

Joe Hartz

43RD



MUNCIE, INDIANA  
21-24 OCTOBER 1998

PROGRAM & ABSTRACTS

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1998

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

43rd  
Midwest Archaeological Conference  
Muncie, Indiana - 21-24 October 1998

## GENERAL INFORMATION

### Conference Headquarters

All conference sessions will be held at the Radisson Hotel Roberts in downtown Muncie, across the street from the Muncie Convention Center. The hotel is a Muncie landmark that has been extensively renovated to restore it to its original elegance. In addition to the hotel parking lot, participants may use the Convention Center parking lot across the street.

### Registration

Registration tables will be set up in the lobby of the Radisson Hotel Roberts and manned from 3 to 6 p.m. on Wednesday, 21 October, and from 8 a.m. to 5 p.m., Thursday and Friday. Please check in when you arrive to register or, if preregistered, to pick up your registration packet.

### Paper Sessions

Conference papers will be presented in concurrent sessions on the mezzanine floor of the Radisson Hotel Roberts running from 8:00 a.m. to 5:00 p.m. on Thursday and Friday and from 8:00 a.m. to 12:00 noon on Saturday.

### Special Sessions

A day-long preconference workshop on Midwest Protohistoric Ceramics (Penelope Drooker) will be held on Wednesday at Ball State's Kitzelman Conference Center (3401 W. University Ave.). At the conference itself, five symposia have been arranged: Computer-Assisted Archaeology (John Staeck), Ohio and Pennsylvania in Later Prehistory (David M. Stothers), Investigating the Final Millennium of Indiana Prehistory (Brian G. Redmond), Middle Woodland Around the Southern End of Lake Michigan (William L. Mangold), and Paleoindian Studies on the Midcontinent (Kenneth B. Tankersley).

### Excursions

Two excursions will be available Saturday afternoon, leaving at 12:30

p.m. from in front of the Convention Center, across the street from the Radisson Roberts Hotel.

**Anderson and New Castle mound complexes (\$6):** An excursion lasting about 5 hours will visit the Adena/Hopewell complexes of earthen enclosures near Muncie's neighboring cities of Anderson and New Castle. Ball State has carried out excavations at both complexes, and the excursion will be led by one of the Ball State staff members involved.

**Sheriden Cave Paleoindian site (\$15):** Ken Tankersley, who has just completed the second full season of excavation at the stratified Sheriden Cave Paleoindian site near Fostoria, Ohio, together with Pat Munson of Indiana University will lead this 7-hour excursion. The site has yielded bone points as well as a fluted point and other artifacts, and twenty radiocarbon dates have been obtained so far, nine ranging between 10,550 and 10,970 years b.p. from the fluted point stratum.

### **Annual Business Meeting**

Traditionally the annual business meeting has been immediately after the final paper session and has been devoted to considering proposals for hosting future meetings. However, an earlier meeting time has been requested this year to allow discussion of a proposal to formalize the conference--i.e., to establish an overseeing organization.

### **Book Sales & Informational Displays**

Tables for book vendors will be set up in the Bloomsberry A room on the hotel mezzanine. Tables for those wishing to display other information will be set up at the rear of the Rhapsody Ballroom.

### **Reception**

A reception for conference participants will be held from 7:00 p.m. to 9:00 p.m. on Thursday at the Heorot, a medieval-themed bar about two blocks from the hotel (219 S. Walnut St.) that has over forty brands of beer on tap.

### **Refreshments & Meals**

Danishes and bagels will be available each morning from 7:30 to 8:30 on the meeting floor. Coffee will be available as well, both then and during the breaks between 10:00 and 10:30 a.m. and 3:00 and 3:30 p.m.

During the afternoon break, lemonade will also be available. Water and mints will be available in the meeting rooms all day.

In addition to regular meals, the hotel will have buffets available for the conference participants at breakfast and dinner time.

### **Cash Bar**

Friday evening there will be a cash bar for conference participants in the Georgian Room at the Radisson Roberts Hotel.

### **Open House**

The Archaeological Resources Management Service/Archaeology Laboratory in the Department of Anthropology at Ball State University welcomes anyone who wants to stop by between 8:00 a.m. and 5:00 p.m. Thursday and Friday. Some of the collections will be on display and someone will be available to help if there is anything in particular you would like to see. The lab is located in Room 314 of the Burkhardt Building (701 N. McKinley, on the west side of the street between University and Riverside avenues) on the Ball State Campus.

