

# MIDWEST ARCHAEOLOGICAL CONFERENCE



33rd ANNUAL MEETING  
October 14 - 16, 1988  
University of Illinois at Urbana-Champaign

REF  
Conferen  
MAC  
1988



REF  
conference  
MAC  
1988

MIDWEST ARCHAEOLOGICAL CONFERENCE  
33rd ANNUAL MEETING

1988 Midwest Conference Program Committee

Kevin P. McGowan, Conference Organizer

Dr. Thomas J. Riley, Department Head

Assisted By:

Barbara E. Cohen

Richard Edging

Andrew C. Fortler

Robert Gergen

Michael J. Higgins

Douglas K. Jackson

Debra Kindervatter

Paul P. Krelus

Thomas O. Maher

Dale L. McElrath

Crulg Neldig

Dee Robbins

Charles B. Stout

Jeffrey Vanderziel

Thomas Wolforth

*Cover Illustrations*

Engraved silver gorget and cross fashioned by Robert Cruickshank of Montreal. Artifacts recovered from the Crawford Farm Site (11-RI-81) in Rock Island County, Illinois, a Sauk Indian Village. Illustrations by Linda Alexander.

ARCHIVES  
Office of the State Archaeologist  
The University of Iowa  
Iowa City, IA 52242

MIDWEST ARCHAEOLOGICAL CONFERENCE  
33rd ANNUAL MEETING

*Financial Contributions were made for the  
Keynote MillerComm Symposium by:*

Department of Anthropology

Department of French

Department of Geography

Department of History

Department of Italian, Spanish and Portuguese

Center for Latin American and Caribbean Studies

Program On Ancient Technologies  
and Archaeological Materials

World Heritage Museum

The Museum of Natural History

The George A. Miller Committee

The University of Illinois Press

Historical Society of Greater Peotone

## General Information & Special Events

### General Information

**Business Meeting** A short business meeting will occur immediately following the conclusion of the "U" of the Lake Symposium on Sunday in the Patio East and West Room of the Chancellor Hotel. Selecting next year's location will be the business topic.

**Exhibits** Exhibits will be displayed from 8:15 am to 5:00 pm on Saturday in the Iowa Room and from 8:30 am to 12:00 pm on Sunday in the Brundage Room of the Chancellor Hotel.

**Registration** Registration desks will be open from: 2:00 to 5:00 pm on Friday at the Foellinger Auditorium; 8:00 am to 2:00 pm on Saturday in the lobby of the Chancellor Hotel; and from 8:00 to 9:00 am on Sunday in the lobby of the Chancellor Hotel.

**Session Smoking Ban** Smoking during sessions will not be permitted.

**Slide Screening** A 35 mm preview projector will be available in the exhibit room during exhibit hours for presenters who wish to check their slides before presentation.

### Special Events

**Department of Anthropology Open House** Department laboratories will be open from 10:00 am to 2:00 pm on Friday for visitors.

**MillerComm Reception** Immediately following the conclusion of the Keynote Session, on Friday afternoon, there will be a reception held at The Museum of Natural History (5:30 - 7:00 pm). Refreshments will be served. A special display of figurines recovered from the American Bottom, by the FAI-270 (255) Project will be shown during the reception.

**FAI-270 (255) Open House** The laboratory for the FAI-270 project, in the Horticultural Field Lab, will be open from 7:00 to 10:00 pm on Saturday October 15th. The open house will feature significant artifact examples collected from the American Bottom by the FAI-270 project. Parking is limited so car pooling is encouraged.

**Midwest Conference Reception** A cash bar reception will be held in Suite 324 of the Chancellor Hotel on Saturday October 15th between 8:00 pm and 12:00 am.

## 1988 MIDWEST PROGRAM

FRIDAY AFTERNOON OCTOBER 14, 1988

## [1] Symposium: AT HISTORY'S DAWN: THE IMPACT OF EUROPEAN CULTURE ON NATIVE AMERICANS IN THE MIDWEST.

Foellinger Auditorium, University of Illinois at Urbana-Champaign  
Organizers: Kevin P. McGowan and Thomas J. Riley

## Participants

- 2:30 Thomas J. Riley; Introduction to the "At History's Dawn" Symposium.  
2:40 Robert Hall; Recognizing Continuities of Belief and Ritual Through Time in Illinois Archaeology.
- MLA 3:00 - George R. Milner; Population Dynamics and Archaeological Interpretation.  
Charles Cleland;
- BG 3:20 - Dale R. Henning; The Adaptive Patterning of the Dhegiha Sioux.  
3:40 - Wesley C. Cowan; From Pithouse to Longhouse, From Community to Chaos: Late Prehistoric and Early Protohistoric Developments in the Middle Ohio Valley.  
4:00
- MM 4:20 - Thomas E. Emerson; A Synchronic Perspective on Culture, Population and Environment in the Late Prehistory of Illinois.  
Jeffrey P. Brain; *KEYNOTE ADDRESS*.
- 4:40 Discussant: James Brown  
5:00 Questions  
5:20

SATURDAY MORNING OCTOBER 15, 1988

(All remaining sessions - Chancellor Hotel)

## [2] General Session: EMERGENT MISSISSIPPIAN AND MISSISSIPPIAN RESEARCH

Patio East and West Rooms (Third Floor of the Chancellor)  
Chairperson: Paul P. Kreisa

## Participants

- 8:30 John E. Kelly; The East St. Louis Mound Group and the Rau Collection.  
8:45 Brian G. Redmond; Ceramic Style and Social Function: Yankeetown Phase Pottery Decoration and Emergent Mississippian Social Interaction in the Lower Ohio Valley.
- 9:00 Mark J. Lynott and James E. Price; The Emergent Mississippian Substage and Eastern Ozark Adaptive Patterns, Southeast Missouri.
- SIS 9:15 - Mark R. Schurr; Mortuary Treatment and Prehistoric Diet at the Angel Site.
- 9:30 Sherri L. Hilgeman; Angel Negative Painted Design Structure.  
9:45 Duane Esarey; Negative Painted Pottery and Mississippian Trade in the Illinois River Valley.
- 10:00 Kelvin Sampson and Duane Esarey; Embossed Copper Artifacts from the Illinois River Valley.
- 10:15 Mark Mehrer; A Model for Mississippian Settlement in the American Bottom.

[3] General Session: METHOD AND THEORY IN THE MIDWEST



Indiana Room  
Chairperson: Charles B. Stout

- 8:30 Harry Murphy, Annette Ericksen-Latimer, and Marilyn Orr; Concerns Over Testing Strategies.
- MLA → 8:45 ← Craig A. Neidig and Larry R. Abbott; Post-holing: A Novel Subsurface Testing Procedure and Its Implications for Site Survey in Illinois.
- 9:00 Robert Hickson and Susana Katz; A Distributional Approach to the Archeology of the Interior Uplands, West-Central Illinois.
- 9:15 Harold Hassen; Floodplain Landscape Evolution and Prehistoric Settlement: An Example from the Meredosia Region, Lower Illinois River Valley.
- 9:30 Mark Cantin; A Diachronic Model of Chert Usage in Southwestern Indiana.
- JMC → 9:45 ← Terry Miller; Prehistoric Exchange and Lithic Utilization in Eastern Iowa.
- 10:00 Edward B. Jelks; Thoughts on Wave Diffusion.

[4] General Session: PALEO-INDIAN AND ARCHAIC PERIOD RESEARCH



Indiana Room  
Chairperson: Jeffrey Vanderziel

- MLA 10:30 • Kenneth B. Tankersley; I Would Rather Be Here Than Out on the Tundra: Early Paleo-Indian Settlement Patterns of the Midwestern United States.
- 10:45 Jeffery A. Behm; Non-local Lithic Raw Material Procurement and Transportation in the Late Paleo-Indian of East Central Wisconsin.
- MLA 11:00 • C. Michael Anslinger; Bluegrass: A Middle-Late Archaic Site in Southwestern Indiana.
- 11:15 C. Russell Stafford and Barbara D. Stafford; Middle Archaic Logistical Strategies in West-Central Illinois.
- 11:30 Toby A. Morrow; Early Archaic Tasks and Technology at the Twin Ditch Site, Greene County, Illinois.
- CM → 11:45 • John Bower and Michal Kobusiewicz; Comparative Study of Post-Pleistocene Cultural Adaptations in Northern Europe and the North-central United States -- A Progress Report.

[5] General Session: RESEARCH INTO MIDWESTERN PROTOHISTORY

Patio East and West Rooms  
Chair: Richard Edging

- 10:45 Videotape presentation of the Slack Farm.
- SJS → 11:00 Cheryl Ann Munson, David Pollack, and Mary Lucas Powell; The Slack Farm Site (15Un28): Shovels, Badges, Tobacco, and Notebooks.
- JMC → 11:15 • Patricia J. O'Brien; The Direct Historical Approach in Eastern United States Archaeology.
- 11:30 K. Kris Hirst; Late Prehistoric Freshwater Mussel Shell Use.
- 11:45 Jeffrey J. Richner; Archeological Investigations at an Historic Aboriginal Fishing Camp on Lake Superior.
- 12:00 Lunch

## SATURDAY AFTERNOON OCTOBER 15, 1988

## [5] General Session: RESEARCH INTO MIDWESTERN PROTOHISTORY (Con't).

Patio East and West Rooms  
Chair: Richard Edging

## Participants

- gm 1:30 • John P. Hart; Oneota Agricultural Production: A Cross-cultural Perspective.
- 1:45 James M. Collins; The Place of the Des Moines Rapids in Late Pre-Contact Era Culture History.
- 2:00 Lynne P. Sullivan, Phillip D. Neusius, and Sarah W. Neusius; 1988 Return to the Ripley Site: A New Look at Protohistory in the Lake Erie Basin/Allegheny Plateau Region of Southwestern New York.
- 2:20 David Brose; Erie Protohistory in Northern Ohio.

