MAC

Midwest
Archaeological
Conference, Inc.

Annual Meeting
Columbus, Ohio
October 24–27, 2013

SUMMARY SCHEDULE

	MORNING	AFTERNOON	EVENING
THURS	***Fort Ancient Roundtable*** • 8–12 (Marion Rm)	***Opening Session*** • Ohio Earthworks, 1–4 (Delaware Rm) ***Exhibits*** • 12–5 (Morrow Rm)	***OHS Reception*** • Exhibit: *Following in Ancient Footsteps* , 5–7 (shuttles begin at 4 at North Entrance)
FRIDAY	***Exhibits*** • 8–12 (Morrow Rm) ***Symposia and Papers*** • Earthen Enclosures, 8:15–11:45 (Fairfield Rm) • Late Prehist. Oneota, 8:30–10:30 (Knox Rm) • Historic, 8–11 am (Marion Rm) • Late Prehistoric, 10:45–12 (Knox Rm) ***Posters*** • Midwestern Archaeology, 9–12 (Fayette Rm) ***MAC Executive Board Meeting*** • 12–1:30 (Nationwide B Rm)	***Exhibits*** • 12–5 (Morrow Rm) ***Symposia and Papers*** • Woodland-Mississippi Valley, 1:30–3:30 (Fairfield Rm) • Late Prehist. -Ohio Valley & Michigan, 1:30–5 (Knox Rm) • Woodland Mounds & Earthworks, 1:30–4 (Marion Rm) • Late Woodland – Ohio Valley, Michigan & Ontario, 3:45-5:00 (Fairfield Rm) ***Posters*** • Midwestern Archaeology, 1:30–4:30 (Fayette Rm) ***Student Workshop*** • Getting the Job, 4:15–5:30 (Marion Rm)	***Student/Professional Mixer*** • 5–9 (Barley's Underground)
SATURDAY	***Exhibits*** • 8–12 (Morrow Rm) ***Symposia and Papers*** • Ohio Archaeology, 8–11:15 (Fairfield Rm) • Paleoindian & Archaic, 8:15–10:00 (Knox Rm) • CRM, 9–12 (Marion Rm) • Aztalan Structure, 10:15–11:45 (Knox Rm) ***Posters*** • Angel Mounds, 9–12 (Fayette Rm) ***OAC Business Meeting*** • 11:15–12 (Fairfield Rm)	***Exhibits*** • 12–5 (Morrow Rm) ***Symposia and Papers*** • Woodland -Ohio Valley and Michigan, 1:30–4 (Fairfield Rm) • RIHA Project, 1:30–3:30 (Knox Rm) • Late Prehistoric -Upper Mississippi Valley, 1:30–3:30 (Marion Rm) ***Posters*** • Fort Ancient (Guard Site), 1:30–4:30 (Fayette Rm) ***MAC Business Meeting*** • 4:15–5:15 (Fairfield Rm)	***Reception and Cash Bar*** • 5:30–7 (Franklin Rm) ***Banquet and Speaker*** • 7–9 (Franklin Rm)
SUN	***Hopewell Earthworks Bus Tour*** • 8 am–4 pm (meet at North Entrance of the hotel)		

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MAC OFFICERS

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CONFERENCE PLANNERS

Conference Organizer: Robert A. Cook

Conference Program Co-Chairs:

Jarrod Burks and Robert A. Cook

Vendor Arrangements: Kris Gremillion

Field Trips: Bret Ruby, Jennifer Pederson Weinberger, Rick Perkins

Student Award Judges:

Jeremy Wilson, IUPUI (Chair)

Alleen Betzenhauser, U. of Illinois

Andrew White, U. of Michigan

Shannon Fie, Beloit College

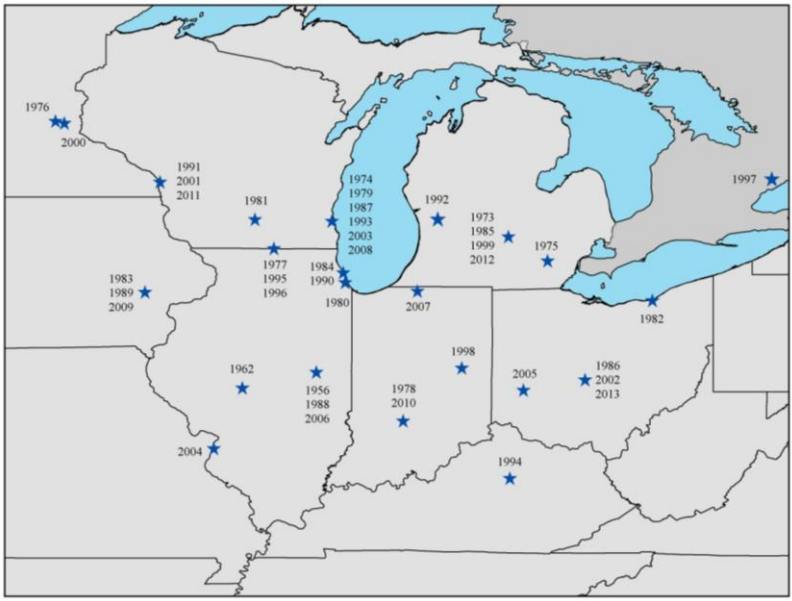
Sarah Surface-Evans, Central Michigan U.

Conference Logo Design:

Angela Collins and Robert A. Cook

WELCOME

Welcome to the 2013 Annual Meeting of the Midwest Archaeological Conference, Inc. in Columbus, Ohio. While the total number of MAC annual meetings is somewhat in doubt, this is the third one to be hosted in Columbus (1986, 2002, 2013), which means it ranks among the top seven places to host the event (others with three or more hostings are: Beloit, East Lansing, Iowa City, LaCrosse, Milwaukee, Urbana-Champaign) (visit ***midwestarchaeology.org*** to help fill in the "lost" years...mainly in the 1960s…). The overall distribution shows well the relatively even geographic spacing of the event through the years.



Previous known locations of the MAC Annual Meeting

This year's meeting features 173 presentations (135 papers and 38 posters) in eight organized symposia and 11 general sessions. There is also a student workshop, a Fort Ancient roundtable, a student/professional mixer, a reception and exhibit tour at the Ohio Historical Society, a conference banquet, and a field trip to several important Hopewell earthworks.

We have specifically targeted earthworks as the common thread of the conference for reasons that are obvious – central Ohio is home to the most impressive array of earthen enclosures on the planet…except maybe for the Upper Amazon Basin, an emerging region known to have exceptional earthwork construction, which is why we are delighted to be joined by Denise Schaan, an expert in the earthworks from that region. The opening session, a lengthy symposium, the banquet speaker, and field trips were all organized around the earthwork theme. While earthworks are the "hook," we hope also to have achieved a balanced meeting with specific calls for CRM-based projects and a wide array of organized and general sessions covering everything from Paleoindians through historic topics.

The hotel venue, the Hyatt Regency, was chosen because of its great location, which often makes for a great meeting. This hotel has been recently renovated and is at the transition between downtown Columbus and the Short North, a lively district chock full of great food and drink options at all price points and for most tastes.

Planning and organizing a conference is the result of many individual efforts. We are very grateful to have the support of a broad array of university, business, and professional sponsors. We are also very appreciative of all the volunteers who (under the leadership of Melissa French and Aaron Comstock) assembled packets and staffed the registration desk. Angela Collins was instrumental in setting up and navigating RegOnline and designing and formatting the badges. John Doershuk, Jamie Kelly, and Kevin Schwarz were also crucial in bringing various parts of this event together. Lynn Hanson, Bill Kennedy, and Jill Krieg assisted with final edits to the program and shepherded the production process. Thank you all very much.

We hope everyone enjoys their time in Columbus at the 2013 MAC.

Robert A. Cook, Conference Organizer and Program Co-Chair

Jarrod Burks, Conference Program Co-Chair

GENERAL INFORMATION

Registration

County Foyer

Thursday, 8 am-5 pm
Friday, 8 am-5 pm
Saturday, 8 am-12 pm

Lost and Found

The MAC Registration Desk will be the location for the Lost and Found. Please deposit any found items with volunteers staffing the desk.

ATM

There is an ATM in the hotel lobby to the right of the front desk.

Pay Phone

A payphone is located to the right of the lobby past the gift shop.

Parking

Parking is $25/day for valet and $16/day for self parking. This includes in and out privileges.

Food & Drink

The Marketstand Restaurant, The Big Bar, Perks Coffee and Einstein Bagels are all located on the 2nd floor of the hotel, on the same level as the MAC conference rooms. There is also a food court in the Convention Center (to the right of the lobby down the hall).

Wireless Internet

Wireless internet access is complimentary in the hotel lobby. In room wireless internet is $9.95 per day.

RECEPTIONS

Ohio Historical Society reception, Thursday, 5–7 pm, North Entrance (Shuttles run from 4:00-7:30 pm). ***Advance registration required.***

Student/professional mixer. Friday, 5:00–9 pm, Barley's underground (located across High street). ***Advance registration required.***

Banquet with presentation by Dr. Jim Brown (Professor Emeritus, Northwestern University), Saturday, 5:30-7 pm (cash bar), 7-9 pm (dinner and presentation), Franklin Room. ***Advance registration required*.**

BUSINESS MEETINGS

MAC, Inc. Executive Board Meeting, Friday, 12-1:30 pm, Nationwide B Room.

OAC (Ohio Archaeological Council) Business Meeting, Saturday, 11:15-12 pm, Fairfield Room.

MAC, Inc. Business Meeting and Awards Presentations, Saturday, 4:15-5:15 pm, Fairfield Room.

WORKSHOPS

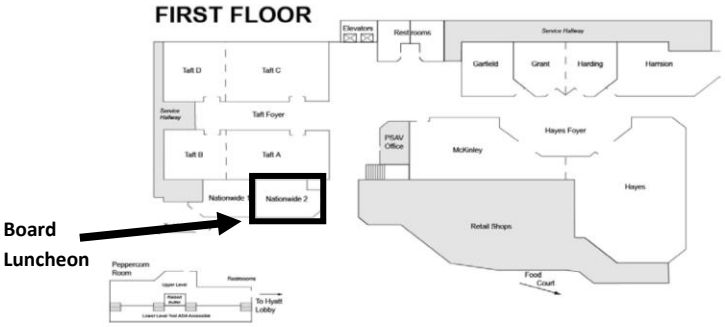
Fort Ancient Roundtable, Thursday, 8 am-12 pm. Marion Room. ***Advance registration required****.*

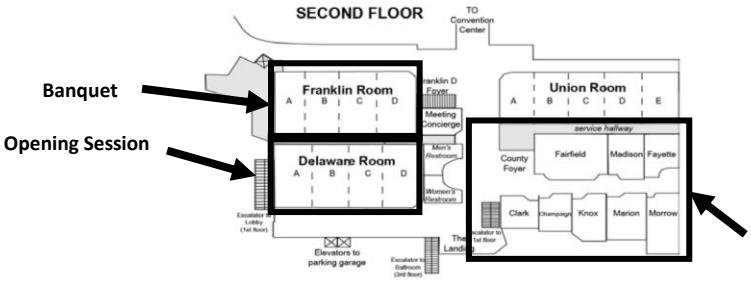
Student Workshop (Getting the Job), Friday 4:15-5:30 pm, Marion Room.

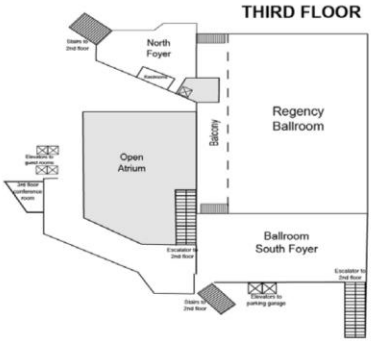
FIELD TRIP

Hopewell Enclosures Bus Tour, Sunday, 8 am-4 pm, North Entrance. ***Advance registration required.***

MEETING ROOM LOCATIONS







THURSDAY

OCTOBER 24, 2013

8:00 am – 5:00 pm Registration ---------- Room: County Foyer

12:00 pm – 5:00 pm Exhibits ---------- Room: Morrow

8:00 am – 12:00 pm Fort Ancient Roundtable ---------- Room: Marion

1:00 pm – 4:00 pm [101] Opening Session ---------- Room: Delaware

Free and open to the public.

Ohio Earthworks: History, Preservation, and Archaeo-tourism
(Jarrod Burks and Robert Cook, Organizers; Jarrod Burks, Chair

1:00 Brad Lepper (Ohio Historical Society) ***Ohio's Monumental Geometric Earthworks, a History of Research by the Ohio Historical Society***

1:30 Jarrod Burks (Ohio Valley Archaeology, Inc.) ***The State of Ohio's Earthworks***

2:00 John Hancock (University of Cincinnati) ***The Ancient Ohio Trail***

2:30 Break

2:45 Bill Iseminger (Cahokia Mounds State Historic Society) and Richard Shiels (The Ohio State University) ***World Heritage Status, After and Before***

3:15 Denise Schaan (Universidade Federal do Pará) **Amazonian Geoglyphs: How Deforestation Has Changed Perspectives on Tropical Forest Archaeology**

5:00 pm – 7:00 pm **Ohio Historical Society Reception**

Visit the exhibit "Following in Ancient Footsteps" and enjoy two free drinks and light appetizers. Shuttles at North Entrance run from 4:00-7:30 pm. ***Advance registration required***.

OHS Excavations at Seip Earthworks, 1974

FRIDAY MORNING

OCTOBER 25, 2013

8:00 am – 5:00 pm Registration ---------- County Foyer

8:00 am – 5:00 pm Exhibits ---------- Room: Morrow

8:15 am – 11:45 am [201] Organized Paper Session --- Room: Fairfield

Mapping, Understanding, and Comparing Earthen Enclosures: Research from Ohio to the Amazon (Jarrod Burks and Robert Cook, Organizers; Jarrod Burks, Chair)

8:15 Terry Barnhart (Eastern Illinois University) ***Early Efforts at Surveying and Mapping the Mounds***

8:30 Bret J. Ruby (Hopewell Culture National Historical Park), Jarrod Burks (Ohio Valley Archaeology, Inc., Mark J. Lynott (University of Nebraska), Ann Bauermeister (Midwest Archeological Center), Jay T. Sturdevant (Midwest Archeological Center), Kathy Brady (Hopewell Culture National Historical Park), and Andrew LaBounty (National Park Service) ***Mapping Hopewell Landscapes: Two Centuries of Landscape Studies at Hopewell Culture National Historical Park***

8:45 Nomi B. Greber (Cleveland Museum of Natural History) and Robert Horn (Earlham College) ***Scaling Cultural Geometry: Embankment Sizes and Shapes in the Mid-Ohio Valley***

9:00 Mark J. Lynott (University of Nebraska) ***Ohio Hopewell Ceremonial Landscape Construction: What Do We Really Know?***

9:15 Jarrod Burks (Ohio Valley Archaeology, Inc.) and Robert A. Cook (The Ohio State University) ***Comparing Ohio's Octagons: Recent Geophysical***

Survey Results from the High Bank Works and the Newark Earthworks

9:30 Ray M. Hively (Earlham College) and Robert Horn (Earlham College) ***Hopewell Geometry and Astronomy in the Scioto and Paint Creek Valleys***

9:45 Katherine Spielmann (Arizona State University) and Jarrod Burks (Ohio Valley Archaeology, Inc.) ***Post Circles in the Middle Woodland: A Case Study from Seip Earthworks***

10:00 Break

10:15 Kenneth B. Farnsworth (Illinois State Archaeological Survey), Thomas E. Emerson (Illinois State Archaeological Survey), Randall E. Hughes (Illinois State Geological Survey), and Sarah U. Wisseman (Illinois State Archaeological Survey) ***Hopewellian Platform Pipes and Their Implications for Distinguishing Variation in Hopewell Mound Ceremonialism***

10:30 Christopher Carr (Arizona State University) **Public Ceremonial Dramas in Hopewell Earthworks: Functional and Regional Diversity**

10:45 Robert McCullough (McCullough Archaeological Services, LLC) ***Late Prehistoric Enclosures in Indiana***

11:00 Meghan Howey (University of New Hampshire) ***Exploring the Pan-Regional Significance of Michigan's Circular Earthworks***

11:15 Jason L. King (Center for American Archeology), Jason T. Herrmann (Dartmouth College), and Jane E. Buikstra (Arizona State University) ***The Golden Eagle Site: a 21st Century Perspective***

11:30 Denise P. Schaan (Universidade Federal do Pará), Antonia D. Barbosa (Universidade Federal do Pará), Martti Pärssinen (University of Helsink), Sanna Saunaluoma (University of Helsink), Ivandra Rampanelli (Universitat de València), Alceu Ranzi (Universidade Federal do Acre) ***Regional***

Distribution, Chronology, and Function of Geometric Enclosures in Western Amazonia

8:30 am – 10:30 am [202] General Paper Session ----------Room: Knox

Late Prehistoric Oneota (Jodie O'Gorman, Chair)

8:30 Jodie A. O'Gorman (Michigan State University) and Michael D. Conner (Illinois State Museum – Dickson Mounds Museum) ***Piecing Together Ritual at the Intersection of Oneota and Mississippian Worlds***

8:45 Katherine M. Sterner (UW Milwaukee), Robert Jeske (UW Milwaukee), and Sara Shuler (UW Milwaukee) ***Results of Blood Residue Analysis and Microwear of Suspected Arrow Points and Scraping tools from the Crescent Bay Hunt Club Site (47Je904)***

9:00 Rachel McTavish (University of Wisconsin, Milwaukee) ***Preliminary Mussel Shell Analysis of the Crescent Bay Hunt Club Site (47JE904)***

9:15 Jeffrey Painter (Illinois State University) ***Social and Cultural Interaction in the Central Illinois River Valley: A Late Mississippian Case Study***

9:30 David A. Anderson (University of Wisconsin, La Crosse) ***Recent Investigations at the Oneota Culture Tremaine Site (47-LC-95)***

9:45 Robert F. Sasso (University of Wisconsin, Parkside) ***The Patterning of Bison Remains from Late Prehistoric Sites in Wisconsin***

10:00 Seth A. Schneider (University of Wisconsin, Milwaukee) ***A Re-examination of the Busseyville Grooved Paddle Oneota Pottery Type in Southeastern Wisconsin***

10:15 Mark A. Hill (Ball State University) **Community Size and Organization of a Migrant Oneota Village: Controlled Surface Collection Results from the Taylor Village Site in Central Indiana**

8:00 am – 11:00 am [203] General Paper Session -------- Room: Marion

Historic Period Archaeology in the Midwest (Patricia B. Richards, Chair)

8:00 Amanda Douglas (University of Illinois, Chicago) ***The Avery's of Long Hollow: Sites (11JD777 and 11JD778) of an Influential Family in Rural Jo Daviess, IL***

8:15 Terrance J. Martin (Illinois State Museum), Dennis Naglich (Illinois State Museum), Victoria Bowler (NPS CRD Intern), and Timothy Townsend (Lincoln Home National Historic Site) ***Initial Excavations on the Jameson Jenkins Lot at the Lincoln Home National Historic Site, Springfield, Illinois***

8:30 Robert C. Chidester (The Mannik & Smith Group, Inc.) ***Landscapes of Clearance: Recording Government Land Acquisition and Farmstead Abandonment on Midwestern Military Bases***

8:45 Brendan C. Pelto (Michigan Technological University) ***Archaeology of the Yard of a 19th Century Boarding House for Miners in Michigan's Upper Peninsula***

9:00 Matthew E. Cross (Illinois State Archaeological Survey) and Mark C. Branstner (Illinois State Archaeological Survey) ***The Everett Site (11S801): An Early American Period Farmstead in Shiloh Valley Township, St. Clair County, Illinois***

9:15 Break

9:30 Andrew R. Sewell (Hardlines Design Company), Maria Burkett (The Ohio State University), Charissa Durst (Hardlines Design Company), Anne B. Lee (Hardlines Design Company), and Greg Wiles (College of Wooster) ***"To the new Forest Home in Ohio so wild": The David Deardurff House, Columbus, Ohio***

9:45 Patricia B. Richards (University of Wisconsin-Milwaukee) and Thomas J. Zych (University of

Wisconsin-Milwaukee) ***The 2013 Milwaukee County Poor Farm Project***

10:00 Timothy Baumann (University of Tennessee), Robert McCullough (McCullough Archaeological Services, LLC), Valerie Altizer (University of Tennessee), Heather Alvey (Indiana University), Jeff Tolbert (Indiana University), and Angie Krieger (Hoosier National Forest) ***The German Ridge Heritage Project in Hoosier National Forest: Excavations at the Maier-Speidel Farmstead***

10:15 Claire P. Dappert (Illinois State Archaeological Survey) and Mark C. Branstner (Illinois State Archaeological Survey) ***The Hawkeye Site (11HE194): A Pre-Civil War Brick Clamp in Henderson County, Illinois***

10:30 Duane Esarey (Illinois State Archaeological Survey) ***Another Kind of Beads: A Forgotten Industry of the North American Colonial Period***

10:45 John G. Franzen (USDA Forest Service) and Eric C. Drake (Hiawatha National Forest) ***The "Big Hook" Maple Sugar Camp: Nineteenth Century Open/Kettle Sap Processing in Northern Michigan***

10:45 am – 12:00 pm [204] General Paper Session ----------Room: Knox

Late Prehistoric Period Studies: Middle Mississippi Valley (Eve Hargrave, Chair)

10:45 Ian C. Fricker (Illinois State University) ***Kitchen Confidential: Initial Observations of Ceramic Vessel Use at the Late Prehistoric Noble-Wieting Site***

11:00 Eve A. Hargrave (ISAS/PRI), Kristin M. Hedman (ISAS/ATAM-UIUC), and Matthew Fort ***Population Rediscovered: New Insights on Health, Diet, Place of Origin, and Chronology from the Late Mississippian Guy Smith Cemetery, Jackson County, Illinois***

11:15 Alexey Zelin (ISAS, University of Illinois), Madeline G. Evans (ISAS), Kjersti E. Emerson (ISAS/ITARP,

University of Illinois), and Brenda E. Beck (Illinois State Archaeological Survey) ***Captured in Time: An Examination of Material Culture Patterns and Activities Represented on the Burned Structure Floors of Orendorf Settlement D***

11:30 Kristin M. Hedman (ISAS/ATAM-UIUC), Andrew R. Thompson (West Virginia School of Osteopathic Medicine), Eve A. Hargrave (ISAS/PRI), Dawn E. Cobb (Illinois State Museum), Thomas E. Emerson (Illinois State Archaeological Survey) ***Paradigms Lost: Mound 72's Beaded Cape Burial Reconfigured***

11:45 Charla Marshall (ISAS-UIUC), Kristin M. Hedman (ISAS/ATAM-UIUC), Aimee Carbaugh (ISAS/UIUC), Ripan S. Malhi (University of Illinois, Urbana-Champaign) ***Mitochondrial Genetic Variation among American Bottom Mississippians: Preliminary Results from the Janey B. Goode and East St. Louis Sites***

9:00 am – 12:00 pm [205] General Poster Session ------- Room: Fayette

Research in Midwestern Archaeology

205-A Danielle M. Benden (University of Wisconsin-Madison), and Robert "Ernie" Boszhardt (University of Wisconsin-Baraboo/Sauk County) ***The Trempealeau Archaeology Project: 2013 Investigations of Early Mississippian Occupation in the Upper Mississippi River Valley***

205-B Amanda Butler (University of Illinois) ***Mississippians in the 'Boonies': New Investigations and Insights at the Collins Site***

205-C R. Carl DeMuth (Indiana University) and Nataliya Chemayeva (Indiana University) ***Sexual Dimorphism of the Distal Humerus in a Mississippian Population***

205-D Peter J. Geraci (Illinois State Archaeological Survey) and Benjamin Holmes (Illinois State Archaeological Survey) ***There's Points in Them Hills!: Interpreting Archaic Landscape Use from Phase I Archaeological***

Survey on the Woodfordian Till Plain of Southern Will County, IL

205-E Addison P. Kimmel (Midwest Archaeological Research Services, Inc.) and Steven A. Katz (Midwest Archaeological Research Services, Inc.) ***Workplace Safety and Archaeology: Dangerous Places Revisited***

205-F Alison Shepherd (Center for American Archeology), Katie E. Leslie (Illinois State Archaeological Survey), Sedrié D. Hart (Center for American Archeology), Ariel E. Taivalkoski (University at Buffalo SUNY), and Carol E. Colaninno (Center for American Archeology) ***The Education Programs of the Center for American Archeology: Educational Outreach and the Challenges of Public Archeology***

205-G Chad Ryan Thomas (University of Southern Indiana), Haley Tallman (Angel Mounds State Historic Site), and Heather Stone (Angel Mounds State Historic Site) ***Bringing Baggataway Back to the Mounds***

205-H Andrew J. Upton (Michigan State University) ***Analyzing Oneota Mortuary Variation in Wisconsin and Illinois***

205-I Andrew W. Weiland (The Ohio State University) ***Marshelder (Iva annua L.) Seed Morphology and Patterns of Domestication in Eastern North America***

205-J Amanda Mullett (Kent State University) and Mark Seeman (Kent State University) ***Integrating Interpolation Algorithms into Mobility Research in Midwest Archaeology***

12:00 pm – 1:30 pm MAC Executive Board Meet.--Room: Nationwide B

FRIDAY AFTERNOON/EVENING

OCTOBER 25, 2013

1:30 pm – 3:30 pm [206] General Paper Session ------- Room: Fairfield

Woodland Period Studies: Mississippi Valley
(Shannon Fie, Chair)

1:30 Madeleine G. Evans (Illinois State Archaeological Survey) and Andrew C. Fortier (Illinois State Archaeological Survey) ***Early Woodland Traditions in the Northern American Bottom: Material Culture and Settlement Dynamics***

1:45 Matthew P. Schlicksup (Beloit College) and Shannon M. Fie (Beloit College) ***Measuring Mobility Along the Lower Rock River Valley: An Analysis of Woodland Debitage Signatures***

2:00 Mark L. Madsen (Chicago Archaeological Society/IAAA) ***Analysis of Two Catlinite Hopewell Pipes***

2:15 Carol E. Colaninno (Center for American Archeology), Ariel E. Taivalkoski (University at Buffalo SUNY), Katie E. Leslie (Illinois State Archaeological Survey), Sedrié D. Hart (Center for American Archeology), and Alison Shepherd (Center for American Archeology) ***Recent Excavations at the Buried Gardens of Kampsville: A Middle Woodland Habitation Site in the Lower Illinois River Valley***

2:30 Alexey Zelin (ISAS-University of Illinois) ***New Evidence of the Cunningham Phase Occupation in the Northern American Bottom***

2:45 Lauren M. Fitts (Illinois State Archaeological Survey), Jada P. Zook (Illinois State Archaeological Survey), and Jennifer L. Goldman (Illinois State Archaeological Survey) ***New Insights on Jersey Bluff Lithic Technology: A Preliminary Analysis of the Wedding Site (11JY499)***