### **Souvenir T-shirts**

Cotton-polyester blend T-shirts featuring the conference logo shown on the front of this document can still be ordered at the conference for \$7.95 each plus shipping (including tax). Colors available include sage with the sherds in natural (light beige) and wording in brown or stone with sherds in brown and wording in forest green.

### **Questions/Further Information**

If you have any questions or require further information, please contact the registration desk or Ronald Hicks (either at the conference or at 765-285-2443/fax 765-285-2163/email rhicks@gw.bsu.edu).

## PROGRAM

*Wednesday, 21 October 1998*

**1 Midwest Protohistoric Ceramics - Organizer: Penelope B. Drooker -  
Kitselman Conference Center, 3401 W. University Avenue**

9:00 a.m. - 5:00 p.m. Hands-on workshop

*Thursday, 22 October 1998*

**2 Archaic - Chair: John Doershuk - Rhapsody Ballroom**

8:00 Lepper, Bradley T. (Ohio Historical Society), Richard W. Yerkes (Ohio State University), & William H. Pickard (Ohio Historical Society) - Prehistoric Flint Procurement Strategies at Flint Ridge, Licking County, Ohio

8:20 Kuehn, Steven R. (State Historical Society of Wisconsin) - High and Dry: Crow Hollow, a Middle Archaic Base Camp on the Kickapoo River Floodplain

8:40 Waters, Nikki A. (Ball State) - Rockshelter Utilization in the Hoosier National Forest, Indiana: a Late Archaic Example from Hemlock Cliffs

9:00 Stafford, C. Russell, Mark Cantin, & Stephen T. Mocas (Indiana State) - Preliminary Results of the Caesars Archaeological Project in the Falls of the Ohio River Region

9:20 Porubcan, Paula J. (Midwest Archaeological Research Services) & Anne Grauer (Loyola) - Life and Death Along the Fox: Investigations at the McGraw Farm Site



9:40 Goatley, Daniel B. (Center for American Archaeology), David J. Nolan (Illinois Transportation Archaeological Research Project), & Sarah J. Studenmund (Illinois Transportation Archaeological Research Project) - An Assessment of Current Archaeological Research in the Uplands of West-Central Illinois

10:00 Studenmund, Sarah, Amy Graham, & Wesley James (Western Illinois Survey, Illinois Transportation Archaeological Res. Program.) - New Perspectives on Archaic Period Upland Occupations in West-Central Illinois

### **3 Miscellany - Chair: - Rendezvous Room**

8:00 Christensen, Bonnie L. (Mississippi Valley Archaeological Center) - Parkaeology: Precollegiate Public Archaeology in an Urban Setting

8:20 Messenger, Phyllis (Hamline University) - The Power of Place: Uncovering the Past Through Community Partnerships

8:40 Martin, Andrew V. (Ball State) - Identifying Non-Extant Rockshelters

9:00 Lovis, William A. (Michigan State) - Clay Effigy Representations of the Bear and Mishipishu(?) from the Late Woodland Johnson Site, Cheboygan County, Michigan

9:20 Abel, Timothy J. & Adrian Burke (SUNY-Albany) - Protohistoric Developments in Northwest Ohio: Perspectives from XRF Analyses of Associated Metallic "Trade" Materials

X 9:40 Foor, Charles W. (Illinois Transportation Arch. Res. Pr.) - Benefits and Problems of ITARP's Use of GIS

10:00 Rovner, Irwin (Binary Analytical) - Why Not Phytoliths? Applications in Midwest Archaeology

### **4 Society for American Archaeology Educational Network Coordinators - Presiding: Bonnie L. Christensen - Rendezvous Room**

10:30 Meeting

**5 Public Forum: Archaeology and Public Education - Presiding: Bonnie L. Christensen - Rendezvous Room**

11:00 Meeting

**Lunch Break**

**6 Symposium: The Late Prehistory and Protohistory of Northern Ohio and Pennsylvania - chair: David M. Stothers (Toledo) - Rhapsody Ballroom**