## [6] Symposium: THE ARCHAEOLOGY OF SHORT-TERM OCCUPATION MIDDLE WOODLAND SITES IN ILLINOIS

Indiana Room  
Session Organizer and Chairperson: James R. Yingst

- 1:30 James R. Yingst; Introduction to the Archaeology of Short-term Occupation Middle Woodland Sites in Illinois Symposium.
- 1:35 • Gail E. Wagner; Isolated Middle Woodland Occupation in the Sny Bottom.
- 1:55 Thomas Wolforth; The Widman Site (11-Ms-866): A Small Havana Settlement in the Wood River Valley, Illinois.
- MO 2:15 • William I. Woods; Middle Woodland Settlement in the Upland Cahokia Creek Drainage, Madison County, Illinois.
- 2:35 James R. Yingst ; The Point Shoal Site (11-My-97): A Short-term Havana Occupation along Shoal Creek, Montgomery County.
- 2:55 ? Richard Fishel and Susana Katz; Coldfoot: Havana in the Uplands of West-central Illinois.
- 3:15 John A. Walthall; Discussant
- 3:25 Kenneth B. Farnsworth; Discussant

## [7] General Session: WOODLAND RESEARCH

Wisconsin Room  
Chairperson : Kevin P. McGowan

- 1:30 William A. Lovis, Kathryn C. Egan, Beverley A. Smith, and G. William Monaghan; The Marquette Viaduct Locale of the Fletcher Site: Deposition, Environment, and Subsistence.
- 1:45 Michael J. Hambacher; The Point Arcadia Site: Another One Bites the Dust.
- 2:00 Caven P. Clark; Isle Royale Archeological Survey: 1988.

## [7] General Session: WOODLAND RESEARCH (Con't)

- jc 2:15 \* Terrance J. Martin; A Progress Report on Archaeological Animal Remains Recovered from Isle Royale National Park During 1987.  
 2:30 William Green; The Turkey River Mound Group: A Red Ocher/Early Woodland Mortuary Complex.  
 2:45 Kelvin W. Sampson; Conventionalized Figures on Late Woodland Ceramics.  
 mmm — 3:00 Larry Conrad; The Liverpool Lake Site: A Substantial Maples Mills Habitation Site in the Central Illinois River Valley.

[8] Symposium: RESULTS OF UIUC ARCHAEOLOGICAL INVESTIGATIONS ALONG THE 5.8 MILE EXTENSION OF FAI-270(255) IN THE AMERICAN BOTTOM, ILLINOIS.

Patio East and West Rooms

Session Organizer and Chairperson: Andrew C. Fortier

- 2:50 Andrew C. Fortier; Session Introduction.  
 3:00 Michael J. Higgins; The Early and Middle Archaic Occupations of the Nocha Site (11-Ms-128).  
 3:15 Dale L. McElrath; The Late Archaic in the American Bottom in Light of New Data.  
 3:30 Thomas O. Maher; The Holding Site: A Hopewell Horticultural Village in the American Bottom.  
 3:45 Douglas K. Jackson; Investigations at the Keller-Samson borrow pit: Early Emergent Mississippian occupations in Madison County, Illinois.  
 4:00 Andrew C. Fortier; A Mississippian "Busk" Ceremonial Complex at the Sponemann Site.  
 S 4:15 Kathryn E. Parker; The Sacred and the Mundane: Prehistoric Man-Plant Relationships in the Edelhardt Lake Locality.  
 4:30 Joyce A. Williams; Differential Utilization of Lithic Raw Materials at Two Sites in the American Bottom.  
 4:45 Andrew C. Fortier; Closing Comments.

## [9] General Session: CONTRIBUTED PAPERS

Wisconsin Room

Chairperson: Kevin P. McGowan

- 3:30 David C. Lowe; Rock Art of Western Dane, and Northeastern Iowa Counties, Wisconsin.  
 3:45 \* Thomas B. Meyers; Management of Federal Archaeological Resources.  
 4:00 Robert Barth; Prehistory of the Red Cedar River Valley.  
 4:15 Harry Murphy; Lucas and Ottawa Route 2 Survey and Predictive Model.  
 SIS-4:30 James A. Marshall; A Course in the Principles and Methods of the Geometry of the Prehistoric American Indian for Ohio Schools Grades 8 through 12.  
 4:45 Duane Esarey; The 1988 Low Water Bank Survey of the Illinois River.  
 5:00 Christopher Carr; The Complementary Roles of Radiography and Petrography in Ceramic Temper Analysis.

## [9] General Session: CONTRIBUTED PAPERS (Con't)

- 5:15 James A. Foradas; Toward Intraformational Sourcing of Flint Using Normative Mineral Compositions: A Preliminary Study Using Flint Ridge Flint.
- 5:30 Paula Cross;

## [10] Round Table: "U" OF THE LAKE ARTIFACT EXAMINATION

Indiana Room

Organizers: Rochelle Lurie and Robert Jeske

- 3:45 Open to all interested researchers working in the Lake Michigan area.

## SUNDAY MORNING OCTOBER 16, 1988

## [11] Symposium: "U" OF THE LAKE


 Patio East and West Rooms

Organizers: Rochelle Lurie and Robert Jeske

## Participants

- 8:45 Rochelle Lurie; Use of Wetland Resources in Northern Illinois: Results of Phase I Archaeological Investigations of the Cedar Shores Development Property, Lake County, Illinois.
- 9:00 John F. Doershuk; Will County 2: The Data Continues...Known Sites, Topographic Zone Analysis and some Future Observations.
- 9:15 Joseph Craig; Predictive Modeling of Prehistoric Settlement Patterns in the Chicago Lake Plain.
- 9:30 William M. Cremin and Dale W. Quattrin; Recent Woodland Period Research in the Middle St. Joseph River Valley of Southwest Michigan, with Emphasis on the Late Woodland Occupation of the Kline I Site (20SJ29) in St. Joseph County.
- 9:45 Charles W. Markman; The Late Prehistory of the Chicago Area: Temper and Tradition Again.
- 10:00 M. Catherine Bird; Langford Tradition Ceramic: A View from the Homeland.
- 10:15 Marla Buckmaster; The Paquette Site: A Possible Stratified Late Paleo-Indian Site.
- 10:30 Lynne Goldstein; Southeastern Wisconsin Archaeology: a Broadening Perspective.
- 10:45 Break
- 11:00 Robert J. Jeske; Langford Tradition Subsistence, Settlement and Technology: The Washington Irving Site.
- 11:15 Elaine B. Herold and Patricia O'Brien; The Huber and Hoxie Farm Sites.
- 11:30 Elizabeth Benchley; The Greenfield Lime Processing District 1850-1900.

## [12] General Session: HISTORIC PERIOD RESEARCH

Zuppke Room  
Chairperson: Dale Hutchinson

- CM 9:00 • Laurie Blank-Roper; Feature to Function and Data to Daily Life: Linking Behavior and Archaeology at Early Nineteenth Century Illinois Farmsteads.
- MM 9:15 • Erich K. Schroeder; Farmstead Archaeology at the Regional Level: Ethnic, Economic and Transportation Influences on Settlement of the FAP-412 Project Area.
- JG 9:30  
9:45 Lenville Stelle; History, Archaeology, and the 1730 Siege of the Foxes.  
John R. McGregor; A Survey of Early Historic Rural Sites in the Vincennes Area of Western Indiana.
- JMC 10:00 • Robert A. Birmingham; Stray Bands and Dream Dancers: The "Prairie" Potawatomi in Wisconsin.
- 10:15 Mark E. Esarey; The First Fort Gratiot (1814-1821): An American Fort in the Territory of Michigan.
- 10:30 Douglas Kullen and David Walitschek; Frozen in Fire: A Synchronic Artifact Assemblage from the Netzley-Yender House, Lisle, DuPage County, Illinois.

## [13] General Session: MIDDLE WOODLAND PERIOD RESEARCH

Champaign-Urbana-Krannert Room  
Chairperson: Richard Edging

- 9:00 Bradley T. Lepper; An Historical Review of Archaeological Research at the Newark Earthworks.
- 9:15 Ralph W. Dexter; F. W. Putnam at the Serpent Mound in Adams County, Ohio: A Historic Review.
- ES 9:30 • N'omi Greber; An Estimate of the Stratigraphy and Floor Plan of the Greatest Hopewell Mound, Mound 25 of the Hopewell Site, and some Interpretations.
- 9:45 Mark L. Madsen; A 17-Post Early Hopewell Summer Lodge from a Salvage Site on Poplar Creek.
- 10:00 Paul J. Pacheco; Ohio Middle Woodland Settlement Variability in the Upper Licking River Drainage.
- JMC 10:15 • Carol A. Morrow; Middle Woodland Chert Exchange at Macoupin: Multiple Levels of Interaction in the Lower Illinois River Valley.

**1988 MIDWEST ABSTRACTS**  
(In program order)

[1] **Symposium: AT HISTORY'S DAWN: The Impact of European Culture on Native Americans in the Midwest.**

Historians and archaeologists have long been fascinated by the period A.D. 1400 - 1700 in the Midwest. Native American and European contact caused social reorganization that brought cultural and demographic change. This symposium will present current archaeological and historical research on this crucial period.

Hall, Robert (University of Illinois - Chicago)

**RECOGNIZING CONTINUITIES OF BELIEF AND RITUAL THROUGH TIME IN ILLINOIS ARCHAEOLOGY**

The process of recognizing the symbolism of archaeological artifacts and structures can be regularized and reduced to a series of systematic steps, knowledge of which can benefit the total process of archaeological inference. Examples are given of the successful application of these principles in Illinois archaeology and of chains of inference still awaiting final resolution.

Milner, George R. (Pennsylvania State University)

**POPULATION DYNAMICS AND ARCHAEOLOGICAL INTERPRETATION.**

The critical relationships among population density, sociocultural complexity, and the adaptive stance of past peoples continue to be the subject of considerable anthropological study. Archaeologists with their long temporal sequences should be able to make major contributions to this research area. Two population-related issues that are the subject of recent attention elsewhere in eastern North America are reviewed in terms of their implications for midwestern archaeologists. First, an argument is made for the treatment of the organizationally complex Mississippian cultures as dynamic systems featuring continually changing social landscapes and population distributions. Second, there is a critical need for epidemiologically sophisticated models when evaluating the processes of postcontact depopulation and cultural collapse.

