the classification of the lapidary objects is based on their morphological and aesthetical characteristics. It avoids the possibility of imitation of specific pieces and styles. Because of that, the study of the technology is critical to identify and distinguish the different manufacturing traditions developed in Mesoamerica. In this paper I will present the technological analyses applied to the LACMA lapidary collection, using experimental archaeology and characterization of manufacturing traces with SEM. By this way, I identify pre-Hispanic pieces from certain manufacturing traditions of Mesoamerica, based on the technological analyses of lapidary collections from different regions and periods.

Meltzer, David (Southern Methodist University)

[241] Robert C. Dunnell: an introduction to the person and the symposium

Robert Dunnell was a prolific author, and though best known for his evolutionary archaeology, he made contributions to classification, history and philosophy of archaeology, luminescence dating, and North American prehistory. At the University of Washington he built the archaeology program, spent a dozen years as Department Chair, and advised 29 PhDs. That’s the professional ledger. The off campus Dunnell, less widely known, was a consummate story teller, skilled craftsmen, expert in botany and entomology, and a voracious reader of history and science - and People magazine. I’ll discuss the two Dunells, drawing on contributions from his longtime colleague Donald Grayson.

[241] Second Organizer

Mendelsohn, Rebecca (University at Albany, SUNY)

and Robert Rosenswig (University at Albany, SUNY)


Unlike early ceramic assemblages in many parts of the world, “fancy” wares and teocate vessel forms (neckless globular jars) characterize the earliest ceramics from the Soconusco region of Chiapas, Mexico. Explanations for these unusual assemblages have ranged from their use as everyday multi-functional vessels to use as competitive feasting wares. Drawing upon data from the coastal site of Cuauhtémoc, this research evaluates the degree in which early households were involved with feasting practices and socio-political competition.

Mendelsohn, Rebecca [62] see Rosenswig, Robert M.

Mendez, Alonso


This paper focuses on records found at Palenque, Tikal and Chichen Itza, which reveal a relationship between these sites to the solar stations of zenith and nadir. The cosmology expressed at these sites, and how these stations are integrated into the architectural alignments of major temples, reveal a dialectic approach to both local as well as mythological or “idealized” Zenith and Nadir. This integral relationship between myth and reality conveys a political message that is steeped in a cosmological undercurrent, and helps to identify the symbolic layout of the city, and its pivotal position in the larger landscape.

Mendez, Cesar (Departamento de Antropología, Universidad de Chile) and Donald Jackson (Universidad de Chile)

[231] Terminal Pleistocene lithic technology and mobility in Central Chile

We synthesize lithic technology from Terminal Pleistocene sites in Central Chile (~31-34° S), including: Quebrada Santa Julia (12900 cal yr. BP), Valiente (12620-11380 cal yr. BP), Taguatagua 1 (12980 cal yr. BP) and 2 (11475 cal yr. BP) sites. These significantly diverse assemblages cannot be explained through a traditional typological approach. A technological analysis shows that diversity can be better interpreted due to variations in discard rates, raw material availability and site function. These sites can be functionally integrated as segments of an evolving system of the use of space by hunter-gatherers in their first regional exploration.

FONDENCT 109027 grant.

[231] Second Organizer

Mendoza, Rubén (CSU Monterey Bay)

[188] Streetscapes of the Asphalt Jungle: An Archaeological Approach to the Chicano Youth Counterculture

The Chicano counterculture, which subsumes Lowrider social clubs, Cholos, Pachuocos, Tecatos, Clikas, Mini-Truckers, Spooks, and Pintos, continues to generate a particularly distinctive corpus of material cultures and social networks. In an effort to more fully interrogate the dynamics of materiality and agency among Chicano youth, this paper will report findings from over 35 years of material culture studies among Lowrider social clubs. In this instance, the Lowrider phenomenon is interpreted from the standpoint of clique formation, and those solidarity networks and mutual aid societies borne of the immigrant experience.

[188] Discussant

Menocal, Tatianna (Desert Research Institute/UNLV)

and Lauren W. Falvey (Desert Research Institute/UNLV)

[67] Evidence of Historic Wooden Footwear in Southern Nevada

The Nevada National Security Site (NNSS, formerly the Nevada Test Site), best known for its affiliation with atomic testing, also has a rich history related to mining and ranching. Cultural resources from the NNSS are
managed by the Desert Research Institute (DRI). Investigations conducted by the DRI have produced collections of historic artifacts associated with these activities. A wooden overshoe was recovered from the northern part of the NNSS, where both mining and ranching occurred. This artifact is evaluated with reference to its potential use in these activities and value to early 20th century Nevada history.

Mensan, Romain (universite Toulouse 2 le Mirail)
The Aurignacian sites of Abri Castanet (Dordogne) and Regismont-le-haut (Languedoc) each have a single archaeological level. Recent controlled excavations in both of these levels have yielded very well preserved combustion structures that seem to be central to on-site activity. Because Castanet is a rockshelter and Regismont is an open-air site, interesting similarities and differences exist between these two occupations. Using recent excavation data and these comparisons, we can begin to understand the character of these Aurignacian occupations from a paleo-ethnological perspective.

Mentesana, Roberta [270] see Gilstrap, William

Mentzer, Susan (Eberhard Karls Universitat Tuebingen), Mary Voyatzis (University of Arizona) and David Gilman Romano (University of Arizona)
[274] Repeated sacrificial burning events and the development of an anthropos on Mt. Lykaion, Greece
The sacrificial altar to Zeus on Mt. Lykaion (Peloponnese, Greece) is an open-air ritual locality containing archaeological materials that date to the Final Neolithic through Late Classical periods. Repeated offering events carried out atop the mountain summit produced a thick burned deposit. Micromorphology reveals that this deposit is best described as an anthropos that is very distinct in composition, structure and fabric from the local red Mediterranean soils. Abundant fragments of burned bone, charcoal and organic material attracted rodents and insects, whose activities resulted in the development of numerous bioturbation features and disruption of some portions of the ritual deposit.

Mentzer, Susan [20] see Holliday, Vance T.

Menze, Bjoern [200] see Ur, Jason

Mercier, Norbert [202] see Morley, Mike W.

Meredith, Clayton (Idaho State University) and John Dudgeon (Idaho State University)
[177] Analysis of dental material diagenesis using FTIR as an indicator for potential further biomolecular analysis: a case study in the Pacific
Raman scattering and FTIR spectroscopy can be used to analyze the crystalline structure of tooth apatite as a semi-quantitative measure of diagenetic processes. Multivariate single value decomposition (SVD) statistics were used on raw spectra with the goal of developing a quantitative and inexpensive method for determining the potential for downstream analysis on dental materials. Archaeological tooth samples from a variety of depositional contexts across the Pacific were mapped using FTIR microscopy to examine the structural changes produced by intrusive materials within teeth and the relationship between these changes and the potential for further biomolecular analysis (stable isotopes and aDNA).

Merlin, Mark (University of Hawaii at Manoa)
[121] Remarkable archaeobotanical discoveries of ancient burials in early 20th and 21st confirm the ceremonial Cannabis use in Central Asia during 1st millennium B.C.E.
Archaeobotanical discoveries in the early 20th and 21st Centuries confirm the ritual use of Cannabis in the first millennia B.C.E. Ancient historical description of Scythian ceremonial use of Cannabis in Eurasian steppes by Herodotus was supported by evidence discovered by Rudenko in the 1920s in frozen tombs of Iron Age horsemen in the Altai Mountains. Early in this century, exceedingly rare, well-preserved ancient Cannabis was found in association with a human burial in arid Western China. This paper discusses the relationships of these discoveries in light of additional ancient evidence for the great antiquity of multipurpose use of Cannabis.

Merrill, William [140] see Freeman, Jacob

Merriman, Christopher (University of New Mexico) and Julia Clifton (Museum of Indian Arts and Culture)
[164] The Paleoindian Occupation of the Northern Jornada del Muerto, New Mexico: Using the Robert H. Weber Collection to Investigate Regional Scale Paleoindian Land Use Patterns
For roughly 50 years geologist and avocational archaeologist Robert Weber collected, mapped, and cataloged tens of thousands of surface artifacts from the area around Socorro, NM. After his death in 2008 this extraordinary collection was donated to the Museum of Indian Arts and Culture in Santa Fe and included not just artifacts, but detailed maps, notes, and specific provenience information for each artifact. This paper presents the results of a GIS based analysis of the spatial distribution of the Paleoindian portion of the collection amassed from the Northern Jornada del Muerto.

Messenger, Lewis (Hamline University)
[208] Using the Climatic Analogs Data-Gathering Project (“CADGAP”) to Environmentally Contextualize Ancient Cultures
To understand a culture’s “history” involves understanding the climatic and environmental contexts in which people lived, how these changed over time, and if such changes tended to result in structural and perceptual reorganizations, essentially, ancient cultural change. This paper describes a team-based data-analysis project called “Climatic Analogs Data-Gathering Project” (CADGAP) used in undergraduate prehistory and cultural ecology classes. Students use on-line meteorological databases to create spreadsheets to generate climatic scenarios for past times and regions. By seeing and evaluating such changes and comparing them with archaeological sequences, students also develop a greater capacity to relate cultural change to climatic and environmental change.
exploring the emergence of grinding stone technology and its relationship to plants and pigment

Grinding stone technologies first emerged in North America during the Archaic period. These technological innovations occurred in tandem with socio-cultural developments, however the connection remains poorly understood. This paper reports on findings from multi-proxy residue analyses of Archaic period Koster grinding tools. The data demonstrates that grinding technology served multiple purposes including plant and pigment processing. While the former likely pertains to subsistence, the later may relate to symbolic aspects of culture. These findings are then compared to the larger framework of North American grinding stone technology to assess uniformity in the development of this industry.

[21] Climate change in central and southern Mexico over the last 2000 years: sites, sensitivity and significance

The nature of the relationship between climate change and human response remains a focus of debate, sometimes polarising between a tendency to environmental determinism and denial that climate has any influence on human behaviour. Mesoamerica has been a focus of interest in the relationship between climate (especially drought), environment and people at both regional and local scales, in settings of physical and cultural complexity. This paper reviews records of environmental change, primarily from the Yucatan peninsula and the Trans Mexican Volcanic Belt and considers the roles of different sites, proxies and sensitivities to our interpretation of change and its significance.

Meyer, Michael [117] see Jacobs, Zenobia

Meyer, William (University of North Carolina at Chapel Hill)

[91] On Changing Places: “Which is the justice, which is the thief?”

Archaeologists have been drawn to historical ecology because it focuses our inquiry on change in human-land relationships over time. Historical ecology engenders other alterations in archaeological practice. Because of the kinds of data we use, historical ecology often deepens our relationships with living communities. Drawing upon fieldwork in east-central France, I discuss some ethical dilemmas that such re-orientations can create for the archaeologist and suggest ways we might address these problems.

Meyer, William [7] see Buck, Paul

Meyers, Katy (Michigan State University)

[59] Co-Occurrence of Cremation and Inhumation in Cemeteries: A Case Study at Isola Sacra, Italy.

This presentation examines the nature of mortuary sites...
with co-occurrence of burial forms, specifically cremation and inhumation. Cremation and inhumation are generally interpreted as representing different cultural and religious traditions that vary by population or time. Therefore, co-occurrence of these burial forms potentially indicates cultural and social differences of individuals interred. With a lack of research on cremation and co-occurrences of different mortuary forms, sites having these characteristics have been understudied. However, such sites deserve attention in order to create more nuanced interpretations of mortuary behavior. Presented here is a case study: the cemetery of Isola Sacra from Rome, Italy.

Meza, Abigail (Universidad Nacional Autónoma de México, II.A) [94] Human’s bones tools from La Ventilla, Teotihuacan: Who were used as raw material? The ancient City of Teotihuacan, was about 45 km northeast of Mexico City, rose around 150 B.C. and grew to become the center of one earliest state societies in the Americas, and have a strong influence over much of the Mesoamerican world until about A.D. 650. Although is usually to find the use of human’s bones like raw material bones tools in different context in this old city, the identity of the “human bone tools” are not clear, we believe that they were probably Teotihuacan people. The analysis of frontal sinuses outline, indicates that there were certainly very closer to the traditional burials and maybe the human’s bone tools was part of the mortuary practices and served as physical focus of ancestor worship.

Michael, Amy (Michigan State University), Amanda Harvey (University of Southern Mississippi), Joshua Burbank (University of Oklahoma), Danielle Hanson (Indiana University) and Gabriel Wrobel (University of Mississippi) [203] Mortuary Patterns and Use of Space at the Sapodilla Rockshelter, Belize Excavations at Sapodilla Rockshelter revealed 34 primary and 4 secondary burials, as well as commingled bones and variety of artifacts. Ceramics spanned the Late Preclassic through Terminal Classic periods. An inventory and analysis of artifacts and bones allowed identification of particular ritual behaviors, many of which were focused on specific areas of the cave. These patterns imply that space was highly controlled and that differential use of space for certain public or private rituals likely related to both functional and ideological considerations. A review of data from other nearby Maya caves and rockshelters identifies similar patterns of ritual behavior.

Michelaki, Kostalena (School of Human Evolution and Social Change, ASU) [270] Exploring Neolithic Taskscapes in Bova Marina, SW Calabria, Italy Forty-two samples of geological clays were collected from around the ‘communi’ of Bova Marina and Bova to understand the various raw materials available to the local Neolithic potters. Comparison of the mineralogical and chemical characteristics of these clays with those of Neolithic ceramics from the sites of Umbro and Penitenzeria (within the same ‘communi’) revealed that one clay type was utilized for the majority of ceramics, although three types were present. One ceramic style typically thought of as a foreign import, Buff figurina, was produced locally utilizing a single clay type, which was the hardest to process and fire.

Michelet, Dominique (CNRS/Université de PARIS 1), Grégory Pereira (CNRS, France) and Gérald Migeon (Ministère de la Culture, France) [98] Defensive works in Central-West Mexico and their sociopolitical implications Several investigations carried out over the last 30 years in Central-West Mexico – particularly in northern Michoacan and southern Guanajuato – have led to the discovery of defensive works, sometimes monumental, dating to the Epiclassic and Postclassic. Moreover, these works are often associated with unprecedented population concentrations. We examine the characteristics of these works and the sites that accompany them, and we investigate the sense of these two types of elements in sociopolitical terms. First, what circumstances contributed to their emergence? Second, what kinds of sociopolitical organizations – newly emergent – could have appeared at the moment of their construction?

Michelet, Dominique [21] see Faugere, Brigitte

Mickelson, Andrew (University of Memphis), Eric Goddard (University of Memphis), Scott Hadley (University of Memphis) and Katherine Mickelson (University of Memphis) [196] Early Mississippian Nucleated Settlements in the Hinterlands of the Mississippi Valley in Western Tennessee Until recently, the Obion site (40HY14) has been the only known Early Mississippian town consisting of platform mounds and an associated habitation area reported for the region. Magnetometry surveys, topographic mapping, and excavations at Ames (40FY7) and Denman (40MD85) have demonstrated that both sites are small Early Mississippian towns possessing significant settlements adjacent to small mound complexes. The unique ecological setting of the two sites will be examined. The variability in the settlement plans of Ames and Denman will also be discussed.

Mickelson, Andrew [196] see Mickelson, Katherine [185] see Hadley, Scott P.

Mickelson, Katherine (University of Memphis) and Andrew Mickelson (University of Memphis) [196] Early Mississippian paleoethnobotany at the Ames Site in the Hinterlands of Western Tennessee Ames Plantation is a Mississippian mound and village site located in Western Tennessee. The site is situated in diverse ecotone, consisting of loess uplands adjacent to fertile floodplains and wetland habitats. Plant remains from mound and non-mound contexts indicate inhabitants exploited each of these habitats: cultigens and crops were grown in floodplains; mast resources were concentrated in the uplands, and a wide array of fruits and herbaceous resources in rich edge zones. Paleobotanical remains from Ames the only data of the extensive mixed economy during the Early Mississippian period in Western Tennessee.

Mickelson, Katherine [196] see Mickelson, Andrew M.
ABSTRACTS OF THE SAA 77TH ANNUAL MEETING

Mickelson, Katherine R. [2] see Jeter, Marvin D.

Middlebrook, Tom (Texas Archeological Stewardship Network) [17] The Use and Limits of Early European Descriptions of Hasinai Elites in the Understanding of Prehistoric Caddo Mortuary Practices in Shelby County, Texas
During late 17th and early 18th century mission-building entrada to the northeastern frontier of Spanish Texas (the "Kingdom of the Tejas"), several European chroniclers provided descriptions of the socio-political elites amongst the Hasinai Caddo groups. Civil leadership was centered in a headman referred to as a caddi while several constituent groups gave principal religious allegiance to a shamanistic figure known as the grand xinesi who resided with two heavenly children, perhaps twins, called coninesi. Mortuary findings at the prehistoric Tyson (41SY92) and the Morse Mound (41SY27) sites will be discussed in light of these later descriptions of Hasinai elites.

Middleton, Abigail (University of Missouri) and Maria Masucci (Drew University) [235] Settlement and Expansion in Coastal Southwest Ecuador: Developments Spanning the Late Formative and Regional Developmental Periods
Recent survey of previously unstudied areas of the El Azucar and Zapotal River valleys of the southwest Ecuadorian littoral reveals a surprising number of Late Formative-Engoroy sites and a co-occurrence of Engoroy and Integration Period remains. These results draw attention to: the need to examine settlement expansion in the Late Formative; the lack of paleoenvironmental research in which to ground study of Late Formative adaptations; settlement location strategies in the Late Formative and Integration Period; the development of agricultural communities in the Late Formative and adaptations to the high risk littoral regions. These new data and possible explanations are presented.

Middleton, Emily (University of Nevada, Reno) and Peter Carey (University of Nevada, Reno) [161] Preliminary Results of the Analysis of an Early Holocene Lithic Assemblage from Rockshelter LSP-1, Warner Valley Oregon
Two seasons of excavation at LSP-1, a small rockshelter in Oregon’s Warner Valley, have produced a modest lithic assemblage containing multiple Cascade projectile points. These points, which occupy a broad temporal range in the Northern Great Basin, are associated with radiocarbon dates of 8,300 14C B.P. at LSP-1. We describe the range of lithic artifacts found with these points, consider the technological activities that those artifacts suggest occurred at the site, and place our findings within the broad context of what we know about early Holocene lifeways in Warner Valley.

Migeon, Gérald [98] see Michelet, Dominique

Mihailovic, Dusan [202] see Morley, Mike W.

Mihailovic, Dušan [202] see Alex, Bridget A.

Mihok, Lorena (University of South Florida) and E. Christian Wells (University of South Florida) [37] Geochemical Prospection at Augusta, an 18th Century English Settlement on Roatan Island, Honduras
Geochemical analyses of soils and sediments have been used in a variety of contexts to prospect for activity loci, with the greater goal of identifying the nature and extent of past human behaviors at archaeological sites. However, much of this work has focused on prehistoric settlements, leaving gaps in our understanding about the fate and transport of chemical residues in historical settings. This poster reports the results of a multi-elemental analysis of anthrosols from Augusta, Honduras, showing the ways in which 18th Century English settlers used domestic spaces during their attempts to colonize Roatan Island.

Milan, Christopher (Yale University) [92] Coast-Highland Interaction on the Central Coast of Peru during the Initial Period and Early Horizon
Malpaso is a U-shaped temple located in the middle section of the Lurin valley and was occupied from the end of the Initial Period to the middle of the Early Horizon (1800-200 BC). Nearby hamlets can be affiliated with both coastal and highland ethnic groups. As Malpaso developed from a local ceremonial center to a regional center, highland groups were pulled into its sphere. Based on the data collected from Malpaso and neighboring hamlets it will be shown that while early temples facilitated interaction between the two ethnic groups, communities retained a great deal of independence.

Milanovich, Sean (Agua Caliente Band of Cahuilla Indians) [248] Cahuilla Trail and Place Names
This poster focuses on the renaming of trails and place names within the Indian Canyons Heritage Park located on the Agua Caliente Indian Reservation. The park is managed by the Agua Caliente Band Of Cahuilla Indians and is open to the public. The canyons were once occupied by the Panikutkum and Achachem Clans. The Park is an important part of the Tribe’s cultural heritage and identity. The canyon areas contain village and habitation areas, gathering areas, trails, TCP’s and other places of significance. The Tribe is proposing to change some of the names to traditional Cahuilla names.

Milbrath, Susan (Florida Museum of Natural History) [269] A Seasonal Calendar in the Codex Borgia
An 18-page narrative in the Central Mexican Codex Borgia records an embedded annual calendar representing the changing seasons. Imagery of maize undergoes a seasonal transformation with the alternation of the rainy and dry seasons. Dry season images emphasize death deities carrying maize and fire gods, in marked contrast to rainy season images showing bees, hummingbirds, and an abundance of maize and flowers. The Sun God takes on a seasonal aspect during the rainy season, housed in a flowered temple on the summer solstice and fall equinox, whereas fire-serpent temples represent the dry season on the winter solstice and spring equinox.

[269] First Chair

Milideo, Lauren (Penn State University), Carl Falk (PaleoCultural Research Group), Holmes Semken (University of Iowa) and Russell Graham (Penn State)
[38] Multivariate Analysis of a Late Holocene Faunal Transect Across the Forest-Prairie Ecotone
The zooarchaeological record can be a useful proxy for reconstructing environments, if various biases can be controlled. This study assessed the effects of taphonomy in overprinting the environmental signal for a late Holocene (4000-0 ybp) archaeological/paleontological mammal dataset (Neotoma database) extending across the prairie-forest ecotone in the upper Midwest. We performed a Nonmetric Multidimensional Scaling analysis of these data and concluded that faunally-based environmental interpretation is possible over large geographic areas with strong environmental gradients (e.g., IL to ND), but taphonomic factors and the “cultural” filter obscure environmental signals at more localized scales (e.g., individual states).

Milledge, Lauren [41] see Gifford, John A.

Miller, Christopher, Mareike Stahlschmidt (Institute for Archaeological Sciences, University of Tübingen), Paul Goldberg (Boston University), Francesco Berna (Boston University) and Nicholas J. Conrad (University of Tübingen)
[93] The “Hearts” of Schöningen 13-III/4 and their implication for the evidence for human control of fire in the Middle Pleistocene of Northern Europe
When and how humans began to control fire has been a central debate in Paleolithic archaeology for decades. When and how humans began to control fire has been a central debate in Paleolithic archaeology for decades. The “hearts” at Schöningen are viewed as a necessary adaptation for the colonization of northern latitudes. The “hearts” at Schöningen are viewed as providing the best evidence for the control of fire in the Middle Pleistocene of northern Europe. Here we present results of a multidisciplinary study of four “hearts” at Schöningen 13II-4, the Horse Butchery Site. These results show that a micro-contextual approach is the best method for identifying early “hearts.”

[93] Second Chair

Miller, Christopher E. [93] see Stahlschmidt, Mareike

Miller, D. Shane (University of Arizona), Thaddeus Bissett (University of Tennessee) and Stephen Carmody (University of Tennessee)
[16] Examining Paleoenvironmental and Archaic Subsistence Trajectories in the Mid-South
Ever since Brown and Vierra (1983) asked “What Happened in the Middle Archaic?,” many have noted substantial changes in the archaeological record during mid-Holocene in Eastern North America. In this paper, we will utilize formal models derived from human behavioral ecology as a theoretical framework to interpret variation in paleobotanical, zooarchaeological, and stone tool assemblages from a sample of sites in the Mid-South from the Paleoenvironmental through Archaic periods. In particular, we argue that the Middle Archaic resembles a potential “tipping point” in a complex adaptive system and may be the result of trends that have considerable time depth.

Mlambalasi show diameter changes similar to those observed in southern Africa, but they demonstrate that this pattern extends back to at least 14,000 years BP, well into the Later Stone Age.

Miller, Jennifer (University of Alberta)
[83] Ostrich Eggshell Bead Variation in the East African Later Stone Age
Ostrich eggshell (OES) beads are present at many African archaeological sites from the Middle Stone Age to historic times. Previous studies of OES bead variability have focused on the hunting/herding threshold in southern Africa and found steady changes in diameter over time. My research demonstrates that these changes are also present in eastern Africa at Mlambalasi, a rockshelter in Tanzania. Not only do the OES beads from Mlambalasi show diameter changes similar to those observed in southern Africa, but they demonstrate that this pattern extends back to at least 14,000 years BP, well into the Later Stone Age.

Miller, Jessica R. [64] see Schneider, Seth A.

Miller, Melanie (University of California, Berkeley), Jose Capriles (Washington University in St. Louis) and David Brownman (Washington University in St. Louis)
[144] How much of the herd do pastoralists actually consume? Reconstructing Ancient Pastoralist Food Utilization through Faunal Analysis and Stable Isotopes
Traditionally pastoralists spend most of their time managing grazing animals. However, their actual consumption of domesticated herds can vary because they also procure other resources including cultivated plants and wild animals. In this paper, we integrate results of faunal identification, and carbon and nitrogen stable isotopes (from collagen and apatite) of human and animal bones, to assess resource utilization by Formative Period camelid pastoralists in the central altiplano of Bolivia. Results suggest ancient herders consumed a diversity of vegetal and faunal resources, including aquatic species. The broad-diet breadth documented in this study is consistent with a risk management pastoralist strategy.

[144] First Chair

Miller, Virginia (University of Illinois at Chicago)
[275] The Castillo-sub at Chichén Itzá
Despite its dominant position on Chichén Itzá’s Great Terrace, the Castillo remains one of the most enigmatic structures at the site. Encased within the outer pyramid is an earlier one and its temple, a rare example of an intact chamber found with furnishings and termination offerings. When the new temple was built, it was dedicated with a cache of similar objects, but accompanying a human sacrifice. This paper explores the function and meaning...
of the original Castillo with emphasis on its temple, the ritual offerings of the old and new buildings, and the relationship between the structure and its surroundings.

Miller, Whitney [168] see France, Christine

Millhausner, John (Northwestern University) [62] A consideration of the social value of salt production: a view from Aztec and Colonial Mexico

This paper presents results of the survey, mapping, and excavation of an Aztec and Colonial salt-making community at San Bartolome Salinas, Estado de Mexico. Though scholars have argued that Aztec salt-making could not have been a full-time occupation, let alone a basis for entire communities, I argue that, as increasing demand encouraged the intensification and expansion of salt-making, this work became a basis for social solidarity and workplaces became sites of residence, identity, and value. These findings shed light on the role of specialized production in creating and sustaining communities and transforming the social landscape.

Millhouse, Philip (University of Illinois-ITARP) [198] The Role of the Apple River Culture on the Northern Mississippian Frontier

From A.D. 1100-1300 a distinct group of Mississippian people occupied the lower Apple River Valley in northwestern Illinois. It is believed that Mississippians migrated to the area from the south and established a series of settlements with local Woodland people. During the two centuries of occupation these people initially emulated many aspects of Mississippian culture, but soon created their own cultural trajectory. The establishment, development and demise of the Apple River culture ultimately had a profound impact on Native American histories in the upper Midwest.