3:00 Della Collins Cook (Indiana University), Elizabeth Lorraine Watts (Indiana University), Leslie Elizabeth Drane (Indiana University), and Rebecca A. Nathan (Indiana University) ***Burned Bone at Yokem: Questioning Cremation as a Mortuary Practice***

3:15 Kelsey Witt (University of Illinois) and Ripan S. Malhi (Illinois State Archaeological Survey) ***Ancient DNA Analysis of Late Woodland Dogs from Janey B. Goode***

1:30 pm – 5:00 pm [207] General Paper Session ----------Room: Knox

Late Prehistoric Period Studies: Ohio Valley and Michigan
(Michael J. Hambacher, Chair)

1:30 Erica L. Ausel (Indiana University-Bloomington), Charla Marshall (University of Illinois at Urbana-Champaign), and Mark Schurr (University of Notre Dame) ***Migration, Violence and Depopulation: Recent Bioarchaeological Investigations at Angel Mounds***

1:45 Matthew J. Davidson (University of Kentucky) ***Lording Over the Rings at the Hardin Site: Toward an Occupational History of a Fort Ancient Locality***

2:00 Joseph C. Shaffer (University of Cincinnati) ***The Wynema Site (33Ha837): A Newly Discovered Late Fort Ancient Habitation Near the Madisonville Site***

2:15 Andrew C. Seidel (Arizona State University) ***Pipes as People? Abandoning the Subject/Object Divide within Mortuary Analysis***

2:30 Jon W. Carroll (Oakland University) ***Reinterpreting Springwells Ceramics in the Great Lakes Region of North America***

2:45 Scott J. Demel (Northern Michigan University) ***MPS - île de Castor Site – A Seasonal Late Woodland Camp on Beaver Island, Michigan***

3:00 Aaron Comstock (The Ohio State University) and Stuart Nealis (University of Kentucky) ***Exploring the Grey Literature on the "Good and Grey" Cultures:***

Reassessing the Late Woodland Period of the Middle Ohio River Valley

3:15 Lauren M. Johnson (Ohio University) and Paul E. Patton (Ohio University) ***Spatial Organization and Subsistence Implications of Patton's Cave: A Late Woodland/Late Prehistoric Rockshelter in the Hocking Valley, Southeastern Ohio***

3:30 Break

3:45 David Pollack (Kentucky Archaeological Survey) and A. Gwynn Henderson (Kentucky Archaeological Survey) ***Fort Ancient Public Structures***

4:00 William A. Lovis (Michigan State University) ***The Use of Optically Stimulated Luminescence (OSL) Dating as an Aid to the Sand Site Archaeology of the Great Lakes Region***

4:15 Robert F. Maslowski (Mud River Books) ***Fort Ancient, Monongahela and Ohio Valley Siouan Migrations***

4:30 Michael J. Hambacher (CCRG, Inc.) and Randall J. Schaetzl (Michigan State University) ***Cache Pits at the Fisher Site (20OT283), a Late Prehistoric Site in Ottawa County, Michigan***

4:45 A. Gwynn Henderson (Kentucky Archaeological Survey) and Linda S. Levstik (University of Kentucky Social Studies Education) ***Applying the Chaîne Opératoire…With Kids***

1:30 pm – 4:00 pm [208] General Paper Session -------- Room: Marion

Woodland Mounds and Earthworks (Karen Leone, Chair)

1:30 Karen L. Leone (Gray and Pape, Inc.), Bradley T. Lepper (Ohio Historical Society), Kathryn A. Jakes (The Ohio State University), Linda L. Pansing (Ohio Historical Society), and William H. Pickard (Ohio Historical Society) ***Radiocarbon Dates from the Central Grave of the Adena Mound***

1:45 William F. Romain (The Ohio State University), G. William Monaghan (Indiana University), Jarrod Burks (Ohio Valley Archaeology, Inc.), Michael J. Zaleha (Wittenberg University), Karen Leone (Gray and Pape, Inc.), Tim Schilling (Midwest Archaeological Center), Al Tonetti (ASC Group), Matthew Purtill (Gray & Pape, Inc.), Edward W. Herrmann (Glenn A. Black Laboratory of Archaeology) ***Serpent Mound Project Results 2013***

2:00 Stuart Nealis (University of Kentucky) ***Geophysical Investigations at the Portsmouth Earthworks in Greenup County, Kentucky: Preliminary Results***

2:15 Duncan P. McKinnon (University of Central Arkansas), Jason L. King (Center for American Archeology), Jane E. Buikstra (Arizona State University), and Taylor H. Thornton (University of Illinois, Urbana-Champaign) ***Returning to Kamp Mounds (11C12): Results from Geophysical Survey and High-Density Topographic Mapping in Calhoun County, Illinois***

2:30 Break

2:45 Mark R. Schurr (Univeristy of Notre Dame) ***Bipartite Division in a Middle Woodland "Moundbuilder" Society: Evidence from Archaeological Prospection***

3:00 A. Martin Byers ***Migrating Bones or Migrating People: The Interregional Hopewellian Ceremonial Sphere***

3:15 William Green (Beloit College) and Roland Rodell (University of Wisconsin-Rock County) ***"A Standard Method": George H. Squier's Review of the 1914 Excavation at the White Mound Group, Vernon County, Wisconsin***

3:30 Matthew D. Pike (Purdue University), Greg Wilson (University of California Santa Barbara), Amber VanDerwarker (University of California Santa Barbara) ***A History of Archaeological Research at the C.W. Cooper Site in the Central Illinois River Valley***

3:45 Robert Reis (National Park Service) ***Hopewell Panpipes: Experimental Reconstruction and Exploration of Music in Hopewell***

3:45 pm – 5:00 pm [209] General Paper Session ------- Room: Fairfield

Late Woodland – Ohio Valley, Michigan & Ontario
(Elizabeth L. Watts, Chair)

3:45 William C. Johnson and P. Nick Kardulias (College of Wooster) ***The Late Woodland Period Ceramics from the Wansack Site (36Me61), Mercer County, Pennsylvania***

4:00 Joshua Lieto (Michigan State University) and Kenneth Mohney (Monroe County Community College) ***Life on the Lake Erie Plain: the Adams site of Monroe County, Michigan***

4:15 Christopher Watts (University of Western Ontario) ***Recent Investigations at the Late Woodland Cedar Creek Earthworks (AaHq-2)***

4:30 Elizabeth L. Watts (Indiana University) ***Archaeological Investigations of the Late Woodland and Early Mississippian Occupations at the Stephan-Steinkamp Site (12PO33) in Posey County, Indiana***

4:45 Wendy Munson Scullin and Michael Scullin (Midwest Ethnohorticulture) ***How Many Maize-leaf Phytoliths are Found in Prehistoric Gardens?***

1:30 pm – 4:30 pm [210] General Poster Session ------- Room: Fayette

Midwestern Archaeology

209-A Michael L. Hargrave, Scott Tweddale, Carey L. Baxter, and George Calfas (ERDC-CERL) ***Enhancing Detection of Historic Farmsteads in LiDAR Bare Earth DEMs***

209-B Kristin M. Hedman (ISAS/PRI-UIUC), Stanley Ambrose (University of Illinois), Matthew Fort (ISAS/PRI-UIUC), Philip Slater (ISAS/PRI-UIUC),

Thomas E. Emerson (ISAS/PRI-UIUC) ***Immigrants and Interactions at Cahokia: Insights from Stable Carbon and Strontium Isotopes of the Cahokia Mound 72 Beaded Cape Burial Group***

209-C Jessica Richardson (Indiana University), Meredith McCabe (Indiana University), Dean Reed (Indiana University), and Cheryl Ann Munson (Indiana University) ***Tools of the Trade: Lithic Assemblages from the Hovey Lake (12PO10) and Ries-Hasting (12PO590) Archaeological Sites, Posey County, Indian***

209-D Kevin C. Nolan (Ball State University) ***Prospecting for Gardens: Application of Geochemistry and Magnetic Susceptibility to Identify Prehistoric Agricultural Locations***

209-E Pope, Melody K. (University of Iowa, Office of the State Archaeologist), John F. Doershuk (University of Iowa, Office of the State Archaeologist), William E. Whittaker (University of Iowa, Office of the State Archaeologist), Shirley Schermer (University of Iowa, Office of the State Archaeologist, William Green (Beloit College) ***Earthen Mounds as Image Making***

209-F Amanda Rollins (Indiana University) Frederika Kaestle (Indiana University), and Peter Warnock (Missouri Valley College) ***An Assessment of Microscopy and Genetic Methods for Archaeoparasitology Analysis at the Historic Village of Arrow Rock, Missouri***

209-G Taylor H. Thornton (University of Illinois) ***An Examination of Middle Woodland Spatiotemporal Settlement Trends in the Lower Illinois River Valley***

209-H Yolona Ngandali (University of Wisconsin-La Crosse) ***Close Range 3D Scanning of Artifacts for Digital Collections: Standard Workflow Procedures***

209-I Joshua J. Wells (Indiana University South Bend), Eric C. Kansa, Sarah Whitcher Kansa, Stephen J. Yerka (University of Tennessee), R. Carl DeMuth (Indiana University), Kelsey Noack Myers (Indiana

University), Thaddeus G. Bissett (University of Tennessee), and David G. Anderson (University of Tennessee) ***Building the Big Picture on Eastern North American Prehistory: Initial Findings from the Digital Index of North American Archaeology***

209-J Kelsey Hanson (Grand Valley State University) ***A GIS Predictive Model for Woodland Period Sites in Ottawa County, Michigan***

4:15 pm – 5:30 pm Student Workshop ---------- Room: Marion

Getting the Job (Richard Edwards, Susan Kooiman, and Erin Benson, Organizers; Andrew Upton and Aaron Comstock, Moderators; Sean Dunham, Board Liason; M. Catherine Bird, Dawn Cobb, Jodie O'Gorman, Paul Pacheco, Mike Wiant, and Tom Zych, Panelists.)

5:00 pm – 9:00 pm Student/Professional Mixer-Barley's Underground

Barley's is located one block north of the Hyatt Regency on the west side of High Street. Two beverages will be provided along with light appetizers and snacks. ***Advance registration required.***

SATURDAY MORNING

OCTOBER 26, 2013

8:00 am – 5:00 pm Registration ---------- County Foyer

8:00 am – 5:00 pm Exhibits ---------- Room: Morrow

8:00 am – 11:15 am [301] Organized Paper Session --- Room: Fairfield

Current Research in Ohio Archaeology (Ohio Archaeological Council [OAC]) (Robert Genheimer, Organizer and Chair)

8:00 Paul J. Pacheco (SUNY Geneseo), Erin Steinwachs (Ball State University), and Jenna Anderson (SUNY Geneseo) ***Archaeological Investigations at Datum H: Exploring Ohio Hopewell Activities at the Edge of Hopewell Mound Group***

8:15 Jared McAlexander (Bloomsburg University) A ***Microcontextual Analysis of Datum H Heavy Fractions: Hopewell Activities on the Edge of the Hopewell Mound Group***

8:30 DeeAnne Wymer (Bloomsburg University) ***The Paleoethnobotanical Assemblage from Datum H, Hopewell Mound Group: At the Juncture of Ceremony and Ritual***

8:45 Gessica Barry (Bloomsburg University) ***Implications for Hopewell Sedentism: An Analysis of the Brown's Bottom 1 and Lady's Run Sites, Chillicothe, Ohio***

9:00 Jeffrey Dilyard, Paul Pacheco (SUNY-Geneseo), and Jarrod Burks (Ohio Valley Archaeology, Inc.) ***Solar Calendar Discovery Follows Archaeological Analysis of Hopewell Structure at Brown's Bottom, Ross County, Ohio***

9:15 Glennwood Boatman (WLEARP) ***Revisiting the Seaman's Fort Defensive Earthworks***

9:30 Jonathan E. Bowen ***The Ohio Early Archaic Point Database and an Example of its Utility***

9:45 Break

10:00 Jamie Davis (Ohio Valley Archaeology, Inc.) ***GIS Predictive Algorithm for the Upper Clear Creek Drainage System near Amanda, Ohio***

10:15 Brian G. Redmond (Cleveland Museum of Natural History) ***Changing Uses of Hilltop Enclosures in Northern Ohio: Recent Research at the Multicomponent Heckelman Site in Erie County, Ohio***

10:30 Peter E. Hanson (Wittenberg University) and Lynn M. Hanson (Dayton Society of Natural History) ***Testing Phosphate Levels within Late Prehistoric Features: Preliminary Results***

10:45 Jill E. Krieg (Dayton Society of Natural History) and Matthew P. Purtill (Gray & Pape, Inc.) ***You Can't (Strap) Handle the Truth: A New Perspective on Madisonville Ceramics***

11:00 Robert A. Genheimer (Cincinnati Museum Center) ***Pit Formation and Diversity/Homogeneity of Madisonville-age Trash-filled Storage Pits at the Hahn Site Near Cincinnati***

11:15 am – 12:00 pm OAC Business Meeting ----------Room: Fairfield

8:15 am – 10:00 am [302] General Paper Session ----------Room: Knox

Paleoindian and Archaic Studies in the Midwest (Andrew White, Chair)

8:15 Kurt William Carr (State Museum of Pennsylvania) ***Peopling of the Middle Atlantic Region: A Review of Paleoindian Research***

8:30 G. Logan Miller (The Ohio State University) ***Paleoindian Plant Processing at Paleo Crossing: Pattern or Bias?***

8:45 Andrew White (University of Michigan) ***Mobility, Exchange, and Patterns of Raw Material Transport during the Early Archaic Period in the Midcontinent***

9:00 Justin N. Carlson (University of Kentucky) and George M. Crothers (University of Kentucky) ***Macroscopic Analysis of Late Archaic Ground Stone Pestles from Carlston Annis (15Bt5), Kentucky***

9:15 David J. Nolan (ISAS-PRI, UIUC), Timothy Boyd (ISAS-PRI, UIUC), and M. Alexis Volner (ISAS-PRI, UIUC) ***An Examination of Theban Landscape and Raw Material Use on the Galesburg Plain of Western Illinois***

9:30 Charity F. Upson-Taboas (Indiana University) ***Elrod Burial 14: How Many Are There?***

9:45 Robert E. Ahlrichs (University of Wisconsin-Milwaukee) ***Caching and Curation of Sets; Red Ochre Cache Blades and Use Wear***

9:00 am – 12:00 pm [303] Organized Paper Session ---- Room: Marion

Innovation, Best Practices and Projects, and Problems in the Study of the Past in Cultural Resource Management (Kevin Schwarz, Organizer and Chair)

9:00 Brad H. Koldehoff (Illinois Department of Transportation) and Thomas E. Emerson (Illinois State Archaeological Survey) ***Managing the Unexpected in Recent and Ancient Urban Settings: Lessons from the New Mississippi River Bridge Project***

9:15 John E. Kelly (Washington University) ***In the Spirit of …: The Processes of Preservation of the Ancient Town of East St. Louis***

9:30 Pope Melody K., (University of Iowa, Office of the State Archaeologist), John F. Doershuk (University of Iowa, Office of the State Archaeologist), and William E. Whittaker (University of Iowa, Office of the State Archaeologist) ***Buried Site Challenge: Defining a Middle Archaic Community***

9:45 David Klinge (ASC Group, Inc.) ***Plow Zones, Truncated Features, and a Nineteenth Century Farm: Examining Class and the Use of Space on a Central Indiana Farmstead***

10:00 Patrick Trader (Gray & Pape, Inc.) ***The Weaver Farm Site Complex: Examining a Unique Occupation in the Crawford Uplands of Indiana***

10:15 Break

10:30 Stephen C. Wagner (CEMML) and Timothy N. Dahlen (CEMML) ***Archaeological Survey at Fort McCoy: A View of Western Wisconsin Archaeology from the Headwaters of the La Crosse River***

10:45 Sean Dunham (Commonwealth Cultural Resources Group, Inc.) and James Montney (Commonwealth Cultural Resources, Inc.) ***"And the Survey Says": An Example from the Upper Peninsula of Michigan***

11:00 Albert Pecora (Ohio Valley Archaeology, Inc.) ***An Evaluation of Common Perceptions in Ohio's CRM Archaeology***

11:15 J. Ryan Duddleson (Cardno JFNew) ***Integrated Management of Cultural and Natural Resources***

11:30 Kevin R. Schwarz (ASC Group, Inc.) ***A Review of Recent Efforts to Identify and Verify the Hopewell Road with Future Research Prospects***

11:45 Samuel P. Snell (Civil & Environmental Consultants, Inc.), Ryan L. Jackson (Civil & Environmental Consultants, Inc.), and Angie R. Krieger (US Forest Service-Hoosier National Forest) ***Lost and Forgotten Historic Roads: The Buffalo Trace, a Case Study***

10:15 am – 11:45 am [304] Organized Paper Session --------Room: Knox

Aztalan Structure Revisited (Lynne Goldstein, Organizer and Chair)

10:15 Lynne Goldstein (Michigan State University) ***Symposium Introduction***

10:30 Donald Gaff (University of Northern Iowa) ***West of the Palisade: Archaeological Investigation of a Stockade Extension at the Aztalan Site (47JE1)***

10:45 Jake Pfaffenroth (University of Wisconsin) ***An Examination of Gravel's Importance in the Modified Landscapes of Aztalan and Other Mississippian Sites***

11:00 Kathryn Frederick (Michigan State University) ***Data in a Half Shell: Utilization of Freshwater Mussels at Aztalan, Wisconsin***

11:15 Lynne Goldstein (Michigan State University) ***Reconsidering the Role and Implications of Aztalan's Gravel Knoll***

11:30 Sissel Schroeder (University of Wisconsin-Madison) ***A Consideration of Mississippian Site Structure***

9:00 am – 12:00 pm [305] Organized Poster Session ----- Room: Fayette

Anthropogenic Transformation at Angel Mounds: Results of the 2013 NSF REU Investigations (Jeremy J. Wilson and G. William Monaghan, Organizers)

305-A Alena Wigodner (Washington University) ***Building Upward: Investigations into Mound Construction at Angel Mounds***

305-B Robert Cermak (Albion College) and Samantha Conklin (Indiana University of Pennsylvania) ***Mounds for and By Whom?: A Material Culture Analysis of Mounds A and F at Angel Mounds***

305-C Caitlin Rankin (Beloit College) ***Micromorphology: A Multi-Disciplinary Approach to Recognize Past Human Activities on Buried Mound Surfaces and Fills at Angel Mounds***

305-D Katherine Carter (University of South Carolina) ***Mounded Space and the Significance of Place: An Analysis of Inner Mound and Sub-Mound Features from Mound F at Angel Mounds***

305-E Cassandre Stirpe (Vassar College) ***Geochemical Investigations of Buried Mound Surfaces at Angel Mounds***

305-F Alexander Short (University of Minnesota-Morris) ***Getting Down to Build the Mounds: Quarry Areas for Mound Construction at Angel***

305-G Andrew Walker (College of William and Mary) ***Building Angel Mounds: A Functional Analysis of Mound A's Lower Platform***

305-H Sarah M. Swartz (University of Missouri) ***Looking Deeper: A Geochronological Reconstruction of Mound A from the Inside Out***

305-I Ashleigh Thompson (University of Minnesota, Morris) ***Topographic Change of Mound A at Angel Mounds***

305-J Sara Michelle Head (Indiana University-Purdue University, Indianapolis) **Magnetometry and the Mounds: Interpretations of geophysical survey and ground-truthing excavations on Mound A**

305-K G. William Monaghan (Indiana University), Mathew Pike (Purdue University), Nathan J. Dubinin (Purdue University), Natasha R Maxwell (Indiana University-Purdue University, Indianapolis), and Edward Herrmann (Indiana University) ***The Low Mounds at Angel: Mounds C, B, and H***

SATURDAY AFTERNOON/EVENING

OCTOBER 26, 2013

1:30 pm – 4:00 pm [306] General Paper Session ------- Room: Fairfield

Woodland Period Settlement in the Ohio Valley and Michigan
(Darlene Applegate, Chair)

1:30 Andrew Mallo (Illinois State University), James M. Skibo (Illinois State University), Eric C. Drake (Hiawatha National Forest Service), and Fernanda Neubauer (University of Wisconsin, Madison) ***Squeezing the Past Out of the Archaeological Record: A Summary of the 2012-2013 Field Investigations on Grand Island, Michigan***

1:45 Rebecca Hummel (University of Kentucky) ***A Geophysical Survey at Walker-Noe (15Gd56)***

2:00 Darlene Applegate (Western Kentucky University) ***Early-Middle Woodland Domestic Structures in Kentucky***

2:15 Paul E. Patton (Ohio University) ***The Transition from Foraging to Food Production: Evidence from the County Home Site (33AT40), Hocking Valley, Ohio***

2:30 Stephen B. Carmody (University of Tennessee), Thaddeus G. Bissett (University of Tennessee), and Lydia D. Carmody (University of Tennessee) ***The Bell Site (40DV307): An Archaic and Woodland-Period Occupation on the Middle Cumberland River in Davidson County, Tennessee***

2:45 Break

3:00 Jeffrey Chivis (Michigan State University) ***Defining Middle Woodland Communities and Interaction Patterns in West Michigan and Northwest Indiana***

3:15 Elliot M. Abrams (Ohio University) and AnnCorinne Freter (Ohio University) ***The Environmental Context for the Woodland Transition in Southeastern Ohio***

3:30 Jerrel C. Anderson ***Hopewell Settlement Patterns around Circleville, Ohio***

3:45 Nigel Brush (Ashland University) ***Solving the Mystery of the Hopewell Collapse: A Single Agent with Multiple Effects***

1:30 pm – 3:30 pm [307] Organized Paper Session --------Room: Knox

Hopewell Reinvented Six Centuries Later at Emerald Mound: Results of the RIHA Project (Jeffrey D. Kruchten, Organizer and Chair)

1:30 Timothy R. Pauketat (University of Illinois), Susan M. Alt (Indiana University Bloomington), Jeffery D. Kruchten (University of Illinois), and William F. Romain (The Ohio State University) ***The Archaeology of a Moonscape***

1:45 Maura E. Hogan (Indiana University) ***Geochemical Insights into Early Mississippian Monumentality: Results from the 2012 Ford Mound Excavation at the Pfeffer Site***

2:00 Susan M. Alt (Indiana University) ***A Tale of Two Temples***

2:15 Jeffrey D. Kruchten (University of Illinois) ***Overbuilt and Underpopulated: the Abundance of Specialized Architecture at Emerald***

2:30 Break

2:45 Rebecca Barzilai (Indiana University) ***Pottery, Pilgrims, and Pathways: An Analysis of the Ceramic Assemblage from the 2012 and 2013 Excavations at Emerald Mound (11S1)***

3:00 B. Jacob Skousen (University of Illinois) ***Memory, Monuments, and the Moorehead Phase Occupation at the Emerald Site***

3:15 Melissa Baltus (ISAS-UIUC) ***Revitalizing Cahokia's Moorehead Phase: Change and Continuity at the Copper Site***

1:30 pm – 3:30 pm [308] General Paper Session -------- Room: Marion

Late Prehistoric Period Studies-Upper Mississippi Valley (Sara Lynn Pfannkuche, Chair)

1:30 Melissa Baltus (ISAS-UIUC) ***The Joe Louis Site, a Fisher Phase Village in Northeastern Illinois***

1:45 Thomas J. Zych (University of Wisconsin-Milwaukee, HRMS) ***The Construction of a Mound and a New Community: The Northeast Mound at the Aztalan Site***

2:00 Roland L. Rodell (University of Wisconsin-Rock County) and William Green (Beloit College) ***"The Fact Should be Found in the Artifacts": George Hull Squier, George Arbor West, and the Interpretation of Aztalan***

2:15 Break

2:30 Kathleen M. Foley (University of Wisconsin-Oshkosh) ***Analysis of Human Remains from the Karow Site (47WN198)***

2:45 John D. Richards (University of Wisconsin-Milwaukee) and Jennifer L. Picard (University of Wisconsin-Milwaukee) ***Mounds and Middens at Aztalan: The 2013 UW-Milwaukee Aztalan Project Excavations***

3:00 Jeremy A. Doyle (University of Wisconsin, Milwaukee) ***Cedarburg Bog Archaeology: The Bezella Collection, Ozaukee County, Wisconsin***

3:15 Sara Lynn Pfannkuche (MARS, Inc.) ***Conserving an Archaeological Collection for Land Management: Curating 40 years of Archaeology at McHenry County Conservation District***

1:30 pm – 4:00 pm [309] Organized Poster Session ---- Room: Fayette

Clocking and Contextualizing the Inception of Fort Ancient in the Lower Miami Valley: Initial Views of the Guard Site (12D29), Southeast Indiana (Robert Cook, Organizer)

309-A Robert Cook (The Ohio State University), Aaron Comstock (The Ohio State University), and Kristie Martin (The Ohio State University) ***A Large and Early Fort Ancient Village: Preliminary Analysis of Guard Site Architectural Patterns and Reuse***

309-B Jarrod Burks (Ohio Valley Archaeology, Inc.) and Robert Cook (The Ohio State University) ***Geophysical Survey of the Guard Site***

309-C Aaron Comstock (The Ohio State University) ***Organization of Lithic Reduction: Preliminary Analysis of Chipped Stone Artifacts from the Guard Site***

309-D Kristie Martin (The Ohio State University) ***The Context of Corn and Other Key Floral Resources: Preliminary Analysis of Paleobotanical Remains from the Guard Site***

309-E Melissa French (The Ohio State University) ***Analysis of Faunal Remains from the Guard Site***

309-F Robert Cook (The Ohio State University), Wendy Church (The Ohio State University), and Marcus Schulenburg (University of Wisconsin-Milwaukee) ***Pottery Morphology, Style, and Chemical Composition at the Guard Site***

309-G Robert Cook (The Ohio State University), T. Douglas Price (University of Wisconsin, Madison), and James Burton (University of Wisconsin, Madison) ***Movement of Mississippian Artifacts and People: Preliminary Analysis of Human Dental Chemistry in Archaeological Context at the Guard Site***

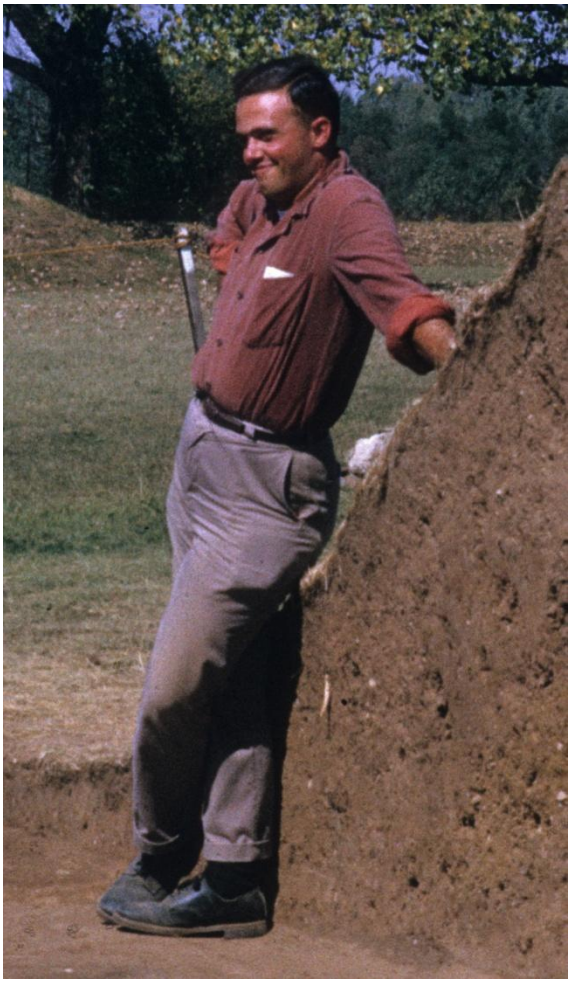
4:15 pm – 5:15 pm MAC Business Meeting ---------- Room: Fairfield

5:30 pm – 7:00 pm Reception and Cash Bar ---------- Room: Franklin D

7:00 pm – 9:00 pm Banquet and Invited Speaker Room: Franklin B& C

Dr. James Brown (Professor Emeritus, Northwestern University)

Title: ***Place, Practice, and Process in Hopewell Culture***



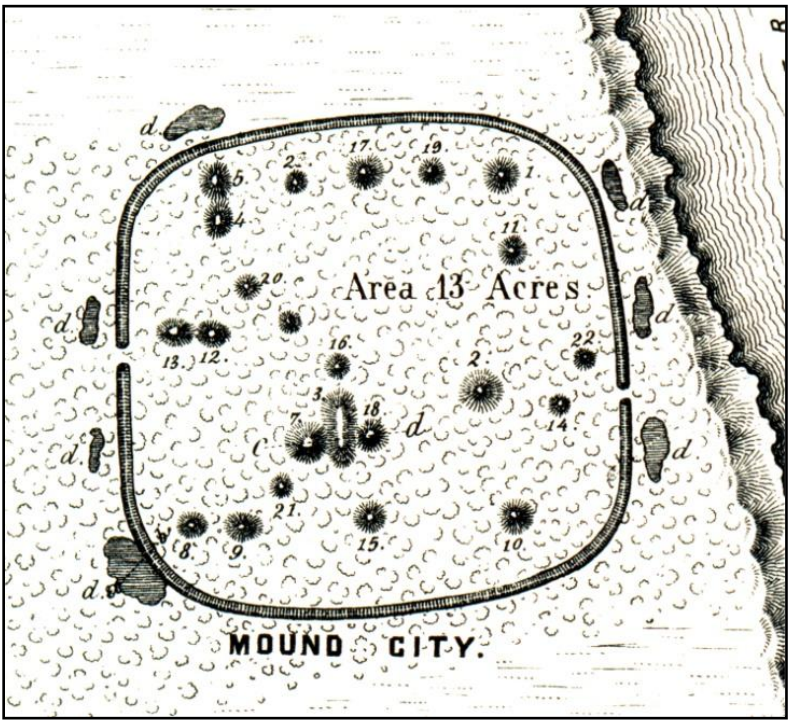
Jim Brown during Excavations at Mound City, 1963

SUNDAY

OCTOBER 27, 2013

8:00 am – 4:00 pm **Hopewell Earthworks Bus Tour**

Extensive visits to Mound City and Newark Earthworks with brief stops and virtual tours *en route* to a variety of other famous Hopewell sites. The tour will be led by archaeologists with much expertise in the respective sites: Jarrod Burks, Brad Lepper, and Bret Ruby. Lunch is provided. ***Advance registration required.*** Attendees meet at the North entrance to the hotel at 8:00 am.