Cleland, Charles (Michigan State University)

Henning, Dale R. (Luther College)

**THE ADAPTIVE PATTERNING OF THE DHEGIHA SIOUX.**

The beginning student in anthropology is taught that culture is traditional and that traditional elements can be derived in study of closely-related groups of people. Related, traditional elements should be derived in analysis of the archaeological remains of the linguistically-related Quapaw, Osage, Kansa, Omaha and Ponca tribal units, which date historically in the 17th and early 18th centuries, but significantly different cultural traditions are represented by this time. Locational information, cultural relationships and some explanatory hypotheses are offered.

**Cowan, C. Wesley (Cincinnati Museum of Natural History)**  
**FROM PITHOUSE TO LONGHOUSE, FROM COMMUNITY TO CHAOS:**  
**Late Prehistoric and Early Protohistoric Developments in the Middle Ohio Valley.**

This paper focuses on the late prehistoric and early historic cultural developments in the central Ohio Valley, an area encompassing the Ohio River Valley and its tributaries between present-day Parkersburg, West Virginia and Louisville, Kentucky. During the period between A.D. 1000 and 1670, this portion of the Valley witnessed the growth and decline of maize-based agricultural societies. By A.D. 1670 much of the central valley was abandoned; historically recorded Native American societies did not return until the first few decades of the 18th century. These so-called tribal societies stand in sharp contrast to their late prehistoric counterparts in other areas of the midwest and southeast, where complex chiefly organizations developed. Changes in settlement patterns, architectural styles, mortuary patterns, and material culture are presented to document the rise and fall of these societies.

**Emerson, Thomas E. (Illinois State Preservation Agency)**  
**A SYNCHRONIC PERSPECTIVE ON CULTURE, POPULATION AND ENVIRONMENT IN THE LATE PREHISTORY OF ILLINOIS.**

The late prehistoric and protohistoric transitional period is one of the least understood in Illinois archaeology. It is clear, however, that there was a major disruption of cultural development and continuity in most of the state during the 15th century. At the same time, aboriginal groups in the northeastern portion of the state appear unaffected. This paper will synthesize the available information on these late prehistoric groups and their subsequent decline, focusing on the factors of climate, environmental degradation, population stress, disease, and warfare in influencing cultural change.

**Brain, Jeffrey P. (Harvard University)**  
**KEYNOTE ADDRESS**

**[2] General Session: EMERGENT MISSISSIPPIAN AND MISSISSIPPIAN RESEARCH**

**Kelly, John E. (Southern Illinois University - Edwardsville)**  
**THE EAST ST. LOUIS MOUND GROUP AND THE RAU COLLECTION.**

The East St. Louis Mound group was one of the five major Mississippian mound centers in the American Bottom. All of the mounds were apparently removed during the latter half of the nineteenth century. This presentation will summarize the history of investigations at this site and, in particular, describe the materials collected by Dr. Charles Rau during the 1860s and their importance in assessing the chronological placement of this center.

**Redmond, Brian (Glenn A. Black Laboratory of Archaeology)**  
**CERAMIC STYLE AND SOCIAL FUNCTION: Yankeetown Phase Pottery Decoration and Emergent Mississippian Social Interaction in the Lower Ohio Valley.**

In this paper the results of a stylistic analysis of Yankeetown Phase pottery are presented and used to evaluate current models of Emergent Mississippian social interaction in the lower Ohio Valley. It is proposed that the Yankeetown ceramic style may have functioned as a medium for the exchange of information pertaining to group identity and fostered social integration on both a local and regional level through the display of distinctive decorative motifs.

Lynott, Mark J. (National Park Service), and James E. Price (University of Missouri-Columbia)

**THE EMERGENT MISSISSIPPIAN SUBSTAGE AND EASTERN OZARK ADAPTIVE PATTERNS, SOUTHEAST MISSOURI.**

The appearance of shell tempered ceramics and arrow points about A.D. 600 resulted in negligible changes in the human adaptive strategies of the eastern Ozark region of southeast Missouri. Throughout the Emergent Mississippian substage, settlement and subsistence practices in this region continued to follow strategies which had been well established for several thousand years. Archeological evidence from the Upper Current River drainage indicates the eastern Ozark region was abandoned by indigenous populations about A.D. 1300. The archeological evidence leading up to this abandonment is considered.

Schurr, Mark R. (Glenn A. Black Laboratory of Archaeology)

**MORTUARY TREATMENT AND PREHISTORIC DIET AT THE ANGEL SITE.**

The different mortuary categories present at the Angel site, a Middle Mississippian regional center in southwestern Indiana, are determined primarily by differences in body position. Mortuary variation is not correlated with dietary variation measured by the carbon and nitrogen stable isotope ratios of prehistoric bone collagen from 40 individuals. The stable isotope ratios indicate a relatively high dependence on maize and very little dietary variation except for one anomalous individual from a peculiar mortuary context.

Hilgeman, Sherri L. (Glenn A. Black Laboratory of Archaeology)

**ANGEL NEGATIVE PAINTED DESIGN STRUCTURE.**

Decorative styles have been described as complex patterns constructed from smaller elements of design. Analysis of the Angel Negative Painted style suggests that a limited number of design elements are arranged around the rim of a plate, so that the plate generally represents a radiating circle or an equal-arm cross. This design structure suggests these plates may have been ritual serving vessels during a local version of the green corn or new fire ceremony.

Esarey, Duane (Dickson Mounds Museum)

**NEGATIVE PAINTED POTTERY AND MISSISSIPPIAN TRADE IN THE ILLINOIS RIVER VALLEY.**

Many of the finest Middle Mississippian ceremonial and status goods found in the Illinois River Valley have traditionally been assumed to be indicative of trade rather than local production of "core Mississippian" art. Unfortunately, the perception that trade explains the presence of these items can be taken as support for the view that local Mississippian social patterning is somehow marginal and diluted in symbolic content. Trade almost certainly must be the source for nonlocal raw materials and a few highly specialized artifact types, but a closer examination of trait distributions and contexts of most classes of "exotic" items is advised. The common assumption that certain finely made vessels necessarily resulted from trade is especially open to question. This paper considers the origin of negative painted Mississippian ceramics of the Illinois River Valley in the context of this broader problem. Evidence supporting local origin for negative painted ceramics in the Illinois River Valley is presented.

**Sampson, Kelvin, and Duane Esarey (Dickson Mounds Museum)  
EMBOSSED COPPER ARTIFACTS FROM THE ILLINOIS RIVER  
VALLEY.**

Embossed or repousse' copper artifacts are among the rarest Mississippian ceremonial paraphernalia. Since the discovery of the Peoria Falcon nearly a century ago, only a few embossed copper artifacts have been found in the Illinois River valley. These represent the most northerly group of embossed Mississippian copper items in the eastern United States. A review of these rare artifacts is presented including several poorly known and unpublished specimens.

**Mehrer, Mark W. (Iowa Office of State Archaeologist)  
A MODEL FOR MISSISSIPPIAN SETTLEMENT IN THE AMERICAN  
BOTTOM.**

Data from the American Bottom are synthesized in a settlement study of Mississippian building, household, and dispersed community organization. Changes in farmstead settlement paralleled regional trends during late prehistory. The roles of rural households changed as complex society waxed and waned. A model of the late prehistoric settlement system incorporates implications for the complex ways that social power is shared among hierarchically ordered settlements.

**[3] General Session: METHOD AND THEORY IN THE MIDWEST**

**Murphy, Harry, Annette Ericksen-Latimer, and Marilyn Orr  
CONCERNS OVER TESTING STRATEGIES.**

The utilization of subsurface testing strategies for site identification and evaluation is fraught with numerous difficulties. This paper will generally address some concerns over the identification of sterile subsoil, feature location and site definition.

**Neidlg, Craig A., and Larry R. Abbott (University of Illinois at Urbana-  
Champaign)  
POST-HOLING: A Novel Subsurface Testing Procedure and Its  
Implications for Site Survey in Illinois.**

Archaeologists at the Resource Investigation Program at the University of Illinois have refined a novel subsurface testing methodology using modified post-hole diggers and bucket augers. Compared to traditional walkover survey and shovel-probe tests, site areas can be located and defined with improved accuracy. Furthermore, post-holing provides better systematic sampling control, more informative interpretation of buried components, and allows enhanced statistical treatment of the testing data. The cost benefits, with regard to evaluating contract mitigation procedures, are discussed. The research implications of the results of post-hole testing are considered, with an emphasis on upland site contexts in Illinois.

**Hickson, Robert, and Susana Katz (Center for American Archeology)  
A DISTRIBUTIONAL APPROACH TO THE ARCHEOLOGY OF THE  
INTERIOR UPLANDS, WEST-CENTRAL ILLINOIS.**

A project employing the distributional (aka "landscape" or "non-site") approach to archeology has been conducted along four one-mile-long segments of the FAP 408 right-of-way in Pike County, Illinois. Each segment was divided into 50 x 100 m parcels, and all artifacts were plotted. Topographic data were added to the artifact plots, and analysis of these data is currently underway. A geomorphic model of the uplands is also being developed. The Kampsville Archeological Center is conducting the project for IDOT.

Hassen, Harold (Illinois State Museum)

**FLOODPLAIN LANDSCAPE EVOLUTION AND PREHISTORIC SETTLEMENT: An Example from the Meredosia Region, Lower Illinois River Valley.**

Documenting the geological history and human use of the lower Illinois River valley has been a primary focus of long term research. This paper examines temporal changes in prehistoric land use within a relatively small yet diverse segment of the landscape. The diversity of landforms in the study area provides an opportunity to examine how human use of the landscape changed in the context of a dynamic Holocene landscape. The results will be used to evaluate a geological model that discusses the potential for floodplain landforms to contain surface sites.