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

Mills, Barbara (University of Arizona), Jeffery Clark (Center for Desert Archaeology), Wm.R. Haas (University of Arizona), Matthew Peeples (University of Arizona) and Lewis Borck (University of Arizona) [260] The Topology of Persistence: Network Analysis and Southwest Settlement Stability, AD 1200-1500

Why did some sites persist through the late prehispanic period of the U.S. Southwest while others were depopulated? In this paper we use social network analysis to explore what characterizes long occupied sites in terms of their structural position and relationships within their network. Using ceramic data in the Southwest Social Networks Database we look at different scales from the individual valley to the macro-regional level to understand variation in network participation by persistent places in their social landscape. We use several network attributes including centrality and topological structure and compare the results to diversity measures and public architecture.

[57] Discussant

Mills, Barbara [260] see Haas, Wm. Randall [251] see Murray, Wendi Field

Mills, Robin [27] see Curtis, Tiffany A.

Milne, S (University of Manitoba), Robert Park (University of Waterloo) and Mostafa Fayek (University of Manitoba) [127] Chert Sourcing and Palaeo-Eskimo Lithic Raw Material Use in the Interior of Southern Baffin Island, Arctic Canada

The Palaeo-Eskimos are the earliest inhabitants of the eastern Arctic and are well known for their small, sophisticated lithic toolkit. On southern Baffin Island chert is highly variable in colour and is most abundant in the island’s interior where it is found in widespread surface scatters. We developed a combined visual and geochemical sourcing approach to assess how many distinct chert sources were exploited by southern Baffin Palaeo-Eskimo toolmakers. This paper presents new data on toolstone diversity in this region and further underscores the challenge of accurately sourcing it.

Milner, George (Pennsylvania State University) [51] The Contributions of Population Movement, Warfare, and Climatic Deterioration to the Late Prehistoric Depopulation of the American Midwest.

Over the course of the half millennium ending at AD 1500, the American Midwest went from one of the most heavily populated regions of North America (north of Mexico) to a sparsely occupied landscape with settlement clusters spaced to maximize distance from one another. This dramatic change involved population movement, warfare, and climate change, the effects of which are only incompletely understood with existing archaeological information. Readily available and newly collected data pertaining to this large-scale abandonment are summarized, and a research strategy to address how and why it took place is outlined.

[102] Discussant

Milner, George [123] see Zavodny, Emily

Milner, George R. [196] see Hally, David J.

Milošević, Stefan [202] see Alex, Bridget A.

Minc, Leah [235] see Yanchar, Kaitlin C.

Mink, Philip (Kentucky Archaeological Survey), Kimberly Istok (University of Kentucky), Christina Pappas (University of Kentucky Office of State Archaeology), Edward Henry (University of Mississippi) and Allison Esterle (University of Kentucky) [7] A Grand Cemetery: A Recent Archaeogeomatic Investigation of the Pioneer Cemetery in Grand Canyon National Park

The Pioneer Cemetery, located on the South Rim in Grand Canyon National Park, is an active cemetery containing the graves of pioneer settlers and individuals employed at the Park through its 93 year history. The interments are representative of an eclectic mix of mortuary practices but poor historic record keeping has hindered the modern management of this resource. This poster presents the results of recent archaeogeomatic investigations of the cemetery. Combining ground penetrating radar and other terrestrial remote sensing data with surface mapping data of the site has allowed us to investigate the mortuary landscape of this unusual resource.
Mink, Philip B. [7] see Henry, Edward R.

Mires, Ann Marie
[14] The Use of Forensic Bioarchaeology in Missing Person Cases
Current research on missing persons suggests that endangered persons are often found within a one to five mile radius of where they were last seen. These data are used to provide predictive models that can be implemented at the time a person goes missing to reduce the time between death and recovery. Additionally, this modeling is used to revisit unfound, missing person cases in an attempt to locate these unfound after considerable time. Case examples, utilizing FAR (Forensic Archaeology Recovery) personnel, are presented to highlight the use of predictive modeling in search and recovery and in unfound missing persons’ cases.

Mirro, Vanessa (Applied EarthWorks, Inc.) and Ann M. Scott (aci consulting)
[208] Secrets from the Ancestors: Understanding Maya Human Remains in the Cave Context
Debates surrounding the interpretation of human remains in Maya caves have considerable antiquity. Those that considered caves to be habitation sites generally considered skeletal material to represent deliberate burial. Only with the rise of a specialized cave archaeology that accepts caves as ritual space, has the possibility been consistently explored that human remains are the result of ritual activity, namely human sacrifice. Little has been done to distinguish between sacrifice and deliberate burial in the cave context. Using bioarchaeological data from cave sites in the Maya region, this paper identifies problems with interpretation and offers solutions.

Mitchell, Ammie (SUNY at Buffalo)
[124] A Reanalysis of the Early Woodland Component at the Sinking Ponds Site, East Aurora, New York
The Early Woodland period in the northern Eastern Woodlands traditionally marks the beginning of the adoption of ceramic technology, plant cultivation, and increasing sedentism. The Early Woodland Meadowood culture flourished between 3000-2400 B.P., throughout much of New England and southern Ontario. This culture is attributed with the adoption of the earliest ceramic technology, but there are few directly AMS C14 dated sherds found in association with Meadowood materials to support this theory. Excavations were reopened at the Sinking Ponds site in 2011. Results of these excavations call into question the relationship of the Meadowood culture and Vinette 1 pottery.

Mitchell, Mark (Paleocultural Research Group)
[186] Compositional and Technological Analyses of Copper Artifacts from Four Heart River Communities: Chronological and Cultural Implications
Copper artifacts commonly are recovered in small numbers from the villages and towns near the confluence of the Heart and Missouri rivers. The earliest examples, dating to around 1200, likely came to the region through a trade network linking the northern Middle Missouri to the southern Great Lakes. After 1500, the number of cuprous artifacts reaching the communities on the Missouri increased substantially. In the seventeenth century, colonial trade brought European smelted copper and brass artifacts to the region. Data on the form and provenance of copper-based artifacts are crucial for understanding Heart River history and regional connections.

Mitchell, Mark D. [51] see Bamforth, Douglas B.

Mitchell, Seth (AK Environmental) and Lisa Dugas (GAI Consultants)
[78] Don’t Be Cruel, They Have Soul Too: Investigating Social Group Identity Within the Late Prehistoric Monongahela Tradition
A combination of ceramic and bone tool analyses from different sites in western Pennsylvania illustrates that different social identities can be recognized within the Late Prehistoric Monongahela Tradition. The artisan’s preferred manufacturing process intentionally, or unintentionally, creates a shared identity with other group members. Relationships with the environment, between belief and ritual systems, as well as those with other groups may be revealed in the material culture. All of these aspects define the social identity of the group. Material culture studies that focus on total artifact design within a theory of style provide a means to investigate these social identities.

Mitchem, Jeffrey (Arkansas Archeological Survey)
[189] Decoration and Vessel Form in Parkin Phase Ceramics
The Parkin phase in northeast Arkansas was defined partly on the basis of ceramic types and varieties. Collections from all known Parkin phase sites were examined, including excavated and surface assemblages, to determine if specific modes and methods of decoration were used consistently on particular vessel forms. The results indicate that there is correlation of the major types and varieties with specific forms, but there is also a great deal of individual variation in some sites, probably the result of individual potters expressing artistic license.

Mixter, David (Washington University in St. Louis), Kara A. Rothenberg (University of South Florida) and Lauren D. Hahn (University of California, San Diego)
[203] Living during Collapse: An Analysis of Household Modification during the Terminal Classic Period at Actuncan, Cayo, Belize
Research during the 1990s by the Xunantunich Archaeological Project suggested that the Belizean Mopan River Valley experienced a relatively rapid decline in population during the ninth century in association with the collapse of Classic Maya civilization. Recent research at the prehispanic Maya site settlement of Actuncan suggests a different pattern. Rather than facing abandonment, households at Actuncan continued to grow during the Terminal Classic period. This paper reports on the patterns of architectural modification within three households at Actuncan during the Terminal Classic period and their possible implications for shifting social and political power structures within the Mopan Valley region.
Mizuho, Ikeda [99] New Approaches to Cultural Heritage Management: A Case Study from Phrae Province, Thailand
Ongoing research is presented from Phrae northern Thailand which focuses on cultivating skills regarding how the local community can maintain and promote their own heritage. Cultural heritage has expanded to include diverse and intangible vernacular and spiritual values. Local communities are now considered as a main constituent of cultural heritage which is constructed not only by their attachment to history and archaeology but also by their local customs and traditions. In Thailand the concept of public involvement in heritage management is being recognised within disciplines such as archaeology with the concept of Living Heritage being characteristic in Southeast Asia.

Moats, Lindsey (Texas Tech University), Gregory Zaro (University of Maine) and Brett A. Houk (Texas Tech University) [61] The La Milpa Terminal Classic Project: 2011 Investigations of Terminal Classic Construction and Surface Deposits at Courtyard 100
Investigations at La Milpa, Belize in 2011 targeted a courtyard in the site core with an extensive problematic surface deposit, previously dated to the 10th century. The deposit, which includes substantial numbers of ceramics mixed with other domestic and ritual artifacts, resembles similar Terminal Classic surface deposits, which are receiving renewed attention in Maya archaeology. This paper summarizes the results of the 2011 excavations, which were designed to chronicle the construction sequence at the courtyard, investigate the surrounding structures, and illuminate the nature, age, meaning, and formation process of the problematic deposit.

Moe-Hoffman, Amy [220] see Collins, Joe D.

Mohammed-Amin, Rozhen [129] see Dawson, Peter C.

Mohanty, Rabi [35] see Kingwell-Banham, Eleanor

Moholy-Nagy, Hattula [153] see Golitko, Mark L

Mollerud, Katy J. (University of Wisconsin-Milwaukee) [78] Keeping Up with the Jones': A Comparison of Cambria Phase Pottery from the Owen D. Jones (21Be5) and Price (21Be36) Sites
The Cambria phase (A.D. 1000-1200) is an archaeological phenomenon centered on a small portion of the Minnesota River in south-central Minnesota. Currently, the Cambria phase is classified as part of the Middle Missouri Tradition, although previous typological analyses have identified a blending of ceramic characteristics from several different late prehistoric cultural traditions, including Plains Village, Mississippian and Woodland. This paper couples attribute and compositional analyses from two understudied Cambria phase sites, Owen D. Jones (21Be5) and Price (21Be36), to better understand the variation within the ceramic assemblage, and how the sites fit into the cultural matrix of the region.

Monaghan, G. William [164] see Baumann, Timothy E.

Monaghan, George [184] see Krus, Anthony M.

Monaghan, John (University of Illinois at Chicago) [118] Witchcraft and Sorcery in the Colonial State
An unexplored dimension of the submission of indigenous people to Spanish colonialism was a belief in the supernatural power of the Catholic Church and related institutions. This paper reviews the evidence that Mesoamerican people suspected that the devastating sicknesses unleashed through contact with Europeans were caused by Church personnel and other officials through witchcraft. It goes on to suggest that in order to combat these new forms of supernatural power, people not only employed traditional means to ward off evil, but also fetishized aspects of Spanish culture in an attempt to protect themselves from the agents of the conquering state.

This paper advances a practice-centered approach to urbanism to explore how long-distance forces provided points of articulation between urban and rural elites in the kingdom of Dahomey in West Africa in the Atlantic Era. Historical and archaeological evidence documents a shift from a decentralized urban-rural continuum, in which power relationships were expressed in terms of ritual and tributary relationships, towards a regional landscape in which the rural countryside was 'captured' by a revenue hungry elite class. The result was a dynamic and evolving urban landscape of power that recast the nature of urban-rural interaction over three centuries.

Monroe, J. Cameron [114] see Fanning, Mary Ann

Monroe, Shayla (Howard University) [69] More Precious Than Money: Common Cents at L’Hermitage Plantation
How do archaeologists determine if American plantation artifacts have religious significance? In the absence of artifacts with obvious spiritual meaning we have no material indication of the religious beliefs practiced by enslaved people at plantations such as L’Hermitage. However, recent excavations at the site did yield six silver Spanish reales, in addition to other coins collected during previous surveys. Some scholars have interpreted reales as having spiritual significance on plantation sites. This poster explores whether these unaltered coins suggest that the enslaved at L’Hermitage had access to a secondary economy or whether they stood for something more precious than money.

Montez, Karina (University of Arizona) and Kathrina Aben (University of Maryland) [69] A Comparison of Defensive Structures at Sacred Sites in New Mexico and Arizona
In New Mexico a number of areas, usually sacred springs or mountains, hold cultural and religious significance to the Apache people. They were also often areas where the Apache camped. Many show the remains of multiple structures that indicate long-term presence and possible defensive function. Alternatively, they could have had a more religious purpose. Using select examples, this poster will address such sites’ defensive purposes, the
advantages and disadvantages of their high-perched location, and the importance of their position within sacred areas. The content will incorporate architectural analysis, map records, oral history, and historical documents for a thorough assessment.

Montgomery, Lindsay, Severin Fowles (Barnard College, Columbia University) and Jimmy Arterberry (Comanche Nation Tribal Historic Preservation Office) [199] T?h?ya (the horse): re-thinking the role of non-human actors in the evolution of a “Plains” tradition. As the horse spread across North America during the early colonial era, its history became entwined with the histories of many indigenous groups. The horse afforded new ways of moving, and these new ways of moving afforded new political aspirations. The Comanche, Pawnee, Ute, or Kiowa individual became a different sort of subject when traveling on horseback; his agenda became a distinctively equestrian agenda, entirely inconceivable outside of the interspecies relationship. In this paper, we focus upon the archaeological evidence of this relationship among Numic-speaking communities of the 18th century in the American Southwest.

[125] Discussant

Montgomery, Lindsay [125] see Wilcox, Timothy

Moodie, Steven (Trent University) [203] Excavations at the Minanha Ballcourt, North Vaca Plateau, Belize. Excavations conducted at the Minanha ballcourt in 2010 refined an understanding of its construction history following a rudimentary chronology obtained from excavations conducted in 1999. The 2010 excavations revealed the ballcourt was constructed in a single phase during Late Classic and utilized Early Classic construction as a foundation. The ballcourt’s construction coincides with the emergence of a small royal court at Minanha, and also the construction of several other ballcourts in the Vaca Plateau. This paper presents the results of the 2010 excavations at Minanha’s ballcourt and three interrelated models detailing the ballgame’s role in regional socio-political dynamics.

Moodie, Steven J. M. [203] see Lamoureux St-Hilaire, Maxime

Mooney, Adrien (Brigham Young University) [161] An Analysis of the Spatial and Temporal Distribution of Fremont Sites near Utah Lake. Although archaeological work on the Fremont settlements surrounding Utah Lake began in the days of Julian Steward and other early Great Basin archaeologists, the extent of occupation in the area, proximity of sites to each other, and dates for the sites remain relatively unknown. In the 1930s, amateur archaeologist James Bee excavated and mapped several sites near the Provo River Delta, but until recently the materials brought back by Bee had never been analyzed or synthesized. This paper examines Bee’s data in order to understand the spatial and temporal distribution of Fremont sites near Utah Lake.

Moore, Ardina [252] see Lambert, Jean A.

Moore, Christopher (University of Indianapolis) and Richard Jeffries (University of Kentucky) [136] The Social Implications of Altamaha Ceramic Attributes. Recent comparative research at numerous sites in Spanish La Florida indicates that a variety of local aboriginal wares were replaced by Altamaha/San Marcos ceramics throughout the 17th and early 18th centuries. Closely associated with the Guale and Yamasee, researchers are uncertain what caused Timucuan, Mocaman and other potters to adopt this specific ware. Such a melding of ceramic traditions can be expected to be reflected in within-ware variability in ceramic attributes. This study tests this hypothesis through an analysis of Altamaha pottery from the site of the Mission San Joseph de Sapala on Sapelo Island, Georgia.

[136] Second Organizer

Moore, Christopher [136] see Jeffries, Richard W.

Moore, Jerry (CSU Dominguez Hills) [26] Discussant

Moore, Kaitlyn (University of Arizona) [67] “Decolonizing” Culture Contact: Indigenous Archaeology and Self-Determination. A survey of select archaeological literature regarding culture contact confirmed the well-known increase in publications surrounding the Columbian Quincentenary, but also revealed a mid-1970s upsurge. These peaks correlate with major periods in American Indian self-advocacy seen through protest, litigation, and new legislation. My analysis suggests these increases in culture contact research relate to the public self-advocacy of Native groups, first in the mid-1970s and then from the late-1980s to today. A post-1992 shift in theoretical approaches to culture contact, along with emerging Native self-determination, indicates that culture contact research can be “decolonized” through Indigenous Archaeology and collaboration with Native communities.

Moore, Katherine (University of Pennsylvania) [238] Recovering the Cuisine of the Andean Preceramic. Animal bones are a critical part of the archaeological record at Panaulucca, a deeply stratified cave site in highland Peru. Bone remains form an obvious part of the bulk of the deposit; their taphonomic condition reflects the history of the stratigraphy. How can these data be organized to “see” the underlying traditions of food preparation? Challenges include the complexity and perishability of the record of food and the observations of context and depositional environments in the field. Integration of archaeobiological databases and closer attention to basic zooarchaeological attributes in a spatial context are used to approach this goal.

Moore, Margaret M. [38] see McNamee, Calla

Moore, Mark [89] see Davidson, Iain

Moore, Michael (Tennessee Division of Archaeology), David Dye (University of Memphis) and Kevin Smith (Middle Tennessee State University) [197] WPA Excavations at the Mound Bottom and Pack Sites in Middle Tennessee, 1936-1940. From July 1936 to January 1937, archaeologists from the
University of Tennessee directed excavations at the Pack site (40CH1) under the auspices of the Works Progress Administration. Limited excavations were conducted during this time at the Mound Bottom site (40CH8). Charles Nash returned to Mound Bottom in February 1940 for additional investigations. This presentation summarizes current research on the curated Mound Bottom and Pack site records and collections.

Moore, Robert [101] see Whitley, David S.

Mora Molina, Coronada [32] see García Sanjuán, Leonardo

Morales, Reinaldo (University of Central Arkansas) [101] Miniaturism in American Rock Art
Small figures occur throughout the rock art of the Americas. A few styles, however, are characterized by true miniaturism: the emphasis on very small-scale figures with sometimes astonishing brushwork. The Guadalupe Mountains in New Mexico and Serra da Capivara National Park in Brazil have particularly striking manifestations of this miniaturism. This paper investigates the similarities we see in the paintings from these two disparate regions. These similarities suggest that some modes of figurative stylization can appear related at first glance when they are actually purely coincidental accidents of form.

Morehart, Christopher (Northwestern University) [238] Ritual Time: Pinpointing the temporality of ritual practice using archaeobotanical data
Time is a defining characteristic of ritual. It is necessary to recognize multiple dimensions of temporality to understand ritual practice, especially (1) seasonality, (2) the rhythm of individual acts, and (3) the way in which the materiality of ritual intersects with other domains of life. This paper examines these complex temporalities by studying the archaeobotanical assemblages from ritual contexts from two regions of Mesoamerica: central Mexico and the Maya Lowlands. This project offers an approach to document commonalities and differences in ritual both as a universal human phenomenon and as a constellation of practices unique to particular places and people.

Morell-Hart, Shanti (U.C. Berkeley) [238] Second Chair

Morell-Hart, Shanti [238] see Farahani, Alan

Morgan, Chris (Utah State University), Robert Pack (Utah State University) and Kenneth Cannon (Utah State University)
[9] Applications of LiDAR to the Remote-Sensing of High-Altitude Residential Features in Wyoming’s Wind River Range
Generation of LiDAR and high-resolution photoimagery data at High Rise Village, currently the largest and oldest high-altitude village known in North America, indicates a way to discover difficult-to-identify relict house features in above-timberline locales, mainly by the creation of extremely high-resolution digital elevation models. Implementation of these methods in other high-altitude settings suggests similar features may be found in other ranges. If so, such discoveries would help shed important new light on the nature of high-altitude culture processes over time and the ecological and evolutionary relationships between high-altitude residential occupations across western North America.

Morgan, Jeff and Santiago Giraldo
[99] Global Heritage Fund’s Role in Global Heritage Conservation and Sustainable Development
GHF’s mission is to protect, preserve and sustain the most significant and endangered cultural heritage sites in the developing world.
[12] Discussant

Morgan, Martha
[220] Archaeological and Archaeometric Interpretation of al-Basra, Morocco Metals
Links between scientific, technological, and cultural choices are studied through an examination of Maghrbi metallurgy, using the early Islamic site of al-Basra, Morocco (C.E. 788-959), as the source for the archaeological metal materials. This descriptive assessment of the al-Basra metals collection details the various levels of structure of the metal objects. Analyses of the metals’ spatial patterning across the site, along with the archaeometric examination of the metals’ structure using optical light and scanning electron microscopy, enables us to shed light on the scientific knowledge of the metal workers and to reconstruct the technological know-how of the region’s metal artisans.

Morgan, Molly (Northeast Lakeview College, Texas State University) [253] Discussant

Moriarty, James (Archaeological Damage Investigation & Assessment), David Griffl (Archaeological Damage Investigation and Assessment (ADIA)) and Martin McAllister (Archaeological Damage Investigation and Assessment (ADIA))
[115] Looting and the Drug Connection: The Danger to the Public and the Need for Public Awareness of this Threat
Professional and public awareness, of what used to be described as an emerging trend, needs to be enhanced. Looters addicted to drugs, and now especially methamphetamine, “Twiggers” (tweaker diggers), are increasingly involved in archaeological site looting in order to fund their addictions. These criminals also tend to be armed. This situation presents a constant danger not only to field archaeologists and government employees, but also to members of the public. The public...
needs to be made aware of this threat in an effort to prevent potentially life threatening and or tragic confrontations.

Moriarty IV, James E. [115] see Murphy, Larry E.

Moriarty, IV, James E. [144] see McAllister, Martin E.

Morin, Eugène [144] see Ready, Elspeth L.

Morin, Jesse [279] see Collard, Mark

Morley, Mike (Oxford Brookes University), Jamie Woodward (University of Manchester, UK), Robert Whallon (University of Michigan), Dusan Mihailovic (University of Belgrade, Serbia) and Norbert Mercier (Université de Bordeaux, France) [202] Geocarchaeological investigations at Crvena Stijena Rockshelter, Montenegro: Middle Palaeolithic palaeoenvironments of the Western Balkans

Crvena Stijena is a large limestone rockshelter in Montenegro, western Balkans. The site has a long history of human occupation, spanning the Middle Palaeolithic to the Bronze Age, recovered from an exceptionally deep (>25m) sedimentary sequence. We present the results of detailed analyses of the Middle Palaeolithic sediments employing a multi-parameter approach to generate palaeoenvironmental data. These data reflect both anthropogenic and climatic change, providing important information concerning Middle-Upper Pleistocene climate regimes in the Balkan Peninsula, and the subsistence strategies adopted by the site occupants. These changes are anchored to a chronological framework constructed from radiocarbon, thermoluminescence, and tephrochronological analyses.

Morley, Mike W. [202] see Alex, Bridget A.

Morris, Alexis and Mandisa Thomas (Howard University) [69] Identification of Apache Sites in the Black Range of New Mexico through Botanical Remains

This research builds on the results of a three-week field study sponsored by the Gila Archaeology Project, surveying for Apache sites. Identification of these sites is difficult because they are ephemeral, due to the Apaches’ perishable and portable lifestyle. Examining botanical remains can be helpful in determining site location. Significant vegetation for this purpose includes: Ponderosa pines, junipers, and willows. The presentation will discuss the problems in recognizing Apache sites and the botanical strategies that can be used to do so. It will help provide concrete and material evidence of a culture that is otherwise missing from the archaeological record.

Morris, Craig [64] see Szymanski, Ryan M.

Morris, John [61] see Fries, Eric C.

Morris, Margaret [80] see Kasper, Kimberly

Morris, Zoe (University of Western Ontario), Christine White (University of Western Ontario), Fred Longstaffe (University of Western Ontario), Lisa Hodgetts (University of Western Ontario) and Neal Ferris (University of Western Ontario) [124] Life-stages, landscapes and human-deer interactions during the Ontario Late Woodland period: isotopic, radiographic and histological evidence

We reconstructed the interaction of white-tailed deer with Ontario Western Basin and Iroquoian subsistence landscapes to investigate distinctions in hunting strategies and agricultural development between these two Late Woodland groups. The seasonality of dental development was determined using mandibular radiographs. The age and season of death was determined using thin section analysis of cementum. This temporal definition enabled the use of stable carbon, nitrogen and oxygen isotope analysis of dentine and bone collagen and enamel and bone carbonate to reconstruct the short- and long-term patterns of access to maize fields for both deer and humans.

Morris, Zoe [141] see Booth, Laura [172] see Heim, Kelly N.

Morrison, Alex (University of Hawaii, Manoa) and Matthew J. Bell (International Archaeological Research Institute Inc.) [226] The Application of Kite and Pole Aerial Photography to 3 Dimensional Archaeological Modeling: Case Studies from the Pacific Islands

Archaeological prospection techniques continue to move toward non-invasive, landscape scale survey methods. Innovative methods based on remote sensing make the acquisition of large scale survey data quick and affordable. In this paper we highlight the use of kite and pole aerial photography as two particularly accessible methods for archaeological research. We emphasize a new suite of techniques for 3 dimensional modeling known as structure from motion (SFM). We also discuss the software, field techniques, and data requirements necessary for effectively creating digital elevation models (DEM) and present examples from Rapa Nui (Easter Island) and the Hawaiian Islands.

Morrison, Bethany (Western Connecticut State University) and Cosimo Sgarlata (Western Connecticut State University) [280] Military Precision, or Every Man for Himself? Life among the Troops of the Continental Army at Redding’s Middle Encampment, CT.

During the winter of 1778-79, after the famous mishaps at Valley Forge, revolutionary troops were entrenched at multiple encampments, three of which were located in the town of Redding, CT. Redding’s “Middle Encampment” has been investigated through a variety of means, including pedestrian survey, excavation, analysis of formation processes through micromorphology, and residue analysis by Fourier transform infrared spectroscopy (FTIR). Site data have been integrated with the use of geographic information systems (GIS). Results indicate variations from other encampments and begin to illuminate both military and personal struggles at the camp.

Morrison, Bethany [280] see Sgarlata, Cosimo A.

Morrison, Michael [35] see Shepard, Emily
Morris, Veronica (Texas A&M University Nautical Archaeology Program)
[264] Reconstructing the maritime cultural landscape of Thmuis (Tell el-Timai)
Considering the role of water transport in ancient Egypt, the archaeological evidence for the fluvial harbors of the Nile Delta is scarce. To understand how the inhabitants of Thmuis utilized and interacted with their maritime space, geophysical survey, coring, and excavation were employed by the University of Hawaii and the Institute of Nautical Archaeology at Texas A&M University to locate and explore the design of a potential harbor, and to trace the paleo-waterways around Thmuis. This paper will summarize the findings from the 2009 and 2010 field seasons and offer a preliminary reconstruction of the maritime cultural landscape of Thmuis.