SYMPOSIA ABSTRACTS

[101] Ohio Earthworks: History of Research, Preservation, and Archaeo-tourism

JARROD BURKS (Ohio Valley Archaeology, Inc.) and ROBERT A. COOK (The Ohio State University)

Ohio's earthworks have been a source of wonder to travelers for thousands of years. Since the late eighteenth century they have been a topic of much writing, scholarly thought, and field research. In this session we open the conference with a series of extended presentations related to earthworks. The session begins with a tour of the Ohio Historical Society's role in studying and preserving Ohio earthworks. We then look beyond OHS landmark sites to the larger corpus of sites and explore the current state of earthwork preservation via multiple levels of remote sensing, where we discover that there is much lost but also much left to learn about earthworks. A virtual walk down the Ancient Ohio Trail introduces us to the state-of-the-art in archaeo-tourism, followed by a discussion of World Heritage status and the on-going attempt to list some of Ohio's earthworks. The session ends with a special introduction to the earthen enclosures of the Upper Amazon Basin region.

[201] Mapping, Understanding, and Comparing Earthen Enclosures: Current Research from Ohio to the Amazon

JARROD BURKS (Ohio Valley Archaeology, Inc.) and ROBERT A. COOK (The Ohio State University)

Earthworks, and especially geometric enclosures, are a special class of monumental architecture that has appeared independently and at different times in several areas around the globe. After over two hundred years of documentation and research, Ohio earthwork scholars continue to make significant finds in the field and archives. The presentations in this session serve two goals, (1) to provide updates on on-going earthwork research in Ohio, especially as it pertains to geometric enclosures, and (2) to put Ohio earthworks in a broader context through the exploration of select earthworks in the greater Eastern Woodlands region and the upper Amazon Basin.

[301] Current Research in Ohio Archaeology (Ohio Archaeological Council)

ROBERT GENHEIMER (Cincinnati Museum Center)

This session highlights exciting new research in Ohio archaeology. Geographic coverage of the papers includes northeast, southern, and southwest Ohio. Chronologically, papers detail Early Archaic through Late Prehistoric period research, including six on the Middle Woodland/Hopewell period and three on Fort Ancient culture sites in southwest Ohio. There is a wide range of thematic subjects including the use of GIS in predictive modeling, pit formation processes and feature diversity, calendric observations, archaeological

signatures of sedentism, changing architecture through time, utility of temporal databases, soil phosphate analyses, flotation, paleoethnobotany, ceramics, and additional material culture studies.

[303] Innovation, Best Practices and Projects, and Problems in the Study of the Past in Cultural Resource Management

KEVIN R. SCHWARZ (ASC Group, Inc.)

The Midwest Archaeological Conference has sought archaeological presentations on innovation, best practices and best projects in archaeological studies derived from Cultural Resource Management-mandated investigations. An organized paper symposium focuses on the exemplars of archaeological research, innovative methods, collaboration and important research findings resulting from archaeological research from the Mid-Continent. The presentations result from Phase III mitigation excavations, archaeological survey and testing, or problems in cultural resource management such as the identification and management of large-scale archaeological features/sites or investigation and management of thematically-related sets of sites.

[304] Aztalan Structure Revisited: Excavations at the Southern Portion of the Site

LYNNE GOLDSTEIN (Michigan State University)

During Summer 2013, Michigan State University returned to the Aztalan site to conduct some specific test excavations. Joining Lynne Goldstein and students in this project were Don Gaff and students from University of Northern Iowa, and Sissel Schroeder and students from U of Wisconsin-Madison. We tested two discrete sections of the southern end of the palisaded area of the site: 1) the so-called gravel knoll at the southeast corner of the palisade, and 2) the unique palisade "addition" off the southwest corner of the structure. While there was significant disturbance in the palisade addition, we did recover a number of features that may provide information about the structure's function. The gravel knoll excavations were surprising since the knoll was significantly modified by people, and included an unusual series of features that made extensive use of both gravel and shell. Papers will outline preliminary analyses of both sets of excavations.

[305] Anthropogenic Transformation at Angel Mounds: Results of the 2013 NSF REU Investigations

JEREMY J. WILSON (Indiana University-Purdue University Indianapolis) and
G. WILLIAM MONAGHAN (Indiana University Bloomington)

The 2013 National Science Foundation Research Experience for Undergraduates at Angel Mounds examined the anthropogenic transformations at this Mississippian period site in southwestern Indiana. In bringing together undergraduate students and staff from multiple disciplines and universities, we hoped to provide a novel multidisciplinary field and laboratory research environment to prepare students for 21st century

archaeology. This year's research included excavations of the lower platform of Mound A and the reopening of Mound F, as well as minimally and noninvasive geoarchaeological and geophysical investigations of several additional earthworks on site. The posters in this symposium highlight these investigations and provided preliminary data on landscape modification, mound construction and function, use and reuse of occupational surfaces, and mound preservation. Simultaneously, the scale and scope ranges from the geochemistry, micromorphology of mound use-surfaces and fills, through analyses of features and material culture, and GIS-based analyses of Pre-Columbian and historic landscape changes.

[307] Hopewell Reinvented Six Centuries Later at Emerald Mound: Results of the RIHA Project

JEFFERY D. KRUCHTEN (University of Illinois)

Concurrent with the founding of Cahokia, a shrine complex was constructed at the edge of the prairie in a newly organized farming district approximately 25 km east of that city. The emplacement of this complex, including the Emerald and Pfeffer sites, appears to be a re-invention of long-curated Hopewellian knowledge of celestial phenomena, particularly lunar, and the construction of earthen monuments aligned to these. These shrines were likely key sites along a pilgrimage circuit that brought people to the area from across the Midwest, particularly southwestern Indiana. Participants in this symposium present data from recent excavations conducted in 2012 and 2013 as part of the "Emerald Archaeological Project," a joint Indiana University and University of Illinois endeavor funded by the Historical Society of Boston's Religion and Innovation in Human Affairs (RIHA) Program and the John Templeton Foundation.

[309] Clocking and Contextualizing the Inception of Fort Ancient in the Lower Miami Valley: Initial Views of the Guard Site

ROBERT COOK (The Ohio State University)

Over the past few years, a long-term field project at the Guard Site (12D29) was initiated with funding from the National Geographic Society. The Guard Site is an early Fort Ancient village located on a terrace of the Great Miami River near the city of Lawrenceburg, in southeast Indiana. Geophysical survey of the site revealed the signatures of many burned structures in a large circular village, similar to well-known house patterns in the region. This symposium focuses on a variety of preliminary analyses in progress, including pottery, lithics, fauna, flora, and human chemistry. Important details have already been learned about house construction, temporal position, intrasite variation, and external connections and human movement.

PAPER AND POSTER ABSTRACTS

The Environmental Context for the Woodland Transition in Southeastern Ohio

ELLIOT M. ABRAMS (Ohio University) and ANN CORINNE FRETER (Ohio University)

New pollen core data from the Patton site (33At990) in southeastern Ohio indicate that seasonal aridity increased during the transition from nomadic hunting and gathering communities to sedentary horticultural communities. These new data also indicate increased anthropogenic landscape modification during this cultural transition. This reconstructed environmental context articulates with archaeological data relating to settlement patterns, community organization, and economic adjustments. Finally, the Woodland transition in southeastern Ohio is compared to similar patterns found elsewhere in the Ohio Valley.

Caching and Curation of Sets; Red Ochre Cache Blades and Use Wear

ROBERT E. AHLRICHS (University of Wisconsin, Milwaukee)

The development of theory surrounding caches and more broadly, curation, has overlooked the implications of artifacts that were manufactured, used, and deposited as a set. Red Ochre cache blades fit this description of a set and provide an opportunity to explore curation in the context of sets of artifacts. While Red Ochre cache blades have been discussed as sets in previous literature, these studies have focused only on the manufacturing portion of these artifacts' life history. The implications for the users and depositors of these sets of artifacts has not been explored. The Red Ochre cache blades found at the Riverside Cemetery site are examined for evidence of use patterns in the context of sets. New preliminary use wear data are presented and implications of this investigation are discussed.

A Tale of Two Temples

SUSAN M. ALT (Indiana University)

Recent excavations at Emerald uncovered two temple structures. Such structures, marked by unusual construction, singular closing ceremonies and their specially prepared bright yellow floors, appear unique to the uplands of the Cahokian polity yet also seem critical to the religious transformations that fueled the rise of Mississippian Cahokia. The depositional details and construction modes of these buildings are here examined in detail and lead to a conclusion that these buildings were in fact very important to the construction of the Emerald inhabitant's identities, beliefs and rituals and that they continued to matter well past their decommissioning.

Recent Investigations at the Oneota Culture Tremaine Site (47-LC-95)

DAVID A. ANDERSON (University of Wisconsin, La Crosse)

In the summer of 2011, the Archaeological Studies Program of the Department of Sociology and Archaeology at the University of Wisconsin-La Crosse began a multi-year research project at the Oneota culture Tremaine Site located just south of the town of Holmen, Wisconsin. Compliance work on a portion of the site in the late 1980s and early 1990s conducted by the Museum Archaeology Program of the State Historical Society of Wisconsin revealed the presence of well-preserved, sub-plowzone cultural features including the postmold patterns of at least seven large longhouse structures. This paper will present the preliminary results from the last three seasons of work by UW-L students and faculty at the site.

Hopewell Settlement Patterns around Circleville, Ohio

JERREL C. ANDERSON

The Circleville Earthwork was a major Ohio geometric work that was separated by 19 miles from the complex of earthworks in Ross County. The Circleville area is still relatively un-urbanized and is ideal for finding Hopewell habitation sites. Many habitation sites have been identified and their locations and relationship with the major Circleville Work and some minor area earthworks will be discussed. Habitation sites were found both on the Scioto River floodplains and on higher terraces along streams. There is evidence to suggest that both types of sites were seasonally occupied. The evidence also suggests a large Hopewell population density associated with the Circleville area of Pickaway County, Ohio.

Early-Middle Woodland Domestic Structures in Kentucky

DARLENE APPLEGATE (Western Kentucky University)

Historically, archaeological investigations of Early-Middle Woodland structures in Kentucky focused on ritual architecture associated with mounds. Now, however, archaeological data are accumulating about Early-Middle Woodland domestic structures. This paper describes the formal characteristics of 70 such structures at 30 sites across the state. A majority of the structures are lightly built and intended for short-term use or warm season occupation. These structures include circular and rectangular enclosed houses, open ramadas/sunscreens, and open cabanas/windbreaks/lean-tos, most of which were tensioned. There is limited evidence of reconstruction and reuse. Sizes vary considerably, though the majority are smaller than 20 sq m and would have accommodated six-seven individuals. Round forms outnumber non-round forms by a ratio of 2:1. Structure walls were constructed with unpaired, small- to medium-sized wooden posts inserted into pre-dug postholes or driven into the ground. Wall coverings likely were perishable materials, as there is limited evidence of daub.

Migration, Violence and Depopulation: Recent Bioarchaeological Investigations at Angel Mounds

ERICA L. AUSEL (Indiana University), CHARLA MARSHALL (University of Illinois), and MARK SCHURR (University of Notre Dame)

Angel Mounds (12-Vg-1) is a Mississippian archaeological site on the Ohio River east of Evansville, Indiana. With initial site formation circa A.D. 1050, human occupation at Angel Mounds peaked during the fourteenth century, with site abandonment occurring prior to European contact. Anthropologists are therefore faced with many questions about the people who lived and were buried at Angel Mounds, including: Where did they come from? What challenges did they face? and Where did they go? In this paper, we present new insights into the Angel Mound's Mississippian inhabitants drawn from osteological, stable isotopic, and ancient DNA analyses, in combination with new AMS dates. Our bioarchaeological research provides evidence of migration and violence at the site, argued to be related to the depopulation of Angel Mounds.

Revitalizing Cahokia's Moorehead Phase: Change and Continuity at the Copper Site

MELISSA BALTUS (ISAS-UIUC)

Previous archaeological research regarding the later Middle Mississippian occupation (A.D. 1200 – 1375) of Cahokia often focused on its imminent collapse, based on the dwindling population of the site, presence of fortification, and seemingly decreased political influence. Ceramic and structural evidence from the Copper site, located in the uplands east of Cahokia, suggest the social-political changes which took place during this time period were results of intentional choices people made as a means of revitalizing Cahokian Mississippian society. The location of the Copper site (near a trail between Cahokia and the upland mound center of Emerald) and the perpetuation of moundbuilding traditions were citational of early Cahokia, while at the same time pottery forms and building types at Copper were transformed. Rather than focusing on the past as simply reactive, this research highlights the proactive nature of change-as-persistence.

The Joe Louis Site, a Fisher Phase Village in Northeastern Illinois

MELISSA BALTUS (ISAS-UIUC)

Recent excavations by the Illinois State Archaeological Survey at the Joe Louis site, located in northeastern Illinois, revealed a single-component Fisher phase village (A.D. 1200 – 1400). While only a small portion of the site was excavated, the density of features suggests a sizable village while ceramic and lithic materials indicate relationships between the inhabitants of Joe Louis and Upper Mississippian populations in northwestern and southern Indiana. As only a handful of Upper Mississippian village sites have been excavated in the

Chicago area, the Joe Louis site provides an important key to fleshing out the history of this time period in the region.

Early Efforts at Surveying and Mapping the Mounds

TERRY BARNHART (Eastern Illinois University)

The geometric enclosures that form so conspicuous a feature of the Midwestern landscape have been the source of speculation since their rediscovery by Euro-Americans in the last quarter of the eighteenth century. The comparative study of these remains was then in its infancy, but early efforts at surveying and mapping the mounds are not without interest. The descriptive and documentary aspects of the fieldwork conducted by Jonathan Heart, Caleb Atwater, James McBride and James Erwin, Charles Whittlesey, Squier and Davis, Increase A. Lapham, and the Smithsonian Institution's Bureau of Ethnology are cases in point. Both the archival and published sources relating to those early investigations continue to be consulted in the reanalysis and comparative study of archeological sites and the reconstruction of site features partially or entirely obliterated. Archaeology's past in those instances still speaks to both the historian and the archaeologist.

Implications for Hopewell Sedentism: An Analysis of the Brown's Bottom 1 and Lady's Run Sites, Chillicothe, Ohio

GESSICA BARRY (Bloomsburg University)

Until relatively recently, our knowledge of Ohio Hopewell largely stemmed from explorations of monumental architecture, with little research conducted on the domestic aspect of their everyday lives. However, recent investigations designed specifically to explore Hopewell settlement patterns and document potential habitation loci - especially noteworthy are the excavations undertaken on the Harness property under the direction of Pacheco, Burks, and Wymer - have clear implications for the debate surrounding the issues of the degree and nature of Ohio Hopewell sedentism. In this presentation, I summarize current theoretical models and arguments that focus on the archaeological signatures of sedentary settlements and augment the discussion with my own explorations and suggestions. This discussion forms the basis for assessing whether the Brown's Bottom #1 and Lady's Run sites represent traces of Hopewell households and whether the sites were used for seasonal or year-round occupation.

Pottery, Pilgrims, and Pathways: An Analysis of the Ceramic Assemblage from the 2012 and 2013 Excavations at Emerald Mound (11S1)

REBECCA BARZILAI (Indiana University)

Located near Silver Creek in the Illinois uplands area, the Emerald Mound Site (11S1) was the focus of excavations in 2012 & 2013, funded by a grant from the RIHA foundation. These excavations indicated that this was a place where dynamic ritualistic and everyday practices were enacted, evident in the site structure, architecture, and material culture. As an analytical tool, ceramic

typologies often obscure the more subtle relationships that can be discerned at cultural boundaries where interactions between differing peoples is often a dynamic engagement, constantly reshaping material culture and social practices. As such, utilizing typological as well as compositional data derived from the ceramics excavated during these excavations, this paper will present an assemblage of ceramic materials describing the ways in which Late Woodland and Mississippian peoples from Illinois, Indiana, and perhaps farther afield, were engaging with each other at the Emerald Site.

The German Ridge Heritage Project in Hoosier National Forest: Excavations at the Maier-Speidel Farmstead

TIMOTHY BAUMANN (University of Tennessee), ROBERT MCCULLOUGH (McCullough Archaeological Services, LLC), VALERIE ALTIZER (University of Tennessee), HEATHER ALVEY (Indiana University), JEFF TOLBERT (Indiana University), and ANGIE KRIEGER (Hoosier National Forest)

The German Ridge Heritage Project was established in collaboration between Hoosier National Forest and Indiana University to explore the historic farming community of German Ridge in Perry County, Indiana. The German Ridge settlement was inhabited by the mid-19th century with primarily German immigrants, who operated small farms and cut timber to survive. In the fall of 2012, excavations were conducted on the Maier-Speidel farmstead, documenting structural evidence of a farmhouse, a barn, a smokehouse, and an outhouse. Interpretation of the material remains concluded that the site's inhabitants lived a modest lifestyle, but retained a portion of their German ethnicity. Paleoethnobotanical analysis of the privy fill identified thousands of berry and grape seeds that were likely the byproduct of brandy or wine production. Results of this investigation will be used to create a new heritage trail through the Hoosier National Forest.

The Trempealeau Archaeology Project: 2013 Investigations of Early Mississippian Occupation in the Upper Mississippi River Valley

DANIELLE M. BENDEN (University of Wisconsin-Madison) and ROBERT "ERNIE" BOSZHARDT (University of Wisconsin, Baraboo/Sauk County)

In 2010 and 2011 investigations by the "Mississippian Initiative" documented an early Middle Mississippian religious colony at Trempealeau, Wisconsin. In 2013 excavations were undertaken at the Knepper locality, immediately north of the isolated 3rd Street Platform Mound at the Uhl site. A 15 x 20 meter block was opened revealing portions of a distinct community plan. An east-west oriented "ditch" was likely the borrow pit for the adjacent platform mound. To the north of the ditch was an open-ended "H"-shaped post structure, also aligned precisely east-west that had no internal features. To the south was a complex of posts, wall-trenches, pit features, and a probable rectangular house. The open "ditch" was subsequently used as a midden and contained a variety of early Middle Mississippian artifacts, including fine ware ceramics and imported flints that were deposited from the southern activity

area.

Revisiting the Seaman's Fort Defensive Earthworks

GLENNWOOD BOATMAN (WLEARP)

The Seaman's Fort earthwork site in northern Ohio was reported as Early Woodland based on Leimbach ceramic and stemmed biface features with radiocarbon dates in the 590 to 400 B.C. range. One postmold from a habitation structure thought to be Early Woodland was later dated to 20 A.D. Radiocarbon dates for lenses in two of the mounds provided dates of 100 and 200 B.C. At the nearby Weilnau site, and from a feature which contained a Hopewellian "bladelet" dated to 185 B.C, David Stothers set the beginning of the Middle Woodland in North Central Ohio at ca. 100 B.C. Excavations at the Metz and Heckelman sites have added knowledge of the late Early Woodland and early Middle Woodland. The mounds at Seaman's Fort lie on that divide.

The Ohio Early Archaic Point Database and an Example of its Utility

JONATHAN E. BOWEN

The Ohio Early Archaic Point Database currently contains more than 5,000 provenienced entries. The following biface point types are included in the database: Thebes, Dovetail, Kirk Corner Notched, MacCorkle, St Albans, LeCroy, and Heavy Duty Serrated. A brief overview of the mechanics of the database is presented. The differing widespread distributions of Indiana Hornstone Kirk Corner Notched, MacCorkle, and Heavy Duty Serrated points in Ohio are described and discussed.

Solving the Mystery of the Hopewell Collapse: A Single Agent with Multiple Effects

NIGEL BRUSH (Ashland University)

The cause of the Hopewell Culture's collapse around A.D. 400 has been one of the great unsolved mysteries of Midwestern archaeology. Many theories have been advanced to explain the rapid disappearance of this great archaeological culture, but none have won widespread acceptance. In frustration, some archaeologists have argued that there was no Hopewell collapse – just a slow decline or gradual evolution into new cultural configurations. The Hopewell collapse, however, is not an illusion, nor is it unique. History and prehistory are littered with the remains of cultures and empires that have risen and fallen – many catastrophically. When multiple theories are advanced to explain a single event, it is often because the causal agent was multifaceted in its effects. Geologists have identified a series of rapid climate change events called Bond cycles that would have had multiple impacts on human culture. The Hopewell Culture collapsed during a Bond cycle cold phase.

The State of Ohio's Earthworks

JARROD BURKS (Ohio Valley Archaeology, Inc.)

Though it has been widely known since at least 1914 that Ohio is home to about 600 earthwork sites—that is, sites with enclosures—many are surprised

at just how many there are. The process of recording Ohio's earthworks began in the late 1700s and continues today—new earthworks are still being found. Many earthwork sites have been intentionally preserved in parks and others are accidental cases of preservation, such as those on golf courses. However, many others have been destroyed by urban development, road construction, and mining, and many have been "lost" since the 19th century. In this presentation I take stock of Ohio's earthwork sites and explore the state of their preservation through 19th century maps and remote sensing data (e.g., aerial photos, LiDAR data, and geophysical survey data). While many sites have been destroyed, often inadvertently, there is still hope for those not yet protected.

Comparing Ohio's Octagons: Recent Geophysical Survey Results from the High Bank Works and the Newark Earthworks

JARROD BURKS (Ohio Valley Archaeology, Inc.) and ROBERT A. COOK (The Ohio State University)

Though Ohio is home to many earthwork sites of a wide range of shapes and sizes, only two octagonal enclosures are known. In this presentation we explore the results of recent geophysical survey work at the High Bank Works in Ross County and the Newark Earthworks in Licking County. Both sites have presented considerable survey challenges, not the least of which is their immense size. Existing maps and recent aerial remote sensing data adequately capture the shapes of these sites, but much yet remains below the surface—as revealed by the geophysical data.

Geophysical Survey of the Guard Site

JARROD BURKS (Ohio Valley Archaeology, Inc.) and ROBERT A. COOK (The Ohio State University)

Prior to beginning excavations at the Guard site (12D29), a 4.5 acre magnetic gradient survey was conducted to identify the locations of possible archaeological features. A total of 262 anomalies were identified as possible cultural features of interest, including 20 probable houses, 7 possible houses, 234 probable/possible pit features, and 1 linear feature located west of the arc of houses. The house structures at Guard appeared to have burned, as suggested by the distinctive negative "halo" of readings surrounding each house. Test excavations revealed this to be the case. The Guard site magnetic gradient survey has produced one of the clearest examples of the layout of a Fort Ancient village site found in any geophysical survey to date.

Mississippians in the 'Boonies': New Investigations and Insights at the Collins Site

AMANDA BUTLER (University of Illinois)

The most recent excavations of the Collins site, conducted by the University of Illinois, alter previous understanding of the chronology and construction of Indian Springs Mound, in addition to the uncovering of an uncommon Terminal

Late Woodland funerary structure. Also, data from new excavations on the terrace below Indian Springs Mound emphasize possible missionization of the Collins site. The Collins Complex, located in East-Central Illinois, is a multicomponent "ceremonial" complex situated on a bluff overlooking a floodplain terrace of the Middle Fork River. Proposed plans in the late 1960s to build a reservoir led to salvage excavations of the site. The site had been classified as a short-lived Late Woodland ceremonial complex with distinct Mississippian influences. However, the new data from the 2013 excavations demands a reassessment of the story of the Collins Site's Indian Springs mound, as well as a deeper look into the Mississippian presence in East-Central Illinois.