1:30 Stothers, David M. (Toledo) - Confederacies and Cultures of the Circum-Lake Erie Drainage at the Dawn of History: a 1998 Perspective

1:50 Schneider, Andrew M. (Toledo) - A Ceramic Synthesis of the Western Basin Tradition in the Western Lake Erie Drainage Basin

2:10 Redmond, Brian G., & Katharine C. Ruhl (Cleveland Museum of Natural History) - Notched, Opposed, Plain, and Filleted: a New Look at Whittlesey Ceramics 2:30

2:30 Koralewski, Jason M. (Toledo) - Ceramic Designs and Socio-Political Development among Sandusky Tradition Populations: Towards an Understanding of Cultural Self-Identification in the Lower Great Lakes

2:50 Johnson, William C. (Michael Baker, Jr., Inc.) - Chautauqua Cord-Marked, McFate Incised and Conemaugh Cord-Imprinted Ceramic Types and the Terminal Late Woodland Period McFate Phase of the Glaciated Allegheny Plateau of Northwestern Pennsylvania

3:10 Break

3:20 Abel, Timothy J. (SUNY-Albany) - Temporal and Spatial Analysis of the Parker Festooned Ceramic Type

**7 Poster Session - [Location Pending]**

1:00 Seeman, Mark F., & James R. Branch (Kent State) - A Cultural Landscape Model of the Woodland Period, Ross County, Ohio

## **8 Middle Woodland - Chair: Donald R. Cochran - Rendezvous Room**

-  1:30 Lurie, Rochelle (Midwest Archaeological Research Services), Daniel Amick (Loyola, Chicago), Sara Pfannkuche (Illinois-Chicago) - The 1997-1998 Prehistoric and Historic Investigations at Macktown
-  1:50 Wiant, Michael D., & Larry Binns (Illinois State Museum) - Middle Woodland Sites Along the Lower Reach of the Illinois River
-  2:10 Helmkamp, R. Criss, & Matthew S. Coon (Purdue) - Archaeological Investigations at the West Bedford Site, 1932 to 1998
- 2:30 Cochran, Donald R., & Beth K. McCord (Ball State) - The Mounds and Enclosures of East Central Indiana: Ongoing Research and Other Frustrations
- 2:50 Carr, Christopher (Arizona State) - An Overview of Some Essential World View Themes and Specific Beliefs Expressed in Ohio Hopewell Art and Burial Practices
- 3:10 Break
- 3:30 Greber, N'omi (Cleveland Museum of Natural History) - From Simple to Complex: The Architectural Design of Strata Found in Ohio Hopewell Enclosure Walls
- 3:50 Marshall, James A. (independent researcher) - Pilgrimage Stations in Ohio
- 4:10 Cowan, Frank L. (Cincinnati Museum Center), & R. Berle Clay (Cultural Resource Analysts, Inc.) - Ground-Truthing Magnetometry Data at an Ohio Hopewell Site
- 4:30 Sieg, Lauren (Illinois-Urbana) - A Characterization of Ohio Hopewell Ceramic Assemblages at Habitation Sites: Recent Data from Houses at the Fort Ancient Site

### **Reception - Heorot**

7:00 - 9:00 p.m. - 219 S. Walnut (1 block east and 1 block north of the hotel)

*Friday, 23 October 1998*

**9 Symposium: Investigating the Final Millennium of Indiana  
Prehistory, A.D. 700 to 1700 - Chair: Brian G. Redmond -  
Rhapsody Ballroom**

- 8:00 Redmond, Brian G. (Cleveland Museum of Natural History) - Opening Remarks
- 8:10 Schurr, Mark R. (Notre Dame) - The Late Prehistory of Northwestern Indiana: New Perspectives on an Old Model
- 8:30 McCord, Beth Kolbe, & Donald R. Cochran (Ball State) - The Morell-Sheets Site: Refining the definition of the Albee Phase
- 8:50 Bergman, Karin (Indiana Division of Historic Preservation & Archaeology) - Albee: A Late Woodland Ceramic Manifestation in Indiana
- 9:10 Schmidt, Christopher W., & Tammy Greene (Indianapolis) - Dental Evidence for Maize Consumption during the Albee Phase in Indiana
- 9:30 McCullough, Robert G. (Southern Illinois & Indiana Dept of Natural Resources) - Cultural Interaction along the West Fork of the White River during the Late Prehistoric Period
- 9:50 Stothers, David M. & Andrew M. Schneider (Toledo) - The Wolf Phase Dispersal of Terminal Western Basin Tradition Populations into Northern Indiana during Later Prehistory
- 10:10 Break
- 10:20 Redmond, Brian G. (Cleveland Museum of Natural History) - The Oliver Phase Occupation of the East Fork White River Valley in Southcentral Indiana
- 10:40 Wright, Timothy (Ball State) - Madison Triangles: There Must Be a Point
- 11:00 Bush, Leslie L. (Indiana) - Preliminary Data on Late Woodland and Late Prehistoric Plant Procurement Strategies in Southern Indiana