Morrow, Giles (McGill University)
[178] As Above, So Below: Lacustrine Mimesis and Cosmological Dualism in the Ancient Andean Plaza Hundida Tradition
This paper will suggest that the “sunken temple court” or “plaza hundida” form of the Tiwanaku culture was a mimetic representation of the unseen and sacred subsurface realm of Lake Titicaca, and of the linked aquatic and chthonic elements ubiquitous to Andean cosmology that have persisted from antiquity into the present. Through an ethnohistorical and ethnographic discussion of the significance of cosmological dualism in this region of the Andes, the sunken court will be presented as a physical and symbolic inversion of those monumental structures that have been suggested to mimic the mountain peaks for which the region is famed.

Morrow, Juliet (Arkansas Archeological Survey)
[55] Clovis and other fluted point complexes in the Midcontinent
The Clovis complex (sensu stricto) is ubiquitous in North America except for New England. The earliest fluted point complex of that region is related temporally and stylistically to the Gainey complex of the Great Lakes. Gainey has not been securely dated, but appears to correlate with the onset of the Younger Dryas climatic episode (circa 10,950 to 10,700 rcybp). In the manufacturing sequence for Clovis fluted points, partial fluting was accomplished early, but in the manufacturing sequences of post-Clovis (Folsom, Gainey, Barnes, Cumberland, Redstone) fluted points, fluting was accomplished at a later stage and the flute extended across most of the point’s face. Distributions of these distinct fluted point styles and raw materials shed light on Paleoindian settlement and mobility patterns in the Midcontinent.

Morsink, Joost (University of Florida)
[165] Spanish-Lucayan Interaction: Continuity of Native Economies in Early Historic Times
In 1513 Ponce de Leon states that the Bahaman archipelago is empty of people. The depopulation of the Lucayans, the people that inhabited these islands, was the direct result of disease, slave raiding and migration of people away from Spanish territories. Although depopulation unquestionably happened, recent excavations at MC-6, Middle Caicos, indicate that native economies continued to exist well beyond 1513. This underlines the persistence of native economies in early historic times, despite the presence of the Spanish. This paper will explore the Lucayan-Spanish relations and reasons why these islands were inhabited for a 100 years after Columbus’ ‘discovery’.

Moser, Claudia [250] see Harrington, Katherine

Moses, Bruce [33] see Ulrich, Kristi Miller

Moses, Sharon (Coastal Carolina University)
[162] Native Americans & African Americans: Interaction & Exchange in Antebellum South Carolina Lowcountry
Based upon recent excavations conducted on the Hume Plantation slave street on Cat Island, located in Georgetown County, preliminary findings suggest that material cultural exchange likely occurred between Native Americans and African American slaves. If so, such exchange suggests other social and cultural implications. This paper will attempt to provide context for Cat Island amidst multiple populations that utilized it over time, and to make sense of the preliminary data recovered from the Hume Plantation slave street excavations.

Mosher, Matthew (University of Toronto)
[217] Political Structure in the Indus Valley Civilization: A Comparative Perspective
The Indus Valley Civilization is not alone amongst historical cultures in presenting elusive material evidence of its political structure; however, unlike the Indus Valley Civilization, many such cultures have been incorporated into comparative studies designed to try and account for the ambiguous material evidence of their political organization. I propose that by incorporating models developed from other areas of the world with histories of urban-based political complexity which lack overt signs of centralized authority, we can better situate the nature of Indus Valley political authority, and in so doing contribute more directly to broader discussions of ancient political variation.

Moss, Madonna (University of Oregon) [204] Discussant

Most, Rachel [115] see Hutira, Johna

Moulehat, Christophe [213] see McEwan, Colin

Mountjoy, Joseph [98] see Rhodes, Jill A.

Moyes, Holley (University of California, Merced) and Jaime Awe (Belize Institute of Archaeology)
[208] Cave Ritual Among the Early Preclassic Maya(?) of Western Belize
Throughout Mesoamerica, dark zones of caves have been used almost exclusively as ritual venues. Cave ritual and symbolism among the Olmec is well documented and has traditionally been considered the earliest cave use in Mesoamerica. It is also integrally connected with rulership. Evidence from western Belize suggests that the earliest settlers in the area were cave users employing similar symbol systems who may have shared Olmec ideology. In this paper we present data that demonstrate the importance of cave rites to political development from both cave and surface contexts in western Belize.
Mt. Joy, Kristen (Texas Army National Guard) and Chantal McKenzie (Texas Army National Guard)

[42] In the Zone: Integrating the “Cultural Landscape” Approach in Management at Texas Army National Guard Department of Defense instructions for cultural resource programs advocate following a “cultural landscape” framework for management. The approach is supposed to “analyze the spatial relationship among all cultural resources within their natural setting.” The advantage for the military is primarily to help prioritize cultural resource surveys to avoid costly projects. This paper looks at cultural landscape as an overall management tool, as opposed to just a planning mechanism, via examples from Texas Army National Guard properties. It examines whether programs can utilize this approach to effectively maintain and protect properties in active military installations.

Mueller, Raymond [167] see Joyce, Arthur A.

Mullen, Kyle (University of Kentucky)

[45] A Debitage Analysis at Caesar’s Palace, Harrison County, Indiana

This paper presents the results and analysis of a detailed debitage analysis of over 2400 flakes from the Knob Creek Site, Harrison County, Indiana. Through a metric analysis, change in lithic technology and raw material resource use will be examined at the Late Archaic to Early Woodland transitional period. This paper will examine how changes observed in lithic technology relate to changes in the site’s function through time as well as what this means for larger scale mobility patterns in the region.

Muller, Jon (Southern Illinois University)

[146] Post-WWII American Archaeology and Class Struggle

It is important to do an “archaeology of archaeology” that does not repeat the approaches of traditional history, social history, or intellectual history. If our methods are good enough for long dead people, then perhaps they should also be employed in the study of our own discipline. A ‘political economic’ approach to class struggle in archaeology is suggested.

[146] First Chair

Mullett, Amanda and Mark Seeman (Kent State University)

[100] Understanding The Mobility Patterns Of Early Paleoindians In The Ohio Region Through The Use Of Different Geographic Information Systems (GIS) Functions

Early Paleoindians had the most expansive mobility ranges of any hunter gatherer group in North America. Archaeologists have rarely gone above the site level to address the size of the mobility ranges for these early colonizers. This research intends to approach this concept at a much broader scale. To do this, we will construct a dataset containing information on the metrics and raw material sources for Ohio region Clovis and Gainey projectile points. Using interpolation functions from ESRI’s ArcMap GIS, we will be able to develop a map of the supply zones for two frequently procured Ohio flint types.

Mullins, Patrick (UNC Chapel Hill), Evan Surridge (UNC Chapel Hill) and Brian Billman (UNC Chapel Hill)

[243] Fortaleza de Quirihuac: A Chimu Fortification in the Middle Moche Valley

Fortaleza de Quirihuac is a Chimu fortified settlement built on a hilltop some 400m above the floor of Peru's Moche Valley. During the 2010 and 2011 field seasons, the authors mapped the fortress and conducted surface collections to gain a greater understanding of site activities and chronology. A defensive function is strongly suggested by slingstone piles and parapeted walls protecting all passable routes to the peak and surrounding non-agricultural terraces and compounds. Also, preliminary artifact evidence provides little support for food or craft production and instead indicates an emphasis on the storage and serving of imported food.

Mulville, Jacqui (Archaeology, Cardiff University) and Paul Evans (Freelance Artist)

[157] Back to the Future? Canines, archaeology, art and engagement

There is an increasing demand for multi-dimensional public engagement and outreach activities that describe archaeological endeavour. Situate research within a modern context and make the past relevant to our futures. Canines are the best exemplars for the wide range of human-animal interactions possible, from domestication to breed standards, and are the focus of our successful outreach events now delivered at workshops and music festivals to diverse audiences. 'Future Animals' merges archaeology, science and art to stimulate discussions on the past, present and future of the human-animal relationship and challenges participants to design animals fit for forthcoming challenges.

Muniz, Adolfo [159] see Burton, Margie

Moons, Ann (Applied EarthWorks, Inc) [48] Discussant

Munoz, Cynthia (University of Texas at San Antonio) and Nathan Divito (Center for Archaeological Research at the University of Texas at San Antonio)

[33] Observations on a Paleoindian component on the San Antonio River at 41BX1888

Construction monitoring associated with improvements to the San Antonio River has resulted in the identification of cultural remains in the bank of the pre-channelized stream. NRHP eligibility testing of these deposits identified four components ranging from the Early Archaic to Paleoindian periods. The deepest component appears to be associated with Saint Mary’s Hall projectile points. The component consists of low quantities of lithic manufacture debris, expedient and formal tools, and numerous rock-lined hearths. The archaeological materials appear to have been deposited over a relatively short span of time and the locality was not reoccupied extensively during later times.

Munoz, Cynthia [127] see Mauldin, Raymond P.
Munoz, Olivia [59] see Ghazal, Royal O.

Muñoz Cosme, Gaspar [58] see Lorenzo, Cristina Vidal

Munson, Cheryl Ann (Indiana University) and David Pollack (Kentucky Archaeological Survey) [192] Far and Wide: Late Mississippian/Protohistoric Extraregional Interactions at the Mouth of the Wabash Evidence of Caborn-Welborn extraregional interactions points north/northwest and south/southwest of the lower Ohio Valley. The occurrence of redstone, cupric metals, shell, and bison bone reflect the arrival of transportable material items or raw materials. In contrast, locally manufactured ceramic vessels represent the transmission of non-local styles or the presence of potters who relocated to the Caborn-Welborn region. Some may be actual “trade vessels.” The presence of these goods and vessels, reflect Caborn-Welborn participation in protohistoric interaction networks. These networks may have played an important role in the sustaining of Caborn-Welborn culture following the widespread collapse of neighboring Mississippian polities.

Munson, Cheryl Ann [239] see Turner, Jocelyn C. [239] see Peterson, Staffan D.

Munson, Jessica (University of Arizona) and Takeshi Inomata (University of Arizona) [70] Building chronologies and constructing temples: Correlating Preclassic Maya architectural sequences with multivariate techniques This study investigates the construction and occupation history of two neighboring Preclassic Maya centers using ceramic data from deeply stratified deposits. Substantial Middle Preclassic (900-300BC) occupation has recently been identified at Ceibal and Caobal along the Río Pasión in the southern Maya lowlands, but correlating the sequence of settlement and construction of monumental buildings between these sites is more challenging. We combine frequency seriation and correspondence analysis to compare intersite spatial variations and evaluate Preclassic ceramic chronologies for the Pasión region. This study has implications for understanding population expansion and the spread of religious ideology in the Preclassic.

Munson, Marit (Trent University) [47] The material culture of pigments and paints in the Pueblo world The past was a colorful place, with significant hues ranging from muted earth tones to bright feathers, turquoise, coral, and shell. But color is much more complicated than superficial appearance; many of the colors of Southwest prehistory were the result of complex manufacturing processes that transformed source materials into paints. This paper draws on ethnographic and archaeological evidence for the use of pigments in the Pueblo world. In particular, it focuses on the material culture of pigments, each with distinctive characteristics, and the diverse methods of processing them in order to create paints of various colors and properties.

Munson, Tatsuya (University of South Florida) [54] Reevaluating Teotihuacan’s Interregional Interaction: A View from the Core One of the major contributions of Barbara Stark is her formulation of alternative models for core-periphery relations, specifically between Central Mexico and the Gulf lowlands. Her research has explored varying strategies of provincial polities to interact with expansionist states and to enhance their power. While her models remain largely synchronic, recent investigation has revealed a highly dynamic nature of power relations at Teotihuacan. This paper reevaluates Stark’s models in light of changing political organization at the capital city of Teotihuacan and discusses the future directions for better understanding core-periphery relations in Mesoamerica.

Munson, Satoru [134] see Ashkanani, Hasan J.

Murata, Satoru [134] see Harrison-Buck, Eleanor [201] see Neff, Hector

Murdock, Matthieu (The Pennsylvania State University) and Carrie A. Hritz (The Pennsylvania State University) [99] A Report on Archaeological Site Stability and Security in Afghanistan: The Lashkari Bazar Survey The purpose of this paper is to identify an endangered archaeological site in Afghanistan and examine various site pressures upon it facilitated by a Geographic Information System (GIS). This paper identifies the site Lashkari Bazar, an extensive palatial complex alongside the Helmand River. Daniel Schlumberger in partnership with the Delegation Archeologique Francaise en Afghanistan (DAFA), surveyed Lashkari Bazar between 1949 and 1952. Most follow-up investigations have since been suspended, closed and forgotten because of security concerns. We found that Lashkari Bazar exhibits similar site pressures as sites identified in Iraq, caused by military operations and state instability.

Murphy, John [222] Large-Scale Irrigation on the Salt and Gila Rivers, ca 400-1400 CE: The Hohokam Water Management Simulation (Phase II) Summary of Results The Hohokam Water Management Simulation is a large-scale computational model that allows the virtual recreation of diverse irrigation management strategies while varying: canal system structure and scale; annual and intra-annual flow levels and flooding; crop plant maturation time, water demand, drought sensitivity, and yield; and water and soil chemistry and associated crop responses. The simulation is applied to data drawn from the Hohokam, who managed extensive irrigation works along the Salt and Gila Rivers from ca. 400-1400 CE. Results presented explore alternative management strategies and their implications for Hohokam social organization, resilience, transformation through time, and eventual decline.

Munoz Cosme, Gaspar [58] see Lorenzo, Cristina Vidal

Murphy, Larry (ADIA), Martin E. McAllister (ADIA), James E. Moriarty IV (ADIA) and David E. Griffl (ADIA) [115] Is Archaeology Really Treasure Island? In the media, the term “treasure” is frequently used when discussing the looting of terrestrial and submerged...
archaeological sites. Phrases such as, “Officers believed the suspects were searching for treasure” are common. The media’s use of the treasure terminology is unfortunate because it conveys to the public that the goal of archaeology is to recover items of monetary wealth, rather than knowledge about past human cultures, and perpetuates the “Indiana Jones” concept of our discipline. Archaeologists and others should discourage media from presenting archaeology as treasure.

Murphy, Larry E. [14] see McAllister, Martin E.

Murphy, Laura (University of Kansas) and Rolfe Mandel (Kansas Geological Survey) [37] Paleoenvironmental reconstruction at the Beacon Island site, a Paleoindian bison kill in northwestern North Dakota
Phytoliths and stable carbon isotopes were analyzed to infer changes in vegetation at the Beacon Island site. Analyzed together, these techniques corroborate and strengthen paleoenvironmental interpretation. Results indicate that during site use (10,300 14C yr B.P.) the plant community was a mesic C3 grassland. Gradual warming and drying occurred after that time, but there was no major turnover in the plant community through the Holocene. Overall, it is likely that the Agate Basin occupants did not experience climatic conditions drastically different from modern conditions, though the occupation coincided with the coolest and perhaps wettest episode for the period of record.

Murphy, Stephen (The Metropolitan Museum of Art) [182] Buddhism and its Development in Northeast Thailand and Central Laos: A landscape archaeology approach to Dvaravati Period settlement patterns and Buddhist material culture
This paper employs a landscape archaeology approach to investigate the spread and development of Buddhism in northeast Thailand and Central Laos 6th-11th centuries CE. This movement was largely determined by pre-existing settlement patterns with moated sites, dependent on large-scale river systems in regard to water management, agriculture, transport and communication being of particular importance. The distribution of sema stones provides further evidence for the spread of Buddhism as do Buddha images carved into rock-faces on mountaintops/rock-shelters. The relationship between Buddhism and society is also explored illustrating that its arrival resulted in new cognitive and physical conceptions of the landscape.

Murphy, Emily [239] see Hill, Mark A.

Murray, Wendi (University of Arizona) and Barbara Mills (University of Arizona) [251] Identity Communities and Material Practices: Relational Logics in the U.S. Southwest
This paper explores how depositional practices within different identity communities express distinctions in associative networks of people, things, animals, and places. Focusing on two contemporaneous areas of the U.S. Southwest, Chaco and Hohokam, we discuss how different relational logics of deposition underscore fundamental contrasts in identities, ontologies, and ritual practices, and how depositional practices provide access to what Catherine Bell (1992) calls “indigenous distinctions” - produced and practiced by people in the past, rather than archaeologists’ superpositioning of categories. Cache deposits from Chaco and Hohokam were created following culturally specific logics that structured object associations, object placement, and object treatment.

Murtha, Timothy (Penn State) [102] What's in a number? Population estimates and archaeology of the Classic Maya
Beginning with the earliest explorations in the Maya region, archaeologists have been fascinated by how the ancient Maya made a living in what has been perceived to be a challenging lowland landscape. Accompanying this fascination has been nearly a century of attempts to reconstruct ancient population history. Yet despite these efforts, debate still remains about the specific constants applied or methods used. This paper critically reviews the history of population reconstruction in Maya archaeology in order to identify how perspectives and methods have shifted. I also compare approaches from other archaeological regions to contextualize recent estimates.

Site Stewardship is a public archaeology program dependent upon many factors for long-term success including: clear goals; written, vetted standards and guidelines; careful selection of public volunteers; their diligent education, training and oversight; active engagement of historic preservation professionals; and funding. Thoughtfully selecting the most “at-risk” sites for monitoring directs funding where it is needed most. A pilot program, using a unique report form, teamed volunteer monitoring of “at-risk” sites with other monitoring needs including wildlife, wilderness and recreational use. The burden of initial extra program coordination time is outweighed by the benefit of cost sharing and reducing redundant costs.

Na, Li Jing [166] see Quave, Kylie E. [39] see Stich, Kyle

Nachmias, Amnon (Amnon Nachmias University of Haifa), Guy Bar-Oz (University of Haifa), Dani Nadel (University of Haifa) and Dan Malkinson (University of Haifa) [234] What are the large chain kites and associated features in the Eastern Levant?
Hundreds of Desert Kites in East Jordan and Syria compose long chains which extend across tens of kilometers. Smaller and isolated Desert Kites are also present in the Sinai and Negev deserts. These structures were built for series of mass harvesting of wild ungulates. Zooming on the eastern chain kites using Google Earth and GIS methods reveals significant variability in geographic settings, construction characteristics and associated features. While some kites were built as mass hunting traps, many of the chain kites were devised to
Nadeau, Jaclyn (University at Albany, New York State Museum)

[84] An Analysis of Eastern New York Debitage Assemblages: Combining Stage Models and Flake Attribute Data
I present preliminary findings on the cultural and technological changes occurring in prehistoric populations of eastern New York from the Late Archaic through the Late Woodland. The research is based primarily on assemblages excavated through cultural resource management projects and housed at the New York State Museum and Rogers Island Visitor’s Center. Reduction stages and manufacture techniques identified at archaeological sites are often used to link settlement patterns and lithic technology. This study focuses on a combination of easily replicable techniques to examine whether the transition to sedentism can be seen in variations in resource use and reduction strategies.

Nadel, Dani (Dr.), Guy Bar-Oz (The University of Haifa, Haifa, Israel), Uzi Avner (Arava Institute and the Dead Sea-Arava Research Centre, Ben-Gurion University, Elat, Israel) and Dan Malkinson (The University of haifa, Haifa, Israel)

[234] Ramparts Instead of Walls: Building Techniques of Mass Hunting Traps in the Negev Highland
To date, there are 12 'Desert Kites' (large game traps) known in the Negev Desert, southern Israel. Where possible, they were dated to the 4th – 3rd millennia BC. Some are located in flat areas, but most are in the hills. In several cases the traps were constructed on steep slopes, with the walls of the arms leading to a small, round, massive enclosure. In at least three of the latter, the enclosure was constructed of a wide rampart and not a vertical wall. These are the first of their kind in the region to be studied and discussed.

[234] Second Organizer

Nadel, Dany [89] see Yaroshevich, Alla

Nado, Kristin (Arizona State University), Natalya Zolotova (Arizona State University) and Kelly Knudson (Arizona State University)

[71] Diet and Socioeconomic Status at Teotihuacan, Mexico: Preliminary Indications from Stable Carbon and Nitrogen Isotopes

Diet and cuisine provide insight into the economic power relationships governing food production and consumption while also reflecting nonmaterial aspects of social life such as ideology and social identity. The stable carbon and nitrogen isotope analysis of archaeological human remains from three contexts within the site of Teotihuacan was undertaken to provide a preliminary assessment of the degree and nature of status-related differences in diet among residents. Results provide new information concerning daily subsistence at Classic-period Teotihuacan and suggest that members of distinct status or class groups maintained dietary practices measurably different in both carbohydrate source and animal protein intake.

Nagaoka, Lisa (University of North Texas)

[250] The Pleistocene Extinction Debate: Archaeologists' Perspective

Nearly 50 years after the overkill model was proposed, the cause(s) of Pleistocene extinctions is/are still being debated. While the two main camps, anthropogenic versus climatic, have debated vigorously, few archaeologists participate directly in this debate. Thus, it is unclear what most archaeologists think about Pleistocene extinctions. Since the extinctions debate impacts research on human-environment interactions outside of archaeology, it is important to understand how divided/united archaeologists are on the topic. I will survey archaeologists at the SAAs to document perceptions about the evidence, causes, and the debate itself. Data will be analyzed and displayed in real-time.

Nagy, Andras (University of Cincinnati) and Anthony Tamberino (University of Cincinnati)

[70] Landscape Modification and Water Management at Corriental Reservoir, Tikal

Recent excavations and survey have provided a highly productive assessment of landscape modification and water management at Tikal from the Late Preclassic through the Late Classic. Focusing on Corriental Reservoir, the use of geochronological, stratigraphical, and particle size analysis evidence suggests the presence and use of water filtration systems and an elaborate “switch-gate” along the eastern reservoir berm to control both the accumulation and release of pooled water. This study as well has implications for other paleoenvironmental studies in the Maya Lowlands.

Nakazawa, Yuichi

[112] Identification of thermally altered obsidian toward understanding site formation processes in prehistoric hunter-gatherer site

Thermally altered obsidian can create informative data to elucidate the formation processes of archaeological records. The present poster is a site-scale study to distinguish cultural and natural formation processes, through an explicit examination of thermally altered obsidian artifacts from the late Upper Paleolithic open-air site of Kawanishi C in Hokkaido, northern Japan (dated to ca. 21,000 B.P.). Analytical methods and results of formation processes in hearth-centered concentration of obsidian artifacts are presented. This study also gives a behavioral implication of prehistoric hunter-gatherer’s site organization.

Nako, Nontsasa (Binghamton University)

[230] Narrative Privilege and Unequal Access in South Africa’s TRC

Conceived as a democratic, accessible and progressive project that would go a long way towards redressing the injustices of the past, the South African TRC as a memorialization project excavated public memory to reconstruct South African history from the point of the oppressed in an effort to provide as “complete a picture” as possible of the country’s apartheid past and to promote reconciliation. And yet, the project of making sense of its achievements remains a largely academic (therefore privileged and exclusive) endeavor, while those whose stories of pain necessitated the commission and whose “voices” legitimated it remain marginalized. This paper analyzes some of the memoirs, plays, and artworks that have been produced by former TRC
commissioners, journalists and activists to examine the authorial and narrative privilege that attends acts of recall, and to problematize the notion of “including” previously marginalized groups in the creation post-conflict national memories and archives.

Nanavati, William
[39] Tragedy Averted: Imperial Conservation in the Andes
Prehistoric occupation of the Upper Mantaro River valley began in the Early Formative Period (ca. 1900 BC). As populations settled the valley, they grew rapidly until Spanish contact. With increasing populations in the Formative Period, palynological evidence from two lake cores indicates anthropogenic deforestation. However, these records show an increase in aliso (Alnus acuminata) at the beginning of the Middle Horizon and continuing until the Colonial Period. The combination of historical records and extant palynological, archaeological, and climatological data demonstrates that hierarchically imposed soil and wood conservation (i.e., imperial agroforestry) effectively reversed a “Tragedy of the Commons” scenario.

Nannini, Nicola [202] see Peresani, Marco

Napier, Tiffany (University of Nebraska-Lincoln), Matthew Douglass (University of Nebraska-Lincoln), LuAnn Wandsnider (University of Nebraska-Lincoln) and Ron Goble (University of Nebraska-Lincoln)
[110] OSL-Assisted Analysis of Past Sand Hills Resiliency in a Hyper-Dynamic Environment during the peri-Medieval Warm Period
This poster presents preliminary results of a study assessing the resiliency of native adaptations to the Sand Hills as it experienced drought, vegetation loss and dune reactivation during the peri-Medieval Warm Period. Effects of dune reactivation on land use practices, settlement locations, and emigration out of the Sand Hills or to local river oases were investigated through a meta-analysis of previously documented archaeological assemblages from across the region. OSL data derived from samples above, below, and in paleosols document the most recent re-vegetation of the Sand Hills. Within this framework, the resiliency of past Sand Hills adaptations is addressed.

Napierala, Hannes [93] see Julien, Marie-Anne

Napolitano, Matthew (American Museum of Natural History, U. West Florid) and Matthew Sanger (American Museum of Natural History, Columbia University)
[2] Reevaluating the development of fiber-tempered ceramics in southeastern North America
Ceramic technology first developed on the southeastern coast during the Late Archaic in the form of fiber-tempered ceramics. In 1993, Sassaman published a landmark study on Late Archaic ceramics which serves as the baseline for our understanding of early ceramic production and its role in society. In the almost two decades since that publication, many of our conceptions and theories of Late Archaic societies have changed entirely. This paper synthesizes southeastern Late Archaic studies focusing on work completed in the past two decades in order to rethink the development, production, and social significance of fiber-tempered pottery.

Nash, Carole (James Madison University)
[174] Hunter-Gatherers, Resilience Theory, and the American Chestnut Forest: Persistence and Change in the Middle Atlantic Uplands
Anchored by cultural ecology, the multidisciplinary research tradition developed by William Gardner at Catholic University approached cultural change as an adaptive response to externalities at the regional scale. Using Resilience Theory to consider multiple temporal and spatial scales, this presentation expands Gardner’s paradigm with a case study from the Late Archaic Virginia Blue Ridge. Here, culturally-maintained stands of American chestnut, rather than acting as a commons, became resource territories, their maintenance requiring similar social reorganization as that necessary for horticulture. The regional veneer of persistent mountain lifeways masked transformative changes in upland sociality directly related to complexity in the lowlands.

Nash, Donna (UNCG)
[104] Wari Imperial Colonization of the Moquegua Valley: A Plausible Scenario?
New data is changing earlier working models of the Wari colonization of Moquegua (AD 600-1000) demonstrating that it was a complicated multi-ethnic affair. In this paper I review current evidence resulting from three years of research at Cerro Mejía, recent finds on Cerro Baúl, and survey of the Wari canal system to make a broad sketch of the Wari presence in Moquegua. Based on population size, labor investment, stylistic diversity, and elite largesse evidence is presented to support the hypothesis that the colony in Moquegua was a state sponsored enterprise rather than a grass roots or independent colonial expansion.