Migrating Bones or Migrating People: The Interregional Hopewellian Ceremonial Sphere

A. MARTIN BYERS

This paper takes the essential meaning of Caldwell's Hopewell Interaction Sphere concept seriously, namely, that it addresses and characterizes the distribution of the Hopewellian assemblage across many regions as the outcome and medium of an extensive interregional autonomous corporate-like mortuary cult practice. In contrast, the current view speaks of the Hopewell Interaction Sphere in "so-called" terms, denying it any real corporate social status and, instead, the distribution of the "interregional" Hopewellian assemblage was simply the unwitting consequence of multiple entrepreneurial-type person-to-person long distance exchanges. I call my view the Hopewellian Ceremonial Sphere system and argue that it was a real prehistoric structure of multiple (corporate) autonomous ecclesiastic-communal cult sodality heterarchies that cooperatively interacted across large distances through performing mortuary-mediated world renewal rituals and sacred games. A critical part of its ceremonial assemblage was the actual bones of the deceased, serving as postmortem human sacrificial offerings.

Macroscopic Analysis of Late Archaic Ground Stone Pestles from Carlston Annis (15Bt5), Kentucky

JUSTIN N. CARLSON (University of Kentucky) and GEORGE M. CROTHERS (University of Kentucky)

The prolific number of ground stone pestles from Middle and Late Archaic sites in the Midcontinent indicates their importance in hunter-gatherer daily life. Macroscopic analysis of pestles from Carlston Annis (15Bt5), a shell midden located on the Green River in Kentucky, shows that pestles were designed as multifunctional tools to complete tasks with varying motions and degrees of force presumably to process an array of vegetal, faunal, and mineral substances. While the regularity of pestle types indicates strategic design, some pestle types may be a byproduct of reuse or recycling rather than final tool forms. Versatility and durability for completing a number of activities made ground stone pestles an integral part of the hunter-gatherer camp tool kit.

The Bell Site (40DV307): An Archaic and Woodland-Period Occupation on the Middle Cumberland River in Davidson County, Tennessee

STEPHEN B. CARMODY (University of Tennessee), THADDEUS G. BISSETT (University of Tennessee), and LYDIA D. CARMODY (University of Tennessee)

40DV307 ("the Bell Site") is a multicomponent prehistoric site situated on the Cumberland River west of Nashville. It consists of Late Archaic shell midden deposits overlain by an intact Woodland-period occupation. Fieldwork conducted in 2010 and 2012 included riverbank profiling, auger testing, unit excavation, and column sampling of the site's Archaic and Woodland-period deposits. Shell midden sites often contain multiple stratified components – both shell-bearing and shell-free –spanning many centuries and indicating long and dynamic occupational histories. Here, we use multiple lines of evidence from 40DV307 to examine the site's transition from Late Archaic shell midden to Woodland-period settlement.

Public Ceremonial Dramas in Hopewell Earthworks: Functional and Regional Diversity

CHRISTOPHER CARR (Arizona State University)

The large scale of some Middle Woodland earthen enclosures and "charnel" houses in Ohio stirs images of large gatherings of people for public, orchestrated ceremonies. Funeral rites of separation for the recently dead and world renewal ceremonies are emphasized in contemporary literature. A much broader range of likely ceremonial purposes is suggested by Woodland Indian ethnohistories and revealed by the diverse contents of archaeological deposits within earthworks. Attention is refocused on ritual dramas that enacted episodes in the journey that souls made to the afterlife and differences in the dramas' forms in the Scioto versus Little Miami drainages.

Peopling of the Middle Atlantic Region: A Review of Paleoindian Research

KURT WILLIAM CARR (State Museum of Pennsylvania)

Research conducted in the Middle Atlantic Region has been critical in the development of several models on when and how people first entered the New World and also their cultural adaptations once they arrived. Based on the Meadowcroft Rockshelter, Jim Adovasio has proposed a Pre-Clovis technology that was transitioning from a blade tool technology to a bifacial technology. More recently, evidence has been presented from the Middle Atlantic to support Stanford and Bradley's proposed Atlantic crossing and a Solutrean origin for fluted point technology. In 1952, John Witthoft was one of the first to propose a Paleoindian adaptation involving very high mobility. Twenty years later, Bill Gardner proposed a very different adaptation, emphasizing reduced mobility and a foraging subsistence pattern. In this presentation, the status of these models and Paleoindian research in general in the region will be reviewed.

Reinterpreting Springwells Ceramics in the Great Lakes Region of North America

JON W. CARROLL (Oakland University)

The original ceramics typology developed for Younge/Western Basin Tradition Springwells phase (ca. A.D. 1200-1400) assemblages included three variants known as Macomb Linear, Macomb Interrupted Linear, and Springwells Net Impressed ceramics. This discussion presents a revised ceramics typology that expands the resolution of the original Springwells phase ceramic typology, thus inserting a more fine-grained understanding of common stylistic design elements. This expanded taxonomy allows for increased resolution relating to the geographic distributions of unifying motifs propagated throughout the Springwells social network.

Mounded Space and the Significance of Place: An Analysis of Inner Mound and Sub-Mound Features from Mound F at Angel Mounds

KATHERINE CARTER (University of South Carolina)

Among the earthworks at Angel Mounds (12-VG-1), none has received more thorough attention than that of Mound F –Black's "Temple Mound." Investigations began in the early 1940s with the excavation of the primary mound surface and continued through the mid-1960s, during which time an inner mound surface was documented and excavated down to the original ground surface. The 2013 field season saw a trench opened within the mound that abutted a former excavation area from 1964-65. Previous excavation data indicated the presence of two platform surfaces, which supported mound-top structures. The features encountered during the 2013 field season were compared and contrasted with those previously documented from the inner mound and original ground surface, which provide a greater insight into functional use of the mound and the associated space prior to earthwork construction.

Mounds For and By Whom?: A Material Culture Analysis of Mounds A and F at Angel Mounds

ROBERT CERMAK (Albion College) and SAMANTHA CONKLIN

As part of the 2013 NSF REU at Angel Mounds, a Mississippian site in southern Indiana, we have examined two types of material culture from Mounds A and F. Both the ceramics and the faunal remains from three units on both Mound A and Mound F were analyzed to determine the possible function, be it utilitarian or ceremonial, of these earthworks at the Angel Mounds site. Each of these material assemblages were also compared to legacy collections at the Glenn Black Laboratory of Archaeology drawn from features excavated on Mound F in 1965. This allowed us to both examine levels no longer available for excavation on the mound and to explore potential biases in past research on mound context. Preliminary analysis shows the faunal assemblage to be dominated by the remains of *Odocoileus virginianus*, whitetail deer, and the ceramics on Mound F point to a ritualistic function for the mounds.

Landscapes of Clearance: Recording Government Land Acquisition and Farmstead Abandonment on Midwestern Military Bases

ROBERT C. CHIDESTER (The Mannik & Smith Group, Inc.)

Over the past three decades, numerous large-scale cultural resource surveys have been undertaken on military bases across the country. By aggregating the results of multiple surveys conducted on a single military base over time, individual sites can be placed in a larger, more comprehensive cultural context. One site type in particular that is abundant on military bases in the Midwest is the early 20th-century farmstead. Such farmsteads were typically abandoned when the government purchased land for a military base (sometimes using eminent domain) and re-settled the rural population in nearby communities. By considering processes of abandonment at multiple farmstead sites on a single military base using a contextual landscape approach, these sites can contribute to a larger research agenda focused on the cultural dynamics of government power and population clearance. This paper will use farmstead sites at Camp Ravenna Joint Military Training Center in northeastern Ohio as a case study.

Defining Middle Woodland Communities and Interaction Patterns in West Michigan and Northwest Indiana

JEFFREY CHIVIS (Michigan State University)

This presentation, based on my dissertation, examines Middle Woodland (~150 B.C. – A.D. 300) pottery in west Michigan and northwest Indiana to define the boundaries of different types of communities on multiple spatial scales. It fuses stylistic and morphological analyses with compositional (i.e., ceramic petrography) analyses from sites located in the Muskegon, Grand, Kalamazoo, St. Joseph, and Kankakee River valleys. The results have provided insight into the complex and dynamic types of cultural interactions operating within the study region and have informed on the distinct behavioral patterns unique to each individual community. More generally, this research has contributed to a more complete understanding of the spread of the Havana-Hopewellian phenomenon outside of the "core areas" of Illinois and Ohio.

Recent Excavations at the Buried Gardens of Kampsville: A Middle Woodland Habitation Site in the Lower Illinois River Valley

CAROL E. COLANINNO (Center for American Archeology), ARIEL E. TAIVALKOSKI (University at Buffalo SUNY), KATIE E. LESLIE (Illinois State Archaeological Survey), SEDRIÉ D. HART (Center for American Archeology), and ALISON SHEPHERD (Center for American Archeology)

The Buried Gardens of Kampsville (TBGOK, 11C373) is a Middle Woodland, bluff-base habitation site located in Kampsville, IL. TBGOK was excavated by the Center for American Archeology (CAA) during the 1970s and more recently by the CAA's Education Program (2004 – 2013). This paper draws from the 1970s and recent excavations to review and expand our current understanding of TBGOK. The artifact assemblage from the 1970s excavations had a high frequency of Hopewell wares and non-local materials: artifacts associated with

the Hopewell phenomenon. Frequencies of material classes from TBGOK are compared to those from Napoleon Hollow (11PK500) and Smiling Dan (11ST123). Napoleon Hollow has been considered a ritual camp, used while mortuary activities were conducted at nearby mound groups, and Smiling Dan represents a habitation site. Comparison of material assemblages from TBGOK to Napoleon Hollow and Smiling Dan help expand current interpretations of activities conducted by people living at TBGOK.

Organization of Lithic Reduction: Preliminary Analysis of Chipped Stone Artifacts from the Guard Site

AARON COMSTOCK (The Ohio State University)

The organization of lithic technology at Fort Ancient sites is markedly distinct from earlier groups. Formalization of bow and arrow technology as suggested by standardized triangular arrow points as well as increased sedentism point to behavioral shifts in how people utilized stone. However, there is a paucity of systematic studies regarding the relationship between people and lithic raw material in this time period. To this end, preliminary data on chipped stone practices from the Guard site (12D29) in southeastern Indiana are presented. Data from the remains of three house structures are examined to elucidate trends in raw material procurement, debitage characteristics, and the relationship between formalized and expedient tool production. Results suggest that the lithic remains recovered from Guard reflect a dichotomous organization of technology: formal tools were almost invariably produced from high-quality chert, while expedient production of sharp flake tools from low-quality cores was common.

Exploring the Grey Literature on the "Good and Grey" Cultures: Reassessing the Late Woodland Period of the Middle Ohio River Valley

AARON COMSTOCK (The Ohio State University) and STUART NEALIS (University of Kentucky)

The results of an initial exploration into the so-called grey archaeological literature are presented in order to more fully understand the Late Woodland period of the Middle Ohio River Valley. Throughout the Eastern Woodlands, the Late Woodland has been noted for a broad range of cultural expression. Although this period preceded the development of unequivocally sedentary, agrarian societies and in some cases social hierarchy, little about it is known. In order to explore all avenues of inquiry, we assess the state archaeological inventories of Ohio and Kentucky, focusing on sites in counties which border the Ohio River. These data are reviewed to reassess the nature of Late Woodland sites and land use patterns. This sample should provide new data regarding spatial, cultural, and temporal trends in the Midcontinent and lead scholars to explore research outside of the academic mainstream in order to more fully address issues of prehistoric behavior.

Burned Bone at Yokem: Questioning Cremation as a Mortuary Practice

DELLA COLLINS COOK (Indiana University), ELIZABETH LORRAINE WATTS (Indiana University), LESLIE ELIZABETH DRANE (Indiana University), and REBECCA A. NATHAN (Indiana University)

Yokem Mound Group in Pike County, Illinois, is a Late Woodland and Mississippian mortuary site with three structures that have been interpreted as crematories. New carbon dates on bone and old ones on wood show that at least in one of these structures, burial and burning were widely separated in time, calling into question earlier interpretations (Schurr and Cook 2013). We present a detailed comparison of remains recovered from each structure with other burned remains distributed across the site. Variability in body part representation, fragmentation and degree of burning is substantial. This suggests that bodies placed in these structures experienced differing trajectories that ultimately ended in the burning of largely defleshed and disarticulated bones, rather than a consistent mortuary program that included cremation as a final stage.

A Large and Early Fort Ancient Village: Preliminary Analysis of Guard Site Architectural Patterns and Reuse

ROBERT A. COOK (The Ohio State University), AARON COMSTOCK (The Ohio State University), and KRISTIE MARTIN (The Ohio State University)

The primary goal of the 2012 field excavation at the Guard Site (12D29) was to discern the temporal position of the site and the composition of three of the structures identified in the geophysical survey, particularly whether they burned and if they represent single or multiple uses. A suite of 13 radiocarbon dates from multiple media (bone, wood, annuals) firmly place the village early in the Fort Ancient sequence (ca. A.D. 1000-1300). The only anomalous date is from a large marker post dating to the fourteenth century over a western house. The three structures investigated clearly burned and have varying degrees of evidence for construction, including wall trenches. Ample burned earth near wall posts suggests the structures were daub covered, and grass matting was also located in one structure.

Pottery Morphology, Style, and Chemical Composition at the Guard Site

ROBERT A. COOK (The Ohio State University), WENDY CHURCH (The Ohio State University), and MARCUS SCHULENBURG (University of Wisconsin, Milwaukee)

Ceramic remains from excavation at the Guard site (12D29) in southeastern Indiana are investigated in order to explore the nature of early Fort Ancient ceramics as well as inter-household trends within a village. Stylistic variation and temper type are compared across site contexts and the results of XRF chemical composition of a representative sample of sherds are presented. Results suggest that Guard is similar to other early Fort Ancient sites in the region, with the assemblage dominated by jar forms, guilloche neck designs, and shell tempering. While the assemblage appears to have been locally

produced, a series of XRF outliers located in the vicinity of a burial with a Ramey knife point to non-local origins for these vessels. Intra-site comparisons support the conclusion that one structure – in the west – was unique.

Movement of Mississippian Artifacts and People: Preliminary Analysis of Human Dental Chemistry in Archaeological Context at the Guard Site

ROBERT A. COOK (The Ohio State University), T. DOUGLAS PRICE (University of Wisconsin, Madison), and JAMES BURTON (University of Wisconsin, Madison)

Isotopic analyses have shed considerable light on the movement of people in archaeological contexts. Here we focus on the Guard Site (12D29), an early Fort Ancient village in Southeast Indiana, occupied mainly between A.D. 1000 and 1300. Strontium analysis of enamel from 12 individuals revealed that two females were distinct in birthplace from the remainder of the population. Among individuals who were not clear strontium outliers include an adult male with a Mississippian diagnostic artifact (Ramey knife) made from an Illinois chert type (Kaolin). However, the strontium level for his third molar places him in the smaller of two modes, including another male that likely suffered from conflict trauma and two females. Based on these data sets, we suggest that females moved into Guard from a variety of locations, possibly including Mississippian ones, and that as some individuals were becoming adults they interacted in ways that included conflict and artifact acquisition.

The Everett Site (11S801): An Early American Period Farmstead in Shiloh Valley Township, St. Clair County, Illinois

MATTHEW E. CROSS (Illinois State Archaeological Survey) and MARK C. BRANSTNER (Illinois State Archaeological Survey)

The American period colonization of southwest Illinois can be traced to the 1798 establishment of the Turkey Hill Settlement and the ca. 1802 founding of the Ridge Prairie Settlement, near modern Belleville in St. Clair County. Most of these early period settlers were transplants from the slightly earlier settlements of the trans-Appalachian Upland South. One of the earliest of these was David Everett, the son-in-law of a prominent Methodist circuit rider, Jesse Walker, who operated in Kentucky, Missouri, and Illinois. Everett and Walker jointly purchased several parcels of land and set up independent households prior to 1814. This paper will focus on recent excavations at the Everett homestead, which revealed a particularly strong ca. 1815-30 ceramic assemblage, with direct linkages to the neighboring Walker homestead (11S1060).

The Hawkeye Site (11HE194): A Pre-Civil War Brick Clamp in Henderson County, Illinois

CLAIRE P. DAPPERT (Illinois State Archaeological Survey) and MARK C. BRANSTNER (Illinois State Archaeological Survey)

During the 2012 field season, crews from the Illinois State Archaeological

Survey undertook mitigative excavations at 11HE194, a ca. 1835-1860 farmstead in rural Henderson County, Illinois. While the residential compound yielded a relatively familiar assemblage, a nearby scatter of underfired, overfired, and otherwise malformed soft-paste brick yielded the pristine, subplowzone footprint of a single-use brick clamp. Although not unique, the preservation of such features in the Midwest is relatively uncommon. This paper will summarize our findings in relation to this site, and provide comparative data relative to the process and to comparable sites in the region.

Lording Over the Rings at the Hardin Site: Toward an Occupational History of a Fort Ancient Locality

MATTHEW J. DAVIDSON (University of Kentucky)

The Hardin Site is a Fort Ancient locality that was occupied repeatedly from the 13th to 17th centuries. As many as five midden rings testify to the site's importance during these centuries. The site's terminal prehistoric (15th century) and protohistoric (16-17th century) occupations are currently being investigated to assess diachronic trends in faunal exploitation and hide working related to a hypothesized introduction of region into the trans-Atlantic European trade in furs and hides. This paper highlights 2012-2013 excavations at the site, which were designed to verify the location of earlier (1939) excavation trenches, and to recover a representative sample of midden material. During the course of excavation, midden piles, trash-filled pits, fire features, portions of structures, and other features were documented. These new data are combined with information from 1939 (Works Projects Administration) excavations to begin building an occupational history of the final centuries of the locality's Native use.

GIS Predictive Algorithm for the Upper Clear Creek Drainage System near Amanda, Ohio

JAMIE DAVIS (Ohio Valley Archaeology, Inc.)

Clear Creek's headwaters begin in the glaciated plains of central Ohio in Fairfield County and flow southeast into the Allegany Plateau before draining into the Hocking River. Approximately 2,000 acres were surface collected along parts of Clear Creek and its tributaries in the glaciated plains near Amanda, Ohio. Fifty previously undocumented sites were located representing all prehistoric periods. The distribution of those sites and the land surveyed constitute a representative sample of the upper Clear Creek drainage system. The physical attributes of those sites were considered based upon the characteristics of the closest water source and used to create a GIS based algorithm to predict the most likely locations for undocumented sites throughout the upper Clear Creek drainage system. The results of the algorithm show that the upper Clear Creek drainage system was rich with prehistoric activity and that prehistoric site locations can be readily predicted.

MPS - île de Castor Site – A Seasonal Late Woodland Camp on Beaver Island, Michigan

SCOTT J. DEMEL (Northern Michigan University)

The Northern Michigan University's 2012 summer field school included test excavations behind the former Mormon Print Shop in the town of St. James, on Beaver Island, MI. This lot, which was formerly a beach and dune area in a protected harbor of the island, was tested in preparation for a future museum building expansion project. Excavations revealed a complex multi-component use of the land, and include Late Woodland, proto-historic, and historic occupations. Late Woodland deposits, including features, grit-tempered sherds, triangular points and stone tools, and floral and faunal remains suggest a seasonal beaver processing and fishing station.

Sexual Dimorphism of the Distal Humerus in a Mississippian Population

R. CARL DEMUTH (Indiana University) and NATALIYA CHEMAYEVA (Indiana University)

This study attempts to understand the role of sexual dimorphism in the size of the distal humerus within a population of Native American individuals recovered from the Mississippian cemeteries at the Schild site in Greene County, Illinois. We examine the morphometric differences between adult male and female right humeri, utilizing a coordinate landmark system developed by Lague and Jungers in their 1999 study examining sexual dimorphism in the hominoid distal humerus. This is accomplished through a statistical comparison of six different measurements on the right distal humerus, which display a significant difference under initial statistical testing. Lague and Jungers noted that the size of the distal humerus is often tied to both genetics and repetitive motions. As such, in the future these results could help shed more light on Mississippian gender roles.

Solar Calendar Discovery Follows Archaeological Analysis of Hopewell Structure at Brown's Bottom, Ross County, Ohio

JEFFREY DILYARD, PAUL PACHECO (SUNY-Geneseo), and JARROD BURKS (Ohio Valley Archaeology, Inc.)

Between 2005-2011, three comparatively large structures of Ohio Hopewell origin were excavated on a section of floodplain south of Chillicothe, Ohio, now known as the Harness Farm. The archaeological remains of each of these structures were analyzed to obtain insight into their architectural appearance. This included post hole and post mold size, their depth and placement, soil dynamics as well as consideration of materials that would have been available for building at the time. One structure in particular, designated Brown's Bottom #1 (33Ro1104), received additional attention, which resulted in that building's interpretive reconstruction. The line of nine post holes off the structure's southeast wall was subsequently found to be consistent with an arrangement useful for solar calendric observation. This presentation provides a critical analysis of those posthole orientations.

The Avery's of Long Hollow: Sites (11JD777 and 11JD778) of an Influential Family in Rural Jo Daviess, IL

AMANDA DOUGLAS (University of Illinois)

Archival research and excavations revealed 11JD777 and 11JD778 to be mid-19th century commercial and domestic sites in the early days of rural Jo Daviess County, Illinois. The sites are especially interesting because they have only ever been occupied by two families, the Avery and Berlage families. While at the site the Avery family ran a stagecoach stop, tavern, inn, school and post office and fought in the Civil War. The results of investigations at 11JD777 and 11JD778 contribute to the local history of Jo Daviess County and to the large collection of knowledge relating to Euro-American settlement of northwestern Illinois during the 19th Century.

Cedarburg Bog Archaeology: The Bezella Collection, Ozaukee County, Wisconsin

JEREMY A. DOYLE (University of Wisconsin, Milwaukee)

Issues relating to avocational collections, point types and site location are examined in this project, utilizing an avocational archaeologist's collection from around the Cedarburg Bog in Ozaukee County, Wisconsin as a case study. The collection is primarily stone tools, many diagnostic, with some lithic debris. Artifacts were initially divided by site with the use of the avocational archaeologist's field notes and maps. A combination of methodologies were employed including literature review, point typing and GIS to initially describe and categorize the sites with the goal of describing and explaining the use of space and environmental variation around the bog through time.

Integrated Management of Cultural and Natural Resources

J. RYAN DUDDLESON (Cardno JFNew)

Project planning and land management typically consider cultural and natural resources independently. This can lead to isolated, and at times conflicting solutions. An integrated management approach is based on the understanding that cultural and natural resources co-exist on the landscape. Proactive management of these resources can yield outcomes that benefit the resources while acknowledging the realities of the modern environment. Case studies of wind energy, transmission, and transportation projects illustrate the benefits of this approach.

"And the Survey Says": An Example from the Upper Peninsula of Michigan

SEAN DUNHAM (Commonwealth Cultural Resources Group, Inc.) and JAMES MONTNEY (Commonwealth Cultural Resources Group, Inc.)

The advent of Cultural Resource Management (CRM) has greatly increased the number of archaeological projects conducted and the number of archaeological sites discovered. Most of these projects are Phase I inventories and the results are largely relegated to technical reports. Despite these limitations, the data produced through CRM has great potential to revisit models and paradigms for

any number of topics. As an example, I will highlight the reevaluation of Late Woodland settlement and subsistence models in the Upper Peninsula (UP) of Michigan. The existing model for this region is derived from a relatively small number of coastal Great Lakes sites. Using data derived from CRM projects on the Hiawatha National Forest, data from coastal and interior sites can be examined for a fuller picture of Late Woodland settlement dynamics. Without the data from these CRM surveys, such a regional approach would not be possible.

Another Kind of Beads: A Forgotten Industry of the North American Colonial Period

DUANE ESAREY (Illinois State Archaeological Survey)

Recently completed research identifies 39 marine shell ornament forms on 127 historic period sites in 18 states as a previously undefined colonial industry. Beginning circa 1635 and known almost entirely from archaeological specimens, Standardized Marine Shell ornaments are distinct from both wampum and Native-modified marine shell ornaments. After ca. 1710 the robust and varied SMS industry gives way to smaller and simpler shell ornament industries continuing into the 19th century. My inventory (n = 4845) identifies the primary recipients of standardized shell ornaments as the central figures of the 17th century northeastern fur trade network. My statistical representation of SMS chronological affiliations (termed “span factored annual percentages”) graph the discrete history of each form, cumulatively illustrating SMS as a persistent commodity. The image that emerges is of a small-scale production and distribution strategy initiated by early settlers in the nascent New Netherland colony.

Early Woodland Traditions in the Northern American Bottom: Material Culture and Settlement Dynamics

MADELEINE G. EVANS (Illinois State Archaeological Survey) and ANDREW C. FORTIER (Illinois State Archaeological Survey)

Investigations over the past thirty years in the American Bottom have revealed a sequence of Early Woodland cultural entities covering an 800-year period, but with a few notable exceptions, data have been mostly restricted to assemblages and settlements south of Cahokia. This paper addresses what we currently know about Early Woodland traditions identified north of Cahokia. Much of this evidence comes from IDOT investigations related to the FAP-310 Highway Project. In addition to Marion culture components we have more information about the Black Sand culture, as well as a newly defined Cass Complex that appears to be a hybrid of Florence and Marion. Neither Black Sand nor Cass Complex materials are found south of Cahokia. The Early Woodland period is a dynamic time with different overlapping small groups of people moving in and out of the region, leaving only a small signature on the landscape.

Hopewellian Platform Pipes and Their Implications for Distinguishing Variation in Hopewell Mound Ceremonialism

KENNETH B. FARNSWORTH (Illinois State Archaeological Survey), THOMAS E. EMERSON (Illinois State Archaeological Survey), RANDALL E. HUGHES (Illinois State Geological Survey), and SARAH U. WISSEMAN (Illinois State Archaeological Survey)

This study examines the context of platform pipe interments in the Scioto and Illinois Valleys and its implications for understanding Hopewell ceremonialism, exchange, and crafting. We contend that a few unique votive caches of exotic stone pipes during communal rituals in the Scioto Valley have biased archaeological interpretations of these objects. Outside such caches, pipes are rare in Ohio and seldom found in villages. However, in Illinois pipe caches are absent and mound pipe interments are limited to individuals as indicators of personal status or achievement. Pipe manufacturing debris and fragments, typically of local Sterling pipestone, commonly occur in habitations. The high value of pipes as sacra in Ohio and their lower value in Illinois parallel their common occurrence in Illinois and their rarity in Ohio Hopewell. The mounded context of pipe interments highlights general observations on the dramatic difference in mound ceremonialism in these two Hopewell core areas.