11:20 Garniewicz, Rexford (Indiana) - Patterns of Oliver Phase Faunal Exploitation

11:40 Ball, Stephen J. (Indiana) - Heaton Farm: Fifteenth Century Cultural Genesis or Replacement?

*[To be continued after lunch . . . ]*

**10 Symposium: Middle Woodland Around the Southern End of Lake Michigan - Chair: William L. Mangold - Rendezvous Room**

8:00 Mangold, William L. (Indiana Department of Natural Resources) - Ernest W. Young and the Goodall Site (12LE9), LaPorte County, Indiana

8:20 Schurr, Mark R. (Notre Dame) - Goodall Mound 16

8:40 Kullen, Douglas (Allied Archeology) - On the Edge of the Havana Tradition: Middle Woodland Lifeways in the Chicago Hinterland, as Seen from the Fiddyment Creek Site, Will County, Illinois

9:00 Hambacher, Michael J., & Sean B. Dunham (Great Lakes Research Associates) - The US-31 Highway Project: Recent Investigations at the Spoonville Site (20OT1) and other Middle and Late Woodland Occupations in the Lower Grand River Valley, Ottawa County, Michigan

9:20 Brashler, Janet G. (Grand Valley State) - The 1996 and 1997 Excavations at Prison Farm (20IA58): A Havana Middle Woodland Occupation in the Grand River Basin of Michigan

 9:40 Walz, Gregory R., & Thomas E. Berres (Illinois-Urbana) - The Dunecrest Site (11BU151): A Small Middle Woodland Occupation in the Green River Lowlands of Bureau County, Illinois

10:00 Break

10:10 Meekhof, Erin (Western Michigan), & Terrance J. Martin (Illinois State Museum) - Middle Woodland Animal Exploitation in the Middle Grand River Valley, Michigan: Impressions from the Prison Farm Site (20IA58)

10:30 Jeske, Robert J. (Wisconsin-Milwaukee) - Middle Woodland in Southeast Wisconsin

### **Lunch Break**

### **9 [continued from morning ] Symposium: Investigating the Final Millennium of Indiana Prehistory, A.D. 700 to 1700 - Chair: Brian G. Redmond - Rhapsody Ballroom**

1:30 Pollack, David (Kentucky Heritage Council) & Cheryl Ann Munson (Indiana) - The Angel to Caborn-Welborn Transition: Late Mississippian Developments in Southwestern Indiana, Northwestern Kentucky, and Southeastern Illinois

1:50 Jones, James R., III (Indiana DNR Div. of Hist. Pres. & Arch.) - Evidence for Late Prehistoric and Early Historic Native American Connections in Indiana

### **11 Later Prehistory - Chair: - Rhapsody Ballroom**

2:30 Sasso, Robert F. (Wisconsin-Parkside) - Searching for the Sites of Ancient Agriculture in Southeastern Wisconsin, 1997-1998

2:50 Titelbaum, Anne, & Thomas E. Emerson (Illinois Transportation Archaeological Research Program) - Filling the Void: Understanding the Late Woodland of North Central Illinois

3:10 Break

3:20 Strezewski, Michael (Indiana) - A Closer Look at Indiana University's 1964 Excavations at the Crable Site, Fulton County, Illinois

3:40 Havill, Lorena M. (Indiana), Andrew A. White (Southern Illinois), & Kimmarré Murphy (Indiana) - Bioarchaeological Analysis of Four Late Woodland Mortuary Populations from West Central Indiana