Cantlin, Mark (Indiana State University Anthropology Laboratory)

**A DIACHRONIC MODEL OF CHERT USAGE IN SOUTHWESTERN INDIANA.**

This paper examines the differential use of cherts through time in the Wabash Lowlands physiographic province of southwestern Indiana. The data base consists of some 1300 culturally-temporally sensitive projectile points collected from 20 "data centers" within the area. Results indicate a recurrent pattern in variability of the cultural-temporal selection of cherts, and suggest the observed variability is a reflection of an array of complex cultural systems.

Miller, Terry (University of Missouri-Columbia)

**PREHISTORIC EXCHANGE AND LITHIC UTILIZATION IN EASTERN IOWA.**

Study of lithic exchange between eastern Iowa and surrounding Midwestern areas from a technological level, indicate different degrees of use of local and nonlocal materials from the pre-ceramic to the ceramic periods. Quality of lithic materials appears to have been more important during pre-ceramic times, resulting in greater movement of nonlocal materials. Social and possibly economic functions were the influencing factors controlling the movement of nonlocal lithic materials during the ceramic period.

Jelks, Edward B. (Illinois State University)

**THOUGHTS ON WAVE DIFFUSION.**

Archeological literature documents that during some 13,000 years of North American prehistory there were several times when most or all of the human societies occupying a large geographic area adopted a particular form or style of dart point or arrow point, even though the societies often possessed striking dissimilar cultures, and the new point styles offered no apparent adaptive advantage over old styles that they often replaced. Several examples of this phenomenon, termed *wave diffusion*, are briefly examined.

**[4] General Session: PALEO-INDIAN AND ARCHAIC PERIOD RESEARCH**

Tankersley, Kenneth B. (Glenn A. Black Laboratory of Archaeology)

**I WOULD RATHER BE HERE THAN OUT ON THE TUNDRA: Early Paleo-Indian Settlement Patterns of the Midwestern United States.**

Early Paleo-Indian settlement patterns are examined exclusive of late Paleo-Indian and early Archaic sites. Viewed in this manner, early Paleo-Indian sites display less biophysical diversity than later sites. Early Paleo-Indian sites are restricted to settings that attract and concentrate game, or contain lithic raw material in adequate size, quality, and quantity.

**Tankersley, Kenneth B. (Glenn A. Black Laboratory of Archaeology)  
I WOULD RATHER BE HERE THAN OUT ON THE TUNDRA: Early  
Paleo-Indian Settlement Patterns of the Midwestern United States (Con't).**

Early Paleo-Indians likely entered the Midwest, circa 11,200 B.C., during the last expansion of boreal spruce forests and open vegetation. These settings provided optimal habitats for large herbivores and their predators. The protohistoric distribution of bison in the Midwest is offered as an analog to the hunting opportunities available during the late Pleistocene.

**Behm, Jeffery A. (University of Wisconsin-Oshkosh)  
NON-LOCAL LITHIC RAW MATERIAL PROCUREMENT AND  
TRANSPORTATION IN THE LATE PALEO-INDIAN OF EAST  
CENTRAL WISCONSIN.**

Late Paleo-Indian (primarily Cody Complex) populations in the middle Fox River and lower Wolf River system of east central Wisconsin made extensive use of two nonlocal lithic materials, Hixton Silicified Sandstone and Marquette Rhyolite. Differential utilization of these two materials indicates patterns of procurement and movement that can best be explained by the use of watercraft for transportation.

**Anslinger, C. Michael (Indiana State University)  
BLUEGRASS: A Middle-Late Archaic Site in Southwestern Indiana.**

Excavations at the Middle-Late Archaic Bluegrass site (12W162) were recently completed by the Indiana State University Anthropology Laboratory. The site is situated on a prominent rise along Bluegrass Creek, some 18 miles north of the Ohio River near Evansville, Indiana. Excavations identified a well-developed midden, pit features, and human and dog interments. Artifactual materials include floral and faunal remains, engraved bone pins, and side-notched and stemmed points. Available C-14 dates range from 6200 to 5000 B.P.

**Stafford, C. Russell (Indiana State University) and Barbara D. Stafford  
(Center for American Archeology)  
MIDDLE ARCHAIC LOGISTICAL STRATEGIES IN WEST-CENTRAL  
ILLINOIS.**

Brown and Vierra have proposed a model of Middle Archaic settlement strategies in west-central Illinois, based on the long stratigraphic record represented at the Koster site. Recent investigations of a series of Middle Archaic occupations located in other geomorphic zones provide a more comprehensive evaluation of the model. Different types of sites are present in each geomorphic zone, which appear to represent camps, a part of a logistical settlement strategy.

**Morrow, Toby A. (Center for American Archeology)  
EARLY ARCHAIC TASKS AND TECHNOLOGY AT THE TWIN DITCH  
SITE, GREENE COUNTY, ILLINOIS.**

Twin Ditch is a stratified Early and Middle Archaic habitation site on the Illinois River floodplain. Continued excavation in 1988 has revealed a series of hearths surrounded by tool clusters and debris concentrations in the Thebes Cluster component. Three postmolds and a tool cache were also discovered. Refitted tools and debris offer insights into the organization of tasks conducted at this early base camp.

Bower, John (Iowa State University) and Michal Kobusiewicz (Polish Academy of Sciences)

**COMPARATIVE STUDY OF POST-PLEISTOCENE CULTURAL ADAPTATIONS IN NORTHERN EUROPE AND THE NORTH-CENTRAL UNITED STATES -- A PROGRESS REPORT.**

Since 1984, the authors have been involved in comparative research dealing with cultural adjustments to the end of the ice age and the establishment of modern climates in the north-central United States and the north European plain. The research program includes both general comparisons of published data and also a specific comparison of cultural sequences currently being excavated by the authors in each region. This paper reviews the results so far obtained and prospects for the future.

**[5] General Session: RESEARCH INTO MIDWESTERN PROTOHISTORY**

Munson, Cheryl Ann (Glenn Black Laboratory of Archaeology), David Pollack (Kentucky Heritage Council), and Mary Lucas Powell (University of Kentucky - Lexington)

**THE SLACK FARM SITE (15Un28): Shovels, Badges, Tobacco, and Notebooks.**

Recent looting of the Slack Farm site (15Un28) a Caborn-Welborn phase (A.D. 1450-1650) village in Union County, Kentucky, resulted in the disturbance of hundreds of prehistoric/protohistoric burials. The arrest of ten individuals who are alleged to have looted this site attracted the attention of archaeologists, the general public, the Kentucky General Assembly, and Native American activists. To assist the State Medical Examiner's investigation of the disturbed area, archaeological investigations were carried out at the site. This paper summarizes the legal and legislative actions that resulted from the arrest of the alleged looters, the relationship between the archaeologists and concerned Native Americans, and the preliminary results of the archaeological fieldwork and analysis of the recovered skeletal remains.

O'Brien, Patricia J. (Kansas State University)

**THE DIRECT HISTORICAL APPROACH IN EASTERN UNITED STATES ARCHAEOLOGY.**

In the 1930s W. Duncan Strong, W. R. Wedel and J. H. Steward outlined the assumptions of the Direct Historic Approach. Using data from old maps, ethnography, ethnohistory, mythology and linguistics historic tribes were linked to historically known sites. Their artifact assemblages were then used to link historic artifact traditions and peoples to prehistoric ones. Most recently the DHA has logical connections to ethnoarchaeology, use-wear studies and problems of analogy, including the 'Pompeii Premise'. Philosophically it is embedded in the deductive-nomological system.

Hirst, K. Kris (Iowa Highway Archaeology Program)

**LATE PREHISTORIC FRESHWATER MUSSEL SHELL USE.**

Shell tools reflect subsistence strategies and at the same time manifest symbols of social and cultural identity. Recent investigations of freshwater mussel shell tools from Nebraska phase archaeological sites show that more shell was used as tools and ornaments prehistorically than might be inferred from midwestern ethnohistoric sources. Ethnohistoric comparisons beyond the midwest can be useful.

**Rlchner, Jeffrey J. (Midwest Archeological Center)  
 ARCHEOLOGICAL INVESTIGATIONS AT AN HISTORIC  
 ABORIGINAL FISHING CAMP ON LAKE SUPERIOR.**

The P-Flat site (47AS47) is located on the southern tip of Manitou Island, within Apostle Islands National Lakeshore, Wisconsin. A large assemblage of faunal remains, dominated by lake trout and whitefish, was recovered from a small midden at the site. Thermoluminescence and Carbon 14 dating place the age of the site within A.D. 1640 - ca 1800. Analysis of recovered materials revealed that the site represents a late fall expression of the Inland Shore Fishery.

**Hart, John P. (Northwestern University)  
 ONEOTA AGRICULTURAL PRODUCTION: A Cross-Cultural Perspective.**

Path analysis is used to test neo-Malthusian and Boserupian models of Oneota agricultural production with ethnographic data from 56 Native American groups. The analysis supports the Boserupian model while the neo-Malthusian model is not supported. These results indicate that although climate does play a role in determining Oneota agricultural production, low population density is a more important determining factor.

**Collins, James M. (Iowa Office of State Archaeologist)  
 THE PLACE OF THE DES MOINES RAPIDS IN LATE PRE-CONTACT  
 ERA CULTURE HISTORY.**

Virtually forgotten since the taming of the Mississippi by the Corps of Engineers, the Des Moines Rapids (a.k.a. Mississippi Rapids; a.k.a. the Iowa Rapids; a.k.a. Lower Rapids) once constituted a formidable geographic landmark along the "great river". The role of these rapids as crossroads, rendezvous, and boundary during the late pre-contact era is discussed. A rudimentary model of Oneota cultural cohesion is proposed.