New Insights on Jersey Bluff Lithic Technology: A Preliminary Analysis of the Wedding Site (11JY499)

LAUREN M. FITTS (Illinois State Archaeological Survey), JADA P. ZOOK (Illinois State Archaeological Survey), and JENNIFER L. GOLDMAN (Illinois State Archaeological Survey)

The upland area situated between the Lower Illinois River Valley and Northern American Bottom of Western Illinois is poorly known archaeologically. Several recent IDOT projects have afforded the opportunity to gather baseline information about local Late Woodland cultures. As part of a recent IDOT road-widening project, a portion of the Wedding site was excavated that produced 78 total features. This paper describes the results of the excavations, focusing upon a preliminary analysis of the lithic assemblage. The site produced a number of Schild Spike arrow points, which are a regionally unique type that is not found in the American Bottom but is present in the southern reaches of the adjacent Lower Illinois Valley. Our research suggests that these points, as well as pottery styles, denote the presence of a distinctive social group within the larger Bluff culture of the Illinois/Mississippi/Missouri River confluence area.

Analysis of Human Remains from the Karow Site (47WN198)

KATHLEEN M. FOLEY (University of Wisconsin, Oshkosh)

The Karow site (A.D. 1300-1450) is located on the western shore of Lake Winnebago at North Asylum Bay in Winnebago Co, Wisconsin, and was excavated by Arthur Kannenberg and L.J. Dartt in 1932, after which the human skeletal remains and associated artifacts were donated to the Milwaukee Public Museum. The paper presented is a summary of the initial analysis of

those human remains and is part of a larger on-going research project into late prehistory in Wisconsin.

The "Big Hook" Maple Sugar Camp: Nineteenth Century Open/Kettle Sap Processing in Northern Michigan

JOHN G. FRANZEN (USDA Forest Service) and ERIC C. DRAKE (USDA Forest Service)

Test excavation at a mid to late nineteenth century sugar camp in Michigan's Upper Peninsula documents the use of traditional open boiling technology during the period when flat pans or evaporators and "arches" constructed from brick or stone became predominant. A feature consisting of oxidized soil, ash, and charcoal defines the boiling area, and associated iron kettle hooks were made from recycled portions of sleigh runners. The site is part of a cultural landscape occupied by families of Native American, French-Canadian, and New England ancestry living along the shore of Lake Michigan at the settlement of Gros Cap. Preliminary comparison with archaeological documentation of four other sugar camps within the same 80 acre parcel suggests how the practice of maple sugaring changed over ca. 150 years in relation to technology, social organization, and other variables.

Data in a Half Shell: Utilization of Freshwater Mussels at Aztalan, Wisconsin

KATHRYN FREDERICK (Michigan State University)

This paper considers the potential uses of river mussels at the site of Aztalan (AD 900-1200). This past summer's (2013) excavations at Aztalan, located in southern Wisconsin along the Crawfish River, yielded thousands of purposefully placed freshwater mussels. Specifically, three species of river mussels, hickorynut (*Obovaria olivaria*), salamander (*Simpsonaias ambigua*), and sheepnose (*Plethobasus cyphyus*), were found in Feature 1 on the Gravel Knoll. In an effort to explore the potential social and cultural explanations for the density of freshwater mussels this research aims to contextualize the data within the greater cultural and environmental landscape. How were river mussels utilized historically and prehistorically? Is the dense amount of mussels comparable to other similar sites? What explanations beyond use as foodstuffs, can account for the abundance of freshwater mussels? This paper aims to interpret the use and formation of the cultural landscape of Aztalan, through freshwater mussels.

Analysis of Faunal Remains from the Guard Site

MELISSA FRENCH (The Ohio State University)

The faunal remains from Guard (12D29), a Fort Ancient site in southeastern Indiana, were examined to assess the abundance, diversity, and uses of animal resources by the inhabitants. Faunal specimens were sorted into classes (Mammal, Bird, Fish, Reptile, and Amphibian), then when possible each element was identified to genus and species using a comparative collection. As is the case at nearly every Fort Ancient site, deer dominate the assemblage

along with turkey, turtles, fish, and various small mammals forming the other major components. However, the relative abundance and diversity of species is somewhat unique at Guard, due to its environmental location and temporal and cultural orientation, the latter of which is fleshed out with comparisons to animal usage by a broad selection of Native American tribes who once inhabited the Eastern Woodlands.

Kitchen Confidential: Initial Observations of Ceramic Vessel Use at the Late Prehistoric Noble-Wieting Site

IAN C. FRICKER (Illinois State University)

Much work has been devoted to understanding Langford Tradition subsistence in the context of settlement strategies and cultural identity. A recent comparison of Langford and Middle Mississippian subsistence indicates comparable per capita maize consumption between these societies, but significant differences in the way each group supplements maize in the diet. A performance-based ceramic analysis examines stylistic and functional attributes as well as use alteration to identify a vessel's role in daily life. This preliminary analysis of the Noble-Wieting ceramic assemblage offers a glimpse into Langford Tradition foodways in a situation of cultural contact and possible cohabitation with Middle Mississippian people.

West of the Palisade: Archaeological Investigation of a Stockade Extension at the Aztalan Site (47JE1)

DONALD GAFF (University of Northern Iowa)

One of the more intriguing aspects of the Aztalan site (47JE1) is a portion of the stockade in the southwest corner of this late prehistoric village. This line of stockade has the appearance of having been built as an extension to the main palisade line that surrounds the main part of the site. Several explanations have been offered to account for this extension and this paper reviews some of the more common hypotheses proposed for its construction. Since little archaeological activity has been conducted in this particular area, the 2013 Michigan State University Archaeological Field School carried out test excavations between the main stockade line and the extension in order to develop a better understanding of this little-studied part of the Aztalan site. This paper describes the archaeological work done at the western palisade and presents preliminary results from those investigations.

Pit Formation and Diversity/Homogeneity of Madisonville-age Trash-filled Storage Pits at the Hahn Site Near Cincinnati

ROBERT A. GENHEIMER (Cincinnati Museum Center)

The Hahn Site is a large multi-component site with major middle Fort Ancient and late Fort Ancient (Madisonville) occupations, as well as a significant Late Woodland component. Since 2008, nearly two-dozen trash-filled storage pits, nearly all Madisonville in age have been excavated. This paper examines 13 pits for which both Madisonville origin and trash-filled storage pit function

have been determined. More than 161,000 items weighing nearly 514 kg were analyzed from these pits. Pit contents reveal a remarkable homogeneity of material types, including burned rock, animal bone, flint waste and artifacts, ceramic sherds, bivalves, and a small amount of botanicals and metal; however an examination of individual pits indicates much diversity in individual filling episodes and hence formation processes. And, while numerous pit features exhibit directed deposits of material classes associated with their Madisonville use, nearly all features exhibit pre-Madisonville diagnostics suggesting that at least limited filling utilized general site midden.

There's Points in Them Hills!: Interpreting Archaic Landscape Use from Phase I Archaeological Survey on the Woodfordian Till Plain of Southern Will County, IL

PETER J. GERACI (Illinois State Archaeological Survey) and BENJAMIN HOLMES (Illinois State Archaeological Survey)

The Illinois State Archaeological Survey spent the last year conducting a Phase I survey of a 35 mile, 2000 foot wide corridor for a proposed east-west Tollway transecting the Woodfordian Till Plain in Will County, IL. This survey has thus far identified over 250 new archaeological sites, the majority of which are lithic scatters consisting of several hafted bifaces and associated debitage. Most of the diagnostic bifaces collected span the time frame from the late Paleoindian to Late Archaic period. The associated sites are typically located on knolls or ridges overlooking closed depressions or secondary streams. Several examples have also been found at lower elevations due to substantial erosion and land surface deflation. This poster highlights the wide variety of hafted biface forms and their location on the landscape in relation to perceived resource areas.

Reconsidering the Role and Implications of Aztalan's Gravel Knoll

LYNNE GOLDSTEIN (Michigan State University)

The gravel knoll at the Aztalan site has consistently been viewed and interpreted as a natural gravel knoll whose top the Mississippian occupants used. Most work does not treat the feature as a mound, but as a surface used in an unknown manner. Fieldwork in 2013 demonstrated that the knoll is a far more complicated feature than previously thought, and there is an interesting series of pits within the knoll that demonstrate a series of group events that include landscape sculpting and extensive use of gravels. This paper compares the knoll to the sculpted surface found in my excavations at Aztalan a few years ago.

Scaling Cultural Geometry: Embankment Sizes and Shapes in the Mid-Ohio Valley

NOMI B. GREBER (Cleveland Museum of Natural History) and ROBERT HORN (Earlham College)

For more than a thousand years in the Mid-Ohio Valley hundreds of earthen embankments were built in various ground plans and sizes. We consider here

those walls generally called "geometric." The class of hill top embankments such as Fort Ancient is an equally important type for another study. The wall designs range from simple circles, crescents, and squares to intricate tri-foils, quadra-foils and complex combinations of shapes such as at Newark and High Bank. The size range is great from small circles 15 meters across to those more than 320 meters across. The large complex designs could not have been seen in their entirety by the people on the ground who built and viewed the walls. We consider relationships between shape and size and possible changes through time in design concepts. We suggest possible events or factors that might have initiated changes and possible sources of ideas that traveled through and across the valleys.

"A Standard Method": George H. Squier's Review of the 1914 Excavation at the White Mound Group, Vernon County, Wisconsin

WILLIAM GREEN (Beloit College) and ROLAND RODELL (University of Wisconsin, Rock County)

Albert H. Sanford, a professor of history at La Crosse State Normal School, excavated at the White Mound Group (aka White's Mounds) in 1912 and 1914. Earlier excavations by the Smithsonian's Bureau of Ethnology had recovered Middle Woodland material, and Sanford wanted similar objects for his institution's collection. He sought guidance on proper field methods from Wisconsin Historical Museum director Charles E. Brown. Unable to visit, Brown asked local scholar George H. Squier to assist Sanford with the excavation. Squier subsequently wrote a review of Sanford's work for Brown, applying precepts of excavation he had learned from Harvard University archaeologist Frederic Ward Putnam. Squier's assessment harshly critiqued Sanford's methods and the absence of problem orientation. This episode, an early form of peer review, exemplifies how American archaeology was groping toward professionalization in the early 20th century.

Cache Pits at the Fisher Site (20OT283), a Late Prehistoric Site in Ottawa County, Michigan

MICHAEL J. HAMBACHER (CCRG, Inc.) and RANDALL J. SCHAETZL (Michigan State University)

Cache pit locales have been characterized as one of the most common site types in Michigan, but because they are not associated with an abundance of cultural materials they have received little attention in the archaeological literature. As part of large scale excavations at the Late Prehistoric Fisher Site (20OT283) in the Lower Grand River Valley of western Michigan, 29 cache pits were excavated, studied, and dated. All these sites are situated on dry, sandy terraces of the river. By synthesizing aspects of pit morphology and a number of soil characteristics for these pits, we offer a definition and baseline characterization of what constitutes a typical cache pit for this area. Other characteristics of these cache pits, e.g., their age, construction typology, possible uses, reasons for abandonment, and post-abandonment taphonomy,

will also be explored. Finally, we will offer comments on the broader cultural context of Late Prehistoric (ca. A.D. 1200-1600) cache pit locales.

The Ancient Ohio Trail: An Innovative Heritage Tourism Resource

JOHN E. HANCOCK (University of Cincinnati)

"The Ancient Ohio Trail" provides online and digital resources about Ohio's mound and earthwork sites, positioning these places as a world-class, international heritage tourism destination (anticipating UNESCO World Heritage). Both mobile and desktop versions offer interactive map navigation, as well as site and topic menus. Deeply layered content is comprehensive of nearly all publicly-accessible sites, and is delivered in text, photo, video, and printable PDF pages. The interpretive approach features multiple perspectives (including Native Americans), and situates these places in their ancient landscapes (using digital flyovers), and in their current settings (Ohio's historic towns and scenic roads). The "AOT" is funded by the National Endowment for the Humanities. www.ancientohiotrail.org.

A GIS Predictive Model for Woodland Periods Sites in Ottawa County, Michigan

KELSEY HANSON (Grand Valley State University)

This research project illustrates the initial phases of a predictive model for Woodland period (ca 800 BC – AD 1600) archaeological sites in Ottawa County, MI. This project has the following goals: (1) creation of a digital database of archaeological sites in Ottawa County, (2) development of a model predicting Woodland period site locations, and (3) production of an archaeological sensitivity map of Ottawa County. The long-term goal involves testing the predictive model with existing archaeological data and archaeological survey. Correlations were observed between environmental conditions such as vegetation, specific elevations, proximity to water, and site locations. These potential correlations were analyzed through visual spatial distributions and chi-square tests. This research project continues the collaborative relationship between GVSU's archaeology program and Ottawa County Parks and Recreation.

Testing Phosphate Levels within Late Prehistoric Features: Preliminary Results

PETER E. HANSON (Wittenberg University) and LYNN M. HANSON (Dayton Society of Natural History)

The Wegerzyn Site is a Late Prehistoric village located along the Stillwater River in Montgomery County, Ohio, north of downtown Dayton. Archaeological research at the site has exposed four structures and numerous features including storage/trash pits, human burials, and thermal features. Among these are several features of unknown use: large (circa three meter diameter) irregular pits in which are found a small amount of Late Prehistoric debris and a rich, organic fill. Researchers hypothesized that these pits could have been used as privies, but lacked the resources necessary to test that theory. In 2013,

collaboration between the Dayton Society of Natural History and Wittenberg University led to the analysis of phosphate levels in soil samples from the unidentified pits and from storage/trashpit features. This paper presents preliminary results of the soil phosphate assays from features, from samples located off-site, and from samples located in the vicinity of the site but outside the site's apparent parameters.

Population Rediscovered: New Insights on Health, Diet, Place of Origin, and Chronology from the Late Mississippian Guy Smith Cemetery, Jackson County, Illinois

EVE A. HARGRAVE (ISAS), KRISTIN M. HEDMAN (ISAS/ATAM-UIUC), and MATTHEW FORT (ISAS)

The Guy Smith cemetery, located in Jackson County, Illinois, is significant for the presence of stone box graves and associated artifacts. Excavated by A. R. Kelly in the 1930s, the collection was subsequently dispersed across several institutions resulting in the loss of contextual information for the burial population and associated artifacts. Milner and Schroeder (1992) describe the stone box graves from Guy Smith in their discussion of the distribution of late prehistoric stone box graves in Illinois and Missouri. Unfortunately, at the time, most of the skeletal collection could not be located. The recent rediscovery of this important collection has allowed the authors to complete a thorough osteological analysis, stable isotope and strontium isotope analyses for diet and place of origin, and AMS dates from bone collagen. Preliminary results of these analyses will be presented and discussed within the context of late prehistoric diet, population movement, and mortuary behavior.

Enhancing Detection of Historic Farmsteads in LiDAR Bare Earth DEMs

MICHAEL L. HARGRAVE (ERDC-CERL), SCOTT TWEDDALE (ERDC-CERL), CAREY L. BAXTER (ERDC-CERL), and GEORGE CALFAS (ERDC-CERL)

Ongoing research is exploring ways to improve the archaeological research potential of the bare earth digital elevation models (DEMs) derived from LiDAR data that are now widely available at low or no cost. The preprocessed DEMs that archaeologists frequently use often have relatively little utility for detecting historic sites and making preliminary evaluations of their condition. Using historic farmsteads from Fort Riley (KS) and Fort Leonard Wood (MO), we demonstrate that indications of architectural remains can be substantially enhanced by further processing bare earth DEMs using commercial-off-the-shelf software. Improvements are demonstrated by comparing original DEMs with those subjected to Slope, Variance, Non-directional Edge, and other filters; and by manipulating perspective, lighting, and z values. Historic aerial photographs and site plans made during National Register eligibility assessments provide a baseline for ground truthing interpretations of the bare earth DEMs.

Magnetometry and the Mounds: Interpretations of Geophysical Survey and Ground-truthing Excavations on Mound A

SARA MICHELLE HEAD (Indiana University-Purdue University, Indianapolis)

Geophysical techniques have become standard practice for identifying new archaeological sites, determining their boundaries and relative densities, mapping features and structures, and refining excavation strategies. During the 2013 investigations at Angel Mounds, which centered on earthworks, high-resolution magnetometer data was collected to make informed decisions about the placement of excavation units on Mound A. Among other features, we identified several linear anomalies along the margins of the lower platform that we assumed marked positions of walls or screens surrounding the mound. Ground-truthing of these lineations showed they actually marked edges of mound construction/rebuilding episodes that actually revealed a complex constructional history reflecting the long-term use and rebuilding of the mound. These findings and the nature of complex earthworks like Mound A, provide a cautionary tale regarding interpretations of geophysical data, and demonstrate that such techniques must be used in conjunction with more traditional archaeological approaches when studying anthropogenic transformation.

Paradigms Lost: Mound 72's Beaded Cape Burial Reconfigured

KRISTIN M. HEDMAN (ISAS/ATAM-UIUC), ANDREW R. THOMPSON (West Virginia School of Osteopathic Medicine), EVE A. HARGRAVE (ISAS/PRI), DAWN E. COBB (Illinois State Museum), THOMAS E. EMERSON (Illinois State Archaeological Survey)

The Beaded Cape burial in F101 of Mound 72 is central to cosmological interpretations of the founding of Cahokia and has been linked to the Siouan mythic character, Red Horn. Two recent independent osteological studies of the central burials resulted in the same conclusion: Burial 14 is female, not male as long thought. In addition, a reanalysis of the Beaded Cape individuals and associated "Retainer Burials" reveals the presence of at least one previously undocumented child. In this paper, we explore the implications of a male/female pair and the presence of at least one child in the burial cluster that has become pivotal to the archaeological retelling of the Mound 72 mortuary drama.

Immigrants and Interactions at Cahokia: Insights from Stable Carbon and Strontium Isotopes of the Cahokia Mound 72 Beaded Cape Burial Group

KRISTIN M. HEDMAN (ISAS/PRI-UIUC), STANLEY AMBROSE (University of Illinois), MATTHEW FORT (ISAS/PRI-UIUC), PHILIP SLATER (ISAS/PRI-UIUC), THOMAS E. EMERSON (ISAS/PRI-UIUC)

Recent stable carbon and strontium isotope analyses of human bones and teeth from downtown Cahokia by the Illinois State Archaeological Survey at the University of Illinois have led Emerson and Hedman to characterize Cahokia as

North America's first Pan-Indian city. In this study, strontium and carbon isotope data derived from tooth enamel from individuals buried within Cahokia's Mound 72 provide direct evidence for diet and place of origin for this ritually and politically important site. We present a suite of preliminary isotopic data for burials within SubMd1 of Mound 72, including Feature 101, the 'Beaded Cape' burial feature, and 'Retainer' Features 102, 103, and 104. These data provide new insight into the dietary and residential heterogeneity of these potentially elite and certainly symbolically significant mythic figures central to current interpretations of the founding of the Mississippian political center of Cahokia.

Applying the Chaîne Opératoire…with Kids

A. GWYNN HENDERSON (Kentucky Archaeological Survey) and LINDA S. LEVSTIK (University of Kentucky)

Most commonly employed in lithic technology studies, the concept of chaîne opératoire embraces all aspects of the manufacture of material things - not just the technical processes, but the mental operations and social relationships involved as well. Our recent research in four fifth-grade classrooms shows that this concept is equally robust when used to structure student learning about past peoples. This effective tool can guide student thinking about the production and use of ancient tools and technology, providing a context within which to counter stereotypes of (simple-minded) prehistoric peoples. Students learn that past technologies may seem simpler than ours, but upon deeper consideration, they are not, and neither are the people who used them.

Community Size and Organization of a Migrant Oneota Village: Controlled Surface Collection Results from the Taylor Village Site in Central Indiana

MARK A. HILL (Ball State University)

The Taylor Village site represents a fortified community of Oneota migrants who, during the 13th and 14th Centuries, settled in the central White River valley of Indiana. Thought to be most closely related to Fisher phase Oneota communities in the southern Lake Michigan basin, the Taylor Village population established their fortified community adjacent to a contemporary Oliver Phase community located at the Strawtown Enclosure site. Between 2008 and 2012, Ball State University has conducted several projects at Taylor Village, including a magnetic gradiometer survey in 2009, a fine-scale and extensive controlled surface collection in 2010, and limited test excavations in 2010 and 2012. The results from the extensive controlled surface collection are combined in this study with the magnetic gradiometer survey results to begin to understand the spatial layout and community size of this Oneota village.

Hopewell Geometry and Astronomy in the Scioto and Paint Creek Valleys

RAY HIVELY (Earlham College) and ROBERT HORN (Earlham College)

Previous work has established that the Newark Earthworks can be understood as an effort to represent and record correspondences between observed astronomical, topographical, and geometrical regularities. The methodological challenge for the evaluation of this hypothesis is to show that the astronomical and topographical alignment of the earthworks is a product of an intentional design and not random coincidence. Addressing this question requires searching for evidence for the hypothesis at other Hopewell earthworks comparable to Newark. We present an analysis of five Hopewell earthworks in the Scioto and Paint Creek Valleys which shows: (1) that the dimensions of the geometrical figures are related by geometrical constructions similar to those found at Newark, and (2) the placement and orientation of the major figures involve alignments with topographical features, the solar solstices, and the lunar standstills (again similar to those at Newark).

Geochemical Insights into Early Mississippian Monumentality: Results from the 2012 Ford Mound Excavation at the Pfeffer Site

MAURA E. HOGAN (Indiana University Bloomington)

Excavations at Ford Mound (11S205) were conducted during the summer of 2012 as part of ongoing research investigating the timing, construction and regional significance of this upland, pyramidal platform mound. More information is also sought to resolve questions regarding the mound's chronology and occupation history at the nearby Pfeffer village site (11S204), both Late Woodland (600-850 CE) and early Mississippian (1050-1180 CE) components having been previously identified. Results from geochemical (XRF), stratigraphic and artifact analyses conducted on materials recovered from intact fill are presented here, yielding some insights into the temporality, material composition, and possible cultural affiliation of Ford Mound.

Exploring the Pan-Regional Significance of Michigan's Circular Earthworks

MEGHAN HOWEY (University of New Hampshire)

Michigan hosts a series of Late Precontact (ca. AD 1200 – 1600) circular earthen enclosures. Despite being the most physically striking sites in Michigan, these enclosures have been the subject of little investigation. While smaller-scale than the earthworks of Ohio, Michigan's enclosures nevertheless embed deep and complicated social histories that deserve much more study. I argue the lack of appropriate attention to these sites has left us at risk of missing the large-scale social significance of these monuments implaced in them by their constructors and caretakers. I propose we should investigate the possibility that the Late Precontact circular earthworks of Michigan were purposefully connected to each other, forming an imbricated cluster of ritual precincts. Michigan's enclosures anchored a cultural landscape that was planned and assembled on a monumental scale. The thoughtful imbrication of these

monuments ensured vital intersocietal interaction and may have helped create a pan-regional identity secured by shared sacredness.

A Geophysical Survey at Walker-Noe (15Gd56)

REBECCA HUMMEL (University of Kentucky)

Walker-Noe (15Gd56) has previously only been known through the excavation of a burial mound and the surface collections of avocational archaeologists. An avocational archaeologist, walking over a plowed field, discovered several large pieces of Fayette Thick pottery and brought this to the attention of the archaeologists at the Kentucky Archaeological Survey. This indicated that there may be an intact Early Woodland domestic component. A geophysical survey using a fluxgate magnetometer was conducted over the area to help determine if there were any possible intact features located at this site. The results of this survey can help fill in the enormous gaps in our knowledge of the Early Woodland period especially in the domestic realm.

World Heritage Status, the Success of Cahokia and Ohio's Bid to Be Listed

WILLIAM ISEMINGER (Cahokia Mounds State Historic Society) and RICHARD SHIELS (The Ohio State University)

In 1982, Cahokia was the 10th site added UNESCO's World Heritage List for the United States, but that was after the first attempt was denied. The procedures involved in nomination will be discussed, including what was needed to be accepted, as well as the positive impacts the listing has had since for the Cahokia site. The Midwest is again attempting to list some of its famous sites. Four Ohio earthworks sites are included on the United States' "Tentative List" for World Heritage: Fort Ancient, Hopewell Culture National Historical Park, Newark Earthworks, and Serpent Mound. The first three are combined in a "serial nomination" entitled "Hopewell Ceremonial Centers" while Serpent Mound stands alone. A coalition of institutions across Ohio is actively working to promote the Hopewell nomination. Their efforts and progress will be reported as well as some of the challenges they face and the impact World Heritage may produce.

Spatial Organization and Subsistence Implications of Patton's Cave: A Late Woodland/Late Prehistoric Rockshelter in the Hocking Valley, Southeastern Ohio

LAUREN M. JOHNSON (Ohio University) and PAUL E. PATTON (Ohio University)

The reconstruction of prehistoric human diet has been greatly facilitated by the excavation of Eastern North American rockshelters due to their tendency to preserve perishable organic materials. Recent rockshelter excavations throughout the Ohio Valley have indicated that these sites were utilized as temporary camps for hunting and resource extraction, particularly in the Late Woodland and Late Prehistoric periods. Patton's Cave, a small rockshelter located in the Margret Creek watershed of Southeast Ohio, yielded significant

cultural materials when excavated by the Ohio University Archaeological Field School in 2013. Artifact and feature analyses indicate spatially-discrete activity zones within the rockshelter. Furthermore, associated contents of storage features suggest individual rockshelters were strategically and recurrently utilized offering the broader implications for human territoriality and spatial organization during the Late Woodland and Late Prehistoric periods.

The Late Woodland Period Ceramics from the Wansack Site (36Me61), Mercer County, Pennsylvania

WILLIAM C. JOHNSON and P. NICK KARDULIAS (College of Wooster)

The Wansack site (36Me61) is a multicomponent locus situated on a kame terrace along the Shenango River in Mercer County, Pennsylvania. Diagnostic artifacts and radiocarbon dates indicate repeated utilization of this favored locale from the Early Archaic through the Late Woodland period. The most intensive use of the site was during the Late Woodland period. One hundred fifty-one (40%) of the 380 recovered projectile points are Late Woodland Levanna and Madison triangular arrow points. Diagnostic ceramics document intensive occupation during the early Late Woodland period Mahoning phase and the later Late Woodland French Creek and McFate phases. The Late Woodland ceramics are described in this paper, and documentation for a new early Late Woodland ceramic type, Mahoning Collared, is presented.

In the Spirit of …: The Processes of Preservation of the Ancient Town of East St. Louis

JOHN E. KELLY (Washington University)

Although Moorehead had noted in the 1920s that the East St. Louis mound group was still intact, an opportunity to conduct investigations in the early 1960s during highway construction was missed. Three decades later as a result of an IDOT widening project an extensive portion of the site, including several mounds, was found to be intact. Within a few years of this discovery efforts were undertaken in conjunction with the Archaeological Conservancy and the Powell Archaeological Research Center to preserve a portion of the East St. Louis site. This presentation describes and discusses the history processes of preservation after nearly two decades.

Workplace Safety and Archaeology: Dangerous Places Revisited

ADDISON P. KIMMEL (Midwest Archaeological Research Services, Inc.) and
STEVEN A. KATZ (Midwest Archaeological Research Services, Inc.)