4:00 Purtill, Matthew P. (Gray & Pape, Inc.) - Concepts, Models, and Speculation: Preliminary Synthesis of Fall/Winter Fort Ancient Community Dynamics in the Middle Ohio River Valley

- 4:20 Dancy, William S., & Tori Saneda (Ohio State) - The Late Woodland to Later Prehistoric Transition in the Middle Ohio Valley as Viewed from Central Ohio
- 4:40 Capellini, Terence D. (Kent State) - Comparison of the Utilization of White-tailed Deer (*Odocoileus virginianus*) from Two Ohio Archaeological Sites

**12 Symposium: Computer Assisted Archaeology - Chair: John P. Staeck (College of DuPage) - Rendezvous Room**

- 1:30 Artz, Joe Alan (Office of the State Archaeologist - Iowa) - Transforming a Legacy: Creating a Cultural Resources GIS for Iowa
- 1:50 Rovner, Irwin (Binary Analytical) - Computer Imaging and Morphometric Analysis: How to Replace Arbitrary Typology with Measured Reality in Archaeology
- 2:10 McPherron, Alan (Pittsburgh) - Re-locating Old Excavation Units at the Juntunen Site Using GPR
- 2:30 Hoard, Robert J., & Michael C. Meinkoth (Missouri Dept of Transportation) - Ground Penetrating Radar on Flood Plain Sites
- 2:50 Ramseth, Adam (Luther) & John P. Staeck (DuPage) - GIS and the Late Woodland Effigy Mound Manifestation in Northeastern Iowa and Southwestern Wisconsin
- 3:10 Watrall, Ethan (Indiana) & Neil Birch (Regina) - Markup Languages and Digital Document Types: Implications for Management and Distribution of Archaeological Information

**13 Business Meeting - Rendezvous Room**

- 4:00 In addition to the usual confirmation of the next conference site, it has been requested by Bill Green (Iowa State Archaeologist) that the following topic be placed on the agenda:

Formalizing the Midwest Archaeological Conference

**Cash Bar - 7:00 - 9:00 p.m. - Georgian Room**

*Saturday, 24 October 1998*

**14 Terminal Prehistoric & Protohistoric - Chair: - Rhapsody Ballroom**

8:00 Ringberg, Jennifer E. (Kansas-Lawrence), & George R. Holley (Southern Illinois-Edwardsville) - Terminal Mississippian Ceramics in Southwestern Illinois

 8:20 Berres, Thomas (Illinois-Urbana) - Fisher and Langford Oneota Interaction and Perspectives on Power Relations

 8:20 Hollinger, R. Eric (Illinois-Urbana) - Late Prehistoric Oneota Agricultural Practices in Southeastern Iowa

 8:40 Hollinger, R. Eric (Illinois-Urbana) & Dale R. Henning (Illinois State Museum) - The Cultural Context of Oneota Incised Stone Art

 9:00 Bird, M. Catherine (Midwest Archaeological Research Services, Inc.) - Temporal, Spatial, and Social Trends: Late Prehistoric and Protohistoric Group Interaction

9:20 Pelanck, Kathy A (Illinois-Urbana), Lawrence A. Conrad (Western Illinois) & R. Eric Hollinger (Illinois-Urbana) - Application of Geophysical Prospecting at the Protohistoric Iliniwek Village Site, Clark County, Missouri

9:40 Dunham, Sean B. (Great Lakes Research Associates), Janet G. Brashler (Grand Valley State), & Charles E. Cleland (Michigan State) - Cobbles, Cairns, and Manitous: An Examination of the Use of Stone in Native American Landscapes

**15 Historic - Chair: - Rhapsody Ballroom**

10:20 Nienow, Jeremy L. (Center of the Ecological Management of Military Land, Fort McCoy) & Roland L. Rodell (Mississippi Valley Archaeology Center) - Perrot or Linctot? Investigations of a French Era Site in the Northern Mississippi Valley

10:40 Mansberger, Floyd & Christopher Stratton (Fever River Research) - Stuck in the Mud of Northern Illinois: The Archaeology of Canal Boats Along the Illinois and Michigan Canal, Grundy County, Illinois

11:00 Willis, John (Northwestern) - Early Historic Ceramics of the Zimmerman Site (11LS13) and Starved Rock (11LS12) of Illinois: a Review of Previous Descriptions and a Re-analysis of Some of the Materials These Descriptions Were Based