Nash, Donna [104] see Sharratt, Nicola O.

Nash, Robert (University of California, Davis)
[161] Low-Level Food Production among Northern Peripheral Fremont Groups in the Northeastern Uinta Mountains of Utah
The notion of low-level food production as a stable economic system is problematic; however, Red Canyon Fremont groups practiced a low-level food production economy that appears to have represented a stable solution to the local environmental setting. The Red Canyon region is located at the northern fringe of agricultural expansion, providing a unique opportunity to gain insight into the character of low-level food production. This paper presents conditions required for the development of stable low-level food production economies, and argues that the role of domesticates, as well as circumstances surrounding their adoption, are critical factors.

Nash, Stephen (Denver Museum of Nature & Science)
[205] Paul Sidney Martin and the (Lack of) Imagining of Native America
Paul Sidney Martin excavated Ancestral Puebloan sites in Colorado, defined Mogollon in New Mexico, and developed the New Archaeology in Arizona. There is scant evidence that Martin included or considered Native
American Indians in this research even though he was digging their ancestral sites. In the 1940s, Martin installed a color comic strip in the Field Museum’s Archaeology of North America hall, ostensibly to make the exhibit more appealing to the public. This comic strip is one of the few instances in which Martin depicted Native Americans during his career. This paper examines how such could be the case.

**Nassaney, Michael (Western Michigan University)**
[257] Discussant

**Nathan, Rebecca (Indiana University)**
[125] Mapping Multiple Landscapes in the Northern Bighorn Basin: An Ethnoarchaeological Study
This paper explores the implications and possible benefits of utilizing an archaeological, ethnographically-informed, deductive predictive model. Utilizing environmental data from the Bighorn Canyon area in the northern Bighorn Basin, a GIS-based predictive model was created to aid in large-scale archaeological survey on the Crow Reservation in southern Montana. However, the model did not accurately predict the locations of archaeological sites in a preliminary study. This paper presents the theoretical framework for a new predictive model, using data collected from ethnographic interviews with Crow tribal members and research of ethnographic literature to inform the model’s calculations.

**Nauman, Alissa (Hamilton College), Nathan Goodale (Hamilton College) and Lisa Smith (University of Montana)**
[110] Gender and Household Activity in the Slocan Narrows Pithouse Village, Slocan, British Columbia
In recent decades archaeological studies that aim to connect activities, places and objects of material culture with the active roles of women, men and children have become increasingly common; however, engendered archaeological studies remain limited in the Interior Pacific Northwest. In this research we draw upon ethnographic literature, material culture and descendant community perspectives to explore facets of identity and gendered activity at the Slocan Narrows Pithouse Village, a community located within the Upper Columbia River system of the Interior Pacific Northwest dating ca.3000-250 cal.BP, with focus on remains of beaver processing activities in a house dating ca.1400 cal.BP.

**Nauman, Alissa [110] see Goodale, Nathan B. [114]
see Prescott, Catherine [244] see Lash, Ryan P.**

**Nava Blank, Alberto [41] see Rissolo, Dominique**

**Navarro-Farr, Olivia (The University of New Mexico) and Gina Díaz (Ford Foundation Predoctoral Fellow the University of New Mexico)**
[188] Excavating Identity, Reclaiming Power: The Fusion of Chicana/o Art and Pre-Columbian Iconography
Artistic expressions of contemporary Chicana/o politics rely heavily on a vast corpus of Pre-Columbian iconography and material culture. Many draw upon elements of ancient Mesoamerican visual culture that are the most widely recognized. Examples include the dismembered Aztec Goddess Coyolxauhqui or the Maya Queen of Yaxchilan, Lady K’abal Xook, seen running a thorny rope through her tongue. This paper presents an interdisciplinary exploration of the intersection of Mesoamerican imagery and Chicana/o identity. In it we explore issues of personhood, memory, and power through reclaims of material culture and sacred imagery.

**Ndanga, Jean-Paul [38] see Kiahtipes, Christopher A.**

**Nedelcheva, Petranka [63] see Kay, Marvin**

**Neff, Hector (California State University-Long Beach) and Satoru Murata (Boston University)**
[201] Ceramic production on Mesoamerica’s tropical coasts.
One of Dean Arnold’s key insights was that individuals turn to ceramic production when returns are greater than for other economic pursuits. From this perspective, the tropical coasts of Mesoamerica, which are of little use for agriculture, would have been favored for ceramic production once Mesoamerican people became fully committed to agricultural subsistence. This hypothesis deserves further exploration based on recent excavations along the Caribbean coast of Belize and recent surveys in southern Chiapas, Mexico. In both cases, post-Formative sites appear to have been dedicated to the dual industrial activities of ceramic and salt production.

**Neff, Loy [24] see Gabler, Brandon M.**

**Negrino, Fabio [11] see Riel-Salvatore, Julien**

**Nely, Robert B. [216] see North, Chris D.**

**Neiman, Fraser (Monticello)**
Robert Dunnell was an early and prescient champion of the idea that evolutionary theory would play an important role in any successful attempt to pursue the unmet scientific aspirations of the new archaeology. While this insight will likely be vindicated, evolutionary theory remains a boutique interest in our discipline. I discuss some factors that may be responsible for this situation and others that might alter it. The latter include the increasingly apparent social costs of relativist epistemologies and the power of evolutionary models, being developed at the intersection of several disciplines, to deliver credible accounts of human history.

[160] Discussant

**Neiman, Fraser [67] see Smith, Karen Y.**

**Neitzel, Jill (University of Delaware)**
[190] How the Southwest Was Complex
Since Ben Nelson admonished his colleagues to study how prehistoric Southwestern societies were complex, they have tried to forsake typologies. But old types endure, and new ones have been proposed. Consequently, a legacy of ethnographic progressivism constrains views of societal variation; and the act of classification homogenizes the variation that is recognized. Non-typological, processual alternatives are
most successful with individual cases and comparisons of specific characteristics in different cases. But when Southwest archaeologists draw conclusions from whole case comparisons, they invariably resort to types. Is it possible to both accommodate variation and generalize without types?

[190] First Chair

Nelson, Aimee (Idaho State University), Dinesh Bastakoti (Idaho State University) and John V. Dudgeon (Idaho State University)

[111] Do performance characteristics explain variation in archaeological selection and use of Snake River obsidian?

Owing to its volcanic geologic history, the Snake River Plain is home to over 20 archaeologically-important obsidian sources. Previous research has described differential frequency of occurrence and transport distance for several southern Idaho obsidian sources, implying preferential selection criteria were used. We test the hypothesis that performance characteristics, measured using high-resolution morphology mapping of fracture surfaces, explains the spatial and temporal extent of particular obsidian utilization in southern Idaho. In particular, we explore the idea that predictability of fracture pattern will be selected over characteristics like hardness or vitreousness and that the temporal trend of obsidian utilization shows this pattern.

Nelson, Ben A. [71] see Schwartz, Christopher W.

Nelson, Erin

[50] Sacred Ash: Linking Community and Cosmos

Ethnographic sources indicate that fire and its alternate forms—smoke and ash—are powerfully symbolic substances for many historic period southeastern Indian groups. This paper explores the ways in which people incorporated ash into mound building and associated ceremonial practices at Parchman Place, a Late Mississippian site in the northern Yazoo Basin. I suggest that among many potential functions, ash served as a link between the community and the broader Mississippian cosmos.

Nelson, Greg [177] see Schaub, Amelia M

Nelson, Sarah (University of Denver) [105] Discussant

Nelson, Shaun (Utah National Guard), Ephriam Dickson (Fort Douglas Military Museum) and Jane Stone (University of Utah)

[42] Camp Floyd: Corner Stone of Utah’s Military Cultural Landscape

In 1857, 2,500 soldiers under the command of Colonel Albert Sydney Johnston entered Utah to suppress the “Mormon Rebellion”. Following months of raids by Mormon, Johnston’s soldiers established a permanent military post southwest of Salt Lake City. Camp Floyd was the largest military post west of the Mississippi, and had a great impact on the regional economy and culture. In 2009, the Fort Douglas Museum, Utah National Guard, and Camp Floyd State Park formed a partnership to conduct excavations on the site. The results shed additional light on nineteenth century military life in Utah.

Nelson, Zachary (Cardno ENTRIX)

[102] Living Under the Turtle Lords: A view from Piedras Negras, Guatemala

Pennsylvania State University’s ongoing focus on commoner interactions and activities at Classic Maya sites reveals much about settlement, population and life. At the Guatemalan site of Piedras Negras, analyses move beyond simple population estimates and settlement counts to examine what it meant to live under the ruling lineage during various epochs. Epigraphic and household data are meshed to provide a detailed look at the rise and demise of this polity.

Nelson, Zachary [115] see Hauntor, Christian J.

Neme, Gustavo A. [273] see Gil, Adolfo

Netherly, Patricia (Vanderbilt University)

[52] Inka Internal Frontiers in Chimor

For much of its history, the frontier between Chimor and the Inka Empire lay on the lower western slopes of the Andes. When Chimor was overcome, the Inka faced tenacious opposition on the part of some segments of the former Chimu polity. Archaeological evidence and colonial reports show that this led the Inka to adopt a strategy of internal frontiers in these areas in addition to their general policy of containment and indirect rule.

Neubauer, Fernanda and Michael J. Schaefer (UW-Madison)

[277] The spatial and technological organization of precolumbian lithic production from the sand dunes of Pedra Rachada in Paracuru, Ceará, northeast Brazil

Four archaeological sites were identified in the Pedra Rachada sand dunes of Paracuru during surveys conducted by the Arqueologia Brasil contract archaeology company in July 2010. A sample of 572 lithics was analyzed in situ at these four surface sites. This qualitative analysis was undertaken in the objective of identifying technological patterns of lithic production in an effort to understand the spatial use and organization of the sites. A diverse range of activities are represented in the lithic assemblages showing that the sites range from single episode occupations to important landmarks where people were returning to repeatedly throughout time.

Neubauer, Fernanda [99] see Schaefer, Michael J.

Neusius, Phillip D. [209] see Chiarulli, Beverly A.

Neusius, Sarah (Indiana University of PA) and Beverly Chiarulli (Indiana University of Pennsylvania)

[232] Dating the Late Pre-Contact Period in Central Western Pennsylvania

As part of a long-term research project focused on Monongahela and related sites in the river drainages of central western Pennsylvania, we have obtained a series of standard radiocarbon and AMS dates that help establish the history of the region prior to European contact. These dates indicate that the area was occupied more or less continuously from the eleventh through the sixteenth centuries although individual villages were occupied, abandoned, and reoccupied. This program of radiometric dating underscores the importance of obtaining multiple dates from village sites and the preferability of AMS dates on botanical remains.
[209] **Discussant [232] First Chair**

Neusius, Sarah W [209] see Chiarulli, Beverly A. [271] see Boon, Andrea L.

Neves, Walter [158] see Strauss, André

Newbold, Bradley (Washington State University), R. Kyle Bocinsky (Washington State University), William D. Lipe (Washington State University), Phil R. Geib (University of New Mexico) and Brian M. Kemp (Washington State University)

[88] **Revising Early Turkey Domestication in the Southwest**

Recent genetic studies of ancient Southwestern turkeys provide intriguing revelations into the origins and distribution of domestic turkey stocks within prehistoric North America. For example, archaeological turkey populations in the Southwest exhibit strong genetic uniformity typical of domesticated species. These populations, however, are not derived from the presumed ancestral domestic lineages of Mexico and represent a secondary domestication event in the Southwest. Here, we explore the early phases of turkey husbandry in the Four Corners region in Classic Basketmaker II and III times and also examine morphological and archaeological evidence of even earlier turkey use elsewhere in the Southwest.

Newlander, Khori (University of Michigan)

[127] **Defining Paleoarchaic Chert Procurement Ranges in east-central Nevada**

Current models of Paleoarchaic subsistence-settlement in the Great Basin rely heavily on obsidian provenance to define the ranges over which people and resources traveled, though disagreement persists regarding the behavioral processes (e.g. residential mobility, exchange) these ranges represent. Evaluation of these alternatives requires contextualization of obsidian within a comprehensive understanding of Paleoarchaic technology, including other toolstone. This research utilizes laser-ablation inductively coupled plasma mass spectrometry and portable x-ray fluorescence spectrometry to define complementary “chert procurement ranges” from several assemblages in east-central Nevada, building, ultimately, toward a multi-dimensional model of Paleoarchaic mobility and exchange.

Newman, Kimberlee [89] see Davidson, Iain

Newman, Sarah (Brown University), Jose Luis Garrido (Universidad de San Carlos) and Nicholas Carter (Brown University)

[66] **It Ain’t Over ‘till It’s Over: The Terminal Classic at El Zotz, Guatemala**

This paper discusses the transformations of the site core of El Zotz, Guatemala, during the Terminal Classic. Despite the well-known political, economic, and social upheavals of this time period, four seasons of excavations at the site’s Acropolis and the satellite group of Las Palmitas have revealed not only continuity in population and cultural traditions, but a fluorescence in elite occupation that included investments in monuments, residential architecture, and local production.

Newman, Sarah [66] see Carter, Nicholas P.

Newsom, Lee [41] see Gifford, John A.

Nguyen, Dai [220] see Gu, Jiyan

Nials, Fred (Desert Archaeology, Inc.; GeoArch)

[222] **Irrigation and Field Systems at the Las Capas Site, Tucson Basin, USA**

The remarkable stratigraphic integrity and preservation of canals and fields at Las Capas permits reconstruction of the Early Agricultural period irrigation system to a degree never before seen. More than 750 bordered-basin fields and 180 canals and ditches were recorded in 6 stratigraphic levels separated by 20 cm to 1 m-thick overbank flood deposits. Field sizes appear to have been adjusted for available water, although a consistent field-water delivery system was used throughout the duration of occupation. Ironically, the irrigation technology that allowed farming at the site appears to have been a factor in site abandonment.

Nials, Fred [20] see Prasciunas, Mary M.

Nicholas, George (Simon Fraser University)

[265] **Marx, Indigenous Peoples, and the Postcolonial Challenge**

A continuing challenge in developing a postcolonial archaeology is identifying and addressing inequalities affecting descendant communities in the practice of archaeology and in access to and benefits from its products. Indigenous archaeology can address this by promoting indigenous values and by utilizing various theoretical constructs, including Marxism, that promote praxis. Here Marx offers important insights into understanding how archaeologists have monopolized the means of (knowledge) production, and provides a set of critical tools for countering this. I discuss the utility of a Marxist critique within the context of Indigenous archaeology and through examples of community-based heritage research initiatives underway internationally.

[125] **Discussant**

Nicholas, Linda M. [201] see Carpenter, Lacey B.

Nicholls, Brian (University of Wisconsin-Milwaukee), Thomas Zych (University of Wisconsin-Milwaukee) and Mark Dudzik (Wisconsin Department of Natural Resources)

[187] **Recent LiDAR Imagery of the Aztalan Site**

LiDAR imagery of Aztalan State Park was acquired by the Wisconsin Department of Natural Resources as part of an effort to proactively manage park resources. Analysis of topographic mapping as well as bare earth models derived from the LiDAR point cloud highlights the irregular shoreline of the west bank of the Crawfish River in the vicinity of the riverbank enclosure. Banks in this area are dissected by numerous erosional features likely related to aboriginal occupation. However, the riverbank midden reported as a linear ridge in the early 20th Century is clearly visible and remains relatively intact.

Nichols, Caitlin (Murray State University), Caroline Schmidt (Murray State University) and Anthony Ortmann (Murray State University)
[185] Microartifact Analysis of Mound C at Poverty Point: Exploring the Function of a Late Archaic Mound

The function of Archaic mounds in the Lower Mississippi Valley is poorly understood. Recent excavations at Poverty Point’s Mound C provide a unique opportunity to examine the function of one late Archaic mound. Previous research on Mound C revealed differences from known habitation areas at Poverty Point, however, relatively few macroartifacts were recovered from the surfaces of mound construction stages. This low density of macroartifacts has made it difficult to determine the exact nature of activities undertaken on the mound. Microartifacts obtained from recent excavations in Mound C provide another perspective on the nature of activities associated with this earthwork.

Nichols, Deborah (Dartmouth College) and Susan T. Evans (The Pennsylvania State University)

[102] Land and Water at Teotihuacan: A New Look

Teotihuacan’s presence across Mesoamerica is marked by the pierced disk symbol, representing water as well as preciousness. Central to Teotihuacan was its worship of water; its system of urban drainage matches in ingenuity and feeds into its productive canal irrigation networks. Reconstructing this integrated system reveals how the city’s drainage program was an integral part of Teotihuacan’s history that was accompanied by changes in residential patterns, monumental construction projects, and the iconography that documented these changes. “New ecologies” offer frameworks useful to archaeologists for understanding the politics and rituals of land and water, along with their adaptive significance.

[149] Discussant

Nichols, Deborah L. [54] see Crider, Destiny Lynn

Nichols, Teresa (Indiana University)

[125] Indigeneity around the Globe: Intersections of Social Science and Social Justice

Linking archaeological cultures with modern populations has been considered an interesting, although problematic, area of scientific exploration. But for many indigenous peoples this has significant impacts on their status. A prime example of the use of archaeology to alternately support or deny indigenous rights is seen in land claims cases. Archaeology, like many disciplines, struggles to maintain rigorous and impartial research methods while connecting to modern concerns. Is it possible to be a social scientist working for social justice? These concerns have no simple solution, but considering a few cases around the world might begin to show better ways forward.

[125] First Chair

Nicholson, Christopher M. [96] see Welch, Kristen R.

Nicolaiades, Monica (University College London)

[63] Rooting out the Grasses in the Early Epipaleolithic: Preliminary Microbotanical Results from the Eastern Levant

This paper will present preliminary findings from a microbotanical analysis of stone tools and sediment samples from four Early Epipaleolithic (ca. 25,000-18,500 cal. BP) sites in the Eastern Levant. Direct evidence for plant-use during the Last Glacial Maximum (LGM) is rare in this region because macrobotanical remains are often poorly preserved. New starch and phytolith evidence will allow us to root out the grasses and explore people-plant interactions during this period of climatic extremes. These findings will contribute to current discussions of hunter-gatherer response and adaptation in the face of environmental uncertainty.

Nielsen, Axel (CONICET Argentina)

[154] The Role of “Performance Characteristics” in a Semiotics of Materiality

How do the physical properties of artifacts contribute to the reproduction of meaning in practice, and therefore, to the constitution of knowledgable agents? The concept of “performance characteristics” is a useful tool for exploring this issue–central to materiality studies–in prehistoric contexts. Putting into focus a range of representative conditions commonly encompassed by the notion of indexicality, it supports a contextual analysis of material meanings that avoids many difficulties associated with semiological approaches. In the Andes, for example, ancestor worship resorted to the performance characteristics of multiple artifacts to distribute the agency of the dead into wide object networks.

Nielsen, Axel [26] see Avila, Florencia

Nieves Colón, Maria (SHESC, Arizona State University), Hector J Díaz-Zabala (Department of Biochemistry, Advanced Genetics Laboratory, Ponce School of Medicine & Health Sciences) and Juan C Martínez-Cruzado (University of Puerto Rico-Mayagüez)

[193] Sub-Saharan African and West Eurasian maternal (mtDNA) lineages in the Dominican Republic

We attempt to elucidate recent population history in the Caribbean, by using mtDNA to estimate the contributions of sub-continental West Eurasia and sub-Saharan Africa to the modern population of the Dominican Republic. HVR-I sequences of 570 samples collected in 43 locations indicate that 71% of Dominican mtDNAs originate in sub-Saharan Africa (n=403), while 15% originate in West Eurasia (n=83). Differences in the apportionment of these sub-continental lineages across the landscape were observed. We found large contributions of West and West-Central African lineages to the Dominican population (59% and 18%). Additional sequencing is currently underway for all samples of Eurasian origin.

Nishimura, Yoko (SUNY Stony Brook)

[134] Sacred space beneath mundane floors: a systematic comparison of material culture between household floors and intramural burials in northern Mesopotamia

Tritis was a Mesopotamian city containing residential buildings with subterranean family crypts. The house occupants drew a clear line of spatial demarcation between the sacred place of the dead and the mundane space for daily household activities within the individual houses. However, the occupants of these houses placed mostly utilitarian, mundane items into the family tombs as funerary offerings. Using the Tritis houses as a case study, I will examine the complex relationship between the funerary and domestic activities within the houses. I conclude that the residential funerary practices are
characterized by an overall sense of ‘ordinariness’ and domesticity.

[134] First Chair

Niziolek, Lisa (The Field Museum, Chicago)  
[256] Ceramics under the Sea: Pre-Modern Maritime Trade in East and Southeast Asia  
This project investigates pre-modern maritime trade and intraregional exchange networks in East and Southeast Asia using collections from The Field Museum, Chicago. These collections include high-fired ceramics from the Java Sea Wreck—an Indonesian vessel carrying mostly Chinese cargo found off the coast of Java—dated to the thirteenth century A.D. and other East and Southeast Asian collections from the museum, which include Chinese dragon jars, celadons, and blue-and-white porcelains from archaeological contexts. Specifically, the results of compositional analysis of porcelain and stoneware bodies and glazes from primarily Song dynasty (A.D. 960 to 1279) vessels will be presented.

[256] First Chair

Nohe, Sarah [24] see Harding, Gregg E.

Nolan, Kevin (AAL, Ball State University)  
[239] Least Cost and Flow Modeling of Late Prehistoric Interaction in the Scioto River Valley  
I explore an alternative method to predict prehistoric trade patterns. Nolan and Cook (2010; 2012) used reconstructed drought index values to model patterns of change in inter-community interaction for the entire Ohio Valley within the framework of the Winterhalder-Kelly model. Site specific predictions were derived from the original model using both DEM and difference-of-precipitation cost-surface analyses to predict likely trading partners (i.e., easy to travel to and different precipitation). The dual cost-surface analysis had limitations. I replace the difference-of-precipitation cost analysis with a hydrological analysis of the same surface. This new analysis reveals how interaction should “flow” in central Ohio.

Noll, Christopher (Plateau Archaeological Investigations)  
[213] Tools of Necessity: The Experimental Identification of Flake Tool Pressure Flakers  
Archaeologists concerned with lithic technological organization comment that stone was rarely used as a pressure flaking tool though the attributes of stone pressure flakers are not widely known, making recognition of the tool in archaeological assemblages difficult. Experimental use of stone pressure flaking tools suggests that recognizing the tool form is dependent on the identification of the type and relative position of edge modification which forms a diagnostic relationship. The flake tool pressure flaker is defined by a crushed edge and the presence of a load application surface suitable for prehension with a direct load path to the use edge.

Noori, Kamaran [129] see Dawson, Peter C.

Norder, John (Michigan State University)  
This paper discusses examples from Minnesota through Ontario that focuses on the ways that rock art sites have increasingly become important foci for the maintenance and empowerment of community identity for Siouan and Algonquian speaking peoples. At the same time, several of the most visible places have become sites for various forms of cultural tourism. As such, it also becomes important to identify and discuss how Indigenous community desires to protect and maintain these sacred places for traditional cultural use are couched within these non-Indigenous heritage management and/or tourism structures.

Norman, Garth (ARCON, Inc.)  
[62] Izapa Precession and 2012: Calendars, Origins, and Diffusion  
All evidence point to Izapa, Mexico as the place of origin of the Maya calendar based on Equinox Precession and Izapan civilization’s base date of 592 BC that anchored the World Ages history with baktun-katun cycles to 3112 BC, and gave birth to the Long Count from the Calendar Round. Izapa Stela 5 Tree of Life is the earliest Popol Vuh record. Izapa’s influence spread far and wide including distant Nazca, Peru. Izapa’s sophisticated traceable culture markers include astronomical orientations, calendar observatory, geometric design and standard measures (which combined in (design planning and mapping).

Norman, Neil (William and Mary)  
[190] Claustrophobic and Civilized Cities: Recent Progress in the Archaeology of Urbanism Along the West African Coast, 1000-1800 AD  
The intellectual connection between cities and civilization is a longstanding and uneasy one. Lewis Henry Morgan did much to promote the notion of cities materializing the pinnacle of human progress. In turn, archaeologists drew from the work of Morgan to generate prescriptive definitions of urbanism. As a result, entire societies and regions were omitted from early discussions of cities. This paper surveys recent attempts to decouple the elision between cities, civilization, and progress and in so doing promote recent contributions of the unique nature of West African urban forms to the study of urbanism and social complexity.

Norman, Scotti (Vanderbilt University), Chad Gifford (Columbia University) and Samuel Connell (Foothill College)  
[52] Frontier Resistance to the Inka: the Cayambe Effects on Imperial Strategy  
Archaeological models of imperial conquest have focused on core dominance, investigating peripheral societies in light of empires attempting to colonize them. Focusing on imperial core can cause archaeologists to overlook how peripheral dynamics influence the imperial narrative. A confederation of northern Ecuadorian societies is known for resistance to Inka rule, archaeologically manifested through a fortified landscape. Specifically, the rapid construction, interconnectedness, and close proximity of Inka and local Pambamarca fortress complexes demonstrate resilience shown by local populations to remain uncolonized. This paper presents new evidence of Cayambe defensive strategies and exhibits how these strategies shaped Inka expansionary tactics.

Norman, Sean (University of South Florida)
[37] Landscape Reconstruction of the Crystal River Site (8C11)
Crystal River, on Florida’s west-central Gulf coast, is one of the largest and mound complexes in eastern North America. Environmental shifts and social development impacted the composition of the site during its occupation from 100 B.C. to A.D. 600. The deposition of shell into middens and mounds exhibits obvious large scale landform alteration, but the full extent of landscape modification is poorly understood. This research aims to reconstruct the landscape throughout the site’s occupation using georarchaeological methods. Forty-six soil cores systematically recovered using a GeoProbe provide the necessary data to interpret the dynamic history of this culturally developed terrain.

North, Chris (Logan Simpson Design) and Robert B. Neily (Logan Simpson Design)
[216] A Pueblo IV Period Hopi Pottery Firing Complex on Antelope Mesa
A recent linear survey near the ancestral Hopi village of Awat’ovi identified a newly discovered Jeddito Yellow Ware pottery-firing area. The pottery-firing area, located between two outlier villages east of Awat’ovi, contained three distinct firing areas adjacent to coal seams. Jeddito Black-on-yellow, Jeddito Corrugated, and Sikyatki Polychrome sherd dominated the assemblage; a small number of Pueblo III whiteware sherds were also recognized. In this poster we summarize the relatively informal nature of the pottery kilns, and other features, to provide one example of Jeddito Yellow Ware production during the Pueblo IV period.

Novic, Juliana (ASU School of Human Evolution and Social Change)
[62] Class clustering in the neighborhoods of Calixtlahuaca, Mexico
Did ancient Mesoamerican elites live in elite neighborhoods of cities, or did they tend to live dispersed throughout the city? I present analyses of surface data from Calixtlahuaca suggesting that elite households (apart from the royal palace) were not clustered in the center of the city, close to the civic architecture. Nor where elites living clustered together anywhere else in the city. Instead, elites were distributed on the edges of the city, mixed with commoner households. This paper compares the pattern at Calixtlahuaca and other large cities in Mesoamerica.