**Sullivan, Lynne P. (New York State Museum), Phillip D. Neulsus, and  
 Sarah W. Neulsus (Indiana University of PA).  
 1988 RETURN TO THE RIPLEY SITE: A New Look at Protohistory in  
 the Lake Erie Basin/Allegheny Plateau Region of Southwestern New  
 York.**

Brought to archaeological attention over 80 years ago, the Ripley site is the only major protohistoric settlement reported on the Lake Erie shore in southwestern New York. Investigations in the early 1900s and subsequent amateur activities focused on excavation of burials. Goals of the 1988 investigations were to recover subsistence information and assess the integrity of the site plan. Combined with regional survey, continued work at the site can greatly enhance knowledge of protohistoric subsistence and settlement systems in this poorly known region.

**Brose, David S. (The Cleveland Museum of Natural History)  
 EERIE PROTOHISTORY IN NORTHERN OHIO.**

Four distinct late prehistoric complexes across northern Ohio represent differing cultural trajectories. During the 16th century both western and eastern complexes expanded toward the central areas between Sandusky and Cleveland. Between 1620 and 1650 the westernmost, Indian Hills complex, was absorbed or dispersed by the Ontario Iroquois as part of the Mascouten. To the east, the Sandusky complex populations, under pressure from the north, began moving into lower Michigan as elements of the Pottawatomi. The easternmost Iroquoian groups may well have been forced to seek refuge in the Upper Potomac valley, initially by the expansion of their neighbors from the west, and ultimately by the aggression of their kinsmen from the east. The remnant of the Algonquian-speaking group in the Cleveland area was forced south into the upper Ohio River valley.

[6] **Symposium: THE ARCHAEOLOGY OF SHORT-TERM  
OCCUPATION MIDDLE WOODLAND SITES IN ILLINOIS**

Our knowledge of Middle Woodland cultural systems has typically been derived from archaeological investigations of mortuary groups and large village sites. While sites of these types are certainly the dominant components of Middle Woodland settlement systems, the role of short-term occupation sites within these same systems is largely unknown. An improved understanding of the complexity of Middle Woodland settlement/subsistence systems is emerging through recent investigations at a number of the short-term occupation sites.

**Wagner, Gall E. (Center for American Archeology)  
ISOLATED MIDDLE WOODLAND OCCUPATION IN THE SNY  
BOTTOM.**

Havana ceramics have been recovered at two excavated sites in the Sny Bottom of the Mississippi Valley, approximately 20 miles south of Quincy. An isolated single cluster of five features was buried in overbank deposits on the natural levee along a slough at the Eagle site. So far a single cluster of four Havana features has been excavated at the nearby multi-component Rodgers Lake site. Preliminary analysis leads to speculation about Middle Woodland occupation in this area.

**Wolforth, Tom (Resource Investigation Program)  
THE WIDMAN SITE (11-MS-866): A Small Havana Settlement in the  
Wood River Valley, Illinois.**

The Widman site is a multi-component site located on the West Fork of the Wood River near Alton, Illinois, consisting of a small Middle Woodland settlement and four small Late Woodland settlements. This paper presents the material inventory settlement structure, and subsistence orientation of the Middle Woodland occupation, which was inhabited during Hopewellian times. This is followed by a short discussion of the Middle Woodland expression at the northern periphery of the American Bottom.

**Woods, William I. (Southern Illinois University at Edwardsville)  
MIDDLE WOODLAND SETTLEMENT IN THE UPLAND CAHOKIA  
CREEK DRAINAGE, MADISON COUNTY, ILLINOIS.**

During 1982, an investigation consisting of random sample archaeological survey, environmental depiction, and catchment analysis was conducted in the upland Cahokia Creek drainage of Madison County, Illinois. Five Middle Woodland sites were identified within the surveyed area. Taken as a whole these sites exhibited the highest habitat diversity when compared to later occupations. However, when viewed individually much less variation was evident. It is proposed that all except one of these sites functioned as temporary, specialized extractive camps and were related to one or more base settlements situated proximal to the point where Cahokia Creek exits from the bluffs.

**Yngst, James R. (Dayton Museum of Natural History)  
THE POINT SHOAL SITE (11-My-97): A Short-Term Havana Occupation  
Along Shoal Creek, Montgomery County, Illinois.**

The Point Shoal site (11-My-97), located on a terrace overlooking Shoal Creek, was investigated in conjunction with an IDOT bridge replacement project. The artifact assemblage, obtained from controlled surface collections and five Havana pit features, indicates that this site functioned as a specialized camp; the internal site structure suggests a single Havana occupation of short duration. Preliminary inferences regarding the nature of Middle Woodland occupation in this portion of the Shoal Creek drainage are drawn from local collector data.

**Fischel, Richard, and Susana Katz (Kampsville Archeological Center)  
COLDFOOT: Havana in the Uplands of West-Central Illinois.**

Coldfoot is a small, single component, limited activity area in Pike County, Illinois. Buried beneath almost 1 m of alluvium, it represents a previously unsuspected locus of activity within the Havana phase settlement pattern. Funded by the Illinois Department of Transportation, a block was excavated within the right-of-way of FAP 408. No features were positively identified, but the quantity and distribution of artifacts suggest a single episode of hunting/gathering activity.

**[7] General Session: WOODLAND RESEARCH**

**Lovis, William A., Kathryn C. Egan, Beverley A. Smith, and  
G. William Monaghan (Michigan State University)  
THE MARQUETTE VIADUCT LOCALE OF THE FLETCHER SITE:  
Deposition, Environment, and Substance.**

Investigations were conducted at the Marquette Viaduct locale of the Woodland period Fletcher site, Bay County, Michigan; last investigated in 1970. Current work was designed to upgrade data, with questions focused on rate and manner of site deposition, reconstruction of the local environment during successive occupations, and subsistence as it relates to use of domesticates and the balance between aquatic and non-aquatic resource exploitation. Results alter standing views of site integrity, the role of domesticates, and the significance of aquatic resource collection.

**Hambacher, Michael J. (Michigan State University)  
THE POINT ARCADIA SITE: Another One Bites the Dust.**

The Point Arcadia site (20MT120), was an extensive, intermittently occupied multi-component site located on the north-central coast of the lower peninsula of Michigan. Occupation spans the Late Archaic through Historic periods with the majority of the site usage occurring during the Traverse phase (c. A.D. 1100 to 1500). During destruction of the site, cultural material from several occupation locales and features were collected. This paper details the recovered ceramic, lithic, floral and faunal assemblages and makes preliminary conclusions as to the place of the Point Arcadia site in the known regional settlement-subsistence system.

**Clark, Caven P. (National Park Service, Isle Royale National Park)  
ISLE ROYALE ARCHEOLOGICAL SURVEY: 1988.**

The archeological survey of Isle Royale National Park is in its third year. In the 1988 survey season 18 prehistoric sites were discovered, providing examples of Laurel, terminal Woodland, and 18th century aboriginal components. Eleven sites were test excavated. Research objectives of the Isle Royale archeological survey include the elucidation of copper working technology, the articulation of copper mining and fabrication with subsistence and settlement variables, culture contact among late prehistoric groups on Isle Royale, and the question of access to Isle Royale's copper resources relative to the north and south shores of Lake Superior. A summary of recent findings and future directions is presented.

**Martin, Terrance J. (Illinois State Museum)  
A PROGRESS REPORT ON ARCHAEOLOGICAL ANIMAL REMAINS  
RECOVERED FROM ISLE ROYALE NATIONAL PARK DURING 1987.**

Animal remains associated with Terminal Woodland occupations were recovered during 1987 from several sites located on the eastern one-third of Isle Royale in western Lake Superior. In addition to a dog burial discovered at the Lone Tree Cove site, faunal remains suggest variability in animal exploitation among prehistoric sites on the island. These data promise to contribute toward the development of subsistence and settlement pattern models as the archaeological investigation of Isle Royale National Park progresses.

**Green, William (Iowa Office of the State Archaeologist)  
THE TURKEY RIVER MOUND GROUP: A Red Ocher/Early Woodland  
Mortuary Complex.**

In 1964 Marshall McKusick excavated part of the Turkey River Mound Group, situated on the Mississippi River bluffs in northeastern Iowa. At that year's Midwest Archaeological Conference in Urbana, McKusick reported the mounds were of Hopewell affiliation. Since then, the excavated mounds have been recognized as Early Woodland, but no detailed report was prepared until 1987-1988. In this paper, the features and recovered materials are reviewed and a newly-discovered Marion culture mortuary camp - probably associated with the mounds -- is reported.

**Sampson, Kelvin W. (Dickson Mounds Museum)  
CONVENTIONALIZED FIGURES ON LATE WOODLAND CERAMICS.**

Two Late Woodland Maples Mills phase (A.D. 700-1000) vessel fragments bearing cord impressed zoomorphic designs were recently found at the Liverpool Lake site in the central Illinois River Valley. Five previously unrecognized zoomorphic decorations were discovered in a review of records and Maples Mills phase ceramic collections from nearby sites. Prior to these discoveries, only three similar decorations had been reported. The decoration of these vessels is described, illustrated, and interpreted. Interpretation of the symbolism expressed by these decorations provides a rare insight into Late Woodland belief systems. Parallels are drawn between the symbolism expressed by these motifs and various other motifs used throughout North American prehistory.

**Conrad, Lawrence A. (Western Illinois University)  
THE LIVERPOOL LAKE SITE: A Substantial Maples Mills Habitation  
Site in the Central Illinois River Valley.**

Surface collecting by Western Illinois University (WIU) and Dickson Mounds Museum and excavations by WIU have shown the Liverpool Lake site to be the first recognized substantial Maples Mills site in the Illinois River Valley. The surface collections and ongoing excavations of more than 30 pit features have provided the best non-mortuary assemblage of the phase available and place this Late Woodland manifestation in a new light. Excellent faunal and floral preservation should provide valuable insight into the economy of these people

**[8] Symposium: RESULTS OF UIUC ARCHAEOLOGICAL  
INVESTIGATIONS ALONG THE 5.8 MILE EXTENSION OF FAI-  
270(255) IN THE AMERICAN BOTTOM, ILLINOIS.**

Major archaeological investigations were conducted by the UIUC in 1984-85 along an extended portion of FAI-270(255), several miles north of the Cahokia site. The results of both excavation and three years of analysis are presented. Seventeen sites were excavated including a Hopewell hamlet, an extensive Early and Middle Archaic base locale, a Mississippian busk ceremonial complex, and several sites producing unique ceramic assemblages dating to the early Emergent Mississippian period. A summary of

**[8] Symposium: RESULTS OF UIUC ARCHAEOLOGICAL INVESTIGATIONS ALONG THE 5.8 MILE EXTENSION OF FAI-270(255) IN THE AMERICAN BOTTOM, ILLINOIS (Con't).**

the Late Archaic period, results of archaeobotanical analysis, including the earliest maize yet recorded in the American Bottom and, a discussion of differential lithic resource utilization within the Bottom through time will also be presented.