11:20 Smith, Aaron O. (Ball State) - Ethnicity, Material Culture, and Meaning in Nineteenth-Century Rural Indiana

**16 Symposium: Paleoindian Studies on the Midcontinent: Current Research - Chair: Ken Tankersley (Kent State) - Rendezvous Room**

8:00 Loebel, Thomas J. (Illinois-Chicago), Daniel S. Amick (Loyola, Chicago), Matthew G. Hill (Wisconsin-Madison), Robert F. Boszhardt (Mississippi Valley Archaeology Center), & Ken Hensel - Early Paleoindian Lithic Technology in Wisconsin: Evidence from Two New Sites

8:20 Simons, Donald - An Update on the Early Paleo Indian Gainey Site Project and Typological Comparisons with Several Gainey Phase Sites in the Lower Great Lakes

8:40 Landefeld, Carol (Landefeld Communications) - Comparison of Two Late Pleistocene Great Lakes Archaeological Sites

9:00 Morris, Larry L. (Archaeological Society of Ohio, Sugarcreek Valley Chapter), Mark F. Seeman (Kent State University), & Garry L. Summers (Archaeological Society of Ohio, Sugarcreek Valley Chapter) - Fluted Points and Bifaces from the Nobles Pond Site

9:20 Tankersley, Kenneth B. (Kent State) - The Geochronology of Sheriden Pit, Wyandot County, Ohio

9:40 Tankersley, Kenneth B. (Kent State) & Brian Redmond (Cleveland Museum of Natural History) - Description of a Paleoindian Bone Foreshaft from Sheriden Pit

10:00 Bowen, Jonathan E. (Ohio Historical Society) - The Sheriden Pit (33WY252) in Regional Context

End of Paper Sessions

**Excursions**

12:30 Excursions will leave from in front of the Muncie Convention Center, across the street from the Radisson Hotel Roberts

a) Anderson and New Castle Early and Middle Woodland Mound Complexes - Led by Ron Hicks (approximately 5 hours)

b) Sheriden Cave Paleoindian Site, Ohio - Led by Ken Tankersley & Pat Munson (approximately 7 hours)

## ABSTRACTS

*The session number is in parentheses at the end of each entry.*

Abel, Timothy J. (SUNY-Albany) - **A Temporal and Spatial Analysis of the Parker Festooned Ceramic Type** - The Parker Festooned ceramic type has been called "the most garish ceramic form in the Great Lakes area." Indeed, due to its unique motif, it is easily recognized in any Great Lakes ceramic assemblage. Over the years, however, the concept has grown vague and ambiguous--due in large part to increasingly inclusive generalizations that lack accurate seriation data. At this point, Parker Festooned is perhaps the least understood, yet most widely known, of all the ceramic types present in the Great Lakes. Recent research has begun to tackle the immense job of seriating Parker Festooned. Before that can proceed, however, it is essential that we adopt a consistent definition of the type. This paper proposes a new taxonomic method that gives renewed perspective to the Parker Festooned ceramic type by clearly showing its temporal and spatial dynamics within five northwest Ohio assemblages. (6)

Abel, Timothy J. , & Adrian Burke (SUNY-Albany) - **Protohistoric Developments in Northwest Ohio: Perspectives from XRF Analyses of Associated Metallic "Trade" Materials** - Through the use of X-Ray Florescence (XRF), we have been able to determine the likely origins of Native and European copper objects found on seven sites in northwestern Ohio. These sites range in time fromc. A.D. 1450 to the early 17th century, spanning the period when European goods were first introduced into local trade networks. The source and contextual data from these objects provides substantiation of the mechanisms by which these objects were incorporated into Late Woodland society. This perspective helps us to better understand the contact period in the Great Lakes. (3)

Amick, Daniel (Loyola University of Chicago) - see Loebel, Thomas J. ( 15), and Lurie, Rochelle (8)