Novell, April (Univ of Victoria-Dept of Anth) and Melanie L. Chang (University of Oregon)
[202] Pornography is in the Eye of the Beholder: Sex, Sexuality and Gender in the study of European Upper Paleolithic Figurines
When the discovery of the Aurignacian Hohle Fels figurine from Germany was announced publicly in June 2009 it was described in both popular media and in academic journals as “pornographic,” “a 35,000 yr old sex object” and as a “prehistoric pin-up.” But what does ‘pornographic’ mean in an Ice Age context? This paper examines the role of presentism in the analysis and interpretation of human figures in the visual cultures of the European Upper Paleolithic and takes a communities of practice approach to explore the intersection between gender constructs and materiality.

Nuevo Delaunay, Amalia (INAPL-Buenos Aires)
During the first half of the 20th century a variety of architectural features coexisted in the marginal areas of Argentinean Patagonia, mostly due to the concurrency of the recently arrived stockbreeding society and the circumscribed local indigenous people. The stockbreeding society’s settlement type was that of small land units known as “estancias”, characterized by typical European-descent architectural features. On the other hand, places occupied by indigenous people appear to broadly imitate the methods of the incoming settlers, although not in an identical way. Architectural features at five sites located in the Santa Cruz Province exemplify these differences.

Núñez-Regueiro , Paz [213] see McEwan, Colin

Nunnally, Patrick [209] see Hayes, Katherine H.

Nycz, Christine (University of Nebraska - Lincoln)
[84] Re-Examining the Middle Holocene in the Eastern Central Plains
Current interpretations for the Middle Holocene eastern Central Plains emphasize specialized bison procurement and low regional bison mobility. This poster reports on analysis of two Middle Holocene chipped stone assemblages, Hill (13ML62) and Simonsen (13CK61), commenting on current Middle Holocene interpretations. This analysis highlights a tool form unique to this subregion and time period, hafted scrapers.

Nyers, Alex (Graduate Student) and Loren Davis (Oregon State University)
[37] Establishing Early Chert Use with PXRF: A Case Study from the Cooper's Ferry Site
Chert artifacts are commonplace in Columbia River Plateau archaeological sites; however, establishing the provenance of cherts has traditionally proven difficult, limiting their utility in understanding prehistoric mobility and trade. To address this problem and study early chert use in the southeastern Plateau, portable x-ray fluorescence (PXRF) and multivariate statistics were used to characterize elemental properties of six chert sources from Idaho’s Salmon River basin. PXRF analysis of 700+ chert artifacts from the Cooper’s Ferry site were compared against these sources, with results indicating the majority of artifacts came may have come from a single, but as yet unsampled, chert source.

Nygard, Travis [275] see Wren, Linnea H.

Nyman, James (University of North Carolina)
[232] Defense Against ‘Decline’: Using the Production Step Measure to Question Patterns of Cultural Decline Reflected in Ceramic Assemblages
The Native Americans who lived among the colonists in the Lowcountry of South Carolina during the 17th century, have consistently been relegated to the footnotes of history in larger narrative of colony building and cultural interaction. This is in large part due to assumptions of ‘collapse’ resulting from the consequences of European expansion. Archaeologists have used their pottery tradition as an indicator of their
cultural decline due to its " sloppy" and " poorly made" appearance. Through the use of the production step measure I reveal that their ceramics instead indicate cultural persistence despite the pressures of life in the Lowcountry.

O’Boyle, Robert (University Of Montana), Alvin Windy Boy Sr, Duncan Standing Rock Sr and Videl Stump Sr
[250] Cultural Heritage on the Rocky Boy’s Indian Reservation in North Central Montana
The Chippewa Cree have been developing cultural resource program for the Rocky Boy’s Indian Reservation in north central Montana. The Chippewa Cree rely on a rich variety of resources including medicinal plants, historical documentation, archaeological sites, as well as our most treasured resource: the wealth of knowledge and experience of our elders. Utilizing these, the Chippewa Cree are not simply preserving culture; we are active participants in the cultural heritage process. This poster provides an overview of many of the activities completed by the Tribal Historic Preservation Office, in conjunction with the Tribal Historic Preservation Advisory Committee and Tribal Archaeologist.

O’Brien, Helen (Pima Community Class) and Jon Boyd (Pima Community College)
[111] XRF Analysis of Materials from the Burro Creek/Pine Creek Archaeological Survey
The Burro Creek/Pine Creek Archaeological Survey, begun in 2003 as a joint venture between Pima Community College and the BLM in a remote area about 40 miles northwest of Prescott, Arizona, has now completed its 9th session. This field season Bruker Elemental made a Trace III-V portable X-ray fluorescence analyzer available for a month. Results of the analysis of 270 projectile points, 51 pieces of debitage, other tools and lithic material sources are presented here with a focus on sourcing obsidian used to manufacture projectile points.

O’Brien, Matthew (University of New Mexico) and Curtis Storlie (Los Alamos National Laboratory)
[144] A New Methodology to Anatomical Refitting using a Multivariate Approach
Anatomical refitting is a useful tool to link the social observations and theory from cultural anthropology and apply them to the archaeological record. Concerns over the accuracy and precision of existing refitting methods have limited its use in archaeology. In essence, anatomical refitting has been hampered by a Catch-22 scenario. If the faunal assemblage is too large, then existing methods became inefficient, and if the sample is too small, then the interpretive power of the observations becomes marginal. This paper presents a new multivariate method that shows marked improvement in small and large samples over existing approaches.

O’Brien, Meghann [276] see Donop, Mark C.

O’Brien, Michael (University of Missouri)
[241] Niche Construction Theory: A Key Concept in Evolutionary Studies
Theory and empirical data strongly imply that recent human history involves extensive gene–culture co-evolution, much of it as a direct result of human agricultural practices. Niche construction theory (NCT), a relatively new development within evolutionary biology, has important implications for understanding this co-evolution. NCT has the ability to unite several approaches in anthropology and archaeology that, despite some early rhetoric, are not at all incompatible. NCT is especially useful because it looks beyond climate, instability, and external environments as causes of evolutionary events and attempts to incorporate behavior as an active variable in driving both environmental change and human evolution.

O’Brien, Michael [160] see Boulanger, Matthew T. [123] see VanPool, Todd L.

Ochoa-Winemiller, Virginia [191] see Winemiller, Terance

Odell, George (University of Tulsa), Colleen Bell (University of Tulsa), Donald Blakeslee (Wichita State University), Sarah Chandlee (University of Tulsa) and Maclaren Law de Lauriston (University of Tulsa)
[232] Manufacturing Protohistoric Wichita Pipes
A collection of surface materials from a site in central Kansas has yielded Wichita-related Florence pipes of Kansas pipestone in several stages of manufacture, use, and breakage, as well as several lithic tool types that have been postulated to have been employed in the manufacture of those pipes. These types were sampled for lithic use-wear analysis, and some of them were found to possess wear exactly like the wear on tools from the site, indicating one of the few such sites on the continent. Tools of this nature were then used to construct just such a pipe.

O’Donnabhain, Barra (University College Cork, Ireland) and Katherine Beatty (University College Cork)
[59] About Face: a ‘careless’ burial from Knowth, Ireland
An atypical prehistoric burial was recorded as a ‘careless’ deposit. Re-examination indicates prone burial and we suggest that the deprivation of the face may be deliberate. We argue that the power wielded by the face has been overlooked in bioarchaeology. Saturated with culturally produced meanings, the face is a powerful site of personhood and identity formed at the interface of the social and physiological. The face-to-face relationship is an essential primacy for investigation into the lived experience of the world. De-facing the individual limited the deceased’s spiritual prospects but also reduced their impact on the living.

O’Donovan, Maria (Public Archaeology Facility), LouAnn Wurst (Western Michigan University) and Randall H. McGuire (Binghamton University)
[265] What’s in the Middle of a Marxist Archaeology?
Marxism, Method, and Middle Range Theory
The question of a Marxist methodology replicates positivist thought and views the creation of knowledge as a rigidly definable process. We argue that Marxism offers us a true alternative that dialectically intertwines theory and method. Method cannot be separated from theory; indeed we would argue that there is no Marxist method and that many attempts to create one have had
pernicious ends. The absence of a distinct method or middle range theory in Marxism is one of its strengths. This is demonstrated in real world applications, which employ a relational analytical framework that defines concepts only within their dialectical context.

O’Donovan, Maria [265] see Wurst, Louann

Oestmo, Simen (IHO, Arizona State University) [64] Digital Imaging Technology and Experimental Archaeology: Steps toward the Development of a Methodological Framework for the Identification and Interpretation of Fire Modified Rock (FMR)

Here I present the result of a series of experiments and analysis of FMR, a common but often overlooked archaeological artifact type. Experiments simulating different burning scenarios were conducted and a low-cost digital imaging method, designed to limit intra-analysis bias, was used to quantify FMR color values. Statistical tests and a blind test suggest that unburned rocks and FMR can be both statistically and physically separated. A burning scenario model, based on measured experimental data, applied to FMR from a South African Middle Stone Age site, shows that the archaeological samples are statistically related to experimental burning scenarios.

Oetelaar, Gerald (University of Calgary) [199] Entangled Worlds of the Blackfoot: Movement to the Sacred Grounds or Fur Trade Posts

The world of the Blackfoot includes a complex web of relationships between animate and inanimate entities mediated by spirits. The Blackfoot homeland is dotted with special places of spiritual energy linked by paths leading the Blackfoot on their annual ritual pilgrimage to the sun dance grounds. Designed to ensure the renewal of the land and its resources, this pilgrimage also becomes an historical journey through the archive of the group and a strategy to maintain ties with neighboring groups. In this paper, I explore the adjustments to this complex web in light of the entangled world of the fur trade.

Ogden, Jessica [64] see Dutton, Andrew

O’Gorman, Jodie (Michigan State University), Jennifer Bengtson (Michigan State University) and Ryan M. Tubbs (Michigan State University) [105] Impacts of Social Interaction among Women in the Past: A Central Illinois River Valley Case Study

Migration of Oneota people into the Central Illinois River Valley at ca. A.D. 1300 led to prolonged interaction between Oneota and Mississippian groups. The violent nature of this interaction dominates the literature as the Norris Farms 36 cemetery has produced important physical evidence of pre-Columbian warfare in the midcontinent. This paper takes a broad bioarchaeological view of the impacts of social interaction as seen through female biological and material remains in cemetery and village contexts. By doing so, we contribute to an understanding of the social context for violence.

O’Gorman, Jodie [78] see Upton, Andrew J.

O’Grady, Patrick W. [20] see Jenkins, Dennis L.

O’Hagan, Terry [244] see Lash, Ryan P.


The Abri de la Souquette is located in the vallon de Castel-Merle, approximately 50 meters from the renowned sites of Abris Blanchard and Castanet. Although much of the site was destroyed by excavations in the early 20th century, the evidence recovered suggests an Aurignacian record of comparable richness to these adjacent sites, and test excavation conducted in the 1980s confirmed the survival of intact deposits. This paper will present an analysis of this excavation and the lithic material recovered, focusing particularly on raw material selection and carinate reduction sequences, and will contextualize these data within current research in the vallon.

O’Hara, Michael (Arizona State University) [116] The Local and Regional Contexts of Sinagua Mortuary Practices

Mortuary practices in the Flagstaff region varied over time and indicate changes in social organization and extra-regional contacts. The pattern prior to the eruption of Sunset Crater was inhumation in abandoned pit houses. This pattern persisted into the post-eruptive period, but new developments included the adoption of cremation burials and the establishment of formal cemeteries. The choices made between cremation and inhumation appear to have been associated with social identity defined by participation in a religious belief system and community of practice. Offerings suggest that new social roles appeared and mortuary practices were used to negotiate transitions of power.

O’Hear, John [185] see Steponaitis, Vincas P.

Ohnersorgen, Michael (Dept. of Anthropology, University of Missouri-St. Louis) [54] Interaction and Exchange in West Mexico’s Postclassic Aztatlán Tradition

Recent research at Chacalilla, Nayarit, addresses issues of craft production, settlement organization, and regional and interregional interaction associated with the Early-Middle Postclassic period Aztatlán tradition. As a former graduate student of Barbara Stark, the author’s interests in these research themes and the application of relevant methodologies to examine them were inspired by Stark’s research in Mesoamerica’s Gulf Coast lowlands. This paper synthesizes results from recent survey, excavation, and artifact compositional sourcing at Chacalilla, identifying particular aspects of research influenced by Stark’s ideas, while simultaneously providing an updated understanding of political-economic organization and interaction along the Postclassic West Mexican coast.

Oka, Rahul (University of Notre Dame) [190] Abandoning Typologies but not Morgan: Stages/Types as Recurring Emergent Properties in the Indian Ocean Interaction Complex

Lewis Henry Morgan’s enduring (and unintended) legacy was in generating a typology of social-evolutionary stages and influenced Elman Service and Morton Fried.
Though typologies have been critiqued, I am not convinced that we abandon stages/types. This paper will use data on the struggles between political, commercial, and social groups of the Indian Ocean to show the endurance and resilience of the types of social-political organizations proposed by Morgan, Service, and Fried over 2000 years. I argue that stages/types should be seen as recurring emergent properties of complex interactions rather than as static steps up the typological ladder towards complexity.

Okumura, Mercedes (University of Sao Paulo, Brazil) and Astolfo Araujo (University of Sao Paulo, Brazil)

[158] *The Southern Divide: Early Holocene differentiation of bifacial points from South-eastern Brazil*

Bifacial points have been used to characterize the “Umbu” Tradition in South-eastern Brazil. This Tradition has been observed in archaeological sites dated from the early Holocene to near historical times. Such a great temporal range and vast territory, associated with a lack of systematic regional studies of the projectile points, have suggested the existence of a diversity within this tradition which has been ignored so far. Through geometric morphometric analysis, this paper aims to test the hypothesis that there are important differences in the early Holocene bifacial points associated to the Umbu Tradition in South-eastern Brazil.

Oland, Maxine (Keene State College)

[233] *Maya Households in Transition: Postclassic- Colonial Period Household Archaeology at Progresso Lagoon, Belize*

This paper examines Maya households on the west shore of Progresso Lagoon during a series of indigenous and colonial transitions in the 15th and 16th centuries. At Progresso Lagoon, archaeology indicates a changing social, political and economic environment beginning in the 15th century, less than 100 years before the Spanish incursion into the region. Household groups ultimately helped shape the outcome of historical transitions, as they adapted daily practices to meet new realities, and made strategic choices about political and economic alliances. This paper considers the role of household practices in shaping colonial period interactions at the community.

Olguín, Ivan (Ivan Olguín)

[210] *Una vista arqueológica general de las recientes investigaciones realizadas en el poblado de San Pablo Villa de Mitla, Oaxaca*

Como parte de las actividades realizadas dentro Centro INAH-Oaxaca, recientemente se han llevado a cabo rescatas arqueológicos en el área urbana del poblado San Pablo Villa de Mitla. De esta manera se ha logrado obtener una muestra de materiales arqueológicos que permiten continuar con la investigación de aquellas áreas del asentamiento prehispánico que han quedado sepultadas debajo del asentamiento actual fundado por los españoles en 1528, logrando así incrementar el conocimiento de la dinámica social del sitio. Por otro lado estos trabajos han servido para establecer estrategias de investigación dentro de la problemática urbana de la Zona Arqueológica de Mitla.

Oliver, James [33] see Snow, Susan R.
[280] Fifty Years of Archaeology at Valley Forge: The Interpretation of Washington’s Continental Army
Since the 1950’s archaeologists have been excavating encampment sites at Valley Forge. Following the metal detectors’ activity during this time, John Cotter utilized the site for his first forays into teaching historical archaeology at the University of Pennsylvania. Since then the author has led numerous investigations at several Brigade sites over the course of the last thirty five years. This paper will bring a holistic analysis to this research and discuss a plan for future work on the site.

Ortman, Anthony [185] see Nichols, Caitlin E.
Ortman, Anthony [185] see Corzo, Miguel

Orrego Corzo, Miguel [30] see Schieber de Lavarreda, Christa I.

Ort, Jennifer (University of Maine Orono) and Brian Robinson (University of Maine, Orono)

[268] Paleoindian Aggregation Patterns in Northeastern North America: Analysis of the Bull Brook Site, Ipswich Massachusetts
Paleoindian occupation sites in the Northeast are characterized by dense tool concentrations (loci) representing activity patterns and are an important measure of site size, organization and duration. The Bull Brook site in Ipswich, Massachusetts has 36 loci arranged in a ring-shape which has been speculated as representing either a repeated occupation over time, or an aggregation of several bands. Continuing analysis of artifact distributions combined with a reconstructed site map reveal contrasting activity patterns between interior and exterior portions of the ring as well as around the ring, contributing to the interpretation that the occupation represents a highly-organized, planned event.

Ortman, Scott (SFI/Crow Canyon)

[51] Precipitation, Temperature and Settlement in the Village Ecodynamics Project Study Areas
Long-term research by the Village Ecodynamics Project has resulted in detailed reconstructions of population dynamics for two portions of the northern U.S. Southwest. These two areas—the Central Mesa Verde region and the Tewa Basin—were densely-occupied by maize agriculturalists during the past two millennia, and these areas are also linked historically through migration. In this paper I examine the role of precipitation and temperature for the history of human settlement in these two areas, paying special attention to climate-forcing vs. climate-contributing models for the 13th century movement of population from Mesa Verde to the Rio Grande.

[272] First Chair [272] Second Organizer

Ortman, Scott [272] see Coffey, Grant

Ortman, Scott G. [272] see Varien, Mark D

Ortmann, Anthony (Murray State University) and Lee Arco (Washington University in St. Louis)

[2] Recent Excavations on Poverty Point’s Mound C
The smallest mound at the Poverty Point site, Mound C, is also one of the most unusual architectural features at the site. Mound C occupies a unique position on the landscape and was constructed—unlike any other mound at the site—as a series of platforms separated by thin accumulations of cultural debris. Previous excavations suggest these platforms provided surfaces for non-domestic, possibly ritual, activities. Recent excavation of a 6-meter profile near the center of the mound is providing insight into the function of the mound, the pace of its construction, and its relationship to the rest of the site.

[2] First Chair

Ortmann, Anthony [185] see Schwortz, Steve

Osborn, Alan (University of Nebraska-Omaha)

[132] Spurred flake gravers, eyed bone needles, and tailor-made skin clothing: Paleoindian responses to the Younger Dryas Cold Event
Spurred flake gravers have long been recognized as a component of early Paleoindian tool assemblages. Although several different functions of gravers have been proposed, little attention has been given to why these implements are restricted to the early Paleoindian period. Both archaeological data and recent studies of the Younger Dryas Cold Event (12,900-11,600 cal yr B.P.) support the functional arguments of MacDonald (1966) and Irwin (1970) that spurred flake gravers were used in the production of bone sewing needles. Eyed sewing needles were essential for the manufacture of skin clothing as an adaptive response to cold stress throughout much of North America.

Osborne, James (Harvard University)

[57] Feasting Scenes from the Near Eastern Iron Age: Cultural Insights from Elite Feasting Practices in the Syro-Anatolian City-State
Feasting scenes constitute one of the most aesthetically distinctive aspects of the Syro-Anatolian kingdoms, a collection of polities located in northern Syria and southeastern Turkey during the Iron Age (c. 1200-600 B.C.E). To date, analysis has tended to interpret the Syro-Anatolian feast as an act related to mortuary practices. This paper examines the contribution that recently excavated examples from sites like Zincirli Höyük and Tell Tayinat can provide to the scenes’ interpretation. While a mortuary connection remains clear in many cases, we argue that the Syro-Anatolian feast was one node in a broad and complex array of connected cultural meanings.

Osburn, Tiffany [17] see Bruseth, James

Ossa, Alanna (University of Pittsburgh) [54] First Chair [54] Second Organizer

Ossa, Alanna [54] see Wilson, Nathan D.

Ostahowski, Brian [279] see Ossa, Alanna

Ostapkowicz, Joanna

[165] Either a piece of domestic furniture...or one of their Gods: The study of Lucayan duhos
Duhos (ceremonial chairs) from the Bahamas and Turks and Caicos islands are among the largest and most complex examples of their kind to emerge from the Caribbean as a whole. A recent radiocarbon study of 14 examples in museum collections indicates that this uniquely Lucayan duho style emerged from about AD 1000, shortly after permanent settlements were
established on some of the islands. The speed with which this style appears, and its elaborate nature, hints at the importance of duhos early on in the development of a uniquely Lucayan material culture.

Osterholtz, Anna (University of Nevada Las Vegas), Debra Martin (University of Nevada Las Vegas) and Kathryn Baustian (University of Nevada Las Vegas)

[94] Determining MNI for Tell Abraq

Determining the MNI for the large number of commingled human remains from Tell Abraq in the UAE (c. 2000BC) required recording of both individual bones and bone features. This provided data on what elements were represented as well as those that were underrepresented. For example, the MNI for adults is 274 based on the right talus but 150 based on the distal left humerus. Variation in element representation can reveal cultural practices (secondary burial practices) and taphonomic variables (differential preservation). This method of analysis demonstrates the utility of using bone features when there are a large number of fragmentary remains.

[94] First Chair

Osterholtz, Anna [94] see Stodder, Ann L. W. [116] see Martin, Debra L.

Otarola-Castillo, Erik [84] see Burnett, Paul

Otarola-Castillo, Erik (Iowa State University), Dean Adams (Iowa State University), Scott Chumbley (Iowa State University) and Brent Danielson (Iowa State University)

[96] Morphometric Analyses of Bone-Surface Marks

Analyses of bone-surface marks resulting from sharp-force trauma are crucial to studies regarding the evolution of human subsistence. Most investigations rely on surface morphology to identify cutmarks and their patterning, discriminate these from non-human-behavioral processes, and identify the objects or agents responsible for making the marks. Currently various methods are employed to accomplish this. These approaches, however, are difficult to replicate, quantify, and compare. Consequently, cutmark morphological analyses and identifications have remained contentious over several decades. This study provides a novel analytical technique and a practical protocol to quantify bone-mark morphology, and statistically discriminate between marks created by different agents.

Otten, Sarah (University of Illinois, Urbana-Champaign)

[199] Death as Movement: Cahokia’s Ridge-top Mounds as Active Places

Ridge-top mortuaries are unique Cahokian constructions most commonly associated with buried bodies. However, drawing from Tim Ingold’s (2006) concept of entanglements, I argue that ridge-top mortuaries are part of a meshwork. Meaning, these places were not static earthen monuments to the dead, but instead were active spaces experienced through time as part of a larger meshwork of religion, death, and burial. Particularly, this paper focuses not only on the movement of peoples (both dead and alive) to and from these mounds, but on the diachronic aspect of ridge-tops as their histories and meanings moved through time.

Otterson, Katherine [141] see Hamilton, Nathan D.

Otto, Kristina (San Juan College) and Linda Wheelbarger (San Juan College)

[221] Ceramics at the Point Community Center, Middle San Juan Region, Northwestern New Mexico

The Point Site, an ancestral Puebloan great house, is situated along the San Juan River outside Farmington, New Mexico. The majority of ceramics recovered from San Juan College excavations at the site have thus far revealed a preponderance of Early Bonito phase (AD 900-1020) types, although site occupation extended from AD 800 to 1300. Analysis has revealed a large quantity of sherd or sand and sherd tempered ceramics contrasting with the local Middle San Juan dominance of granular igneous tempered ceramics associated with this time period. Ceramic wares are also evaluated with reference to the site’s apparent southern Chacoan influence.

Outram, Alan (University of Exeter), Adrien L. Hannus (Augustana College, SD), Richard Evershed (University of Bristol) and Landon Karr (University of Exeter)

[55] Understanding Organic and Inorganic Trade in the Initial Middle Missouri: A Case Study from the Mitchell Prehistoric Indian Village

The nature of inward trade in material culture to the Initial Middle Missouri site of Mitchell, South Dakota is examined. The evidence for bone grease production at the site is discussed, and the possibility that bison meat and fat products were used for outward trade is raised. The difficulty of obtaining direct evidence of organic trade is discussed. Pilot work on tracing the movement of organic trade products through the analysis of absorbed lipid residues in ceramics is outlined. Attention is given to ways of identifying sources of organics products as well determining their nature.

Overholtzer, Lisa (Northwestern University)

[267] Dwelling on the Past: The Materiality of Everyday Life at Xaltocan, Mexico

At Xaltocan, a site settled on top of a human-constructed island, the detritus of everyday life accumulated over the centuries to form the tell-like topography visible today. Within the site small house mounds resulted from ancient people living in the same spot for many years, rebuilding their houses over the remains of earlier houses. This paper examines the practical and cultural reasons that people enacted such reiterative practices. It also explores the material consequences of living where the physical remains of the past are ubiquitous on the landscape and household social space is shared across generations.

[267] First Chair

Ovilia Rayo, Gengis Judith (Arqueóloga) and Gilberto Hernández Díaz (Centro INAH Oaxaca)

[210] La vajilla prehispánica en la Zona Monumental de Atzompa durante la Epoque IIIB-IV.

Durante las cinco temporadas de campo realizadas en el Proyecto Arqueológico del Conjunto Monumental de Atzompa se ha explorado buena parte del área nuclear de este sitio prehispánico, donde se ha recuperado gran
Southeast Asian assemblages. Differential ablation in contemporaneous and later are discussed with reference to other instances of not accessible to children and young adults. Implications suggests an association with membership of a group(s). These dental motifs vary by sex, age and grave good focus on adult variation in tooth

Northern Vietnam are explored. Building on previous membership 3,500 to 4,000 years ago at Man Bac, University)

consumption among the Hohokam during the Classic period (A.D. 1150-1300). It is thus advocated that ceramic and textile evidence of Wari interactions with Osmore drainage populations from the sierra to the coast

The Wari intrusion into the upper Osmore drainage is nearly invisible at contemporary local settlements, perhaps in only certain segments of society or moments in time, and a previously undescribed Wari tapestry tunic was included in a burial in the coastal portion of the valley. While some of these finds may reflect curation or repurposing after Wari abandoned the drainage, collectively they suggest some limited exchange of prestige goods and probably their circulation within indigenous exchange networks.

Owens, Mary (Desert Archaeology Inc.)

[270] The Importance of Petrography for Interpreting Compositional Data: a case study of Tanque Verde Red-on-brown

Although petrographic analysis has now resumed a place of significance in ceramic research, its role in interpreting statistical patterns in compositional data is still undervalued. To illustrate the importance of petrography, a study of Tanque Verde Red-on-brown from Arizona is presented. Through the petrographic analysis of 37 samples, a large NAA data set of almost 700 samples has now revealed intricate patterns of production and consumption among the Hohokam during the Classic period (A.D. 1150-1300). It is thus advocated that projects with chemical data from ceramics should always include a component of petrography to clarify the meaning of compositional groupings.