**Higgins, Michael J. (University of Illinois)  
THE EARLY AND MIDDLE ARCHAIC OCCUPATIONS OF THE NOCHTA SITE (11-Ms-128).**

The Nochta site is located within the American Bottom on a long, sandy ridge between two relict meanders of the Mississippi River. Archaeological investigations were undertaken at this site in 1985 to mitigate the effects of construction and associated borrowing activities for Interstate 255. The borrow pit excavations revealed the presence of substantial quantities of unstratified Early and Middle Archaic cultural remains buried between 60 and 120 cm below the surface. Diagnostic projectile points recovered from the site include Dalton, Agate Basin, Hardin Barbed, and Kirk Corner Notched. The presence of adzes, various point manufacture and reworking stages, flake tools, and hearths in the Dalton component is interpreted as representing a residential base camp. The Middle Archaic component, radiocarbon dated between 6490 and 6180 B.P., is represented by over 200 features in the northwest portion of the site and appears to reflect a logistical field camp that was reoccupied several times. The Nochta phase has been tentatively designated to identify this time period in the American Bottom.

**McElrath, Dale (University of Illinois)  
THE LATE ARCHAIC IN THE AMERICAN BOTTOM IN LIGHT OF NEW DATA.**

The Late Archaic in the American Bottom has been defined based primarily on data derived from I-270 investigations. The resultant four phase sequence (i.e. Falling Springs, Titterington, Labras Lake and Prairie Lake) have been verified through subsequent research with only minor adjustments in relative dating. This paper will focus on the re-evaluation of the sequence in light of the data that has emerged since the original phase designation, and will suggest future avenues of inquiry that are necessary for completing the Late Archaic picture for the American Bottom.

**Maher, Thomas O. (University of North Carolina)  
THE HOLDING SITE: A Hopewell Horticultural Village in the American Bottom.**

The Holding site represents the first substantial Hopewell residential site excavated in the American Bottom. Seven structures, 143 pits, 13 stains of undetermined function, and 74 nonstructural postmolds were identified. Ceramics and lithics were recovered indicating interaction with Middle Woodland groups in the lower Illinois River valley, southern Illinois, and possibly the lower Mississippi River valley. Artifacts created from non-local material (obsidian, mica, and copper) were also retrieved. Seeds of domesticated maygrass, goosefoot, erect knotweed, and little barley were recovered from feature context. The position of the Holding site in a larger Hopewell settlement of the American Bottom is also discussed.

Jackson, Douglas K. (University of Illinois)  
**INVESTIGATIONS AT THE KELLER-SAMSON BORROW PIT: Early Emergent Mississippian Occupations in Madison County, Illinois.**

In 1984 and 1985 the University of Illinois FAI-270 Project conducted archaeological investigations at three sites to be impacted by borrow activities within the Keller-Samson borrow pit, located on the bluff edge north of Collinsville in Madison County, Illinois. The Samson (11-Ms-119), Samson Bluff (11-Ms-1186), and Eastridge (11-Ms-1187) sites were subjected to large scale removal of plowzone by heavy equipment revealing numerous subsurface features. Two early Emergent Mississippian hamlets are represented among these features and they comprise the most significant component excavated, providing new data on Emergent Mississippian groups in this northern portion of the American Bottom. A Collinsville phase (A.D. 800 - A.D. 850), encompassing the first half of the previously defined Loyd phase, is proposed based on data from these sites. Additional features at these sites are representative of small Archaic, Late Woodland, and Mississippian occupations.

Fortier, Andrew C. (University of Illinois)  
**A MISSISSIPPIAN "BUSK" CEREMONIAL COMPLEX AT THE SPONEMAN SITE.**

A unique Stirling phase, Mississippian ceremonial complex was uncovered by the UIUC in 1984-85 at the Sponemann site (11-Ms-517), located several miles northeast of the Cahokia site. Included in this complex were a small "household temple" containing the remains of at least three figurines, a small courtyard, a large isolated pit with unusually large quantities of ceramics and maize, a sweat lodge, a red cedar structure (red cabin?), and evidence for specialized plant use. This complex of features and artifacts is interpreted as one of the earliest evidences of busk ceremonialism in the Eastern Woodlands.

Parker, Kathryn E. (University of Illinois)  
**THE SACRED AND THE MUNDANE: Prehistoric Man-Plant Relationships in the Edelhardt Lake Locality.**

Our perceptions of man-plant dynamics in the American Bottom area have been altered, or at least broadened by new botanical data recovered from recently excavated Middle Woodland through Oneota sites in the Edelhardt Lake locality. The Holding site appears to have functioned as a Hopewellian farming community focused on the cultivation of cereal crops. Farming was also the primary economic activity during the Terminal Late Woodland occupation at the nearby Sponemann site, with maize added to the crop complex by A.D. 750, earlier than previously thought by archaeologists. Use of plant materials in Stirling phase Mississippian sacred or ritual contexts was indicated in the "religious precinct" at Sponemann. The final prehistoric occupation at Sponemann, the Oneota, suggests a return to man-plant dynamics of a much earlier time period.

Williams, Joyce A. (Illinois Historic Preservation Agency)  
**DIFFERENTIAL UTILIZATION OF LITHIC RAW MATERIALS AT TWO SITES IN THE AMERICAN BOTTOM.**

The differential use of lithic raw materials by four cultural components (Middle Woodland, Emergent Mississippian, Mississippian and Oneota) is discussed in three contexts: geological considerations; subsistence activities; and socio-cultural manifestations. The Middle Woodland component is present at the Holding site and the remainder components are present at the Sponemann site. The sites occupy the same geographical locality in the American Bottom. Lithic raw materials including limestone, sandstone, mudstone, glacial till, and chert are equally available to all of the occupations.

[9] **General Session: CONTRIBUTED PAPERS**

**Lowe, David C. (University of Wisconsin - Madison)  
ROCK ART OF WESTERN DANE, AND NORTHEASTERN IOWA  
COUNTIES, WISCONSIN.**

The author discusses the results of a second year of a survey of rock art. This survey is located in 60 square miles in Mill Creek and Blue Mounds Creek drainages in Iowa and Dane counties, Wisconsin. This art is found on sandstone surfaces in the form of petroglyphs and pictographs. Anthropomorphic, zoomorphic, and geometric motifs are examined and design similarities are noted.

**Meyers, Thomas B. (University of Missouri - Columbia)  
MANAGEMENT OF FEDERAL ARCHAEOLOGICAL RESOURCES.**

The Secretary of the Interior has proposed a comprehensive set of standards and guidelines for the curation of Federally-owned archaeological collections (Federal Register, August 28, 1987). Anticipating the implementation of these rules, the U.S. Army Corps of Engineers, St. Louis District recently inventoried and evaluated those collections within its jurisdiction. Ten curation facilities were visited, and an assessment was made of the conditions under which materials and their associated documentation are cared for and maintained. A preliminary report of findings and possible recommendations will be presented.

**Barth, Robert (University of Wisconsin-Eau Claire)  
PREHISTORY OF THE RED CEDAR RIVER VALLEY.**

Between 1984 and 1987, the University of Wisconsin-Eau Claire conducted archaeological surveys in the Red Cedar River Valley in west-central Wisconsin. Analysis of cultural material recovered from the 107 sites identified by this research, combined with the results of earlier investigations, has revealed a long sequence of human occupation extending from the Paleo-Indian period through the Historic period.

**Murphy, Harry (Ohio Department of Transportation)  
LUCAS AND OTTAWA ROUTE 2 SURVEY AND PREDICTIVE MODEL.**

The observation that the environmental character of the Ohio Black Swamp region lends itself to development of a settlement pattern model was suggested by Prah, Brose and Stothers in 1973. Following this lead a model that indicates the areas of high and low potential for the presence of prehistoric sites was developed as part of the Ohio Department of Transportation - Bureau of Environmental Services cultural resources assessment for the proposed improvement of State Route 2 through the northwestern edge of the Black Swamp region. In its most simplistic form the model predicts that evidence for prehistoric utilization will be found on the islands and peninsulas of dry ground within what were prehistorically predominantly wet and/or water-covered areas of wet prairies, swamp and marsh.

**Marshall, James A.  
A COURSE IN THE PRINCIPLES AND METHODS OF THE  
GEOMETRY OF THE PREHISTORIC AMERICAN INDIAN FOR OHIO  
SCHOOLS GRADES 8 THROUGH 12.**

High Banks, Newark, Circleville, Mound City, Dunlap, Hopeton, Cedar Banks, Brown, Seip, Bowinville, Liberty and East Side, all geometric earthworks surveyed and mapped by the author and located in central Ohio will be the raw materials for this projected course.

Esarey, Duane (Dickson Mounds Museum)

**THE 1988 LOW WATER BANK SURVEY OF THE ILLINOIS RIVER.**

A survey of part of the drought-lowered Illinois River was completed by Dickson Mounds Museum and the Illinois Valley Archaeological Society during the summer of 1988. Supported by a strong volunteer force, this project was able to log nearly 1000 person hours on the river and survey most of the 158 km shoreline from Naples to Peoria. Little has been known previously of the prehistoric habitation patterns on the natural levees of the central portion of the Illinois River Valley. One hundred twenty eight new sites ranging from 600 B.C. through the Historic period were recorded. Early Woodland (Marion and Liverpool phases) and terminal Late Woodland (Bauer Branch and Maples Mills phases) occupations were numerous and sometimes intensive, whereas Havana/Hopewell and Weaver period habitations were rare. Radical shifts in utilization of this specific location presumably illustrate settlement pattern responses to specific adaptive changes during the Woodland period.