While workplace safety has been a topic of conversation in the archaeological community, particularly within cultural resource management, for well over a decade, it often neglects the dangers posed by the human environment in which archaeologists often work. OSHA adherence is now the standard in nearly all archaeological work situations, and much attention is paid to "natural" dangers such as pathogens and chemical contamination. However, in an ever-changing work environment, we feel that greater attention must be

paid to "man-made" dangers in the archaeological workplace, such as harassment, violence, and the threat of violence in the project area. We propose that, like organizations such as the Postal Service, CRM companies and academic institutions need to establish protocols that address what action should be taken if such dangerous situations arise.

The Golden Eagle Site: a 21st Century Perspective

JASON L. KING (Center for American Archeology), JASON T. HERRMANN (Dartmouth College), and JANE E. BUIKSTRA (Arizona State University)

In 1881, the antiquarian explorer William McAdams noted that although the "Great American Bottom" near St. Louis contained a "grand array" of mounds, he knew "of but a single embankment or enclosure; . . . discovered a short time ago in the county of Calhoun, IL, near the mouth of the Illinois River" (McAdams 1881:718). Over a century of conjecture has ensued over this mound and embankment complex, known as the Golden Eagle site (11C120). Cultural materials from the site are sparse, but reflect nearly all periods of possible lower Illinois River valley occupation; interpretations have invoked economic and cosmological functions. Other than mapping projects and pedestrian surveys, however, the Golden Eagle site has received little direct archaeological study. In this presentation, we review prior archaeological research at Golden Eagle, adding our own present-day perspective and plans, based upon newly available LiDAR data.

Plow Zones, Truncated Features, and a Nineteenth Century Farm: Examining Class and the Use of Space on a Central Indiana Farmstead

DAVID KLINGE (ASC Group, Inc.)

In 2012, ASC Group, Inc. completed Phase II and Phase III data recovery excavations on 12H1066, a farmstead in central Indiana that was occupied during the second half of the 19th century. After it was abandoned, the farm was razed and the property has been cultivated for many of the past 100 years. The demolition activities and continuing agricultural impacts have truncated nearly every feature on the site and have left a typical co-mingled plow zone deposit scattered across the site surface. Despite these challenges, the site contained a detailed record of its occupants. The recovered artifacts illustrate an awareness of and active participation in the regional social class structure, and the distribution of items across the site reveal changes in the use of space that correspond with changes in farm management from generation to generation in a single family.

Managing the Unexpected in Recent and Ancient Urban Settings: Lessons from the New Mississippi River Bridge Project

BRAD H. KOLDEHOFF (Illinois Department of Transportation) and THOMAS E. EMERSON (Illinois State Archaeological Survey)

The Illinois Department of Transportation (IL DOT) in collaboration with the Missouri Department of Transportation and the Federal Highway

Administration is constructing a new bridge across the Mississippi River at St. Louis. Interstate 70 is being redirected through East St. Louis and across the new bridge. From 2009 to 2012 the IL DOT sponsored one of the largest data-recovery excavations ever undertaken in the nation. Teams of archaeologists from the Illinois State Archaeological Survey working along the new I-70 alignment in postindustrial East St. Louis uncovered the well-preserved remnants of an early Mississippian city. Nearly 6,000 habitation features were discovered beneath layers of rubble from abandoned neighborhoods, factories, and the National Stockyards. The unexpected discovery of a Mississippian mound remnant and associated burials posed one of several challenges that were resolved through meaningful consultation among tribes, archaeologists, and engineers. In this paper, we summarize key discoveries and tribal consultation efforts.

You Can't (Strap) Handle the Truth: A New Perspective on Madisonville Ceramics

JILL E. KRIEG (Dayton Society of Natural History) and MATTHEW P. PURTILL (Gray & Pape, Inc.)

The Madisonville Village and Cemetery Site (33HA36) is one of the most renowned archaeological sites in the state of Ohio. It was an agricultural village inhabited between AD 1000 and 1670, with a primary occupation during the Late Fort Ancient Period. The majority of excavations were conducted in association with the Peabody Museum between 1879 and 1911. Recent salvage excavation conducted by Gray & Pape uncovered 44 features and a large assemblage of artifacts, including a robust collection of ceramics from domestic contexts. This work provided the authors with a new opportunity to interpret the Madisonville site. Past discussions of ceramics from this site often have focused on the unique and unusual, for example, head pots and stemmed/pedestaled vessels. This paper discusses the results of a ceramic study based on rim/neck sherds recovered during Gray & Pape's salvage work. This study offers a fresh perspective on domestic lifeways and showcases what may be the typical pottery utilized by the Fort Ancient people at Madisonville.

Overbuilt and Underpopulated: the Abundance of Specialized Architecture at Emerald

JEFFREY D. KRUCHTEN (University of Illinois)

One noteworthy aspect of recent excavations at Emerald was the paucity of domestic debris recovered from the site. Although domiciles from early in Emerald's history were excavated in the 1990s, the 2012 and 2013 excavations revealed dense stands of specialized elite and public structures alongside buildings that seem to have been constructed for the temporary housing of pilgrims. Similar suites of specialized architecture, including large council houses, circular sweat lodges and rotundas, T-shaped medicine lodges, temples, and small storage structures are generally restricted to mound centers and rural "nodal" sites. The presence of these, all dating to the Lohmann or

early Stirling phases, coupled with the paucity of occupational debris attest to the non-domestic character and importance of Emerald in the construction and experience of an early Cahokian orthodoxy. This paper provides an overview of the specialized architecture at Emerald before focusing on one isolated cluster of such buildings.

Radiocarbon Dates from the Central Grave of the Adena Mound

KAREN L. LEONE (Gray and Pape, Inc.), BRADLEY T. LEPPER (Ohio Historical Society), KATHRYN A. JAKES (The Ohio State University), LINDA L. PANSING (Ohio Historical Society), and WILLIAM H. PICKARD (Ohio Historical Society)

The Adena Mound (33RO1), excavated by W.C. Mills in 1901, is the type site of the Adena culture, yet there have been no radiocarbon dates to place it reliably within a temporal framework. In an effort to address this gap in our knowledge, the authors reanalyzed the artifact collections curated by the Ohio Historical Society and selected a fragment of a textile and two pieces of tree bark associated with the central burial for radiocarbon dating. The results indicate that the Adena Mound was constructed between the end of the second century B.C. and the beginning of the first century A.D. placing it near the midpoint in the sequence of radiocarbon-dated Adena culture sites. These data corroborate the generally accepted view that Adena is older than Hopewell and culturally ancestral to it. Moreover, this study demonstrates the importance of restudying museum collections to gain new insights on old problems.

Ohio's Monumental Geometric Earthworks, a History of Research by the Ohio Historical Society

BRADLEY T. LEPPER (Ohio Historical Society)

The Hopewell Ceremonial Earthworks are poised for inscription on the UNESCO World Heritage List. Much of what we know about what transpired at these uncanny architectural settings derives from excavations conducted in the late 19th and early 20th centuries. For much of this period, the Ohio Historical Society was at the forefront of scientific inquiry into the earthworks. The excavation of mounds at Harness, Seip, Tremper, Mound City and the Hopewell Mound Group defined the Hopewell culture. In spite of the narrow focus on burials, insufficient attention to the details of stratigraphy, and the often relatively poor record keeping and collections management practices, these collections and their associated documentation remain the foundation upon which our understanding of the Hopewell phenomenon must be built.

Life on the Lake Erie Plain: the Adams site of Monroe County, Michigan

JOSHUA LIETO (Michigan State University) and KENNETH MOHNEY (Monroe County Community College)

Located in the forested interior of the Lake Erie plain, the Adams site of Monroe County, Michigan is a short-term habitation site dating to the Late Woodland period. While lithic artifacts unearthed there demonstrate some presence in the area as early as the Middle Archaic (6500 BC – 4000 BC),

excavations over the past two years have overwhelmingly uncovered features, post-molds and decorated ceramics consistent with the Riviere au Vase phase (750 AD – 1000 AD) of the Western Basin Tradition. A product of collaboration between professional archaeologists, a college field school, area archaeology clubs, welcoming landowners and local volunteers, this presentation will discuss excavations at the site, take an analytical look at the artifacts unearthed there and place it in a chronological, regional and cultural context.

The Use of Optically Stimulated Luminescence (OSL) Dating as an Aid to the Sand Site Archaeology of the Great Lakes Region

WILLIAM A. LOVIS (Michigan State University)

In regions with a paucity of datable organic material, or where datable organic materials may have questionable contexts and clear cultural association, alternative approaches to the generation of absolute dates must be employed to assist in the development of chronology at multiple scales. This is a situation particularly evident along the coastal zones of the upper Great Lakes as well as interior locations where remnant lake bottom sands from early high lake stages mantle the region. While OSL has been in common use among earth scientists, it has been less popular among archaeologists. Recent regional scale archaeological research along the Lake Michigan coastal zone has employed OSL dating to good effect. Here, I will review some of the basics of OSL dating, and based on insights gained from ongoing regional research explore the advantages and disadvantages of its use in upper Great Lakes archaeology.

Ohio Hopewell Ceremonial Landscape Construction: What Do We Really Know?

MARK J. LYNOTT (University of Nebraska)

Important field research over the last decade has produced new information about how some of the great Ohio Hopewell earthworks were built. We have learned that construction involved substantial amounts of earth-moving and careful selection and placement of soil. The larger earthworks required considerable labor and were truly monumental in scope. Radiocarbon dates from the Hopeton Earthworks, Fort Ancient and Pollock indicate that construction occurred over several generations. Many hypotheses have been proposed regarding the relationship between Ohio Hopewell sites, the chronology of their construction, and the purpose of these impressive earthen monuments. This presentation will review what we know about how the ceremonial landscapes were built by Ohio Hopewell people.

Analysis of Two Catlinite Hopewell Pipes

MARK L. MADSEN (Chicago Archaeological Society/IAAA)

A barn owl effigy pipe and a falcon effigy pipe from La Salle County, Illinois were examined using a Digital Microscope. The pipes were compared to modern-made Catlinite pipes and effigies to see differences of marks made by

modern tools. Traces of mineralization, patina, cracks, farm field scratches, evidence of ancient and modern cleaning, and evidence of original shell decoration were noted. Marks from chert flake blades, gravers, scrapers, and polishing stones show crisscross patterns. The pipe bowls and stems have distinct tapered holes with crisscross abrasions from the pump drill spinning back and forth at different angles. Hopewell effigy pipes were individualized, and so no two were exactly the same. However, etched designs and style elements on the two pipes could be matched to other Hopewell pipes and boatstones. This paper also explores Historic American Indian symbolism and ceremonies regarding pipes which may have had some roots in Hopewell times.

Squeezing the Past Out of the Archaeological Record: A Summary of the 2012-2013 Field Investigations on Grand Island, Michigan

ANDREW MALLO (Illinois State University), JAMES M. SKIBO (Illinois State University), ERIC C. DRAKE (Hiawatha National Forest Service), and FERNANDA NEUBAUER (University of Wisconsin, Madison)

Fluctuating lake levels, acidic soils, and the heavily wooded environment provide obstacles for archaeologists working on Grand Island, Michigan, and in the Upper Great Lakes. Since 2001, Illinois State University and the Hiawatha National Forest Service have conducted systematic research on archaeological sites and employed a variety of analytical methods to glean meaning from seemingly sparse assemblages. This paper details the research methodology and preliminary results of our 2012-2013 investigations. We are exploring Optically Stimulated Luminescence (OSL) dating to create tighter chronologies for Archaic beach ridges created by changing lake levels, and lipid extraction from the greasy soils that form a buried Terminal Woodland (AD 1200) living surface at the Mather-Klauer Lodge site to explore subsistence patterns because of poor preservation of flora and fauna. This information, combined with traditional artifact analyses, aid us in our interpretation of site function and chronology on Grand Island and the surrounding region.

Mitochondrial Genetic Variation among American Bottom Mississippians: Preliminary Results from the Janey B. Goode and East St. Louis Sites

CHARLA MARSHALL (ISAS-UIUC), KRISTIN M. HEDMAN (ISAS/ATAM-UIUC), AIMEE CARBAUGH (ISAS-UIUC), RIPAN S. MALHI (University of Illinois, Urbana-Champaign)

The Illinois State Archaeological Survey is currently in the process of analyzing human remains recovered from the Janey B. Goode (JBG) and East St. Louis (ESTL) archaeological sites. Located in the American Bottom, both sites were excavated as part of the recent New Mississippi River Bridge project. Preservation of the remains ranged from poor to good, and stable isotopic and radiocarbon dating of the burials is currently underway. In order to assess the feasibility of ancient DNA research that could lead to insights on Mississippian health, kinship, and population history, we extracted DNA from a preliminary sample of human teeth from both JBG and ESTL. DNA amplification was 90%

successful and we were able to assign each individual to one of the five major Native American mitochondrial haplogroups. Our preliminary data are presented, and goals of the larger project are discussed.

The Context of Corn and Other Key Floral Resources: Preliminary Analysis of Paleobotanical Remains from the Guard Site

KRISTIE MARTIN (The Ohio State University)

The examination of botanical remains at early Fort Ancient sites have the potential to shed light on plant use patterns and seasonality during a time period in which an agrarian lifestyle was adopted. Botanical remains were sampled from four of the excavated features at Guard (12D29), located in southeastern Indiana near the confluence of the Great Miami River and the Ohio River. Although results are preliminary, they indicate excellent potential for preservation of carbonized botanical remains at this site. Seasonal availability of nut and seed taxa points to occupation during the late summer and fall months at a minimum, and agricultural activities would likely have kept at least part of the occupants on site year round. Maize was ubiquitous although heavily concentrated in a pit located in the plaza center, perhaps indicative of ritualized deposition. Native cultigens and nuts were also common.

Initial Excavations on the Jameson Jenkins Lot at the Lincoln Home National Historic Site, Springfield, Illinois

TERRANCE J. MARTIN (Illinois State Museum), DENNIS NAGLICH (Illinois State Museum), VICTORIA BOWLER (NPS CRD Intern), and TIMOTHY TOWNSEND (Lincoln Home National Historic Site)

The Jameson Jenkins Lot is included within the Lincoln Home National Historic Site National Register District and has been listed with the National Underground Railroad Network to Freedom. Jameson Jenkins worked as a drayman and in 1850 assisted escaped slaves heading north through Illinois. In collaboration with the National Park Service, the Illinois State Museum conducted a limited investigation of the lot in order to assess the potential for intact archaeological resources. Subsurface features associated with the Jenkins occupation were discovered, including a possible subfloor storage pit and the possible remnants of a corner support pier for the Jenkins residence. The results suggest that additional excavations would significantly advance understanding of the Jenkins occupation.

Fort Ancient, Monongahela and Ohio Valley Siouan Migrations

ROBERT F. MASLOWSKI (Mud River Books)

Oral traditions of mid-western Siouan tribes indicate that they came from the Ohio Valley. Some archeologists believe these migrations were quite recent. Interpretations of Hoof Print petroglyphs, artifacts and customs suggest some Siouan migrations began much earlier. Ohio Valley petroglyph motifs associated with the Hoof Print Tradition appear in the Midwest between AD

1000 and AD 1600. An early migration based on the disappearance of the Monongahela Drew Phase occurred circa AD 1400. The last migration corresponds with the abandonment of eastern Fort Ancient Villages in the late 1600s. Archeological evidence for this migration is found in the distribution of Weeping Eye Shell Masks that parallels the distribution of Hoof Print Petroglyphs and the distribution of rectangular pole constructed houses. Siouan migrations are better understood as migration streams occurring over long periods of time, rather than abrupt village removals.

A Microcontextual Analysis of Datum H Heavy Fractions: Hopewell Activities on the Edge of the Hopewell Mound Group

JARED MCALEXANDER (Bloomsburg University)

Over the course of the 2012 SUNY Geneseo/Bloomsburg University field school excavations at Datum H, soil samples were recovered for micro-artifactual and paleoethnobotanical analyses at Bloomsburg University. After flotation, heavy fractions from these samples were size sorted and recovered materials were categorized by artifact classes revealing overall density patterns and individual differences among feature types. Artifact classes included lithic debitage, ceramics, and mica with raw material sourced to multiple locales within Ohio, Indiana, North Carolina, and possibly North Dakota and Kentucky. A preliminary comparison with the heavy fractions from nearby Hopewell habitation sites supports the assessment that Datum H represents a locale where diverse raw materials were used in the production of special artifact types perhaps for use within the nearby Hopewell Mound Group itself.

Late Prehistoric Enclosures in Indiana

ROBERT G. MCCULLOUGH (McCullough Archaeological Services, LLC)

During the Late Prehistoric period, earthen enclosures were constructed in northern, central, and southern Indiana. Through time these enclosures were re-contextualized as their functions changed. In northern Indiana, as with southeastern Michigan, the earlier enclosure sites appear to have served a “special purpose” function related to the integration of dispersed populations. Later in this period nucleated villages, with a variety of domestic structures, were present within the earthworks. These later earthen enclosures were palisaded, suggesting a defensive purpose. This paper examines the archaeological evidence from five of these enclosure sites.

Returning to Kamp Mounds (11C12): Results from Geophysical Survey and High-Density Topographic Mapping in Calhoun County, Illinois

DUNCAN P. MCKINNON (University of Central Arkansas), JASON L. KING (Center for American Archeology), JANE E. BUIKSTRA (Arizona State University), and TAYLOR H. THORNTON (University of Illinois)

The use of geophysics as part of ongoing research in the Lower Illinois River Valley (LIV) holds significant potential for elucidating Middle and Late Woodland community formation, maintenance, and interaction. Recent work

at Kamp Mounds (11C12) offers an excellent example of the promise for geophysics in examining variability and intensity of use among and between contemporaneous LIV sites. At the 2013 Center for American Archeology and Arizona State University field school, a 2.46-hectare area containing Mounds 1, 6, 7, 8, and 9 was surveyed using magnetic gradiometry and mapped using a high-density robotic total station. Results document buried geometric features related to mound construction, an activity area south of Mounds 6 and 7, and a plaza area west of Mound 8. Topographic results allow for correlation of buried geophysical features with surface features and an evaluation of environmental and historical impacts.

Preliminary Mussel Shell Analysis of the Crescent Bay Hunt Club Site (47JE904)

RACHEL MCTAVISH (University of Wisconsin-Milwaukee)

It has been suggested that Oneota groups around Lake Koshkonong, in southeastern Wisconsin used a complimentary wetland and upland terrestrial subsistence strategy. The Crescent Bay Hunt Club site (47JE904) is an Oneota village site that was occupied approximately from A.D. 1200-1400 near the shore of Lake Koshkonong. Mussel shell samples from multiple feature contexts at Crescent Bay are used to examine use of aquatic resources by the prehistoric groups living along Lake Koshkonong. Aside from subsistence, the use of shell for artifacts and the environmental implications of the mussel shells will be discussed.

Paleoindian Plant Processing at Paleo Crossing: Pattern or Bias?

G. LOGAN MILLER (The Ohio State University)

A pilot microwear study of 10 stone tools from Paleo Crossing (33WA274) provided new information on the number, as well as types, of tools used to cut soft plant material during the Paleoindian period. A sample of 10, however, may not be representative of the site as the small size is subject to sampling bias. In order to address this issue, and determine whether the pattern observed in the pilot study is representative of the site as a whole, nearly 60 more artifacts were analyzed. This paper presents the results of the additional microwear sample with the results of the expanded sample, which together form a representative picture of the tasks performed with stone tools at Paleo Crossing.

The Low Mounds at Angel: Mounds C, B, and H

G. WILLIAM MONAGHAN (Indiana University), MATHEW PIKE (Purdue University), NATHAN J. DUBININ (Purdue University), NATASHA R. MAXWELL (Indiana University-Purdue University, Indianapolis), and EDWARD HERRMANN (Indiana University)

The 2013 Angel Mounds NSF-REU investigated large (A, F) and small (C, B, H) mounds. Our data, derived mainly from geophysical and small-diameter core profiles, revealed new information about when and how mounds were

constructed, their internal structure/stratigraphy, and construction/rebuilding episodes. The small mounds (C B, H) are <2 m high and are now conical rather than platform shaped. Our research indicates that these mounds were originally constructed as low platforms that were modified by Euroamerican farming. Additionally, a large building underlies Mound C and part of the inner palisade cut through this building and mound after AD 1350.

Integrating Interpolation Algorithms into Mobility Research in Midwest Archaeology

AMANDA MULLETT (Kent State University) and MARK SEEMAN (Kent State University)

Describing and interpreting cultural patterns across time and space are key dimensions of archaeological research in the Midwest. In this project we examine raw material choices for five distinct styles of Paleoinidan and Archaic bifaces spanning eight thousand years using GIS software. More specifically, we use kriging, an interpolation function available in ArcMap 10.1, to estimate and model social network size, shape and structure as they bear on broad-scale strategies for survival employed by Ohio foragers. With a surface mobility model for each archaeological group, we are able to make intergroup comparisons in relation to mobility range size, shape, and general behavioral strategies.

How Many Maize-leaf Phytoliths are Found in Prehistoric Gardens?

WENDY MUNSON SCULLIN and MICHAEL SCULLIN (Midwest Ethnohorticulture)

We sampled North-central Midwestern ridged field sites undisturbed by historic agriculture and a controlled maize test garden to determine how many maize leaf phytoliths are present in prehistoric gardens as a percentage of all phytoliths in the soil. This may assist in identification of maize gardens with no remaining surface features and when pollen preservation is poor. We'll discuss the taphonomic process involved in incorporating maize leaves to soil, how we identify maize based on Northern maize varieties and how we differentiate maize from native grasses.

Geophysical Investigations at the Portsmouth Earthworks in Greenup County, Kentucky: Preliminary Results

STUART NEALIS (University of Kentucky)

Despite being one of the larger earthwork complexes in south-central Ohio, and the only one to span a major stream, the Portsmouth Earthworks have received little professional attention. Recent gradiometer survey on portions on the Kentucky side of the Ohio River has shown promising results despite varying degrees of surface preservation, ranging from intact walls at Group A (15Gp1) to almost no visible trace at Group C (15Gp2). These results, combined with LiDAR derived 3D terrain models, suggest that the concentric circles at

Group C are still partially intact, as are both southwestern parallel walls at Group A. These data, when combined with WPA era limited excavations, provide areas for further investigation regarding the construction sequence and timing, as well as an opportunity to understand the relationship between groups on both sides of the Ohio River.

Close Range 3D Scanning of Artifacts for Digital Collections: Standard Workflow Procedures

YOLONA NGANDALI (University of Wisconsin, La Crosse)

Digital artifact collections and archives are developing into popular and practical additions to physical collections. Laser scanning hardware and software has become more streamlined and it is easier than ever to create 3D digital models of artifacts. This project demonstrates step-by-step the 3D scan process and emphasizes standard minimum requirements for delivering scan datasets to digital archives based on the Digital Archaeological Record (tDAR). This presentation outlines workflow procedures from the planning phase to the final product. Steps for scan acquisition settings, editing a digital model, documenting metadata, and exporting correct file types will be presented using the software ScanStudio HD from NextEngine. 3D digital models have observational, analytical, and collaborative potential. This medium delivers culturally significant materials to researchers, students, and teachers. The sample guideline will allow for standardized practices and uniform file types for easy use and reuse of digital datasets.

An Examination of Theban Landscape and Raw Material Use on the Galesburg Plain of Western Illinois

DAVID J. NOLAN (ISAS-PRI, UIUC), TIMOTHY BOYD (ISAS-PRI, UIUC), and M. ALEXIS VOLNER (ISAS-PRI, UIUC)

This paper examines patterns of upland Early Archaic Theban landform and chert use in western Illinois, focusing upon the exploitation of local bedrock and residual sources. The remains from several recent IDOT-sponsored site excavations in Henderson, McDonough, and Warren counties are highlighted in this paper, providing important tool manufacturing and discard data. These data are compared to Twin Ditch, the only obvious Theban floodplain residence or base camp documented from the region to date.

Prospecting for Gardens: Application of Geochemistry and Magnetic Susceptibility to Identify Prehistoric Agricultural Locations

KEVIN C. NOLAN (Ball State University)

Agriculture plays an important role in determining settlement patterns and conditioning the distribution of resources. The presence of an agricultural subsistence pattern can be detected at habitation sites through macrobotanical analyses. When intensive strategies that modify landscapes are used, finding locations of fields is a matter of observation of surface remains. With the less intensive systems of the Midwest, a new method of locating cultivated

locations is required. I apply a simple technique of soil phosphate and magnetic susceptibility prospecting to identify possible locations, and then employ more traditional geochemical methods (ICP-OES multi-element analysis) to assess the locations. Several possible fields have been discovered. These fields illustrate the diversity of field distribution and management techniques.

Piecing Together Ritual at the Intersection of Oneota and Mississippian Worlds

JODIE A. O'GORMAN (Michigan State University) and MICHAEL D. CONNER (Illinois State Museum, Dickson Mounds Museum)

During the 2013 field season, excavation of a unique public structure at the Morton Village site (11F2) was essentially completed and further evidence of ritual behavior documented. Structure and content of the building are clearly ritual in nature as indicated by architectural features, a prepared clay hearth, other areas of intentionally baked clay, a linear pavement of broken Oneota pottery vessels, and a bundle burial. These findings are reviewed and discussed in conjunction with other indications of ritual at the site to examine ritual practice as one facet of the social context for prolonged intermittent violence documented at the adjacent Norris Farms 36 cemetery.

Archaeological Investigations at Datum H: Exploring Ohio Hopewell Activities at the Edge of Hopewell Mound Group

PAUL J. PACHECO (SUNY Geneseo), ERIN STEINWACHS (Ball State University), and JENNA ANDERSON (SUNY Geneseo)

The joint 2012 SUNY Geneseo/Bloomsburg University field school, in collaboration with Jarrod Burks of Ohio Valley Archaeology Inc., conducted targeted archaeological investigations at Datum H, a site located about 300 meters northeast of the Hopewell Mound Group. Our goal was to identify the distribution and density of artifact types and identify and sample variation within feature contexts, while at the same time disturbing less than 5% of the overall site area. Investigation methods included magnetometry, magnetic susceptibility, shovel test pits, trenching, and partial feature excavations, including soil samples from all feature contexts for flotation. This presentation represents an overview of the methods, results, and preliminary conclusions of our investigations – independent of the heavy fractions and paleoethnobotanical analyses, which are presented separately. A final purpose of this paper is to place Ohio Hopewell activities at Datum H within the broader context of our current understanding of Ohio Hopewell settlement patterns as informed by middle-range archaeological theory.

Social and Cultural Interaction in the Central Illinois River Valley: A Late Mississippian Case Study

JEFFREY PAINTER (Illinois State University)

The Crable site is a Mississippian mound center in the Central Illinois River Valley, containing a mixed occupation of both Mississippian and Oneota-like toolkits, as well as a small selection of hybridized ceramic forms. While different ceramic styles are present and documented, the social atmosphere at Crable during this period is largely unknown. In order to investigate these social and behavioral interactions, an analysis of the ceramics collected as part of a surface survey during the 1969 field season was undertaken. Decorated pottery found during this survey was examined by provenience and abundance in order to explore any possible patterns in where individuals may have been living or performing various tasks, focused towards discerning the social interactions of life at the Crable site. While results are tentative and incomplete at this time, this analysis may uncover the relationship between the groups co-existing at this intriguing site.