Artz, Joe Alan (Office of the Iowa State Archaeologist) - **Transforming a Legacy: Creating a Cultural Resources GIS for Iowa** - Although archaeological applications of geographic information systems (GIS) technology often feature complicated statistics and sophisticated computer models, such analyses are only as good as the base data from which they are derived. Over the next three years, the State Historical Society of Iowa and the Office of the State Archaeologist will create a geographic information system (GIS) for cultural resources in Iowa. This digital representation of Iowa's cultural resource heritage will be of tremendous value to researchers and planners. Much effort in its creation will be devoted to building and verifying databases. Existing knowledge of Iowa's cultural resources represents a hundred year legacy of books, articles, papers, notes, maps, and (in recent decades) computer files. Translating this information to a digital format while preserving the legacy of work it represents is a complicated task that is important not only for historical purposes but also for allowing users of the digital data to independently evaluate its quality. This paper illustrates how the power of GIS technology can be used to not only create and analyze spatial data but also to assess its veracity. (12)

Ball, Stephen J. (Indiana University) - **Heaton Farm: Fifteenth Century Cultural Genesis or Replacement?** - Archaeological models of culture change have generally focused on the three themes of culture replacement, coalescence, or in situ development. The Heaton Farm site (12 Gr 122), a fifteenth century village in the West Fork of the White River Valley, presents an excellent venue for the appraisal of such models. Exhibiting markedly different house forms (wall trench and post) and two distinct pottery traditions (Vincennes and Oliver phase) the site provides a setting for the analysis of archaeological models of culture change in the late prehistoric of the Midwest. (9)

Bergman, Karin (Indiana Division of Historic Preservation and Archaeology) - **Albee: A Late Woodland Ceramic Manifestation in Indiana** - As we enter the millennium, Albee remains an elusive cultural manifestation in the Late Woodland archaeological record. While ongoing research has contributed to the number of presently known Albee and "Albee-like" sites, our definition of Albee has changed little since Howard Winters original Lower Wabash Valley treatise. A brief overview of Albee and "Albee-like" geographic and temporal distribution will be presented. Albee as ceramic versus aceramic complex will be discussed, in view of John Halsey's thesis regarding the Eastern Mortuary Complex. Suggestions will be proposed relating to

Albee's maintenance of cultural continuity over several hundred years time. (9)

Berres, Thomas (University of Illinois, Urbana) - **Fisher and Langford Oneota Interaction and Perspectives on Power Relations** - The nature of the late prehistoric Oneota culture in the midcontinental United States has been the subject of considerable debate regarding its relationship with Middle Mississippian chiefdom-level societies of the American Bottom region dominated by the Cahokia site as well as interaction within and among peer small-scale societies. This study explores some aspects of Langford and Fisher interactions that were shaped by tradition. Interpretations are based upon analyses of cultural material recovered from feature contexts at the Fisher phase Lawrence site, which is located in the midst of Langford sites in the middle Rock River region of northern Illinois. Langford and Fisher cultures are viewed as natural, open entities that were continually created and recreated by people as agents involved in interaction, symbols as central to human existence through communication, and material culture as an instrument in creating meaning and order in the world or universe. Using ethnohistoric and archaeological data, power is examined in its ambiguity and heterogeneity. (14)

Berres, Thomas E. (University of Illinois, Urbana) - see also Walz, Gregory R. (10)

Binns, Larry - see Wiant, Michael D. (8)

Birch, Neil (University of Regina) - see Watrall, Ethan (12)

Bird, M. Catherine (Midwest Archaeological Research Services, Inc.) - **Temporal, Spatial, and Social Trends: Late Prehistoric and Proto-historic Group Interaction** - The Sanctuary Golf Course in New Lenox, Will County, Illinois, near the confluence of Marley and Hickory Creeks contains the remnants of several archaeological sites including 11-Wi-213, an 18.5-acre Late Woodland, Langford Tradition and Oneota Tradition Upper Mississippian, and Proto-Historic mortuary/habitation with a series of radiocarbon assays from A.D. 1165 through 1644, and 11-Wi-654, a 7.0-acre single component Langford Tradition habitation with two radiocarbon assays (A.D. 1110 and 1426). An analysis of ceramics focused on a discussion of site components, definition of temporal trends, and an examination of regional interaction has illuminated temporal, spatial, and social trends involving late prehistoric and proto-historic group interaction. (14)