Carr, Christopher (Arizona State University)

**THE COMPLEMENTARY ROLES OF RADIOGRAPHY AND PETROGRAPHY IN CERAMIC TEMPER ANALYSIS.**

Analysis of the temper in ceramic vessels is useful in studies of vessel function, chronometry, and exchange. Relevant variables include the fractional volume of all temper particles or particles of certain mineralogical or size classes, particle size distribution, and material/mineralogy. Improved radiographic techniques allow each of these to be estimated reliably with large samples, save mineralogy, which can be identified only approximately by particle grey-level and morphology. Petrography provides more detailed mineralogical information but may not allow reliable estimates of any of the variables for lack of adequate sample volumes. These issues are exemplified for Ohio Woodland sherds and a solution is offered.

Foradas, James G. (The Ohio State University)

**TOWARD INTRAFORMATIONAL SOURCING OF FLINT USING NORMATIVE MINERAL COMPOSITIONS: A Preliminary Study Using Flint Ridge Flint.**

A new method of sourcing flint based on normative mineral compositions was tested on eight flint samples from two different prehistoric quarries at Flint Ridge, Ohio. Intraformational distinctions were based on detrital mineral composition of samples. Intraformational distinctions were based on secondary mineral composition of samples. The new method is applicable to all flint and chert, cost effective, not affected by heat treatment, and can be nondestructive to artifacts.

**[11] Symposium: "U" OF THE LAKE**

This symposium is designed to explore common research problems encountered by archaeologists working around the lower end of Lake Michigan. These problems include establishing reliable chronologies for prehistoric and protohistoric sites, designing workable artifact typologies, and defining subsistence/settlement patterns. The symposium provides an opportunity to present through formal papers some of the most current research in this multi-state research universe, and provides an opportunity to meet on a more informal basis to discuss ways of coordinating research and to examine archaeological materials from recently excavated sites.

Lurie, Rochelle (Northwestern University)

**USE OF WETLAND RESOURCES IN NORTHERN ILLINOIS: Results of Phase 1 Archaeological Investigations of the Cedar Shores Development Property, Lake County, Illinois.**

An archaeological survey of 700 acres north of Deep Lake and east of Cedar Lake confirms previous studies in southeastern Wisconsin and northeastern Illinois which have documented the rich resource potential of wetlands for prehistoric people. Thirty-three prehistoric sites, and 70 isolated finds dating from the Early Archaic through the Mississippian periods were discovered along marsh and lake edges on the Cedar Shores property. Unlike other surveys conducted in the region, the majority of the sites appear to be Late Archaic/Early Woodland.

Doershuk, John F. (Northwestern University)

**WILL COUNTY 2: The Data Continues...Known Sites, Topographic Zone Analysis and Some Future Observations.**

Data from 281 previously recorded archaeological components in Will County, Illinois are used to model site location characteristics on a county-wide basis. This information is compared with results of a topographic zone analysis for the county. These zones are resource areas which would have variably influenced prehistoric subsistence and site location. Linking known site characteristics with topographic zones generates expectations for site locations in currently untested areas of the county and the Lake Michigan area in general.

Craig, Joseph (Northern Illinois University)

**PREDICTIVE MODELING OF PREHISTORIC SETTLEMENT PATTERNS IN THE CHICAGO LAKE PLAIN.**

A predictive model of prehistoric settlement patterns for the Chicago Lake Plain is developed from Lake Calumet and Calumet City quadrangle site data. The model depicts two areas of settlement: 1) river bottomlands and 2) sandridge terraces. Further analysis of Lake Plain settlement strategies shows that Archaic sites are located on sandridge terraces, Woodland sites occur equally in bottomlands and on sandridges, and Mississippian sites are located almost exclusively in bottomlands.

Cremln, William M (Western Michigan University), and Dale W. Quattrin (University of Pittsburgh)

**RECENT WOODLAND PERIOD RESEARCH IN THE MIDDLE ST. JOSEPH RIVER VALLEY OF SOUTHWESTERN MICHIGAN, WITH EMPHASIS ON THE LATE WOODLAND OCCUPATION OF THE KLINE I SITE (20SJ29) IN ST. JOSEPH COUNTY.**

Western Michigan University has recently completed its sixth season of survey and or test excavation in the main river trench and along the course of several major tributaries in the middle St. Joseph River valley of southwest Michigan. Surface collection from many of the 250 sites found document a strong Woodland period presence, and argue for considerable interaction between local populations and others in the Midwest. Preliminary interpretation derived from two seasons of excavation at the Kline I site, a Late Woodland seasonal encampment dating to the early 13th century, will be presented.

**Markman, Charles W. (Northern Illinois University)**  
**THE LATE PREHISTORY OF THE CHICAGO AREA: Temper and Tradition Again.**

An understanding of the late prehistory of the Chicago Area and northern Illinois is hindered by problems of dating and chronology. Lacking stratigraphic and radiocarbon data alternate interpretations are possible: 1) two Upper Mississippian groups producing distinct pottery coexisted in complementary but overlapping ecological niches for an extended period of time; 2) as the remote reaches of secondary streams were abandoned, Langford ceramics -- a grit-tempered pottery and the only Mississippian pottery found in those areas -- ceased to be produced. The second interpretation, although not without problems, is favored.

**Bird, M. Catherine (University of Wisconsin-Milwaukee)**  
**LANGFORD TRADITION CERAMIC: A View from the Homeland.**

A frontier homeland paradigm is used to develop a model for the Upper Mississippian Langford-Oneota ceramic assemblage relationship. Few comparative or technological studies of Langford ceramics exist, although the cultural manifestations of Langford-Oneota traditions have been the topic of recent scholarly papers. The 96.1% Langford ceramic assemblage from the Washington Irving site, a single component Upper Mississippian village located in the Fox River valley of northeastern Illinois, is used to develop this model.

**Buckmaster, Maria (Northern Michigan University)**  
**THE PAQUETTE SITE: A Possible Stratified Late Paleo-Indian Site.**

The Paquette site, a Late Paleo-Indian site located in north-central portion of Michigan's upper peninsula, was investigated during the summer of 1987 by Northern Michigan University. The recovered assemblage is similar to that from Sheguiandah and other early sites located near the north shore of Lake Huron. An undisturbed area of the site located on a small terrace suggests the site is stratified. Data indicate that there was a change in the raw material selected for tool manufacture between the first and second occupation of the site.

**Goldstein, Lynne (University of Wisconsin-Milwaukee)**  
**SOUTHEASTERN WISCONSIN ARCHAEOLOGY: A Broadening Perspective.**

For the last ten years, UWM has conducted extensive work in southeastern Wisconsin. In 1988 work began in a new portion of the region, specifically the area north of Milwaukee. This paper will report on excavation conducted at Klug Site II, a single component Late Woodland site (with some Mississippian "influence"). The relationship of this site (and the general area) to late prehistoric adaptations in the rest of the region will be explored.

**Jeske, Robert J. (Indiana-Purdue at Fort Wayne)**  
**LANGFORD TRADITION SUBSISTENCE, SETTLEMENT AND TECHNOLOGY: The Washington Irving Site.**

Excavations at the Washington Irving site in 1984 and 1985 tested a small portion of this 4-ha Upper Mississippian village. A suite of five radiocarbon dates places the occupation from A.D. 1200 to 1450. The remains of several possible house floors and over two dozen archaeological features, along with large lithic and ceramic assemblages, were recovered. Ethnobotanical, faunal and technological analyses provide strong evidence for reconstructing the Upper Mississippian lifestyle.

**Herold, Elaine B. (Buffalo State College), and Patricia O'Brien (Kansas State University)**

**THE HUBER AND HOXIE FARM SITES.**

The Huber and Hoxie Farm village sites were occupied in the late prehistoric or the early historic period. Both produced assemblages which are generally identified as Oneota or Upper Mississippian. Artifacts, such as engraved pebbles, shell gorgets, otter skulls, ceremonial stemmed pipes as well as burials, suggest that these sites had a ceremonial function. We suggest that such objects may indicate a late prehistoric or early protohistoric ritual which may be related to the later Midewiwin ceremony. In addition, a comparative analysis of the faunal material from Upper Mississippian sites indicates an increasing importance of fur-bearing mammals in the inventory, which may reflect an increasing participation in the fur trade in the protohistoric period.

**Benchley, Elizabeth D. (University of Wisconsin-Milwaukee)**

**THE GREENFIELD LIME PROCESSING DISTRICT 1859-1900.**

The remains of a mid-nineteenth century lime producing industry are well preserved in southern Milwaukee County, Wisconsin. At least three different kiln types are in evidence along with their associated quarries. Portions of the district, including a large kiln, a residence, barns, and out buildings, have been restored by Milwaukee County. Investigations during 1988 focused on a previously ignored structure complex composed of two kilns, a house, and a barn. The complex may date as early as 1847.

**[12] General Session: HISTORIC PERIOD RESEARCH**

**Blank-Roper, Laurie (Midwestern Archaeological Research Center)**  
**FEATURE TO FUNCTION AND DATA TO DAILY LIFE: Linking Behavior and Archaeology at Early Nineteenth Century Illinois Farmsteads.**

Although daily life and some of its material requirements are sparsely documented in early written accounts, these provide a starting point for interpreting the archaeological record. Accounts by early nineteenth-century travelers and settlers were examined for described activities which might result in archaeological features or activity areas. Information was sought to help predict feature size, morphology, artifact content and intrasite location. These expectations are compared to excavation data mainly from west-central Illinois.