[270] First Chair

Owensley, Douglas [168] see France, Christine

Oxenham, Marc [60] see Willis, Anna

Oxenham, Marc (Australian National University) and Hirofumi Matsumura (Sapporo medical University, Hokkaido, Japan)

[60] Social Identity, Group Membership and Tooth Ablation in Neolithic Man Bac, Vietnam

Aspects of personal identity in the context of group membership 3,500 to 4,000 years ago at Man Bac, Northern Vietnam are explored. Building on previous work investigating the articulation between palaeohealth and the social construction of childhood at Man Bac, we focus on adult variation in tooth-ablation patterning. These dental motifs vary by sex, age and grave good assemblage. The absence of tooth-ablation in subadults suggests an association with membership of a group(s) not accessible to children and young adults. Implications are discussed with reference to other instances of differential ablation in contemporaneous and later Southeast Asian assemblages.

Pace, Meghen [170] see DeHaven, Lydia S.

Pack, Robert [9] see Morgan, Chris

Padilla, Antonio (Ecological Communication Corporation)

[33] Excavation Results of 41BX256

During the fall of 2009 and summer of 2011 Ecological Communications Corporation (EComm) conducted archaeological investigations along the San Antonio River at site 41BX256. Original investigations of the site revealed a continuous occupation of the area from the Early Archaic Period to the Spanish Colonial Period. Based on findings from our original investigations, new investigations were proposed to further examine a questionable feature encountered in 2009. The paper presented will discuss our findings from the original investigations and the findings of our investigations conducted in 2011.

Padilla, Liliana [151] see Barrientos, Tomas J.

Paige, Bradley [109] see Peterson, David L.

Paines, Matthew (University of Arizona)

[260] Centrality and Household Economic and Political Success at a Thirteenth Century Hohokam Village

This research utilizes network analysis to explore household interaction patterns of a prehistoric Hohokam village, Cerro Prieto (ca. AD 1150-1300). In the parlance of network theory, groups of households are treated as nodes and interconnecting walkways as edges. This application employs multiple measures of centrality to gauge the effect of network position on household success. High centrality scores correlated with qualitative assessments of household economic and political success. The ability to control information and capital flows through the settlement network allowed a few households to disproportionately attract exterior members, coordinate communal labor to their benefit, or attain other specialized roles.

Paine, Richard (University of Utah)

[191] Reconstructing Late Classic Land Control at Copan, Honduras: a Demographic Test.

Land control is central to understanding ancient economic and political organization, but is difficult to reconstruct archaeologically. A demographic measure, the Shannon Index, and dated residential group occupations from Copan are used to test a hypothesis of land control, based on a post-classic K’iche’ model. Principal lineage heads at Ubatan controlled agricultural land, distributing it to members and receiving support for lineage houses. If Copan’s lineage heads controlled land, their households should have benefited materially as competition for land intensified after the valley was fully colonized. The Shannon Index measures demographic heterogeneity providing a means to quantify colonization.

Paiz, Lorena [30] see Arroyo, Barbara

Paiz Aragon, Lorena (Universidad del Valle de
Guatemala), Bárbara Arroyo (Museo Popol Vuh), Andrea Rojas (Universidad del Valle de Guatemala), Javier Estrada (Universidad de San Carlos de Guatemala) and Emanuel Serech (Universidad de San Carlos de Guatemala) [30] Santa Isabel And The South Part Of The Valley Of Guatemala In The Middle Preclassic Period With the presence of at least 13 mounds and one plain monument, Santa Isabel is one of the largest settlements in the Central Maya Highlands during the Middle Preclassic period. This paper will present preliminary results from a research project that is just starting and promises to contribute with data for the understanding of the southern Guatemalan Central valley. The role of Santa Isabel within the Chanchon area and the outskirts of the Guatemala Central Valley will contribute to our understanding of the Middle Preclassic period and the rise of complexity in the Maya Highlands.

[30] First Chair

Pal, Nélida [159] see Messineo, Pablo G.

Paling, Jason (University at Albany) [191] Leaving No Stone Unturned: Investigating Preclassic Lithic Production, Consumption, And Exchange At San Estevan, Belize And K’O And Hamontún, Guatemala This paper investigates the relationship between economic and political complexity through the examination of lithic procurement, production, consumption, and exchange among Late Preclassic (300 B.C. – 250 A.D.) households across Maya lowland political centers. The examination of household assemblages provides a means to not only determine the accessibility of long-distance luxury items, but also utilitarian and subsistence goods, within a society and to interpret the mechanisms for their appearance. A bottom-up approach is adopted that will gauge the participation of these households in local, regional and inter-regional exchange networks.

Palka, Joel (University of Illinois-Chicago), A. Fabiola Sanchez Baldaras (Proyecto Xanvil, Mexico), Rebecca Deeb (University of Illinois, Chicago) and Caleb Kestle Kestle (University of Illinois, Chicago) [233] Protohistoric Maya Households and Community at Lake Menzabak, Selva Lacandona, Chiapas Recent investigations revealed Late Postclassic to possible historic period (ca. A.D. 1400-1600?) Maya sites at Lake Menzabak, Chiapas, Mexico. Their small house platforms were not clustered around plazas as seen in the late Preclassic period (ca. 200 B.C. to A.D. 200). Instead, the Protohistoric Maya grouped their houses in linear arrangements around the lake rather than concentrating them in centers. Artifacts in these households are surprisingly homogeneous, including exotic pottery, obsidian, shell, and copper bells. Evidence points to household autonomy at Menzabak, with lineage and site function structuring the Protohistoric Maya community rather than political alliances and economic inequalities.

Pallan Gayol, Carlos (INAH, Mexico/University of Bonn, Germany) [242] Addressing Terminal Classic Interaction Dynamics within the Puuc-Maya Region through Epigraphic and Ceramic Correlations The notion of "Puuc" and many key concepts related to it call for revision. Rather than merely referring to a region of the Maya world or a stylistic set of traits, it should account for a set of underlying cultural processes that shaped corresponding manifestations. To this end we seek to correlate ceramic data with the rapidly-increasing number of hieroglyphic texts discovered in the Puuc, focusing on the interaction between major and secondary sites under the stress of a fragmented landscape conformed by competing ideological and political systems, diverse religious and military practices and increasing populations of shifting ethnical compositions.

Palmer, Amanda [18] see Lewis, Jennifer [207] see Marshall, Amanda L.

Palumbo, Scott (College of Lake County) [90] Evaluating the Relationships Between Precolumbian Surface and Subsurface Archaeological Deposits from Panama This paper describes simple methods to examine the associations between surface and subsurface sherd deposits. The relationships between surface and subsurface sherd densities are considered using linear regression analyses, and comparisons of the interpretive consequences of using surface or subsurface datasets are explored. The relative utility of using surface remains is illustrated by an archaeological site from a highland Panama. This paper argues that surface deposits do present variable advantages to researchers working in the tropics despite the depth of archaeological deposits or the effects of post-depositional processes.

[122] Discussant

Pantoja Díaz, Luis R. [58] see Zimmermann, Mario

Panyushkina, Irina (Lab of Tree-Ring Research, University of Arizona) [103] Climate change and demography of Bronze-Iron age agropastoralists in Central Asia While archaeological research in Central Asia documents the adaptation of humans to climate change by means of vigorous integration of economic strategies among ancient farming and herding populations, the evidence for how the evolving economy of agropastoralists related to the prehistoric demography remains obscure. We assembled multiple climatic proxies in Central Asia to evaluate possible implications of long-term and short-term climate variability to changes in fertility, mortality, and migration of the ancient population inhabiting the mountain-steppe landscape of Semirechya. This study investigates the temporal resolution and precision as well as the spatial scale of interconnected archaeological and environmental datasets.

Papirtis, Michael [53] see Daugherty, Sean I.

Pappas, Christina [71] see Mink, Philip B.

Paredes-Umaña, Federico (ATACO Archaeological Project) [19] The role of public monuments in the creation of ethnicity and political authority in Western El Salvador. Early power representations and the legitimation of
political authority in complex societies are examined using a new data set from Western El Salvador including sculptural traditions. The public use of a local sculptural style related to a non-institutional practice of magical power, together with early power representations depicting divine kings in early Maya attire may be the result of a series of strategies to gain political legitimacy over an area of 3000sqkm in Southeastern Mesoamerica during the Preclassic Period.

Pargeter, Justin (Center for Language and Culture, University of Johannesburg) and Marlize Lombard (Center for Language and Culture, University of Johannesburg)

[98] Stone-tipped projectile technologies: a multifaceted approach and South African perspective

The South African Middle and Later Stone Age records represent key signatures when researching the development of bow-and-arrow technology. These archaeological phases encompass several technological transitions spanning significant climatic changes, and are well-documented. Multianalytical approaches combining experimental, morphometric, use-trace, faunal and cognitive evidence, allow for improved understandings of ancient hunting technologies in the region. However, questions about the driving forces and variability as well as implications of the manufacture, use, possible discontinuation and re-introduction of bow-and-arrow technology remain. This paper synthesises current evidence for the production and use of bow-and-arrows in South Africa and offers new insights.

Parr, Elizabeth (University at Albany-SUNY)

[233] Household Autonomy and the Organization of Chipped Stone Tool Production in the Jovel Valley, Chiapas, Mexico

At the small hilltop sites of the Jovel Valley, the juxtaposition of broadly available local resources and scarce long-distance commodities allowed households to engage in complex chipped stone tool provisioning strategies that were strongly influenced by their sociopolitical networks. Nearby chert sources of varying quality provided plentiful resources for local producers and consumers, while obsidian from highland Guatemala was imported in the form of finished prismatic blades and prismatic blade cores. Many low-status households in peripheral residential zones retained a high degree of autonomy to provision their own households, while high-status houses reflect intensified chert tool production and access to non-local obsidian.

[233] Second Organizer [233] First Chair

Paris, Elizabeth [233] see Gallaga, Emiliano

Parish, Ryan (University of Memphis)

[127] FTIR reflectance spectroscopy analysis of Dover and Ft. Payne chert

Determining the source for artifacts manufactured from chert continues to be an important research objective commonly performed using visual identification and/or geochemical analysis on a subset of the sample. In some cases these methods have frustrated researchers due to overlapping variability both between and within outcrops. Potential errors in chert sourcing studies are compounded in areas where multiple procurement locations of macroscopically similar materials may be obtained. The use of Fourier Transform Infrared (FTIR) spectroscopy may provide a cost effective, fast, non-destructive, and accurate means to differentiate chert at both the inter- and intra-outcrop levels of analysis. [127] First Chair

Park, Douglas (Yale University)

[206] The Tombouze Model: Investigations into the seasonal urbanism at prehistoric Timbuktu, Mali 500BC – AD 1000

This paper explores human response to climate change and investigates how this interaction helped to form large-scale prehistoric urbanism in the Timbuktu region. The Tombouze Model endeavors to illustrate and explain a unique seasonal urbanism defined by a dense, multi-centric and corporate social landscape. The model is built upon the cultural mechanisms of sustainability, resilience and heterarchy. Data used in the presentation come from intensive archaeological investigation, climate study, oral history, and GIS analysis. The case at prehistoric Timbuktu demonstrates that West Africa can play a fundamental role in emphasizing the variable conditions under which prehistoric urban societies develop.

Park, Robert [127] see Milne, S Brooke

Parker, Bradley (University of Utah)

[230] Nationalism, the Production of Knowledge, and the Silencing of the Past

The number of media productions concerning archaeological investigations has increased drastically within the last decade. This development is not necessarily attributable to legitimate film documentaries, publications, or even fictional narratives, but to the rise of “reality” television programming on educational networks that depicts supposedly legitimate archaeological investigations. These programs serve as conduits through which dubious archaeological information is legitimized then transmitted to the general public, thereby affecting popular understandings of the past. This paper examines how pseudoarchaeological claims promulgated through these programs have gained traction among popular audiences and addresses how such influences can be mitigated in a mass-mediated culture.

Parker, Evan (Tulane University)

[56] The proliferation of pseudoarchaeology through “reality” television programming

This paper highlights a case in which archaeological evidence is not being harnessed, but rather silenced, in the name of nationalism and as an instrument in a current political conflict. It discusses how a politically charged interpretation of archaeological sites is contributing to the creation of nationalism, the hardening of territorial claims and the construction of national identity. To do so this paper documents the on-going active participation of archaeology in the creation of a political narrative by tracing the production of scientific knowledge around historical silences and politically motivated interpretations of the archaeological record.

Parkinson, William (Field Museum of Natural History), Attila Gyucha (Hungarian National
1996 al 2007, se aportaron datos estratigráficos, geoarqueológicos llevados a cabo en Cuicuilco desde Ramírez DEA [73] (INAH). Resultados indican continuidad cerámica y cambios en la decoración en el inicio de la etapa tardía. Las técnicas de manufactura de cerámica se asociaron con cambios en la decoración.

The origins of the Baden culture on the Great Hungarian Plain have long been questioned. To test the Baden migration hypothesis, ceramic petrography was used to describe and measure the paste characteristics of 114 sherds from the Körös region of Middle Bronze Age. The results indicated that changes in paste characteristics accompanied changes in ceramic form and decoration. The petrographic data were used to guide design changes and data recovery planning.

European archaeology is historically schizophrenic; grand syntheses of the entire continent are created through the narrow perspective offered through the excavation of individual sites. While such macro-scale syntheses are essential for the discipline of archaeology, they need to be tethered to specific regional and micro-regional studies. This paper discusses the long history of systematic, intensive, regional studies in the Carpathian Basin and how those earlier survey projects have facilitated more recent micro-regional studies that incorporate cutting-edge research techniques that only recently have become available. Together, these multi-scalar, diachronic, datasets constitute one of the richest archaeological records in the world.

An unusually high number of bear remains were recovered from the site, as well as a high number of ducks and wading birds.

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Recent Excavations at Vista Alegre: Stratigraphic Evidence of Landscape Modifications at an Ancient Maya Port

In conjunction with interdisciplinary research, archaeological excavations were conducted at the site of Vista Alegre in Quintana Roo, Mexico. While the initial goal of excavation was to recover previously identified human remains, this paper focuses on the stratigraphic record associated with the site’s Early Classic and Terminal Classic occupations. We investigate how these data correlate with our understanding of past coastal geomorphology, and what they reveal about the scale of landscape modifications undertaken during the Terminal Classic reoccupation of the site – particularly as it relates to the building-up of the island.

Paterson, Alistair (Uni of Western Australia) and Jo McDonald (University of Western Australia) [194] Past futures: rock art in Australia’s North West Western Australia has one of the world’s largest concentrations of rock art. This is a significant heritage-management issue for researchers, government, developers, and the public. For indigenous communities, rock art is one of a series of contemporary issues which include land claims and access to traditional country; the ability to manage cultural environmental and social values; heritage work; tourism potentials and impacts; relationships with government and resource-extraction companies; and debates about self-determination and indigenous futures. Here we review some of these issues through the ‘Connection to Country’ programme and the push for World Heritage Listing of the Dampier Archipelago.

Paterson, David B. [96] see Du, Andrew

Patterson, James (University of South Carolina), Tyler Hill (Georgia State University), Hazel Sanchez (Georgia State University) and Halle Stoutzenberger (Georgia State University) [227] Recent Excavations at Vista Alegre: Stratigraphic Evidence of Landscape Modifications at an Ancient Maya Port

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This paper investigates basic economic categories that are presupposed by archaeologists to connect archaeological data and to explain the sociocultural patterns and processes of change seen in the archaeological record of past societies. Its topical foci are the concepts of exchange, value, and money; its societal focus is the mission period of Alta California; its goal is to show how to use Marx’s concept of value and money to handle concrete archaeological and historical evidence from this era.

Pauketat, Timothy (University of Illinois) [198] Archaeologies of Religion and the Power(s) of Cahokia
Understanding 11th century history in the Mississippi valley begins with religion as experienced (not mythologized) through the movements of people and cosmic powers, seen and unseen. Not unlike Chaco, a Cahokian cosmos was embodied and emplaced through momentary intersections of powers that involved aligning buildings, posts, pilgrims, objects, and celestial happenings. I examine such intersections and alignments to explain both Cahokian citations of Mexican referents and Cahokia’s expansion into distant northern and southern lands.

[26] Discussant

Pauketat, Timothy [198] see Benden, Danielle M.

Paul, Kathleen (Arizona State University) and Michelle Butler (University of California Riverside) [181] Childhood, Ritual And Identity In An Early Classic Context At Charco Redondo, Oaxaca
Bioarchaeological analyses of children in mortuary contexts can inform interpretations of identity performance and meanings of childhood and its role within the community. This paper focuses on infants, children and adolescents (n=10) interred in an Early Classic communal burial area at the site of Charco Redondo, Oaxaca. The direct and indirect association of these burials with a midden may indicate that these individuals were recognized as active members of corporate groups. Material culture associated with childhood and ritual recovered from within the midden indicates that mortuary practices at Charco Redondo generated and strengthened children’s unique social roles and age identities.

Paunero, Rafael S. [231] see Skarbun, Fabiana

Pavao-Zuckerman, Barnet (University of Arizona) [25] Cattle Ranching Strategies at Mission San Agustín de Tucson
Cattle ranching was the predominant economic activity at eighteenth to nineteenth century Spanish colonial missions in the Pimería Alta. New zooarchaeological evidence excavated from Mission San Agustín de Tucson, by Desert Archaeology, Inc., yield further insight into animal husbandry practices, and the processing of cattle carcasses at missions in support of a regional market for tallow and tallow products. This research highlights the importance of Native American labor to the success of regional colonial enterprises, and the contribution of zooarchaeology to the development of colonial-period archaeology.

Pawlowicz, Matthew (University of Virginia) [142] Stable Isotope Analysis of Archaeological Sediments from Mikindani, Tanzania: Implications for Communities of the Southern Swahili Coast
Interactions between past societies and their environments have become important subjects for archaeological study. This paper presents the possibilities of one means of exploring the human/environment relationship – stable-isotope analysis of archaeological sediments – through a discussion of recent research from Mikindani, Tanzania. Over the past two millennia the inhabitants of the Mikindani region have wrought significant changes to their coastal environment as they have participated, to greater and lesser degrees, in the developments marking the emergence of Swahili Culture on the East African coast. Stable-isotope analysis provides important evidence of those changes, marking shifts in local plant communities.

Payne, Angie [194] see Weeks, Rex

Payne, Claudine (Arkansas Archeological Survey) [189] Defining the Nodena Art Style
The sculptured, painted, incised, and engraved pottery of the St. Francis Basin of the Middle Mississippi Valley merits the designation precolumbian art. As the term “Nodena” has historic precedence in this region, it seems reasonable to term this regional art style the Nodena art style. In this paper, I explore the characteristics of the art style, touching on time, space, artistic medium and execution, motifs, affective properties, artist, and audience. In so doing, I endeavor to provide a definition of the Nodena art style.

[189] First Chair

Paz, Victor [212] see Eusebio, Michelle S.

Pazmino, Audrey (University of Colorado at Boulder), Kathryn Putsavage (University of Colorado at Boulder) and Jeffery Ferguson (University of Missouri Research Reactor) [111] Obsidian Source Evidence for Regional Interaction Throughout the Southern American Southwest
The Black Mountain site (LA 49) of southern New Mexico is possibly the largest post-A.D. 1130 site in the Mimbres region and has a long occupation history starting around A.D. 550. After A.D. 1130 the Mimbres region underwent dramatic changes in material culture, demography, and social organization. The Black Mountain site’s role in these changes is shown through obsidian. Using X-ray fluorescence (XRF) we have sourced obsidian found at LA 49. These samples come from various quarries throughout the southern Southwest and provide one line of data being used to investigate regional interactions in that area.

Peacock, Evan (Mississippi State University) and Janet Rafferty (Mississippi State University) [241] Why Are We STILL Not Following the Principle of Representativeness in CRM?
In 1984, Dunnell's seminal work, "The Ethics of Archaeological Significance Decisions," presented an unassailable argument for why CRM should focus on variability in the archaeological record. Subsequent work by other scholars has highlighted the need to adopt a materialist, as opposed to an essentialist, framework in CRM. Despite these efforts, CRM continues as a biased enterprise that punishes innovation and rewards conformity, ignoring our obligation to future archaeologists and wasting taxpayer dollars along the way. We review the reasons for this continuing, unacceptable state of affairs, and, following Dunnell's lead, offer suggestions for how the CRM process might be improved.

Pearsall, Deborah (University of Missouri) [238] Discussant

Pearson, Charlotte L. [192] see Jordan, Kurt A.

Peate, David W. [138] see Waterman, Anna J.

Pechenkina, Ekaterina (Queens College of CUNY), Lei Sun (Henan Provincial Institute of Cultural Relics and Archaeology) and Xiaolin Ma (Henan Provincial Institute of Cultural Relics and Archaeology) [60] Bioarchaeological perspectives on Yanghsao/Dawenkou interaction on the Central Plains of China Between 5000 and 3000 BC, the Central Plains of China were the preserve of Yangshao, neighbored to the east by the Dawenkou culture. Around 3300-3200 BC, Dawenkou began to spread westward into northern Anhui and farther into eastern Henan. Using analysis of human skeletal remains excavated from Middle to Late Yangshao sites, we examine the consequences of this interaction for human health. Comparing assemblages from the core and periphery of the Yangshao territory, we document a marked increase in skeletal stress indicators, as well as unusual patterns of oral pathology at the peripheral sites.

Pedler, David (Mercyhurst Archaeological Institute), Allison Byrnes (Mercyhurst Archaeological Institute), Todd Grote (Eastern Michigan University) and Allen Quinn (Mercyhurst Archaeological Institute) [84] Spatial Analysis of Lithic Artifacts from Irvine Flats, a Prehistoric Site Complex on the Upper Allegheny River in Northwestern Pennsylvania Irvine Flats is a large floodplain and terrace complex located at the confluence of the Allegheny River and Brokenstraw Creek at the western boundary of the Allegheny National Forest in northwestern Pennsylvania. Twenty-three archaeological sites ascribing to the Early Archaic through Historic periods have been recorded in this 70 hectare area. An extensive surface survey recovered abundant lithic artifacts that appear to demonstrate continuous human occupation on relatively stable landforms since the early Holocene. Spatial analysis of the lithic artifact distribution was employed to identify temporal and functional artifact clusters which have implications for time-transgressive trends in site use.

Peebles, Giovanna (State of Vermont) [3] Discussant

Peeples, Matthew A. [260] see Mills, Barbara J.

Peniche May, Nancy (UCSD) and David Anderson (Tulane University) [19] Experimentation and Political Strategies: Xtobo and Xaman Susula in Preclassic Northwest Yucatan, Mexico Recent research at the neighboring Preclassic settlements of Xtobo and Xaman Susula in northwestern Yucatan suggests that local political actors were experimenting with strategies for consolidating power and influence in the region. Xtobo is one of the region's largest settlements and includes a traditional pyramid/plaza complex indicative of stratified sociopolitical power. Xaman Susula is a much smaller settlement located in Xtobo's periphery, yet excavations uncovered throne-room style architectural typically associated with high-level elites. This paper will explore the political strategies employed by the emerging elites of these settlements to better understand the development of Maya political strategies.

Pennycook, Carlie (University of Western Ontario, Canada), Christine White (University of Western Ontario), Victoria Domínguez (Instituto Nacional de Patrimonio Cultural (INPC), Ecuador), María Guevara and Fred Longstaffe (University of Western Ontario) [235] Pre-Columbian Diet and Health in the Quito Basin During the Integration Period This study combines stable carbon-, nitrogen- and oxygen-isotope data from human bones and teeth with palaeopathological and mortuary data from the Pre-Columbian Ecuadorian highland sites of Tajamar and NAIQ. These data demonstrate the existence of distinct diet and health patterns at each site. Both intra- and inter-site differences in the experience of illness and lifestyle are evident. Our findings corroborate previous isotopic studies in the highlands suggesting meat consumption was not elite status specific. In particular, it appears that maize contributed less to the diet of certain groups than the ethnohistorical evidence has given us to date.
Perdikaris, Sophia (Human Ecodynamics Research Center CUNY)

[86] Education for Sustainability: Islands of Change, a Circum Atlantic Example
The Islands of Change initiative connects interdisciplinary science with innovative approaches to science education and heritage outreach, connecting the two rural island communities of Barbuda, WI and Thingeyjarsveit, Iceland. Both are products of complex historical human/environment interactions which continue to affect their potential for future sustainability and both face the challenges of educating citizens and future leaders for resilience and nurturing young scientists with strong social commitment. This paper explores how Education for Sustainability helps create students with an awareness of social, economic and environmental concerns and provides them with a historic dimension to contextualize this understanding.

[165] Discussant

Pereira, Carla (California State University, Long Beach)

[214] Transmission Patterns among Late Prehistoric Potters of Mississippi River Valley Ceramics
Traditionally, measuring patterns for ceramic artifacts is performed by stylistic description that focuses on decorative markings and the method of manufacture. However, the temper’s stylistic components are rarely described or analyzed. As evidenced by the work presented last year, by examining the variation in size and shape of shell temper particles over time and space in late prehistoric Mississippian ceramics we can establish patterns of prehistoric transmission and manufacturing practices. This expanded study seeks to further understand the demonstrable relationship of size, shape, and style in the temper and surface decoration of Mississippian ceramics.

Pereira, Grégory [98] see Michelet, Dominique

Pereira, Tamiris Maia Gonçalves [277] see Silva, Rosicler T.

Pereira, Telmo (Universidade do Algarve)

[135] Raw material management as a response to local and global environmental constrains
Between OIS 8 and OIS 2, Southern Iberia faced important climatic changes, with major impact on available resources. In this changing scenario, one of the most reliable assets was raw material, due to its constant (e.g., highly predictable) presence on the landscape. Thus, it would be expected stable technological strategies through time. However, that is not the case and raw material management presents variation in time, culture, region and setting. In this paper, we focus on measuring those changes and reflects local and global environmental adaptations, stressing the differences between pre and post arrival of the Anatomic Modern Humans.

Pereira, Telmo [135] see Haws, Jonathan A. [135] see Bicho, Nuno

Peres, Tanya (Middle Tenn State Univ) and Aaron Deter-Wolf (Tennessee Division of Archaeology)

[159] Embedded: 4,000 Years of Shell Symbolism in the Southeast
Prehistoric peoples of the southeastern United States depicted their complex of beliefs on media including ceramic, stone, shell, and their own bodies. In this paper we focus on the use of shells as an artistic and ideological medium, and the cognitive behaviors that resulted in the selection of marine gastropods as an iconographic substrate. By the late prehistoric period, marine and freshwater shells were embedded with 4,000 years of physical and symbolic geography. We examine the use of shell to recall ancestral origins, sanctify the landscape, and legitimize power through the acquisition and display of symbolic exotic.

Peres, Tanya [144] see Altman, Heidi M.