The Transition from Foraging to Food Production: Evidence from the County Home Site (33AT40), Hocking Valley, Ohio

PAUL E. PATTON (Ohio University)

Archaeobotanical remains recovered from 21 features at the County Home site in the Hocking Valley of southeastern Ohio yielded a diverse assemblage of plant macroremains. Spanning the Late Archaic to the Middle Woodland periods, these data document changes in diet as subsistence strategies shifted from foraging to food production. The analysis results indicate that prehistoric populations had already domesticated a suite of native plants, commonly referred to as the Eastern Agricultural Complex, by the end of the Late Archaic Period, and had largely replaced foraged arboreal nuts with native cultigens and managed plant foods by the Middle Woodland Period. These data provide the first evidence of Late Archaic plant domestication in the state of Ohio and provide further support that Middle Woodland populations were farming and managing their landscapes.

The Archaeology of a Moonscape

TIMOTHY R. PAUKETAT (University of Illinois), SUSAN M. ALT (Indiana University), JEFFERY D. KRUCHTEN (University of Illinois), and WILLIAM F. ROMAIN (The Ohio State University)

The Emerald site layout and the surrounding Looking Glass Prairie landscape provide substantial new evidence for a lunar-shrine complex 14 miles east of Cahokia. The archaeoastronomical argument is reviewed in light of architectural, mound-alignment, geoarchaeological, and survey data. It now seems evident that Emerald was part of a great entanglement of the moon, people, earth, and ancestors that was tantamount to the inception of Mississippian culture at Cahokia and beyond.

An Evaluation of Common Perceptions in Ohio's CRM Archaeology

ALBERT PECORA (Ohio Valley Archaeology, Inc.)

Ohio's Phase I CRM survey reports frequently argue that because a site is an unassigned lithic scatter with few artifacts it must be an "ephemeral camp" with little or no archaeological significance. These same reports often make little or no mention of the presence of fire-cracked rock (FCR). When FCR is mentioned, it is often treated as though it has little or no archaeological utility. These are misconceptions that ultimately devalue Ohio's archaeological resources. I seek to dispel both myths. I contend Ohio contains many sites that were formed from essential hunter-gather activities that did not result in the deposition of substantial lithic debris quantities. The use of thermal features, which resulted in the production of FCR, was essential for thermal comfort, food processing, and cooking. The presence of FCR should be the primary tool for seeking archeological sites with subsurface features and other sources of important archaeological information.

Archaeology of the Yard of a 19th Century Boarding House for Miners in Michigan's Upper Peninsula

BRENDAN C. PELTO (Michigan Technological University)

The Clifton site (20KE53), located on the Keweenaw Peninsula of Michigan's Upper Peninsula, was the settlement site for the Cliff Mine, the first profitable copper mine in Michigan. Operating throughout the 1850s and 60s, the town of Clifton began to disappear around 1871 when the Boston and Pittsburgh mining company ceased operations and began to lease out the land to individual prospectors. The Industrial Archaeology program at Michigan Technological University has been performing field work at the Cliff site for the last four years, with the last year of work being focused on the site of the town itself. One of four trenches dug at 20KE53 was labeled as "Trench A" - the A representing the beautiful apple tree that covered the trench. This trench was designed to look at how yard space of a boarding house would have been utilized in a mid 19th century mining town of diverse ethnic background. Ceramic analysis and zooarchaeology is utilized to portray life in the boarding house as well as to reveal how the space between the house and the road was organized.

An Examination of Gravel's Importance in the Modified Landscapes of Aztalan and Other Mississippian Sites

JAKE PFAFFENROTH (University of Wisconsin)

The 2013 MSU-UW-UNI field school investigations of the so-called gravel knoll in the southeast corner of the Aztalan site revealed deep pits, abundant use of glacial gravel, and deliberately sculpted surfaces analogous to those found in the "sculptuary" immediately south of the northwest mound. The excavations along the palisade extension in the southwest corner of the site also disclosed the novel use of gravel. In this paper, I examine landscape modification and

the use of gravel at palisaded Mississippian sites in the Midcontinent to provide a broader context for the interpretation of this material at Aztalan.

Conserving an Archaeological Collection for Land Management: Curating 40 years of Archaeology at McHenry County Conservation District

SARA LYNN PFANNKUCHE (MARS, Inc.)

The general public often considers land conservation as protecting water resources, restoring native landscapes, or saving endangered animals and plants. Today, archaeology is firmly entrenched as a cultural resource managed by public land stewards. Archaeological research often helps to flesh out previous land practices and provide details on past lifeways of people living on the land, giving visitors a humanistic "connection" to the land. This presentation will describe the recent curation of almost 40 years of archaeological material generated by numerous archaeological investigations, both by avocational groups and professionals, on land owned by the McHenry County Conservation District. The archaeological collections (artifacts and archives) are being incorporated into the District's overall cultural resource management program, including the integration with the planned digitizing of existing historical interviews with former land owners. It will be formatted as a GIS/Resource Database layer that can be updated as new material is identified.

A History of Archaeological Research at the C.W. Cooper Site in the Central Illinois River Valley

MATTHEW D. PIKE (Purdue University), GREG WILSON (University of California, Santa Barbara), and AMBER VANDERWARKER (University of California, Santa Barbara)

Located on the western bluff crest of the Illinois River Floodplain, C.W. Cooper was the location of a Middle Woodland Mound construction and mortuary complex, a late 12th century Mississippian village, and a 14th century Oneota village. Three years of National Science Foundation funded research has recently taken place at C.W. Cooper. This research, consisting of a combination of remote sensing, excavation, and collections research has significantly advanced our understanding of the site and a number of cultural developmental issues in the region.

Fort Ancient Public Structures

DAVID POLLACK (Kentucky Archaeological Survey) and A. GWYNN HENDERSON (Kentucky Archaeological Survey)

Archaeologists have documented diverse types of wooden post structures at Fort Ancient village sites in the middle Ohio River Valley. Most work has focused on those interpreted as domestic structures. Other types of wooden post structures have not garnered as much interpretive attention. Size is the most obvious feature that distinguishes these buildings, but differences in structural elements, associated artifact assemblages, and location within the village suggest that these structures took on additional roles. This paper

outlines the similarities and differences among public structures at three Kentucky Fort Ancient sites and considers the kinds of activities that may have taken place within them and the roles special poles, clay, and fire may have played in those activities.

Buried Site Challenge: Defining a Middle Archaic Community

MELODY K. POPE (University of Iowa, Office of the State Archaeologist), JOHN F. DOERSHUK (University of Iowa, Office of the State Archaeologist), and WILLIAM E. WHITTAKER (University of Iowa, Office of the State Archaeologist)

The Palace site is the little big site that almost wasn't because of an erroneous assumption that the stratigraphy of the project area was too young in age and substantially altered by recent flood events to preserve significant deposits. An astute SHPO reviewer questioned this assumption, leading to additional investigation. It is "little" because only 2,816 lithic items were recovered, a seemingly small assemblage for a Middle Archaic deposit. The Palace site is "big" because it is one of the oldest and best preserved in Iowa. It offers up an opportunity to extend beyond the notion of stratigraphy as chronology to stratigraphy as the result of cultural and historic practices tied to inhabiting places. We argue that this perspective may have much to offer the archaeological study of mobility and Middle Holocene hunter-gatherer communities.

Earthen Mounds as Image Making

MELODY K. POPE (University of Iowa, Office of the State Archaeologist), JOHN F. DOERSHUK (University of Iowa, Office of the State Archaeologist), WILLIAM E. WHITTAKER (University of Iowa, Office of the State Archaeologist), SHIRLEY SCHERMER (University of Iowa, Office of the State Archaeologist), and WILIAM GREEN (Beloit College)

We examine earthen constructions, figurines and pipes from Woodland period sites to explore relations between materials and representation. Our approach is informed by a practice-centered perspective to the extent that we view the production and use of objects (including mounds) as embodying socially and politically meaningful relationships that are historically contingent. Our interest is in how Woodland peoples made and used objects in meaning-laden representational activities and how archaeologists interpret meaning. To this end we report on our results to date that have focused on LiDAR and high resolution mapping of earthen mound forms in northeast Iowa.

Micromorphology: A Multi-Disciplinary Approach to Recognize Past Human Activities on Buried Mound Surfaces and Fills at Angel Mounds

CAITLIN RANKIN (Beloit College)

As part of the 2013 National Science Foundation Research Experience for Undergraduates at Angel Mounds, micromorphological analyses were conducted of sediments from mound fill and occupational surface layers at

Mound F. This "Temple Mound" was originally excavated by Glenn Black in the 1940s and 1960s. In the past, micromorphology had primarily been used to discover composition, fabric, and texture of sediments as well as to distinguish primary and secondary features. As more archaeologists began to utilize micromorphology, a database was developed that has now made it possible to use this method to identify anthropogenic influences of sediments and to understand past human activities by analyzing grain fabrics and textures. The results of this research will show how micromorphology can improve our knowledge of past human modification of landscape and the activities that caused these changes.

Changing Uses of Hilltop Enclosures in Northern Ohio: Recent Research at the Multicomponent Heckelman Site in Erie County, Ohio

BRIAN G. REDMOND (Cleveland Museum of Natural History)

Since the mid-nineteenth century, antiquarians and archaeologists have been both fascinated and perplexed by the hilltop enclosures of northern Ohio. Recent research at the Heckelman site on the Huron River reveals changing utilization by local populations over two millennia, beginning ca. 700 B.C. The first occupants constructed two parallel ditches to enclose 0.76 ha of the bluff-top as well as an oval ditch enclosure. Activities focused on the erection of large (sacred?) poles and hot-rock food preparation utilizing ceramic vessels. Subsequent occupation by Hopewell-inspired households (A.D. 250-400) discontinued the use of the enclosures and carried out limited domestic activities including the manufacture of chert cache blades and mica-working. By A.D. 600 utilization of the site shifted to the construction of substantial domestic dwellings, and, ca. A.D. 1400, the site was re-occupied by a sedentary, maize horticultural population that constructed a 0.2 ha stockade village settlement within the former enclosure.

Hopewell Panpipes: Experimental Reconstruction and Exploration of Music in Hopewell

ROBERT REIS (National Park Service)

Copper played an important symbolic role in the Hopewell Interaction Sphere, and was used in a number of ritual items, ranging from effigies to panpipes. The role of panpipes in Hopewell is not clear; panpipes have only been recovered from mortuary contexts, and we have little to no knowledge of their living context. I report on my experimental effort to recreate a Hopewell panpipe. My methods include a thorough review of archaeological site reports, and taking a series of measurements on Hopewell panpipes based on archaeological data. These data resulted in the creation of a series of panpipes in the Hopewellian style, using materials available to the Hopewell or very similar materials. My reconstruction creates a basic instrument that can be used for comparison with archaeological remains to achieve a better understanding of how Hopewell panpipes were made, what materials were used, and the by-products created by their manufacture.

Mounds and Middens at Aztalan: The 2013 UW-Milwaukee Aztalan Project Excavations

JOHN D. RICHARDS (University of Wisconsin, Milwaukee) and JENNIFER L. PICARD (University of Wisconsin, Milwaukee)

The 2013 UWM Aztalan Field School re-opened a stratigraphic section through the riverbank midden begun in 2011. The work completed excavation of a feature that had produced an assemblage that includes ceramics, native copper, and faunal and floral remains. These excavations also sought to determine the relationship of the midden and feature to the associated remains of a palisade bastion. A second focus of the 2013 work was designed to build on the 1964-1968 Northeast Mound excavations of the Wisconsin Historical Society to recover information needed to manage the existing mound remnant and guide future reconstruction efforts. The 2013 work also utilized a truck-mounted Geoprobe coring rig to extract soil cores from portions of the west bank of the Crawfish River as well as the Northeast, Northwest, and Southwest mounds, and the "Gravel Knoll." Soil core data are used to compile a soil geomorphic characterization of the site.

The 2013 Milwaukee County Poor Farm Project

PATRICIA B. RICHARDS (University of Wisconsin, Milwaukee) and THOMAS J. ZYCH (University of Wisconsin, Milwaukee)

Excavations at the site of the Milwaukee County Poor Farm Cemetery in Wauwatosa, Wisconsin in 1991 and 1992 resulted in the recovery of 1609 individuals associated with Milwaukee County's practice of burying institutional residents, unidentified or unclaimed individuals sent from the Coroner's Office, and community poor from the mid-1800s through 1974. During the summer of 2013 Historic Resource Management Services of the University of Wisconsin-Milwaukee undertook additional excavations at the site of the Poor Farm Cemetery. This paper summarizes the permitting history associated with this project as well as a preliminary comparison of the 2013 results to the 1991 and 1992 excavations.

Tools of the Trade: Lithic Assemblages from the Hovey Lake (12PO10) and Ries-Hasting (12PO590) Archaeological Sites, Posey County, Indiana

JESSICA RICHARDSON (Indiana University), MEREDITH MCCABE (Indiana University-Bloomington), DEAN REED (Indiana University), and CHERYL ANN MUNSON (Indiana University)

Hovey Lake and Ries-Hasting are Caborn-Welborn phase archaeological sites located at the southwestern tip of Indiana, along the Ohio River. Hovey Lake is a large village, while Ries-Hasting is a small hamlet. Both have been investigated with surface survey and small-scale excavations by researchers from Indiana University. Lithic artifacts from these sites include initial and subsequent manufacturing forms, as well as complete and fragmentary implements for cultivating, woodworking, scraping, perforating, and hunting. Characteristics of size, worked-edge shape, and presence of heat fracture and

cortex were recorded for each artifact. Chert types were also identified. Statistical analysis of artifact and chert types illustrate how chert was acquired and processed, how tools were produced and utilized at each site, and why the tool kits vary between the sites.

"The Fact Should be Found in the Artifacts": George Hull Squier, George Arbor West, and the Interpretation of Aztalan

ROLAND L. RODELL (University of Wisconsin, Rock County) and WILLIAM GREEN (Beloit College)

George Squier (1849-1933) was an archaeologist who spent a lifetime researching the platform mound site on his family farm in Trempealeau, Wisconsin. George West (1859-1938) was a Milwaukee lawyer and politician, and one of the founders of the Wisconsin Archeological Society. In 1907 he published a culture history of Aztalan in which he stated unequivocally that the ancestors of the Winnebago had built the site. The following year, at a conference attended by West, Squier challenged the Winnebago thesis and argued instead that the rarity of platform mound sites in Wisconsin, and associated pottery, implied a cultural connection to the lower Mississippi Valley. Although West eventually recognized that Aztalan had a southern component, he never acknowledged in print Squier or his thesis. West's reasons for dismissing Squier are not known, but we suggest they had more to do with social-class differences than simply a scholarly disagreement.

An Assessment of Microscopy and Genetic Methods for Archaeoparasitology Analysis at the Historic Village of Arrow Rock, Missouri

AMANDA ROLLINS (Indiana University), FREDERIKA KAESTLE (Indiana University), and PETER WARNOCK (Missouri Valley College)

This archaeoparasitological study evaluates the utility of microscopy and genetic methods to analyze feces-contaminated soil excavated from a late 19th to early 20th century latrine at an African-American meeting house in the historically segregated village of Arrow Rock, Missouri. Morphological identification and quantification of intestinal parasitic helminths was assessed via microscopy, whereas the presence of intestinal parasites was genetically determined through ancient DNA analysis. A preliminary comparison of both methods is hereby presented, as well as the implications of such parasitic diseases for the inhabitants of the historical village of Arrow Rock. This feasibility study confirms that a combination of methods is crucial to fully evaluate the range of parasitic diseases due to the differential preservation of parasitic species in archaeological contexts. Only parasites with durable morphological features preserve well enough for visual identification, whereas soft-bodied helminths and protozoa are usually degraded beyond all recognition and must be evaluated genetically.

Serpent Mound Project Results 2013

WILLIAM F. ROMAIN (The Ohio State University), G. WILLIAM MONAGHAN (Indiana University), JARROD BURKS (Ohio Valley Archaeology, Inc.), MICHAEL J. ZALEHA (Wittenberg University), KAREN LEONE (Gray and Pape, Inc.), TIM SCHILLING (Midwest Archaeological Center), AL TONETTI (ASC Group), MATTHEW PURTILL (Gray & Pape, Inc.), EDWARD W. HERRMANN (Indiana University)

Over the past several years investigations have been conducted at Serpent Mound by an interdisciplinary team comprised of archaeologists, geologists, biologists, and others. In this presentation some of our findings are revealed. These findings include a probable silt-filled cave beneath a series of sinkholes 120 meters south of the effigy, a previously undocumented coil segment or body convolution near the neck of the serpent, and new radiocarbon dates suggesting an Early Woodland construction date.

Mapping Hopewell Landscapes: Two Centuries of Landscape Studies at Hopewell Culture National Historical Park

BRET J. RUBY (National Park Service), JARROD BURKS (Ohio Valley Archaeology, Inc.), MARK J. LYNOTT (University of Nebraska), ANN BAUERMEISTER (National Park Service), JAY T. STURDEVANT (National Park Service), KATHY BRADY (National Park Service), and ANDREW LABOUNTY (National Park Service)

Between about 1600 and 2000 years ago Ohio Hopewell peoples transformed the region surrounding the confluence of Paint Creek and the Scioto River into the most remarkable cultural landscape in the Eastern Woodlands. Ohio Hopewell peoples constructed at least two dozen monumental mound and earthwork complexes in this concentrated area, radically reorganizing landscape-altering trends and traditions set in motion by their forbears at least a millennium earlier. Hopewell Culture National Historical Park preserves six of the largest of these mound and earthwork complexes. This presentation traces more than two centuries of antiquarian and archaeological efforts to map and understand these enormous creations at various scales and resolutions. Current research using large-scale and high-resolution LiDAR and magnetic survey will be highlighted.

The Patterning of Bison Remains from Late Prehistoric Sites in Wisconsin

ROBERT F. SASSO (University of Wisconsin, Parkside)

Traditionally, the preserved remains of bison encountered on Oneota and other Late Prehistoric sites in Wisconsin have been quite limited in both quantity and variety. The single most common bison elements typically recovered from Late Prehistoric sites are scapulae, whether modified into and/or utilized as hoes, or not. Relatively few other elements have been recovered overall, representing very limited portions of the skeleton. An examination of patterning of reported bison remains, including artifacts made from bison skeletal elements, provides an opportunity for comparisons across

the state, particularly for bison use by Oneota inhabitants of several regions. Viewed in the context of ecological conditions and cultural changes in the Late Prehistoric period, aspects of access to and the acquisition of bison are considered and allow for a discussion of the potential meanings of the observed faunal patterns.

Amazonian Geoglyphs: How Deforestation Has Changed Perspectives on Tropical Forest Archaeology

DENISE P. SCHAAN (Universidade Federal do Pará)

Ditched enclosures in western Amazonia were first seen forty years ago, but it was only with the advance of deforestation for cattle ranching, and the availability of free satellite imagery that archaeologists were able to map hundreds of these monumental sites in western Brazil. Today they are locally known as geoglyphs. Located between the Andes and the alluvial plains of the Amazon River, the ditched enclosures did not fit previous models for pre-Columbian occupation of the region. Their different layouts, sizes, and locations indicate some level of local differentiation, but the uniformity of measurements and techniques of construction suggest a common architectural tradition over a 75,000 sq km area that lasted for about fifteen hundred years. The presentation will go over the history of the discovery of the geoglyphs, their place in current debates on cultural development in the Amazonian lowlands, and the current challenges for heritage preservation.

Regional Distribution, Chronology, and Function of Geometric Enclosures in Western Amazonia

DENISE P. SCHAAN (Universidade Federal do Pará), ANTONIA D. BARBOSA (Universidade Federal do Pará), MARTTI PÄRSSINEN (University of Helsinki), SANNA SAUNALUOMA (University of Helsinki), IVANDRA RAMPANELLI (Universitat de València), ALCEU RANZI (Universidade Federal do Acre)

The geometric enclosures of Western Amazonia, Brazil, are large archaeological sites enclosed by deep trenches located on top of plateaus, overlooking river valleys. Initially, scholars believed the trenches were built for defense, but the low amounts of cultural vestiges indicate they were not village sites. A large regional investigation, aerial photography, remote sensing, and ground surveys has located about 400 enclosures displaying similar morphologic characteristics over an area of 50,000 sq kilometers. Ten sites were excavated. The enclosures were built during the first Millennium AD, apparently by a sparse population. In this presentation I provide updated data on the distribution, function, and chronology of these sites that have helped to change the standard view on cultural development in pre-Columbian Amazonia.

Measuring Mobility along the Lower Rock River Valley: An Analysis of Woodland Debitage Signatures

MATTHEW P. SCHLICKSUP (Beloit College) and SHANNON M. FIE (Beloit College)

A population's subsistence strategies and mobility are related such that certain subsistence practices, and thus associated technological adaptations, are better suited to either a more mobile or sedentary way of life. In as far as lithic debitage reflects technological adaptation, it is a useful means of measuring prehistoric mobility. A combination of attribute and typological debitage analysis of surface-collected material from spatially distinct Early and Middle Woodland components of the Brake #1 site along the lower Rock River Valley of northern Illinois reveals the behavioral complexity of the respective occupants. Striking similarities between the debitage signatures of each component suggest subsistence-related behaviors that evidence some continuing mobility into the Middle Woodland Period.

A Re-examination of the Busseyville Grooved Paddle Oneota Pottery Type in Southeastern Wisconsin

SETH A. SCHNEIDER (University of Wisconsin, Milwaukee)

In 1962 Robert Hall proposed the Busseyville Grooved Paddle pottery type for the Oneota Tradition (A. D. 1000 – 1630) in Eastern Wisconsin. Unlike most of the smooth-surfaced Upper Mississippian vessels in Wisconsin, Busseyville pottery stands out with its roughened surface possibly produced by using a grooved paddle or rawhide cord. This paper re-examines Hall's description of the type and its applicability in light of recent findings in the Lake Koshkonong region. Analysis of assemblages from multiple sites near Lake Koshkonong in Jefferson County, WI provide data on whether Busseyville Grooved Paddle should be considered a pottery type in the Eastern Wisconsin Oneota Tradition.

A Consideration of Mississippian Site Structure

SISSEL SCHROEDER (University of Wisconsin, Madison)

The Middle Mississippian people who established the site we call Aztalan made use of conventions in architecture and monumentality to visually assert their political, social, and ethnic identity as foreigners in a new land. A comparison with some other palisaded Mississippian sites in the Southeast and Midwest discloses the distinctiveness of Aztalan's geographic location, internal structure, and spatial aesthetics. These variations on a theme arose from the particular actors who guided and participated in the development of the community, the interplay between the foreign and the local, pivotal moments in the dynamic histories of the place and the people who occupied that space, and the adoption of novel locally available materials.

Bipartite Division in a Middle Woodland "Moundbuilder" Society: Evidence from Archaeological Prospection

MARK R. SCHURR (University of Notre Dame)

Between 200 B.C. to A.D. 350, the Goodall tradition people of northwestern Indiana built numerous burial mounds in the region near the southern end of Lake Michigan. Goodall tradition mounds are found singly or in groups ranging in size from two to 22 mounds. At the larger sites, such as the Goodall type-

site, the mounds are grouped into clusters, suggesting some social divisions existed in Goodall society. Gradiometry and resistivity surveys at the Goodall and Mud Lake sites provide evidence that some mound groups were constructed so that paired or alternating mounds had different kinds of soil caps. At Mud Lake, a muck-capped mound appears to have been paired with one having a marl cap. At Goodall, muck-capped mounds alternate with marl-capped ones in a linear mound group. Linear arrangements of Havana tradition mounds have usually been interpreted to have chronological significance. The alternation of construction materials in the linear group at Goodall, an eastern extension of Havana Hopewell, indicates that principles other than chronology may have been used to structure Goodall (and perhaps other Havana) mound groups. The alternation of muck and marl caps at Goodall tradition sites suggests that some sort of bipartite division played a fundamental role in Goodall social organization, perhaps in the form of moieties or another type of segmentation.

A Review of Recent Efforts to Identify and Verify the Hopewell Road with Future Research Prospects

KEVIN R. SCHWARZ (ASC Group, Inc.)

The Great Hopewell Road is a hypothesized prehistoric parallel-walled roadway that is believed to have passed from the Newark Earthworks in Licking County, Ohio to the High Bank Works in Chillicothe, Ohio, a distance of about 60 miles. Its existence was proposed during the nineteenth century and it received renewed interest when Bradley Lepper investigated it in the 1990s. This presentation reviews recent attempts to identify the Hopewell Road south of the Newark Earthworks, based on efforts by the Ohio Historical Society, a CRM project by ASC Group, Inc. and other investigators. While evidence of the prehistoric road is convincing in some cases, in other cases the search for its signature and deposits associated with it have proved elusive. The study concludes by commenting on the unique potential of the site to inform archaeologists about prehistoric networks and movements of people and the challenges it presents for CRM archaeology.

Pipes as People? Abandoning the Subject/Object Divide within Mortuary Analysis

ANDREW C. SEIDEL (Arizona State University)

A small but growing trend within archaeology is the recognition within theoretical frameworks that the strict division between “subject” and “object” that is second nature to Western researchers may be inadequate, if not inappropriate, when deployed in the interpretation of material culture produced by non-Western societies. This trend, however, has made few incursions into the field of mortuary analysis where, despite increasingly complex theory and data sets, many interpretations still hold burial practices to be a reflection and/or a distortion of social relationships between human beings. Drawing heavily on Alfred Irving Hallowell’s reconstruction of Ojibwe

worldview, I argue that some "objects" may be more appropriately interpreted as, or as indicative of, what Hallowell terms "other-than-human persons." I then use this observation to produce an interpretation of Ojibwe mortuary practices that is more in line with the reconstructed Ojibwe world view and, therefore, potentially a more satisfying explanatory model.

"To the new Forest Home in Ohio so wild": The David Deardurff House, Columbus, Ohio

ANDREW R. SEWELL (Hardlines Design Company), MARIA BURKETT (Ohio State University), CHARISSA DURST (Hardlines Design Company), ANNE B. LEE (Hardlines Design Company), and GREG WILES (College of Wooster)

The David Deardurff House, located in Columbus, Ohio, has long been reputed to be the oldest building in central Ohio still located on its original foundation. The building is thought to have been constructed in either 1798 or 1807 in Franklinton, which was the first American settlement in what is now the capital city of Ohio. By request of the owner, who plans to rehabilitate the house, Hardlines Design Company undertook a multidisciplinary investigation, featuring archival research, an architectural assessment, dendrochronology, and archaeology, to determine the structure's true age, construction history, and the nature of associated archaeological deposits. The findings of HDC's investigation into the Deardurff House include determining the actual date of construction and recovering a sample of artifacts representative of the house's occupation in the mid-nineteenth century.