**Schroeder, Erich K. (Illinois State Museum)**

**FARMSTEAD ARCHAEOLOGY AT THE REGIONAL LEVEL: Ethnic, Economic and Transportation Influences on Settlement of the FAP-412 Project Area.**

The FAP-412 project area in central Illinois was part of the Euro-American frontier system from c. 1825 until the late 1860s. Through the use of diverse historical sources including federal population censuses, county atlases, and public domain land sales, a picture of the changing patterns of rural settlement emerges. Such a model, which uses ethnic and economic differences, and takes into account the importance of changes in transportation, can serve to focus specific research questions which can direct the archaeological investigation of rural sites.

Stelle, Lenville (Parkland College)

**HISTORY, ARCHEOLOGY, AND THE 1730 SIEGE OF THE FOXES.**

In the fall of 1987, historical speculation reemerged concerning the location on the Illinois prairies of the 1730 Mesquakie fort besieged by the French and their Indian confederates. During the summer of 1988, an archeological reconnaissance was made of MI-6, one of the more likely loci. The results of this testing, while far from conclusive, point to the likelihood that this was indeed the site of this important conflict.

McGregor, John R. (Indiana State University)

**A SURVEY OF EARLY HISTORIC RURAL SITES IN THE VINCENNES AREA OF WESTERN INDIANA.**

An attempt to locate pre-1820 historic sites was developed in western Indiana during the spring and early summer of 1988. The focus was on areas legally surveyed prior to the Public Land Survey in the area, and specifically on those areas known from historic materials to have involved pre-1820 settlement. The various survey strategies used, the evidence accepted as indication of early settlement, the nature of the sites located, and recommendations for future survey strategies are summarized.

Birmingham, Robert A. (State Historical Society of Wisconsin)

**STRAY BANDS AND DREAM DANCERS: The "Prairie" Potawatomi in Wisconsin.**

Well into the twentieth century, several thousand Indians of various tribes lived as landless refugees on remote tracts of land in central and northern Wisconsin. Until recently, these Indians have received little attention in the historical and anthropological literature. This paper concerns a portion of the Prairie Band Potawatomi that moved back to Wisconsin after removal to the Kansas reservation. It discusses the main adaptive elements of this culture as revealed by archeological and historical research.

Esarey, Mark E. (Michigan State University Museum)

**THE FIRST FORT GRATIOT (1814-1821): An American Fort in the Territory of Michigan.**

During the summers of 1987 and 1988, Michigan State University and the Port Huron Museum of Arts and History co-sponsored archeological investigations at Ft. Gratiot, one of a series of American forts that defended the Canadian border in the early nineteenth century. The site lies adjacent to the St. Clair River, just below the outlet of Lake Huron in Port Huron, Michigan. Its long-term strategic significance lay in controlling access by naval and merchant shipping traffic into the upper Great Lakes. The United States built the first fort in 1814 during the War of 1812. It was abandoned in 1821, and seven years later, the US Army returned to construct a second Ft. Gratiot (1828-1879) atop the ruins of the first one. This paper will focus on archeological remains from the first fort occupation, including two cellars, a defensive ditch, and part of a probable officer's quarters building.

Kullen, Douglas (University of Chicago) and David Walitschek (Illinois State University)

**FROZEN IN FIRE: A Synchronic Artifact Assemblage from the Netzley-Yender House, Lisle, DuPage County, Illinois.**

Volunteer salvage work conducted at the Netzley-Yender House in Lisle, Illinois obtained valuable archeological data prior to commercial development at the site. Investigators encountered the entire contents of a burned mid-nineteenth century farmhouse. The large artifact assemblage provides investigators with unique potentials for reconstructing rural household economies, for dating ceramic and other artifact styles, and for developing interpretive exhibits for public display.

[13] General Session: MIDDLE WOODLAND PERIOD RESEARCH

Lepper, Bradley T. (The Ohio Historical Society, Newark Earthworks State Memorials)

**AN HISTORICAL REVIEW OF ARCHAEOLOGICAL RESEARCH AT THE NEWARK EARTHWORKS.**

Systematic archaeological exploration of the Newark earthworks began as early as 1836, but the earthworks already were vanishing beneath the expanding city of Newark. In 1928, Greenman directed the excavations of Eagle Mound uncovering evidence of a Hopewellian charnal house. CRM investigations in 1980 through the eastern half of the Newark complex yielded evidence for a Middle Woodland mortuary camp. These few previously unreported investigations add to our knowledge of the largest of the Hopewellian ceremonial centers.

Dexter, Ralph W. (Kent State University)

**F. W. PUTNAM AT THE SERPENT MOUND IN ADAMS COUNTY, OHIO: A Historical Review.**

F. W. Putnam (1839-1915), Curator of Peabody Museum of American Archaeology and Ethnology at Harvard, first visited Serpent Mound in 1883. In 1886, he with Dr. C. L. Metz made measurements, began restoration, and made plea for its preservation. Funds were raised to purchase 66 acres which became Serpent Mound Park. Three summers were spent excavating and restoring the effigy mound, a conical mound, village site, and several graves. Putnam exhibited a model of Serpent Mound at A.A.A.S. meeting of 1892. This preservation and restoration was one of his greatest accomplishments.

Greber, N'omi (Cleveland Museum of Natural History)

**AN ESTIMATE OF THE STRATIGRAPHY AND FLOOR PLAN OF THE GREATEST HOPEWELL MOUND, MOUND 25 OF THE HOPEWELL SITE, AND SOME INTERPRETATIONS.**

The estimate presented is based on information from the field records of the 1891-1892 excavations (supervised by W. K. Moorehead for F. W. Putnam, Columbian Exposition), from 1895 artifact analyses (C. C. Willoughby, Peabody Museum), and from the 1923-1925 Shetrone excavation records (Ohio Historical Society). Some differences and similarities of the pattern of structures and activities seen here and those from some of the other major Ohio Hopewell sites previously studied by the author are given.

Madsen, Mark L.

**A 17-POST EARLY HOPEWELL SUMMER LODGE FROM A SALVAGE SITE ON POPULAR CREEK.**

Though land between Elgin and Chicago is currently being developed at a horrendous pace, several sites headed for ultimate destruction have been surveyed over the past several years. An excavation at one site has uncovered a preponderance of features dating to an Early Hopewellian occupation -- 2,150 to 1,950 B.P. Features with Netter, Hummel Stamped Plain, and Fette Incised pottery found at the site were located in conjunction with Snyders, Midwest Complex, and Columbian Complex-style lithics.

Careful mapping of 16 (3-m grids) at the site show a number of living patterns: among them is noted the remains of a 17-post summer lodge. Construction seems to have relied heavily on framing techniques. Angled posts may have been used for a temporary tent attachment. Distribution of lithics and pottery remains within the lodge suggests the living pattern noted by Densmore in Chippewa Customs.

**Pacheco, Paul J. (The Ohio State University)**  
**OHIO MIDDLE WOODLAND SETTLEMENT VARIABILITY IN THE**  
**UPPER LICKING RIVER DRAINAGE.**

A regional settlement approach for Ohio Middle Woodland has long been needed to balance the overemphasis on Hopewell burial practices associated with this period. This drainage, in which are located the Newark earthwork complex and the Flint Ridge quarries, is ideal for examining both domestic and corporate aspects of Middle Woodland settlement variability. The available settlement data from the region will be reviewed and a framework for continuing settlement research will be presented in this paper.

**Morrow, Carol A. (Southeastern Missouri State University)**  
**MIDDLE WODLAND CHERT EXCHANGE AT MACOUPIN: Multiple**  
**Levels of Interaction In the Lower Illinois River Valley.**

In 1972, Streuver and Houart presented a hierarchically organized exchange model for the Hopewellian Interaction Sphere, which included local and regional transaction centers. Analysis of chert from the Macoupin site, particularly the nonlocal and exotic chert materials, supports a model of primary and secondary levels of exchange practices. The nonlocal and exotic cherts at Macoupin were manipulated in exactly the same fashion as local cherts, suggesting that these materials were part of the same pool of resources locally available to the inhabitants at Macoupin. A similar conclusion was drawn for the Hopewell Interaction Sphere materials, including chert, at the Smiling Dan site (Stafford and Sant 1985).

# American Bottom Archaeology

FAI-270 Site Reports and Summary Volume

*Edited by Charles J. Bareis and James W. Porter*

"The standard of excellence both in research and publication set by the I-270 project has become the benchmark for federal archaeological data recovery projects. The summary volume is a handsome product of great utility to archaeologists, providing exciting, well-presented information to the public, and truly delivering the public benefits required by historic preservation legislation." — Bennie C. Keel, consulting archaeologist for the National Park Service.

The Summary Volume provides an excellent overview and key to the entire project, presenting essential details about the project's research design; administrative structure; site locations; soil stratigraphy; feature descriptions; artifact, debris, faunal, and floral distributions and analyses; and field and laboratory methodologies. Thus it serves as a useful guide for the purchase of specific volumes in the series. Illustrated. \$24.95.

*Now Available*

## **Volume 18**

Late Woodland Sites  
in the American  
Bottom Uplands

*Charles J. Bentz, Dale L.  
McElrath, Fred A. Finney,  
and Richard Lacampagne*  
Illustrated. Paper, 8 1/2 x 11 in.  
\$17.50.

*Forthcoming*

## **Volume 19**

The Holding Site:  
A Hopewell Community  
in the American Bottom  
*Andrew C. Fortier, Thomas O.  
Maher, Joyce A. Williams,  
Michael C. Melinkoth, Kathryn E.  
Parker, and Lucretia S. Kelly*

## **Volume 20**

The Range Site 2:  
Emergent Mississippian  
Dohack and Range  
Phase Occupations  
*John E. Kelly, Steven J. Ozuk,  
and Joyce A. Williams*

## **Volume 21**

The Early and Middle  
Archaic Occupations  
at the Nohta Site  
*Michael J. Higgins*

## **Volume 22**

Selected Early Mississippian  
Household Sites in  
the American Bottom  
*Douglas K. Jackson and  
Ned H. Hanenberger*

*On display at this meeting for a discount.*



**University of Illinois Press**

c/o CUP Services • P. O. Box 6525 • Ithaca, NY 14851  
Order toll free 800/668-2211