Peresani, Marco, Rossella Duches (Università di Ferrara, Dipartimento di Biologia ed Evoluzione, Sezione di Paleobiologia), Nicola Nannini (Università di Ferrara, Dipartimento di Biologia ed Evoluzione, Sezione di Paleobiologia), Andrea Picin (Neanderthal Museum) and Matteo Romandini (Università di Ferrara, Dipartimento di Biologia ed Evoluzione, Sezione di Paleobiologia)

[202] Disentangling the significance of Discoid technology: first results of the last three field campaigns at Grotta di Fumane, Italy
This contribution presents the first results achieved from the excavation of layer A9, embedded in the final Mousterian sequence at Grotta di Fumane, North-Italy. The extensive investigation has brought to light evidence of key relevance for improving our knowledge over the Discoid lithic technology, a method largely used by Neanderthals in as many as different contexts in Europe. Basing our assumption on the techno-typological and functional data extracted from the study of the lithic and bone tools, and once integrated with the archaeozoological study, we try to infer the significance of the human frequentation in a so specific context.

Peresani, Marco [202] see Picin, Andrea

Pérez Cortes, Enrique [73] see Sugiyama, Nawa

Perez Cortez, Enrique [98] see Jimenez, Peter F.

Perrelli, Douglas (University at Buffalo, Archaeological Survey)

[45] Quarries and Camps: Raw Material Availability, Land Use and Lithic Technology in Western New York during the Archaic-Woodland Transition
The location of chert resources in western New York effects land use patterns and lithic technology. Places where chert resources correspond with navigable water create opportunities for chert acquisition at camp sites. Despite similarities of setting and resource availability, the acquisition and use of chert resources in these settings changes through time. Shifting patterns of lithic reduction at creek-side camps with abundant raw chert are evident during the Archaic-Woodland transition. Material patterns demonstrate that factors like mobility, land use and social structure are more important determinants of lithic technology than raw material availability and setting.

Perri, Angela (Durham University)
North Carolina's coastal plain. Our investigation of bodies (N=16) left in wooded areas in the remain undetected for considerable periods of time. Here human remains depicted in a rural nature of eastern North Carolina means that areas in eastern North Carolina [14].

Perry, Megan [139] see Souther, Lauren A.

Persons, A. Brooke (Virgin Islands State Historic Preservation Office), John Cornelson (National Park Service), Jessica McNeil (National Park Service) and Meredith Hardy (National Park Service) [193] Archaeological Investigations at Great Pond, St. Croix, US Virgin Islands
This presentation discusses the results of recent investigations at the Great Pond Archaeological Site, an elongated, multi-focus residential site that abuts a large salt pond and extends along the southeastern shore of St. Croix in the US Virgin Islands. The site's long occupational history extends from the late Saladoid through the Elenan Ostionoid period and is evident in a series of shell middens and residential contexts along the coastline. Geophysical survey (Ground Penetrating Radar) and recent excavations have yielded new data regarding the early Ceramic Age settlement of the island.

Persons, Brooke [276] see Bello, Charles A.

Perru, Tim [72] Discussant [17] First Chair

Perru, Timothy [17] see Girard, Jeffrey S.

Pestle, William (University of Illinois at Chicago) [193] In Death as in Life: Mortuary and Isotopic Variation in Ceramic Age Puerto Rico
Through diverse aspects of burial treatment, a community commemorates real or imagined aspects of a deceased person's character and accomplishments, as well as their group identity. In this paper, I examine variation in diet, as reconstructed by stable isotope analysis, and mortuary treatment as observed in burials from the Ceramic Age Puerto Rican sites of Paso del Indio and Punta Candelero. I argue that aspects of this variation, in both the food consumed in life and the treatments afforded in death, flows from the different statuses occupied by the deceased individuals in life. 

[193] First Chair [193] Second Organizer

Pestle, William J. [29] see Torres-Rouff, Christina

Peters, Ann (University of Pennsylvania Museum) and Elsa Tomasto (Pontificia Universidad Católica del Perú) [195] Textile production, exchange, accumulation and display: Forms and expressions of power in the Paracas Necropolis
Ongoing research on Paracas Necropolis gravelots has generated proposals regarding gendered social roles and assertive leadership in interacting communities associated with the Paracas and Topará ceramic traditions, c. 2000 BP. We compare artifact types in biologically male and female burials; sequence and complexity in the post-mortem construction of these conical, layered, “dressed” mortuary bundles. Reconstructing full assemblages permits comparisons of
formal variation within and among mortuary assemblages, suggesting that textile exchange played a role in reproducing social networks. Regalia indexing ritual roles and incorporating mythic referents is correlated with evidence for lifetime achievement and participation in high-risk activities.

Peterson, Christian (University of Hawai‘i at Manoa) [190] Distinguishing Kinds and Assessing Degrees of Inequality in Household Artifact Assemblage Data
The observation that societies exhibit inequality of different sorts is often used to steer clear of the interpretation that some are more unequal than others. The concept of heterarchy, for example, avoids the imagined implications of inferiority conjured up by ranking societies along a continuum of inequality. Such approaches unfortunately shift our attention away from scales of measurement toward qualitative and even typological differences between societies. A consistent means of distinguishing between different kinds of inequality as well as assessing greater and lesser degrees of inequality is required. The analysis of household artifact assemblage data provides just such a means.

Peterson, Cynthia [67] see Doershuk, John F.

Peterson, David (Idaho State University), Pavel Kuznetsov (Samara State Pedagogical University), John Dudgeon (Idaho State University), Bradley Paige (Idaho State University) and Monica Tromp (Idaho State University) [109] Microstructure and trace element composition of Late Bronze Age gold work from Late Bronze Age burials in the Middle Volga (Samara, Russia, ca. 1800-1700 BC): Investigation of diffusion bonding and sources
Three spiral ornaments with electrum foil covering bronze cores were recovered from burials in the Nizhnaya Orylyanka and Spiridonovsk II kurgan cemeteries in Samara, Russia (1800-1700 BCE). Analysis of sections through these objects detected variable enrichment of gold and silver in portions of the foil, raising the possibility that a gliding technique known as diffusion bonding may have been used in making them, which is previously unknown in metalwork from the region. SEM-EDS is utilized in further evaluating the possibility of diffusion bonding, and ICP-MS is applied in the first trace element analysis of ancient gold from the Middle Volga.

Peterson, Emily (University of Washington) [95] Interisland Exchange in Island Southeast Asia: Insights from the Banda Islands, Maluku, Indonesia
The role of interisland exchange and interaction in the spread of ceramic technology and domesticated animals through Island Southeast Asia (ISEA) has been the focus of much discussion. However, relatively few provenance studies have provided the kind of direct evidence that is needed in order to characterize these networks, especially for eastern ISEA. Results of LA-ICP-MS analysis of pottery and stable isotope analyses of pig's teeth from sites in the Banda Islands, eastern Indonesia demonstrate that from the earliest appearance of these materials, exchange networks connected the inhabitants of these small and geographically isolated islands to other populations.

Peterson, Jane (Marquette University) [105] Diverse lives: Neolithic women in the Near East
The rise of agriculture is frequently conceptualized as a fundamental turning point for humanity. The changes that women experienced across the transition to agropastoral lifestyles have often been interpreted as the results of far-reaching, homogeneous processes with similar biocultural trajectories and outcomes. In light of accumulating data, methodological innovations, and shifting theoretical influences I advocate for a more "local" scale of analysis. Data suggest that the roles and responsibilities of Neolithic women may have been quite diverse across the Levantine Near East.

Peterson, John (University of Guam) [182] Landscape evolution in Cebu, central Philippines: the impact of sea level, social history, and tectonism on cultural landscapes
Landscape formation is often discontinuous, and cultural landscapes may be fragmented and found in chronological and spatial mosaics rather than continuous progressions. Two periods of human occupation in the Carcar area of the central Philippines are discussed relative to these effects. A flank-margin cave, Marigondon cave, formed in the submarine 20 meter reef platform when subaerial in the period from 80,000 to 12,000 ybp. In the period 2,000 to 5,500 ybp a high sea still-stand altered coastal terrain. These two contexts for human settlement are situated in the complex mosaic of the present geography of Cebu.

Peterson, Staffan (Indiana University - Bloomington) and Cheryl Ann Munson (Indiana University - Bloomington) [239] A Revised Chronology for Yankeetown, Angel, and Caborn-Welborn Cultures in Southwestern Indiana and Adjacent States.
This paper summarizes the current chronological database for Yankeetown, Angel, and Caborn-Welborn phases present in the area of the confluence of the Ohio, Wabash and Green Rivers between AD 900 and 1650. We relate these data to competing models of regional cultural change. Using Bayesian analyses we suggest beginning and end dates for the three cultures. Older sequentialist conceptions of cultural change emphasized a blank slate for Angel after Yankeetown and a Mississippian succession from Angel to Caborn-Welborn. We suggest that after AD 1000, migration, fission of Mississippian groups, and contemporaneity of populations with different cultural identities are better supported.

Peterson, Staffan [239] see McGill, Dru

Peterson, Veronica [60] see Pike-Tay, Anne

Petinaris, Lydia (Missouri State University) and David Byers (Missouri State University) [141] Judy's Cave: A Woodland Period Cave Site in Southwest Missouri
Over the past three years, Missouri State University, in cooperation with a private landowner, has conducted excavations at the School House Rock site complex in Wright County, Missouri. Most of these investigations have targeted a small rockshelter site named Judy’s
Cave. Situated near the Woods Fork of the Gasconade River, the site contains approximately one meter of stratified archaeological deposits that have produced a rich collection of Woodland Period lithic and ceramic materials, as well as a substantial faunal assemblage. This poster presents the results of a faunal analysis emphasizing quantification of the abundant deer remains from the site.

Peto, Ákos [113] see Logan, Melissa K.

Peuramaki-Brown, Meaghan (University of Calgary), W. James Stemp (Keene State College) and Tristan Carter (McMaster University) [61] Green Obsidian Circulation and Consumption Among the Ancient Maya of Belize
Recent EDXRF characterisation of obsidian artefacts from the Maya site of Buenavista, Belize documented a small quantity of green (peralkaline) obsidian from the Pachuca source in Mexico. This highly distinctive material represents a small but significant component of assemblages in Belize, particularly within Early Classic deposits. This paper reviews the larger regional data, discussing the importance of such material with regards to colour, origin and political networks, resulting in a prestige evidenced by the often special nature of the artefacts and associated contexts. Distribution patterns are examined with regard to ancient trade networks in addition to site-specific excavation trends.

Pevarnik, George (Temple University) [174] A Petrographic Reappraisal of Pottery Aplastics: Some Theoretical and Methodological Implications for Analysis and Interpretation
Multiple petrographic analyses of Native American pottery from the Delaware Valley demonstrate that macroscopic methods commonly used to identify mineral inclusions are often insufficient. The data suggest that a theoretical framework used to construct types/typologies is inadequate because it does not account for compositional variability (i.e., clays and temper/aplastic) that is the product of differential resource availability related to production location. The theoretical and interpretive potential of future pottery analyses are discussed and used to demonstrate how these methods may serve as an indicator of varied social processes that are not tangible using traditional approaches.

Archaeologists describe lithic raw material availability in terms of quality, abundance, and package size. These characteristics affect decisions concerning reduction strategies and tool production. This paper explores how raw material constraints influence reduction strategies when toolstone is abundantly available, but of very poor quality. We present information gathered from Site 8TA452, a prehistoric quarry on the FGT pipeline corridor in north Florida. The Coastal Plain chert available at the site contains botryoidal and fossiliferous inclusions that limit the volume of knappable material per package. Refit and experimental studies were used to interpret how these raw material constraints were mediated. [279] First Chair

Pevny, Charlotte [100] see Carlson, David L.

Pezzutti, Florencia (Colorado State University) and Anna Cohen (University of Washington) [91] Ancient Landesque Capital: Exploring Built Environments through Remote Sensing in the Lake Pátzcuaro Basin, Michoacán, México
The creation and maintenance of the engineered environment forms a critical component of ancient statecraft. We highlight the spatial/temporal distribution of landesque capital during the Postclassic period (A.D. 1000-1520) within the Lake Pátzcuaro Basin, Michoacán, Mexico using satellite imagery, LiDAR, and full-coverage survey. Here we argue that landesque capital landscapes were critical to the formation of the Purépecha (Tarascan) Empire.

Phillippi, Bradley (Northwestern University) [240] The Economy's Role in Imperial Transitions: An Archaeological and Historical Example from New Amsterdam and New York
The relationship between colonialism, mercantilism, and nascent capitalism has been and continues to be an insightful line of inquiry in historical archaeology. The preservation of economic policies and practices in colonial transitions despite the usurpation of one imperial power by another is the subject of this research. Historical and archaeological evidence from a seventeenth-century city block in New Amsterdam is used to understand on a macro level how and why English soldiers were able to confiscate New Netherland from the Dutch in 1664. The implication of this research for understanding modern conflict between nation states is also discussed.

Phillips, Erin (University of Alabama) [196] Seriating Designs Engraved on Pottery in Moundville's Hemphill style
In this paper, I will discuss the qualitative methods, process, and usefulness of seriating designs from engraved pottery executed in the Hemphill style. The Hemphill style (1300-1450) is Moundville’s representational art style which depicts such subjects as a winged serpent, crested bird, raptor, bird tails, hand and eye, and centering symbols. The resultant phylectic seriation divides the style into three style phases, Early Hemphill, Middle Hemphill, and Late Hemphill.

Phillips, Kelly (University of Wyoming) [83] Solutrean Seal Hunters: Deconstructing Assumptions of the Solutrean Hypothesis
Perceived technological similarities between Solutrean and Clovis have resulted in a theory suggesting the two are historically related. Proponents of this theory inherently assume that there would have been a viable sea ice route, probable cause to embark on such a route, and that the Solutrean would have possessed the behavioral and technological adaptations necessary to survive the journey. Through the use of a computer simulation which employs paleoclimatic, paleobiological, and ethnographic data, this research systematically assesses these assumptions and reveals that a Solutrean transatlantic expansion during the Last Glacial
Maximum would not have been feasible.

Phillips, S.
[153] The Influence of Social Networks on Patterns of Prehistoric Obsidian Raw Material Procurement in the Kuril Islands of the North Pacific Ocean
The Kuril Islands, located in the North Pacific Ocean between the northern Japanese island of Hokkaido and the Russian Kamchatka peninsula, contain no native sources of high-quality obsidian, yet obsidian stone tool artifacts are found throughout the island chain. Geochemical data indicates that obsidian from both Hokkaido and Kamchatkan sources was transported into the Kuril Islands, but that the contribution of obsidian raw material from the two source areas changed significantly through time. The transition in source use suggests differences in the social networks that facilitated obsidian material procurement that were associated the culture groups that occupied the island chain.

Phillips, Shaun (Statistical Research, Inc) and Phillip Leckman (Statistical Research, Inc.)
[183] Trail Use and Context in the Southern Jornada Mogollon Landscape
Previous research in the Jornada region of south-central New Mexico and west Texas demonstrates the presence of prehistoric trails and footpaths apparently connecting residential locations to logistic activity areas. These trails are recognized from linear patterns of ceramic sherd and features. Eight of these trails have been identified on Fort Bliss Military Reservation in various physiographic settings. Integrating these trails into a landscape context within larger settlement systems enables investigating questions about mobility, trail chronology and orienteering, as well as defining connections between sites. This paper addresses these topics with several recently identified trails on Fort Bliss.

Philmon, Kendra (Florida Atlantic University), Douglas Broadfield (Florida Atlantic University), Michael Harris (Florida Atlantic University) and Peter Ferdinando (Florida International University)
[139] A comparative study of treponemal disease in the tibiae of two south Florida archaeological populations: Fort Center (8GL12) and Highland Beach (8PB11)
We assessed and compared the prevalence of treponemal disease in skeletal samples from two south Florida Woodland archaeological sites. Specifically, we macroscopically evaluated the frequency and severity of periosteal lesions, osteomyelitis, and bowing in dry tibiae. We predicted that the higher status inland population from Fort Center would have a lower incidence of disease than the relatively lower status coastal population from Highland Beach. Our results confirm this prediction. In sum, we found a disease incidence frequency of 0.62 in the Highland Beach sample, compared to 0.15 in the Fort Center sample, a conclusion that validates our biocultural approach.

Picard, Jennifer (University of Wisconsin-Milwaukee)
[187] Excavations in Aztalan's Riverbank Midden: A Record of Material Culture
Excavation of a 3-m-X-2-m trench through the riverbank midden at Aztalan has provided new stratigraphic information about the site. In particular, Feature 8, a deposit of ash and burned earth within the midden has yielded a dense cultural assemblage including lithic debris, shell-tempered pottery, bone, and shell. This feature also contains a relatively high frequency of cut copper pieces. Although copper has been recovered from earlier excavations at Aztalan, precise provenience and contextual data related to use and discard of this material is often lacking. Analysis of the Feature 8 assemblage may help to resolve some of these issues.

Picha, Paul (State Hist Soc of North Dakota) and Carl Falk (PaleoCultural Research Group)
[186] Curved Technology: Elk Antler Bow Production and Use in the Middle Missouri Subarea
Elk antler bows are reported among the Mandans and Hidatsas of the Middle Missouri Subarea. Ethnographic accounts and accompanying artwork describe and illustrate them, while nineteenth-century ethnographic collections document at least one example. Archaeological specimens are rare. A production-based analytic framework for antler technology guides identification of the antler bow in the regional archaeological record. Recent investigations in the Heart River region of North Dakota provide evidence of the production of antler tools and decorative items. Models of artifact production, use, and discard are strengthened with the addition of elk antler technology to the material roster.

Picin, Andrea (Neanderthal Museum) and Marco Peresani (Università di Ferrara, Dipartimento di Biologia ed Evoluzione, Sezione di Paleobiologia)
[202] The emergence of Levallois technology in the western Mediterranean
The introduction of Levallois method in Europe was an asynchronous event of reorganization of the local core technology. This new concept of flake production followed diverse regional patterns with chronological differences between the northern European territories and the western Mediterranean. In this paper the lithic assemblages of unit VIII and unit VII of San Bernardino Cave (Italy) are presented. These assemblages are dated with ESR and U/Th methods respectively to MIS 7a and the beginning of MIS 6. The technological analyses detected the appearance and the development of Levallois method.

Picin, Andrea [202] see Peresani, Marco

Pickard, Catriona [75] see Bonsall, Clive

Piedrasanta, Ron [66] see Doyle, James A.

Pierson, James M. [254] see Wright, David K.

Pike, Matthew (Indiana University-Purdue University-Indianapolis)
[184] Beyond the Palisade: Using geophysical remote sensing techniques to investigate life outside the walls at Angel Mounds
Geophysical remote sensing and landscape approaches to archaeological interpretation have the potential to increase our understanding of the Mississippian world, in particular the lower Ohio River valley and Angel Mounds. A magnetometer survey was conducted on 7.11 hectares of land just outside of the palisaded village, identifying areas of magnetic anomaly. Previous excavation in the
area from 1939 has shown prehistoric use of the area, and further analysis of these collections will be conducted to assist in interpretation. Through this analysis, we can interpret the role that the surrounding areas would have played in the life of Angel Mounds inhabitants.

Pike-Tay, Anne (Vassar College), Xiaolin Ma (Henan Administration of Cultural Heritage, China), Minghao Lin (Cambridge University), Kate Czechowski (Vassar College) and Veronica Peterson (Vassar College) [60] “You are what you eat”: New evidence for pig domestication in Henan, China

Dental remains of Sus scrofa from ritual pits H160 and H208 of Longshangang Neolithic site in Xichuan County, Henan are analyzed for evidence of domestication. Three methods of dental analysis are discussed: odontochronology, tooth wear assessment, and linear enamel hypoplasia (LEH) assessment, which provide age at death, season of slaughter and season of birth data. The LEH height frequencies on the second molars of the mandibles correspond with the possibility of double farrowing, an indication of a high degree of human manipulation of suids. This conclusion is supported by the season-of and age-at-slaughter data.

Pikirayi, Innocent [108] Projecting Power: stone architecture as an expression of political ideology in the Zimbabwe tradition, AD 1280 – 1830

Architecture has always played an important role in public life. Whether in homage to an individual or as a monument to an institution or ideology, architecture has always been a potent symbol of wealth, status and power. For the stone structures of the Zimbabwe Tradition architecture represents a powerful form of expression, reflecting agendas and needs of the ruling elite. Construction of political power during the time of Great Zimbabwe and Khami was ideological, and epitomised through stonewalled architecture. Great Zimbabwe and Khami type architectural styles express two competing political ideologies, critical in understanding state dynamics on the Zimbabwe plateau.

Pillsbury, Joanne (Dumbarton Oaks) and Miriam Doutriaux (Dumbarton Oaks) [152] Incidents of Travel: RW Bliss, Panamericanism, and the Idea of the Pre-Columbian

In 1935, Robert Woods Bliss, a former ambassador to Argentina, hired two archaeologists to explore the remains of ancient Maya sites. Fuelled by the revelations of Carnegie Institution excavations and dedicated to the concept of Panamericanism, Bliss returned to the U.S. intent on increasing awareness of the Americas’ pre-Hispanic past. Up to that time, Pre-Columbian objects had been in the domain of natural history museums, but Bliss believed that it should be displayed in art museums alongside European painting and sculpture. In pursuing this goal, he transformed the public perception of the Pre-Columbian in the postwar era.

Pimentel, Gonzalo [29] see Torres-Rouff, Christina

Pink, Christine (The University of Tennessee) and Rebecca E. Bria (Vanderbilt University) [29] Mortuary ritual at the Hualcayan site in the Callejón de Huaylas, Peru.

Presently the Callejón de Huaylas is a relatively understudied region in the north-central highlands of Peru. During the 2011 field season, the hillside cemetery at Hualcayan was excavated to elucidate population structure and mortuary practices of the resident population. This study focuses on a highly visible machay tomb that included an in-situ burial, and dates to the Middle Horizon (750–1000 AD). The machay is considered in the context of an ongoing survey of the extensive cemetery at Hualcayan. These results provide preliminary insight into the demography, health, mortuary ritual, and social complexity of inhabitants during the Middle Horizon.

Pink, Christine [5] see Witt, Rachel G.

Pintar, Elizabeth (Austin Comm. College), Jorge G. Martinez (ISES-Universidad Nacional de Tucuman, Argentina) and Michael D. Glascock (Archaeometry Laboratory-University of Missouri Research Reactor) [112] Obsidian Acquisition Strategies in a High Elevation Desert in NW Argentina

We present the results of XRF analyses on obsidian projectile points and debitage from two multi-assemblage hunter-gatherer sites in the Salt Puna so as to explore the use of various obsidian sources during the Altithermal (8000 – 6000 BP). What effect did the increasing aridity have on the mobility patterns of foraging groups, and thus on obsidian acquisition and use? First, we consider paleoenvironmental and sourcing data as means to discuss the relevance of the location and distance to these multiple sources. Last, we examine residential and logistical mobility during this arid trend.

Piper, Philip [212] see Eusebio, Michelle S.

Pires, Ana Elaisabete [157] see Detry, Cloia

Piscitelli, Matthew (University of Illinois-Chicago) and Sofia Chacaltana Cortez (University of Illinois at Chicago) [77] Using LA-ICP-MS to Observe Imperial and Local Political Dynamics in the Upper Moquegua Valley during Inca Occupation

Through the identification of trace elements, geochemical analysis reveals chemical signatures for different geologic sources. The purpose of this study is to present the results of LA-ICP-MS analysis conducted on ceramic samples collected from Late Intermediate Period (1,000-1,450 A.D.) and Late Horizon (1,450-1,532 A.D.) sites in the Moquegua Valley, Peru. This study will provide information about the types of interactions among local groups inhabiting the valley before, during, and after the Inca presence in this region. This research will also help to understand ceramic production and distribution among communities in the region and to elucidate interactions between ethnic groups. [10] Discussant [77] First Chair

Plimpton, Christine (Archaeological Investigations Northwest (AINW)) [240] Freedom of Movement: A Syntactic Analysis of American Domestic Space Use from the Colonial Period to the Present

Syntactic analysis is a methodology that elucidates the
cognitive rules of space use, a determinant of culture, which is reflected in the built environment. One aspect of syntactic analysis is permeability; the ease of movement between spatial units and with the outside. A syntactic analysis focusing on permeability was conducted on floor plans of American homes from the Colonial period to the present. Consistently, American dwellings have ease of movement through multiple routes between various spatial units and with the outside.

Plog, Stephen (University of Virginia) [47] Discussant

Plog, Stephen [164] see Martin, Worthy N.

Pluckhahn, Thomas (University South Florida), Victor D. Thompson (The Ohio State University), W. Jack Rink and Brent R. Weisman (The University of South Florida)

Stepped Pyramidal Mounds of the Woodland Period in the Southeastern United States

Archaeological investigations at sites on the Gulf Coast of Florida revealed evidence for the construction of stepped pyramids comprised of shell. At Roberts Island, stepped construction was definitively identified in strata from a trench excavation, and was dated to the Woodland period, ca. 1000 B.C. to A.D. 1050. Geophysical survey at the nearby Crystal River site supports the inference of similar construction for at least two additional mounds dating to the same period. This is the first discovery of stepped pyramidal construction in North America north of Mexico, and suggests greater sophistication in architectural planning and execution than commonly recognized.

[124] First Chair

Pluckhahn, Thomas [209] see Zarger, Rebecca K.

Plunket, Patricia (Universidad de las Americas Puebla) [73] First Chair

Plunket, Patricia [73] see Robles Salmerón, Amparo

Pohl, Mary D. [167] see von Nagy, Christopher L.

Pohl, Mary (Florida State University), Christopher von Nagy, Shannon Weatherby (Florida Department of Transportation) and Maria Tway (University of Texas-Austin)

Olmec Ceramic Figurines from the LaVenta Polity

This study seeks to understand the context of Middle Formative Gulf Coast Olmec use of ceramic figurines. The presentation examines the relationship between ceramic figurines from the paramount site of LaVenta in the Smithsonian Institution collection and its client site San Andrés located 6 km away from the mother center. We analyze the figurine styles and themes and focus particularly on the disposition of the figurines and their fragmentary condition. We compare treatment of the ceramic figurines to figurines made from precious materials such as greenstone.

Pohl, Mary D. [167] see von Nagy, Christopher L.

Pohl, John (ucla)

The Sorcerer's Cosmos: Reconstructing Codex Aubin 20

Codex Aubin 20 preserved in the Bibliothèque Nationale, Paris fuses elements of both Mixtec and Nahua codices and probably originates from the intermediate region lying between northern Oaxaca and southern Puebla where social and religious ideologies were intentionally blended in ritual, art, language, and culture to satisfy differing social agendas. The single sheet of painted deer hide portrays five couples composed of the Maquiltonaleque and the Cihuateteo, the supernatural patrons of the diviners, healers, and mid-wives who used the deer hide sheet to invoke the spirit forces of the four cardinal directions and the sacred center.


Pluckhahn, Thomas [209] see Zarger, Rebecca K.

Pohl, Mary D. [167] see von Nagy, Christopher L.