The Wynema Site (33Ha837): A Newly Discovered Late Fort Ancient Habitation Near the Madisonville Site

JOSEPH C. SHAFFER (University of Cincinnati)

A recent phase I survey conducted in the Mariemont Gardens Park has detected a previously unknown Fort Ancient habitation dated to the late 16th - early 17th century. The new site is located less than 500 meters from the Madisonville Site and directly below the Mariemont Embankment. A subsequent phase II excavation has yielded a house floor with domestic artifacts including faunal remains, lithic production materials, ceramics, and non-local artifacts including an Oneota rim sherd, European trade items, and bison remains. The data collected are currently the focus of the author's thesis that investigates the subsistence and procurement strategies in the Middle Ohio Valley during the protohistoric period. This paper will be an overview of the author's formulation and implementation of the survey and excavation, and the possible significance of this new site.

The Education Programs of the Center for American Archeology: Educational Outreach and the Challenges of Public Archeology

ALISON SHEPHERD (Center for American Archaeology), KATIE E. LESLIE (Illinois State Archaeological Survey), SEDRIE D. HART (Center for American Archeology), ARIEL E. TAIVALKOSKI (University at Buffalo SUNY), and CAROL

E. COLANINNO (Center for American Archeology)

The Center for American Archeology (CAA) raises archeological awareness and accessibility through educational outreach and public archeology programs. In this poster, we review these programs, the opportunities they provide for young, professional women in archeology, and some of the challenges of public archeology. Our educational programs offer families, high school students, and adults the opportunity to learn archeological field and laboratory methods, as well as the importance of cultural stewardship. Program attendees participate in archeological research under the supervision of professional archeologists and Women in Archaeology (WIA) Interns. The WIA internship provides young, female archeologists invaluable professional and supervisory experience while directed by a senior archeologist. Engaging in public archeology presents challenges: newcomers to archeology often overlook the importance of archeological context and focus exclusively on artifact recovery. The CAA Education Program addresses this challenge by providing a curriculum focused on proper documentation of the archeological context during excavation.

Getting Down to Build the Mounds: Quarry Areas for Mound Construction at Angel

ALEXANDER SHORT (University of Minnesota, Morris)

The current study addresses possible quarry areas for the soils used to construct Mounds A and F at Angel Mounds, a Mississippian period village and mound complex. Angel Mounds encompasses three mounds of notable volume: A, E and F. Borrow pits and quarry areas, where soil was extracted for mound construction, like those found at other sites tend to be large depressions that retain water due to poor drainage. At Angel Mounds, there are no obvious quarry areas within the site's formal boundaries. Black's 1937 survey was used to identify possible quarry areas across Angel Mounds. Geoprobe coring was then conducted on topographically enclosed and artificially low areas. Coring allows analysis of both varying stages of pedogenesis and correlation between soil types found in mound construction and these low, enclosed areas. The effect of erosional processes on the lower platform of Mound A was also considered for mound volume calculations.

Memory, Monuments, and the Moorehead Phase Occupation at the Emerald Site

B. JACOB SKOUSEN (University of Illinois)

Political and religious movements are often accompanied by the modification and incorporation of past landscapes, monuments, and practices into present contexts. According to Melissa Baltus, the beginning of the Moorehead phase in the American Bottom represents one such historical disjuncture. Recent evidence suggests that changes in the landscape – including shifts in community organization and settlement patterns, massive out-migrations, and fewer mound construction projects – were crucial in the transformations during this time. In this paper I present evidence from the greater Cahokia

region, focusing specifically on recent excavations at the Emerald site, to argue that select mounds, pathways, and landscapes were remembered, commemorated, and reinterpreted by Moorehead phase peoples. Thus, the Moorehead phase was not simply constituted by the introduction of new places, things, and practices and the cessation of others, but also the reconstruction and inclusion of earlier Cahokian monuments and features into a newly-configured landscape.

Lost and Forgotten Historic Roads: The Buffalo Trace, a Case Study

SAMUEL P. SNELL (Civil & Environmental Consultants, Inc.), RYAN L. JACKSON (Civil & Environmental Consultants, Inc.), and ANGIE R. KRIEGER (US Forest Service-Hoosier National Forest)

Not all historic roads are currently used or as well-known as US 40 or Route 66. Many roads that were major transportation routes during prehistoric and early historic times have been lost to history. The Buffalo Trace (Vincennes Trace), extending through southern Indiana between Louisville and Vincennes is such a road. What began as a migration route for buffalo became a Native American trail, and later was used for settlement and commerce. We will discuss the identification and interpretation of early historic roads and will detail the resources available for use in identifying "lost" roads. The archaeological resources in the immediate vicinity of the Buffalo Trace will be discussed to help visualize the prehistoric and historic landscapes associated with this early road. This paper will describe the archaeological survey conducted by ASC Group, Inc. to relocate segments of the Buffalo Trace under the supervision of the USDA Forest Service-Hoosier National Forest.

Post Circles in the Middle Woodland: A Case Study from Seip Earthworks

KATHERINE SPIELMANN (Arizona State University) and JARROD BURKS (Ohio Valley Archaeology, Inc.)

Excavations by the Ohio Historical Society in the 1970s and Arizona State University (ASU) in 2005 uncovered arcs of large, cobble-filled pits stratigraphically above Hopewell structures. Recent radiocarbon dates indicate these pits date to the Middle Woodland period. In ASU's 2005 report it was noted that a circle of approximately 30 m diameter could fit the known pits. In September of 2010 we used a high-density ground-penetrating radar survey to look for pits in the southern half of this possible post circle, and in July 2011 we excavated two 2 x 2 m test units to ground truth two radar anomalies thought to be large post pits. Our excavations did reveal another cobble-filled pit at the approximate southern end of the hypothetical circle. In this paper we summarize our research on the possible Seip post circle and situate this information in the context of other Middle Woodland circles.

Results of Blood Residue Analysis and Microwear of Suspected Arrow Points and Scraping tools from the Crescent Bay Hunt Club Site (47Je904)

KATHERINE M. STERNER (University of Wisconsin, Milwaukee), ROBERT JESKE (University of Wisconsin, Milwaukee), and SARA SHULER (University of Wisconsin, Milwaukee)

Microwear analysis of a sample of artifacts from the Crescent Bay Hunt Club site, an Oneota village near Lake Koshkonong in Southeastern Wisconsin, has demonstrated that morphofunctional typology has limited value for the assessment of tool function at that site. Along with low power and high power microscopy, blood residue analysis provides an additional line of evidence to help ascertain how tools were used. Triangular bifaces and unifacial tools from Crescent Bay were subjected to a combination of blood residue analysis and microwear examination in order to provide insights into tool use at the site.

Geochemical Investigations of Buried Mound Surfaces at Angel Mounds

CASSANDRE STIRPE (Vassar College)

At a site with multiple stages of construction and occupation, such as Angel Mounds, the ability to distinguish between fill and occupational layers is important to understanding site history. To investigate the possibility of using geochemical analysis to identify surfaces, loss on ignition (LOI) and total carbon and nitrogen content were measured using soil samples taken from layers within Mounds A and F during the 2013 NSF REU project. Layers sampled include mound fill and occupational surfaces with associated burning episodes. Goals included determining whether there are distinct geochemical signatures in any of the samples, and whether those may help in identifying building or occupational episodes. The LOI analysis yielded no significant difference in total organic content for any of the samples. However, the C:N ratios are more promising indicators. These type of analyses could be useful in learning about the history of sites, using only small soil samples.

Looking Deeper: A Geochronological Reconstruction of Mound A from the Inside Out

SARAH M. SWARTZ (University of Missouri)

Mound A, the largest multiple platform mound at Angel Mounds (12Vg1), has been altered through episodic erosion and rebuilding since it was constructed, abandoned and subsequently reused during the last two centuries. Our study examines Mound A's lower platform and the conjoining slope of the upper platform using combined geophysical techniques and solid-earth cores, described according to soil texture, type and color, to create profiles of the subsurface. Occupational surfaces in addition to apparent erosion and repair including, but not limited to episodes of sheetwash and slump were identified and traced through the mound. The data reflect probable discrete building and repair episodes prior to the final capping and abandonment of Mound A.

Bringing Baggataway Back to the Mounds

CHAD RYAN THOMAS (University of Southern Indiana), HALEY TALLMAN (Angel Mounds State Historic Site), HEATHER STONE (Angel Mounds State Historic Site)

Modern lacrosse is descended from a Native American sport, called baggataway by the Anishinaabe, that continues to be played throughout the Eastern Woodlands today. It is likely that Middle Mississippian peoples, such as those who lived at Angel Mounds in Southwestern Indiana, played some variation of this sport. In 2012, the Friends of Angel Mounds, Angel Mounds State Historic Site, and Woodland Alliance began an annual event called "Baggataway at the Mounds," which combines amateur lacrosse with native baggataway. These games are played on the Angel Mounds site, returning the sport to its ancestral site for the first time in centuries. A major component of the event is public education on native culture and history. This presentation will review the benefits and lessons of combining sport and public archaeology in this way.

Topographic Change of Mound A at Angel Mounds

ASHLEIGH THOMPSON (University of Minnesota, Morris)

Angel Mounds (12Vg1) is a Mississippian (AD 1050-1450) ceremonial center and town on the Ohio River in southwestern Indiana. It covers 40 hectares and includes four large platform mounds, lesser earthen mounds, palisade lines, and hundreds of structures. The largest platform mound is Mound A which consists of a lower and upper platform that are joined by a conical peak. Earthworks such as Mound A are often portrayed as static since the time of their construction and use; however, change of earthworks over time is rarely discussed. The current study examines topographic changes of the lower platform of Mound A over the past 76 years and the events that may have caused such changes. Preliminary results from a comparison of the 1937 and 2013 surveys of the lower platform indicate that there is a loss of up to 22 cm. Core analysis suggests erosion as the primary agent of change.

An Examination of Middle Woodland Spatiotemporal Settlement Trends in the Lower Illinois River Valley

TAYLOR H. THORNTON (University of Illinois, Urbana-Champaign)

Recent analyses of Middle Woodland (2000-1550 BP) resettlement of the lower Illinois River valley have generally supported a north-to-south trajectory, which followed what is believed to have been a period of depopulation beginning in the latter part of the Early Woodland period (2550-2200 BP). These analyses, however, have neglected the spatial argument inherent to the problem. Using both temporal and spatial data, this new evaluation aims to augment the discussion of regional settlement patterns by incorporating spatial statistics traditionally employed by the field of geography. The results of this spatial analysis tentatively support a north-to-south settlement model, with added support for alternative models of emigration also being revealed.

The Weaver Farm Site Complex: Examining a Unique Occupation in the Crawford Uplands of Indiana

PATRICK TRADER (Gray & Pape, Inc.)

Phase II and data recovery efforts conducted during the spring and summer of 2012 at the Weaver Farm Site Complex (12Gr1782 and 12Gr1783) in the interior Crawford Uplands of south-central Indiana resulted in the identification of multi-component occupations dating between the Early Archaic and Late Prehistoric periods. A multi-disciplinary approach to archaeological investigations, including remote sensing, geoarchaeology and geomorphology, as well as test unit and feature excavation revealed a high correlation between magnetic anomalies and cultural features as well as buried landforms. Subsequent analysis also used a multi-disciplinary approach utilizing soil chemistry and particle size analysis, protein residue, pollen and phytolith, archaebotanical and microwear analysis which revealed a complex of sites occupying a unique niche in a region with few archaeological correlates. Data revealed that while both sites occupied similar landforms during similar prehistoric periods, they represent a staggered use of the region through time and a previously unknown settlement pattern for the area.

Elrod Burial 14: How Many Are There?

CHARITY F. UPSON-TABOAS (University of Missouri)

The Elrod site (12Cl1) was excavated by Elam Young Guernsey in 1934-35 for the Indiana Historical Society at the request of Eli Lilly. The site was located in southern Indiana in Clark County. However, excavation records of the site are minimal and due to the lack of pictures, drawings, and field notes, it is impossible to determine the exact context of many of the burials and associated artifacts. Remains for Burial 14 were stored in two locations and a complete inventory found at least 13 individuals associated with its same accession number. This paper will look at the archival, biological, and archaeological evidence to determine how many individuals were accessioned under the identity of Burial 14 from the Elrod site.

Analyzing Oneota Mortuary Variation in Wisconsin and Illinois

ANDREW J. UPTON (Michigan State University)

This poster problematizes the issue of the nature of patterned similarity and diversity seen in Oneota peoples prior to the A.D. 1450 emergence of ethnographically observed patterns. Instead of looking broadly at settlement, economic, or material culture data, however, this poster seeks to examine archaeological patterning, or lack thereof, seen in the burial practices of the Oneota in central and eastern Wisconsin as well as in west-central and northeastern Illinois. Four Developmental Horizon sites were chosen for analysis: Norris Farms #36, Hoxie Farm, Walker-Hooper and Tremaine. In general, broad qualitative and quantitative dissimilarities between the mortuary components of these sites lends credence to the characterization of the Oneota as a 'pottery culture' marked by local environmental adaptation.

On the other hand, key uniformities are present in the areas of grave good association, ceramic association, and form of disposal. Finally, no marked evidence of hierarchy was apparent in the data.

Archaeological Survey at Fort McCoy: A View of Western Wisconsin Archaeology from the Headwaters of the La Crosse River

STEPHEN C. WAGNER (CEMML) and TIMOTHY N. DAHLEN (CEMML)

For over 25 years, the Army installation Fort McCoy, located in west-central Wisconsin, has been conducting archaeological survey in compliance with the National Historic Preservation Act. Over the past five years, the surveying effort has become more intensive with the intent to cover all of the training lands, rather than focusing specifically on smaller parcels on a project-by-project basis. Now that the survey of accessible areas has been completed, over 500 sites have been reported. While evaluation of these sites is ongoing, data from over 45,000 contiguous acres of survey can provide a baseline for archaeological work in the region.

Building Angel Mounds: A Functional Analysis of Mound A's Lower Platform

ANDREW WALKER (College of William and Mary)

Angel Mounds (12-VG-1), located in Evansville Indiana, has been excavated extensively starting with the WPA investigations led by Glenn Black in the late 1930s. In spite of this, Mound A, the largest earthwork at the site, has been largely neglected by excavations until the NSF REU investigations through Indiana University. For the first time, units were opened on the lower platform of Mound A revealing a number of features indicative of minimally one habitation level that was capped prior to site abandonment. Wall trenches and corresponding post holes mark the former locations of mound-top structures in several locations on the lower platform, and in combination with geophysical mapping, provide an approximate view of the lower platform's use and function. In addition, forthcoming radiometric dates will lead to a more accurate understanding of the Mound A construction and use time line.

Recent Investigations at the Late Woodland Cedar Creek Earthworks (AaHq-2)

CHRISTOPHER WATTS (University of Western Ontario)

This paper presents and contextualizes the results of recent research at the Cedar Creek Earthworks (AaHq-2), a Late Woodland enclosure near Windsor, Ontario. Although the site was first identified and mapped in the 1930s, a dearth of excavations has meant little could be said regarding its age, function or cultural affiliation. Over the course of six weeks in the spring and summer of 2013, our program of work sought to remedy this through a combination of remote sensing, test pitting and targeted test excavations both within and external to the earthworks. A low artifact density, coupled with a dearth of subsurface features (including evidence for a palisade) suggests the site did not serve as a village and raise questions regarding the role of this and other earthen enclosures in the region.

Archaeological Investigations of the Late Woodland and Early Mississippian Occupations at the Stephan-Steinkamp Site (12P033) in Posey County, Indiana

ELIZABETH L. WATTS (Indiana University)

The Late Woodland Yankeetown phase (AD 700-1100) and the Early Mississippian (Angel I) Stephan-Steinkamp phase (AD 1100-1200) of southwestern Indiana are poorly understood, yet a basic understanding of these two expansive phases is absolutely key to understanding the interactions, transitions, and/or negotiations between Late Woodland and Mississippian traditions in the greater Mid/Lower Ohio River Valley and Midwest regions. Recently, magnetometry survey and ground-truthing excavations were undertaken at the Stephan-Steinkamp site (12PO33), a large multicomponent (Middle Woodland through Mississippian) site along the Ohio River in Posey County, Indiana in order to investigate the Late Woodland Yankeetown occupation of the site. This presentation summarizes the preliminary results of survey and excavation and further offers insights into changes and negotiations with material traditions, specifically ceramic technologies and household and community construction practices, during the Late Woodland-Mississippian transition in southwestern Indiana.

Marshelder (*Iva annua L.*) Seed Morphology and Patterns of Domestication in Eastern North America

ANDREW W. WEILAND (The Ohio State University)

Domestication of the extinct eastern North American crop, marshelder (*Iva annua L.* var. *macrocarpa Jackson*) is investigated through quantitative analysis of samples from archaeological sites. Change in marshelder achene (fruit) size over time sheds light on patterns of regional and subregional domestication processes and patterns of diffusion. The hypothesis that marshelder was introduced into the Cumberland Plateau of eastern Kentucky rather than domesticated there is evaluated through spatial and temporal statistical tests from measurements of achene size collected by researchers throughout eastern North America. Statistical analyses show that although there is evidence for increased achene size under domestication, this pattern does not indicate a smooth and gradual trend. Patterns of variability in achene size, in contrast, seem to reflect geographical location rather than temporal placement. These data support an introduction of marshelder to eastern Kentucky from the Illinois River Valley, where the first domesticates are found.

Building the Big Picture on Eastern North American Prehistory: Initial Findings from the Digital Index of North American Archaeology

JOSHUA J. WELLS (Indiana University South Bend), ERIC C. KANSA, SARAH WHITCHER KANSA, STEPHEN J. YERKA (University of Tennessee, Knoxville), R. CARL DEMUTH (Indiana University Bloomington), KELSEY NOACK MYERS (Indiana University Bloomington), THADDEUS G. BISSETT (University of Tennessee, Knoxville), and DAVID G. ANDERSON (University of Tennessee, Knoxville)

State historic preservation offices (SHPOs) and similar entities provide important services to archaeology, maintaining and protecting databases of sites protected by historic preservation legislation. The Digital Index of North American Archaeology (DINAA) promotes and extends SHPO data curation through Web dissemination of non-sensitive data, as a national dataset that can answer broad and particular questions about prehistoric peoples. DINAA will be free, publicly accessible, and curated in a public university archive. DINAA will not maintain or manage any sensitive data, including site locations, and cannot be used for Section 106 compliance. DINAA will complementarily generate professional and public interest in SHPO activities through links and citations back to those data curating entities. Current DINAA efforts involve: (1) integrating multi-state site designations and classifications; (2) relating classifications to general ontologies for multi-state queries; and (3) developing visualization tools, including a coarse-grained Google-Earth-like interface with a resolution of about 20 kilometers.

Mobility, Exchange, and Patterns of Raw Material Transport during the Early Archaic Period in the Midcontinent

ANDREW WHITE (University of Michigan)

Data from samples of lithic projectile points are used to describe changes in patterns of raw material transport associated with the Early Paleoindian (ca. 11,050-10,800 RCYBP), Late Paleoindian (ca. 10,300-10,000 RCYBP), and Early Archaic (ca. 10,000-8000 RCYBP) periods in the Midcontinent. Relative measures of the dispersion of raw materials indicate that the scales of transport decreased between the Early Paleondian and Late Paleoindian periods. During the Early Archaic period, a modest increase in mean transport distance was accompanied by a relatively large increase in maximum transport distance, suggesting the addition or intensification of some mechanism for moving small numbers of projectile points very long distances. An agent-based model is used to explore how changes in group mobility, personal mobility, and/or artifact exchange behaviors may account for these changes.

Building Upward: Investigations into Mound Construction at Angel Mounds

ALENA WIGODNER (Washington University)

Mound F at Angel Mounds has been previously studied as an important civic and ceremonial locale at this Mississippian period site. During the 2013 investigations, a trench through the mound exposed a complete cross-section of occupational surfaces and mound fill episodes. Photographs of this cross-section were used to study building methods employed at different stages of construction; randomly selected sample areas from three main stages were analyzed. Individually deposited basketloads of soil were identified and basketload size and composition were studied. While some basketloads were completely homogenous, others were heterogeneous with inclusions of different soil types. Special attention was paid to the placement and composition of these heterogeneous basketloads. This study examines patterns

and differences in basketload size over time, as well as patterns in the placement of homogenous and heterogeneous basketloads above occupational surfaces. Possible sources for these heterogeneous basketloads are also discussed.

Ancient DNA Analysis of Late Woodland Dogs from Janey B. Goode

KELSEY WITT (University of Illinois) and RIPAN S. MALHI (Illinois State Archaeological Survey)

Dogs were the first animals to be domesticated by humans, and likely originated 15,000-20,000 years ago in Eurasia. Having migrated with humans across Beringia into the Americas, dogs have been identified in archaeological contexts as early as 9000 YBP. With the advent of improved ancient DNA techniques, it is now possible to extract DNA from ancient dog remains to examine breeding practices and migration patterns in both dogs and their human owners. This paper focuses on the Janey B. Goode site in southwestern Illinois, where archaeologists uncovered more than 75 dog remains dating to the Late Woodland and Terminal Late Woodland (1000-1400 YBP). Given the excellent preservation of these remains, DNA analysis was roughly 90% successful. To our knowledge, this is the first ancient DNA study on Eastern Woodlands dogs, and preliminary results indicate relationships to dog remains found both in Siberia (8000 YBP) and in ancient Peru (1000 YBP).

The Paleoethnobotanical Assemblage from Datum H, Hopewell Mound Group: At the Juncture of Ceremony and Ritual

DEEANNE WYMER (Bloomsburg University)

During the summer of 2012 excavations at Datum H, a site located on the exterior of the Hopewell Mound Group, revealed traces of what appear to be a locus of craft production related to the Hopewell utilization of this famous mound group. A dense and diverse suite of artifacts were recovered and a number of features were documented during our investigations. Soil samples for flotation were procured from all site contexts and I will be presenting the results of the paleoethnobotanical analysis and assessment of these materials. The results reveal intriguing patterns indicating a linkage with Hopewell habitation sites in the region as well as distinctions related to the unique activities that had occurred at Datum H. I will also explore the implication of the results for understanding land modification practices at the location as well as insights into materials recovered from mound contexts within the earthwork.

New Evidence of the Cunningham Phase Occupation in the Northern American Bottom

ALEXEY ZELIN (Illinois State Archaeological Survey)

Excavated in early 1990s, the Cunningham site was the first site to represent a new phase of the Initial Late Woodland cultural chronology of the American Bottom. Recently, two additional Cunningham phase occupations were

discovered at the Grove and Tena Deye sites situated along the Vaughn Branch Creek and the east fork of Wood River in the Northern American Bottom. The two occupations are of a small scale, and likely represent short-term seasonal extractive camps. Descriptions of the Cunningham phase occupations and the associated material culture will be the main focus of this paper.

Captured in Time: An Examination of Material Culture Patterns and Activities Represented on the Burned Structure Floors of Orendorf Settlement D

ALEXEY ZELIN (Illinois State Archaeological Survey), MADELINE G. EVANS (Illinois State Archaeological Survey), KJERSTI E. EMERSON (Illinois State Archaeological Survey), and BRENDA E. BECK (Illinois State Archaeological Survey)

Presented are the preliminary findings on community and material culture at the Orendorf site, Settlement D, in west-central Illinois. The site was excavated throughout the 1970s and dates to the thirteenth century A.D. Overall, the site contains three Central Mississippian settlements. This paper will focus on Settlement D, the last of those occupations. Settlement D was a large palisaded village that underwent two expansion episodes and ended catastrophically in a massive burning event. Approximately one hundred structures were uncovered, including many rectangular wall trench houses and a few rectangular structures without wall trenches, a number of circular community buildings, and one cross-shaped structure that was abandoned pre-burning. Due to time constraints at the time of excavation, only a sampling of structures and pits could be fully excavated. However, the intact household assemblages uncovered in burned structures provide an invaluable look at Central Mississippian material culture captured in time.

The Construction of a Mound and a New Community: The Northeast Mound at the Aztalan Site

THOMAS J. ZYCH (University of Wisconsin, Milwaukee, HRMS)

By the start of the 12th century A.D., the Aztalan site in southeastern Wisconsin was home to Middle Mississippian immigrants from the south and local Late Woodland residents. The amalgamated population coexisted, maintained defensive works, and constructed earthen monuments in the spirit of Middle Mississippian mound construction. One mound, located within the domestic complex of the site in the northeast corner of the palisaded area, was the focus of Wisconsin Historical Society excavations during the 1960s. This paper utilizes the unreported results of these investigations to highlight the social implication resulting from the prehistoric construction of Aztalan's northeast platform mound. Results demonstrate the Late Woodland sub-mound space was transformed into a Middle Mississippian monument not by means of coercion or cooptation, but rather through socially integrative practices creating a space that symbolized a new pluralistic community unique to Aztalan and the multiple social groups involved.

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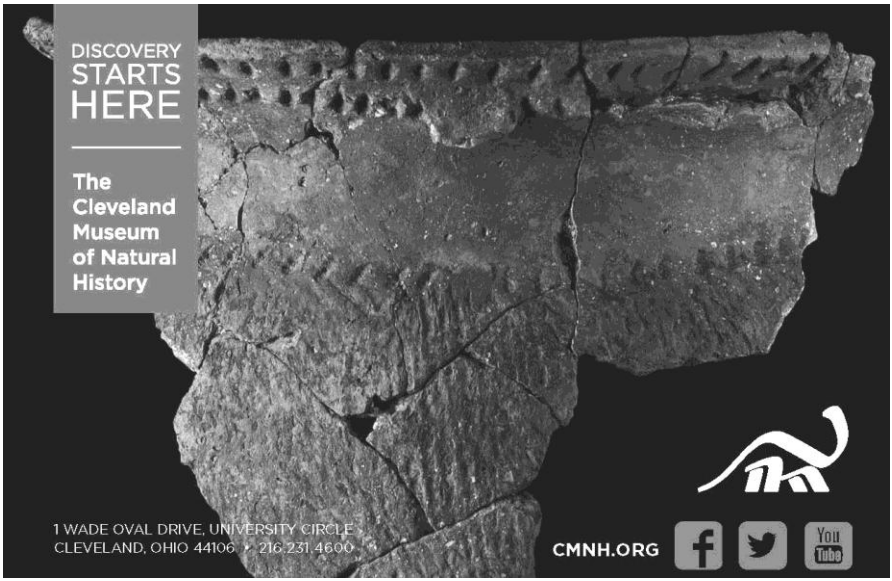
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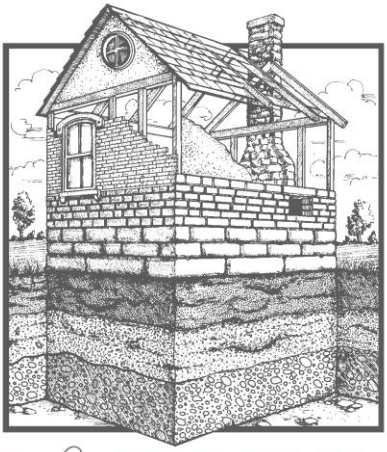

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