Plumley, Patricia (Indiana University of Pennsylvania), Marion Smeltzer (Indiana University of Pennsylvania) and Brandon Foster (Indiana University of Pennsylvania)

Humans and Pleistocene megamammals in the Pampean Region

One hundred years ago Florentino Ameghino and Ales Hrdlicka debated the chronological overlap between humans and Pleistocene megamammals in the Pampean region. In the past 20 years, abundant archaeological and radiocarbon data have demonstrated that hominins and megafauna coexisted in this region for several millennia. Here we present new AMS results from purportedly young megamammar remains and some of the human bones used in Ameghino's original studies. These new results allow us to better estimate the time of
overlap between humans and Pleistocene fauna and to re-evaluate hypotheses about their interaction in the Pampean region.

Politis, Gustavo [8] see González, Mariela E.

Polk, Michael (Sagebrush Consultants, L.L.C.) [48] Discussant

Pollack, David (Kentucky Archaeological Survey) and Gwynn Henderson (Kentucky Archaeological Survey) [239] One or Two? Picking Apart Fox Farm’s Middle Fort Ancient Occupational History
Fox Farm is an intensively occupied, 15 ha site situated on an upland ridgetop in northern Kentucky. It contains at least three Middle Fort Ancient (A.D. 1200-1400) circular midden stains. These stains may represent one community’s cycle of village establishment/abandonment at this locality or a series of short-distance moves. It is also possible that by the end of the middle Fort Ancient, the community consisted of two circular villages, each with its own plaza. This paper explores the possibility that population aggregation at Fox Farm led to new leadership roles and set the stage for the post-A.D. 1400 Madisonville Horizon.


Pollard, Helen (Michigan State University) [19] Ruling ‘Purépecha Chichimeca’ in a Tarascan World
The royal dynasty of the Tarascan State was similar to many other ruling lineages of the Central Mexican Postclassic in crafting their founding culture hero, here named Tariacuri, as a product of a local purépecha elite and an in migrating northern Chichimec chief. The legendary history presented in the Relación de Michoacán (1538-40) then justifies the dynasty’s legitimacy to rule by appealing to their ‘foreignness’ or their ‘purépecha-ness’ depending on circumstances. This paper will consider the archaeological and ethnohistoric evidence for this dual-heritage and the political strategies used by the Tarascan elites to both distinguish themselves from the commoners they rule and at the same time be seen as supporting them politically, economically, spiritually, and as ‘true’ purépecha.

Polom, Ulrich [93] see Lang, Joerg

Polyak, Victor [208] see Aquino, Valorie V.

Ponntin, Rute de Lima [277] see Silva, Rosicler T.

From Ceramic Ecology and Cultural Process through Social Change and the Evolution of Ceramic Production and Distribution in a Maya Community, Dean Arnold’s work has profoundly influenced interpretations of ancient craft production systems in general, and pottery production in particular. This paper highlights Arnold’s past and continuing contributions through an examination of changes in the ecology, technology, and organization of pottery production and distribution in southern Veracruz, Mexico.

[54] Discussant

Pool, Michael (Austin Community College) [36] How Far Is Too Far? An Examination of the Early Mogollon Settlement System
Over the last 40 years, Mogollon researchers have questioned whether the combination of cultigens, pottery, and architecture necessarily implies sedentism. If the settlement system was non-sedentary, then what form would it take? Would it exploit local variations in the spatial and temporal distribution of resources or would it extend over longer distances? This poster examines this issue by using an energetic model and GIS to determine the distance of the point of no return in utilization of resources. The main advantages are speed (several hundred artifacts may be processed in a single day), the reusability of the raw data for different purposes, and the ability to simultaneously produce, with proper lighting, high-quality visual documentation.

Pop, Cornel (University of British Columbia) [84] A flexible image-based method for lithic analysis
A fast and simple method for automatically performing a series of measurements on multiple lithic artifacts at once is proposed. The method relies on image analysis and is shown to produce metric data that is accurate when applied to a random sample of archaeological material. It requires a simple setup consisting of a high-megapixel DSLR camera, a tripod, graph paper, and freely available software. The main advantages are speed (several hundred artifacts may be processed in a single day), the reusability of the raw data for different purposes, and the ability to simultaneously produce, with proper lighting, high-quality visual documentation.

Pope, Kevin [167] Bruce Dahlin’s Legacy in the Study of Climate and Ancient Maya Cultural Change
Bruce Dahlin was a pioneer in integrating studies of climate change and Maya archaeology and developing research methods to better mesh environmental and cultural records. Despite Bruce’s monumental achievements, full integration of climate and ancient Maya cultural change remains elusive. This unfulfilled legacy is in part due to insufficient appreciation of the spatial and temporal complexities inherent in both environmental and cultural systems. A better understanding of these complexities and the interplay of climate change and cultural adaptation is crucial to understanding the rise and fall of the Classic Maya and future impacts of climate change resulting from global warming.

Pope, Kevin O. [167] see von Nagy, Christopher L.

Pope, Melody and Anson Kritsch (The University of Iowa, Office of the State Archaeologist) [271] Situating Chipped Stone Tool Use at the Koster Site: A Beginning
Research on plant manipulation in the Eastern Woodlands Archaic is best accessed using complimentary data including plant residues, processing technologies, and spatial associations. Yet little is known about the role of chipped stone in plant processing in North America, presumably due to an emphasis on hunting technology. Our paper presents results of a study
that analyzed chipped stone tools from the Koster Site to see how they bear on questions of plant processing and its relation to subsistence and manufacturing tasks, and the socio-spatial contexts of these activities.

Popenoe de Hatch, Marion [87] see Davies, Gavin R.

Popenoe Hatch, Marion (Univ. del Valle, Guate.) [30] Using Ceramics to Interpret the History of Takalik Abaj

As is well known, much of the information from archaeological excavations depends on the analysis of the ceramics. Determining the culture history of the site of Takalik Abaj has been based on the identification of ceramic traditions in Guatemala and the changes in these that can be observed through time. The talk presents a detailed discussion of this method and how it was applied to help understand the sequential developments at this important center and its relationships to other regions.

Popescu, Gabriel (SHESC, Arizona State University) [84] Assemblages size, composition and mobility patterns in the Romanian Carpathians Paleolithic sites.

In this poster I will explore the variability in artifact assemblages at a series of caves and open-air sites in the area of Romanian Carpathians Basin. Assemblage variability through time and space will be explored and explain in terms of assemblage size and changing group mobility. Most of these assemblages are dominated by informal components. I demonstrate in my poster that theoretical models generally used to explore change through formal assemblage components can be applied to informal components, and allow inferences to be extracted in respect with changing settlement systems. The results I provide challenge area’s culture-history view.

Popova, Laura (Arizona State University) [103] Discussant

Porter, Anne [59] Uniquely Typical: Mounds, Mausolea and Merchandise in Middle Euphrates Mortuary Practices

The third millennium B.C.E. burial remains recovered from the Middle Euphrates of Syria and Turkey defy classification into the patterns that Near Eastern archaeology traditionally reads as evidence for chronological disposition, social hierarchy, or beliefs in the afterlife. This region is notable for a series of unique mortuary monuments that point to the individual character of each settlement. Nevertheless a common substrate of practice in evidence that reveals a dense network of inter- and intra-site social and political interactions.

Porth, Eric [123] see Blitz, John H.

Ports, Kyle (Humboldt State University) [70] Jungle Surveying: Field Methodology

Settlement studies are essential in archaeology as these investigations provide a vast amount of data. The Dos Hombres to Gran Cacao Archaeology Project seeks to investigate settlement patterns between two Maya sites: Dos Hombres and Gran Cacao, by analyzing the structure density between them. One of the challenges of carrying out research in a tropical rain forest is the type of equipment used and how to post-process the data. We have utilized a variety of equipment in the field and this poster will illustrate the advantages and disadvantages of each method based on the type of feature and environment recorded.

Postl, Walter [127] see Brandl, Michael J.

Potter, James (PaleoWest Archaeology), Terry G. Knight (Ute Mountain Ute Tribal Historic Preservation Office) and Lynn W Hartman (Ute Mountain Ute Tribal Historic Preservation Office) [31] Weis Orapugat Navachukwak (“Reconnecting Our Past”): Current Challenges of the Ute Mountain Ute Tribal Historic Preservation Office

Abstract: In 2009, the first Tribal Historic Preservation Office in the state of Colorado was established in one of the world’s most important archaeological areas. The Ute Mountain Ute Indian nation is adjacent to Mesa Verde National Park (MVNP) in southwestern Colorado and northwestern New Mexico. Portions of the reservation contain the same high density of archaeological sites and the same remarkably preserved cliff dwellings as MVNP. This paper addresses some of the challenges faced by the Ute Mountain Ute THPO in managing these and other important cultural resources on tribal lands.

Poucett, John (Institute of Archaeology, University of Oxford) and Christine Markussen (EnviroSystems Management, Inc.) [9] Analysis, Integration and Visualization of Surface and Subsurface Data from Moel-y-Gaer, Bodfari

Moel-y-Gaer Bodfari, one of a series of Iron Age hillforts on the Clwydian Range in north Wales, was the subject of intensive surface and subsurface surveys in August 2011. Data collection comprised two elements, namely: 1) analysis of LIDAR data and topographic survey of the hillfort and its immediate hillslope, 2) multi-sensor survey of the interior of the hillfort and multi-depth survey of the ramparts and associated features. Integrative approaches were employed in the analysis and visualization of the resultant datasets and will guide both the interpretation of the site and future excavation strategies.

Poucett, John [173] see Markussen, Christine J.

Powell, Doss [105] see Roth, Barbara J.

Powell, Gina (Missouri State University, Springfield, Missouri) and Neal Lopinot (Missouri State University) [76] Late Mississippian Human-Plant Relations in the Lower Mississippi Valley: Archaeobotany of the Rolling Fork Mounds Site

Analysis has been undertaken on 29 flotation samples from 6 excavation units and 15 features at the Rolling Fork Mounds site. Most of the remains were charred, but some are uncharred and indicative of excellent preservation conditions. As might be expected for a late Mississippian site, maize and persimmon remains are common. Small and large seeds recovered from the samples also represent a variety of domesticated and wild species, with grass seeds, grass bracts, and taxa with possible medicinal qualities concentrated in several
was subsequently questioned. This paper describes recent field investigations and analyses conducted to help resolve the mammoth’s status as an archaeological or paleontological locality.


Prentiss, Anna (University of Montana), Lisa Smith (University of Montana), Kristen Barnett (University of Montana), Matthew Walsh (University of Montana) and Eric Carlson (Historical Research Associates, Inc.)

[132] Assessing Variability in Salmon Processing, Storage, and Consumption at Bridge River, British Columbia

Salmon were the keystone food resource for complex hunter-gatherers of the Middle Fraser Canyon, British Columbia. Ethnographies suggest that the fish were differentially processed, stored and consumed depending upon a host of factors including season, species, labor pool, and access to fishing sites. While fish processing was an essential socio-economic activity in the Mid-Fraser villages, it has rarely been studied in any detail by archaeologists. In this paper we develop new research designed to enhance our ability to reconstruct and interpret variability in the use of salmon by ancient people in the Bridge River Valley.

Prescott, Catherine (Hamilton College), Nathan Goode (Hamilton College), Alissa Nauman (Hamilton College) and David G. Bailey (Hamilton College)

[114] Prehistoric Mobility and Territory in the Upper Columbia River Drainage

Archaeological research indicates people inhabited areas of the Upper Columbia River Drainage from as early as 6000 BP through contact (250-200 BP). Upon contact, ethnographers recorded seasonal migration of the Arrow Lakes/Sinixt from the northern reaches of the Columbia River system south to Kettle Falls. Using portable X-Ray Fluorescence (pXRF) and mineralogical characteristics of several hundred lithic artifacts from regional pre-contact sites, we seek to determine if raw materials were acquired within the territory defined ethnographically as Arrow Lakes/Sinixt. The significance of this research lies in the ability to potentially define a territory, illuminate resource use, and inter-community dynamics.

Presenza, Paul [9] see Hargrave, Michael L.

Preston, Tim (Maya Research Program)

[203] Ritual Sacrifice and the Maya Cosmos

In the past two decades of excavation at the Maya site of Blue Creek, Belize, over 60 burials have been recovered from a variety of contexts. The majority of these burials follow a set mortuary pattern, yet several burials stand out in their relationship to recorded Maya cosmology. This paper will discuss four burials, those located at Tomb 5, Structure 4 in the site core, a bench style burial at structure U5, and a recently excavated burial from the Remple Group. Each of these interments highlights a specific aspect of the Maya Cosmos and gives insight into Maya ritual life.

Preucel, Robert (University of Pennsylvania),
Matthew Liebmann (Harvard University) and Woody Aguilar (University of Pennsylvania) [25] The Pueblo World Transformed: Alliances, Animosities, and Factionalism in the Northern Rio Grande, 1680-1700

The Pueblo Revolt of 1680 radically altered relationships among the communities of the northern Rio Grande. While the changes in Pueblo-Spanish relations are apparent, less well-known are the changes that occurred among and within Pueblo communities between 1680-1700. Archaeological evidence suggests that new alliances, trading partnerships, and ethnic identities were forged during this era. But this tumultuous period also pulled some Pueblo communities apart, resulting in new animosities and factionalism. This paper reviews the evidence for the changes in Pueblo relations that occurred during this period, based primarily upon ceramic evidence and lithic (obsidian) exchange.

[205] Discussant

Price, Max (Harvard University) [57] Questioning the Feast: Inherent Ambiguities in Detecting Feasts

Accurately identifying feasting activity in the archaeological record remains problematic, and requires identifying reasonable material correlates for feasting remains, understanding the taphonomic variables, and an acute chronological resolution. It is the concern of this paper that, eager to fit their data into a ready-made body of theory, analysts risk over-interpreting their evidence. If we are to view feasts as situated within networks of meaning and practice, it is important to know not only the specifics of the social milieu in which feasts occurred, but also the material correlates of such activities to determine if feasting occurred at all.

Price, T. Douglas (University of Aarhus) [263] Vikings, Colonization and Isotopes

New methods employing isotopes in human tooth enamel provide significant new insight on the Viking colonization of the North Atlantic. Focus will be on Iceland and Greenland where samples from numerous burial have been analyzed. Comparison with baseline data from the likely homelands of these individuals offers evidence of place of origin and the dimensions of mobility in terms of age, sex, and chronology. Isotopes of strontium, oxygen, carbon, and lead are employed in this study to examine migration to these far-off places, between these places, and interaction between place of origin and destinations.

[58] Discussant

Price, T. Douglas [58] see Burton, James H.

Prieto, Oscar [233] Exploring fishing communities though household dimensions: The Pampas Gramalote Case

I will present the study case of household configuration at Pampas Gramalote, an early Initial Period (B.C. 2000/1800 - 1400) fishing village of the North Coast of Peru to understand the social dynamics of this site. The value of household studies is important as a locus of social action related to social identity, memory, power, position and complexity. I will present the study though this fishing village perspective, the household inter and intra relationships as a way to explore how early complex societies operated and interacted.

Priewe, Sascha (The British Museum) [163] Late Neolithic exchange networks and social transformations in the Middle Yangzi region

During the late Neolithic, sites across the Middle Yangzi region were connected to each other and to sites in northern and eastern China. Instead of focusing on local dynamics, I will look at the role of interaction in Middle Yangzi societies. Although the exact nature of these connections remains obscure, it can be demonstrated that these led to the construction of enclosures first along the Middle Yangzi and possibly further downstream later on. The abandonment and partial re-settlement of some enclosures along the Middle Yangzi toward the end of the third millennium will also be discussed in their regional contexts.

Pring, Duncan [236] see Kosakowsky, Laura J.

Pritchard, Erin [107] Making Section 106 Work

This paper presents an example of how the Section 106 consultation process can have successful results. Chicago Bridge & Iron, Inc. came to TVA for a permit to cross public land for water access to construct an industrial site. The undertaking included adverse effects to eligible archaeological deposits associated with site 40MI70. Through the consultation process, TVA worked with the applicant, the State Historic Preservation Officer, and six federally recognized Indian tribes to navigate their way through the process.

Pritchard, James C. [37] see Aiivalasit, Michael J.

Proebsting, Eric (Thomas Jefferson's Poplar Forest) [133] Seasons of Change: Community Life and Landscape at the Foot of the Blue Ridge Mountains, 1740-1860

Perspectives provided by historical ecology frame this discussion of the Poplar Forest plantation, which is placed within its broader environmental and cultural landscape by examining the people who came to this portion of the Virginia piedmont starting in the mid-eighteenth century and the plants, animals, soils, and slopes with which these and later individuals interacted over time. By placing the environmental history of Poplar Forest within a broader community context, we begin to understand this plantation’s role in the larger social, economic, and ecological changes taking place in the region from colonial settlement to the eve of the Civil War.

Pruefer, Keith M. [70] see Thompson, Amy Elizabeth [70] see Ebert, Claire E. [208] see Kieffer, C. L.

Prull, Tera (University of Cambridge) [56] The Politics and Performance of Pseudo-Pyramids

Cases of pseudoarchaeology are social processes within larger socio-historical contexts and they need to be recognized as such. This paper presents the results of my doctoral research on The Bosnian Pyramids, a pseudoarchaeological project that has caused great stir in the international archaeological community since 2005. While it has been dismissed as a cut-and-dry case of pseudoarchaeology by many professional archaeologists, it is in fact a complex project that holds...
great authority in Bosnia. This paper highlights the importance of socio-political, authoritative institutions, and performative behavior in the way pseudo/archaeological authority is constructed and maintained over time.

Ptacek, Crystal (University of Tennessee, Knoxville) [133] Reconstructing Mr. Eppes' Neighborhood: A GIS Analysis of the Dynamics of Power
While neighborhoods are dynamic entities, their past interactions may be partially reconstructed through documentary analysis. Historical research relating to the Indian Camp property in modern Powhatan County, Virginia, has enabled archaeologists to track social and economic relationships from the area from 1730 to 1825. Plotting these relationships spatially in ArcGIS 10 has clarified historical dynamics of power and inequality through land and slave ownership and kinship networks. By examining a landscape over a 100-year span using ArcGIS, names and people become part of a dynamic social and economic network, spaces become places, and a diachronic history of a neighborhood emerges.

Ptacek, Crystal [133] see Wilkins, Andrew P.

Pugh, Timothy (Queens College and The Graduate Center) and Romulo Sanchez Polo (CUDEP) [137] The San Bernabé Mission at Tayasal, Petén, Guatemala
Recent excavations at Tayasal, Petén, Guatemala encountered the mission settlement of San Bernabé occupied from the early to late 18th century. Among the missions settled after the conquest of Petén in AD 1697, San Bernabé contains evidence of colonial practices as well as daily life. Excavations in the mission church revealed evidence of mortuary practices as well as syncretism. Work in the surrounding community indicated that pre-conquest ceramics were used much longer than previously thought, though tin enameled wares were present as well. We also found evidence of Spanish vessel forms composed with indigenous pastes.

Pugh, Timothy [87] see Shiratori, Yuko

Pullen, Daniel [270] see Burke Davies, Clare T.

Pulliam, Chris (U.S. Army Corps of Engineers) [48] Discussant

Purcell, Gabrielle (The University of Tennessee) [232] Changes in Maize Agriculture Before and After European Contact at Smokemont (31SW393)
Smokemont (31SW393), located in the Smoky Mountains in western North Carolina, is a multicomponent site consisting of deposits from Woodland, Mississippian, Cherokee, and Euro-American occupations. Two structures have been identified at Smokemont, one as a Mississippian (Pisgah) house, and the other a Cherokee (Qualia) house. Floral analysis of Early and Middle Woodland features have indicated some horticultural activity, with wild plants remaining important but supplementary to maize agriculture during the Mississippian (Pisgah) and Cherokee (Qualia) occupations. Archaeobotanical remains from 31SW393 will be examined for temporal changes in maize agriculture prior to and after European contact.

Purcell, Barbara (University of Florida) [55] The Mammoth Engraving from Vero Beach, Florida: Ancient or Recent?
In 2009, a collector noticed a mammoth image on a mineralized bone he found near the Old Vero Site. The bone and engraving were analyzed at the University of Florida and the Smithsonian. No evidence of forgery emerged. Still, concern lingers about its antiquity. Its significance, if it was created >13,000 years old when Ice Age artists could personally observe these animals, cannot be overstated. In this paper, I discuss the possibility that the mammoth engraving from the Old Vero site is a recent replica of an already existing design.

Purseill, Corin C. O. [239] see Butler, Brian M.

Puseman, Kathryn (PaleoResearch Institute, Inc.) and Alison E. Rautman (Michigan State University, East Lansing, Michigan) [113] Macrofloral Remains and Radiocarbon Dates from Frank's Pueblo, Site LA 9032, New Mexico
Frank’s Pueblo, site LA 9032, is a small, Glaze A pueblo on the Chupadera Mesa in central New Mexico. This pueblo contained two areas of roomblocks with an intervening plaza or entry. The West Pueblo consisted of four adobe room blocks surrounding a central plaza. A masonry wall was later placed around the adobe walls of the pueblo and additional masonry rooms added. Radiocarbon dates suggest at least two episodes of catastrophic burning in the West Pueblo. Burning of the West Pueblo helped to preserve large amounts of macrofloral material in storage rooms and intact roof and floor assemblages.

Putsavage, Kathryn [111] see Pazmino, Audrey

Putt, Shelby (University of Iowa), Alexander Woods (University of Iowa), Robert Francisccus (University of Iowa) and Russell Clochon (University of Iowa) [83] Acheulian handaxe production in verbal and non-verbal experimental learning environments
To test whether spoken language may have been necessary for Homo erectus to transmit the skill of making a bifacial tool to novices, college students were taught how to recreate Acheulian handaxes in two different communication environments, one with and one without spoken language. All handaxes were ranked by skill via an independent assessor. It was expected that the verbal group would produce qualitatively better handaxes than the nonverbal group, implying that spoken language increases the ease of transmission from teacher to novice in this task, but this was not the result. Implications for these findings will be discussed.

Pyburn, K. (Indiana University) and Richard Wilk (Indiana University) [236] Finding a House
Norman Hammond inspired a generation of archaeologists to rethink the archaeology of Maya civilization. Almost any aspect of ancient Maya life came under the scrutiny of Hammond’s projects and his students and innumerable discoveries about the Maya past were the result. In this paper we recount the importance of Hammond’s influence on our interest in
finding ancient Maya houses and reconstructing households, and gratefully acknowledge his contribution to the founding of our own house.

[253] Discussant

Pye, Jeremy (University of Florida)

[67] Lice, Lice Combs, and Human History
Lice are ectoparasites and have likely parasitized man for millions of years. To manage an infestation, people often picked lice and eggs from the hair of others, or used fine tooth combs for removal. The earliest known lice combs date to around 1,500 B. C. in the Old World and their general form has changed very little since that time. Lice were once routine companions of people of all races and socio-economic classes until the mid-20th century when pesticides and improvements in sanitation and personal hygiene made lice infestations relatively rare in modernized countries.

Pyper, Laura [128] see Horlacher, Jacob M.

Pyszka, Kimberly (University of Tennessee)

[240] unto Seynte Paules: Anglican Landscapes and Colonialism in South Carolina
With the passing of the 1706 Church Act, the Church of England became the established religion in South Carolina. Ten parishes were created at the time, including St. Paul’s Parish whose church and parsonage sites have been identified through archaeological investigations. Using St. Paul’s as a case study, this paper focuses on the Church’s role in the development of the colony. Through the landscape it helped construct and the social functions of St. Paul’s Church and parsonage house, the Anglican Church helped transform South Carolina from a struggling frontier colony to one of the wealthiest colonies in the New World.

Qin, Zhen (Washington University in St. Louis) and Tristram Kidder (Washington University in St. Louis)

[6] Geoarchaeological Investigations at Sanyangzhuang, Henan Province, China
Research at Sanyangzhuang, including excavation of two 12-m deep profiles, shows that the Yellow River floodplain was marked by episodes of stability indicated by six well-developed paleosols, alternated with episodes of large-scale flooding. We explore environmental and archaeological evidence from these paleosols, the oldest of which dates to the Early Holocene. Flood events provide exceptional preservation during the later Holocene, revealing buried fields, architectural details, and remains of daily life. We reconstruct the flood that buried the site in late Western Han times and discuss how this event altered the political and demographic history of China.

Quates, Duane (U.S. Army, Fort Drum, NY) and Michael Sprowles (ORISE / U.S. Army Installation, Fort Drum, NY)

With over 500 families displaced by the 1940s DoD expansion of Fort Drum, NY, the 13 known historic cemeteries are the most poignant reminders of the thriving communities that once lived there. In 2011, the Fort Drum Cultural Resources Program embarked upon several projects aimed at strengthening community relations. These projects were initiated to further define and identify these significant resources through remote sensing, create an inventory for genealogical research and resource management, and enhance the cemeteries for public use. This paper discusses what these projects entail.

Quave, Kylie (Southern Methodist University), Gabriela C. Bertone (Universidad Nacional Mayor de San Marcos), Li Jing Na (Universidad Nacional Mayor de San Marcos) and Paula Espósito (Universidad Nacional Mayor de San Marcos)

[166] Royal Maize, Common Guy? Authority and Identity on the Inka Royal Estate (Cuzco, Peru)
Studies of Inka diet and cuisine often turn to ethnographic and culinary equipment. Systematic analyses of macrobotanical and faunal remains are demonstrating the variability and complicated relationships between authority, identity, and status. At Cheqoq, a royal estate settlement near Cuzco, we address household-by-household access to food in comparison with production and distribution regimes. We ask how elite and state cuisine emerges in daily practice or not. What are the implications for forming an imperial identity and how is power exercised over subaltern groups attached to the nobility, as at Cheqoq?

Quave, Kylie [141] see Kennedy, Sarah

Quick, Russell (Cultural Resource Analysts, Inc.), Randall Cooper (Cultural Resource Analysts, Inc.), Paul Bundy (Cultural Resource Analysts, Inc.), Andrew Bradbury (Cultural Resource Analysts, Inc.) and Jason Anderson (Cultural Resource Analysts, Inc.)

[90] New Solutions to the Oldest Problem: Doing more with less in the New Economy
Over the last thirty years, excavation budgets have decreased alarmingly. During the same period, computers have become increasingly compact and powerful. For CRM and research archaeologists, use of digital data recorders and electronic databases allows researchers to streamline data recovery and improve work flow by decreasing errors and avoiding replicated data entry. CRA’s evolving tool kit integrates GPSs and digital data collectors with flexible relational databases into a system that efficiently uses resources by increasing data consistency, providing timely data updates to multiple analysts, improving excavation strategies, allowing more time for analysis, and resulting in a better end product.

Quick, Russell [127] see Martin, Andrew V.

Quilter, Jeffrey (Peabody Museum, Harvard University) and Daniel Sandweiss (University of Maine)

[86] Prehistoric Sustainability on the Peruvian Coast
As a tropical desert with at least 13,000 years of human occupation ranging from hunter-gatherer-fishers to complex states and empires, the coast of Peru is a good setting to study prehistoric sustainability. At a millennial to centennial scale, data indicate that recognizable social