- Boszhardt, Robert F. (University of Wisconsin-LaCrosse) - see Loebel, Thomas J. (16)
- Bowen, Jonathan E. (Ohio Historical Society) - **The Sheriden Pit (33WY252) in Regional Context** - Recent excavations at the Sheriden Pit in Wyandot County, Ohio have yielded early Paleoindian stone and bone tools, as well as faunal remains. Regional surface survey indicates that the Sheriden Pit is located near what may have been a drainage-divide along which it has been hypothesized that the earliest Clovis colonizers entered the Ohio area. Sheriden Pit is situated in an area which may have primarily been used by small, dispersed Clovis-related groups between seasonal aggregations. (16)
- Branch, James R. (Kent State University) - see Seeman, Mark F. (7)
- Brashler, Janet G. (Grand Valley State University) - **The 1996 and 1997 Excavations at Prison Farm (201A58): A Havana Middle Woodland Occupation in the Grand River Basin of Michigan** - The 1996 and 1997 excavations at the Prison Farm site produced an exceptional series of radiocarbon dates, artifacts, features, animal and plant remains. Radiocarbon dates, feature distribution, and other information suggest this site was used seasonally for a period of perhaps one hundred years between approximately 2000 and 1900 years ago. Securely dated to this time by a series of statistically overlapping radiocarbon dates, Prison Farm offers the opportunity to consider a number of methodological studies on dating the site and its contents, site formation processes, and comparisons to other sites in the Grand River basin and adjacent regions. This paper briefly describes the excavations, site chronology, and material culture with the objective of characterizing the relationship between Prison Farm and other Middle Woodland occupations in the region. (10)
- Brashler, Janet G. (Grand Valley State University) - see also Dunham, Sean B. (14)
- Burke, Adrian (SUNY-Albany) - see Abel, Timothy (3)
- Bush, Leslie L. (Indiana University) - **Preliminary Data on Late Woodland and Late Prehistoric Plant Procurement Strategies in Southern Indiana** - This paper compiles the limited data available for plant-related subsistence practices in south-central Indiana during Late Woodland and Late Prehistoric times. Botanical remains from

Newtown, Allison-LaMotte, Albee and Oliver phase sites are examined. Comparison with data from adjacent areas suggests that, while inhabitants of south-central Indiana participated in many of the broader temporal trends seen in the Eastern Woodlands, they also engaged in practices unique to the area. In addition to a transition from native crop horticulture to farming practices based on corn, the Late Woodland and Late Prehistoric periods in this area see a decline in the archaeological visibility (and perhaps also actual use) of nut resources and cucurbits and an increase in the intensity of agriculture. (9)

Cantin, Mark (Indiana State University) - see Stafford, C. Russell (2)

Capellini, Terence D. (Kent State University) - **Comparison of the Utilization of White-tailed Deer (*Odocoileus virginianus*) from Two Ohio Archaeological Sites** - Two archaeological white-tailed deer (*Odocoileus virginianus*) assemblages, Philo II and White Rocks Cave, are examined to discern differences in the utilization of this species between villages and more temporary upland peripheral locations. Three factors - skeletal part representation, economic utility (a utility index), and bone modification (butchery patterns) - are analyzed. In terms of economic anatomical utility, deer utilization at Philo II, a known Fort Ancient village, may resemble a "reverse" strategy, depicted by the high recovery of low utility elements and low recovery of high utility elements. At White Rocks Cave, a pene-contemporaneous terminal Late Woodland/Late Prehistoric rockshelter and possible hunting/processing station, rough equivalence in the representation of all skeletal elements (of varying utility) was discovered. The cultural processing and transport of deer elements at/to the Philo II site may be responsible for the observed "reverse utility strategy." However, natural processes, such as carnivore ravaging, can not be ruled out. Whitetailed deer at White Rocks Cave seemed to be processed whole and quite extensively for many resources including bones as raw materials. These two assemblages (and their differences) are then discussed as possible characteristics of lowland (permanent village) and upland (temporary station) sites for the temporal period. (11)

Carr, Christopher (Arizona State University) - **An Overview of Some Essential World View Themes and Specific Beliefs Expressed in Ohio Hopewell Art and Burial Practices** - Fundamental world view themes and some specific beliefs of the religion of Ohio Hopewell peoples are revealed by the patterned formal content and material properties of their artwork, and the spatial arrangement and content of certain of their burials. Some but not all of these religious ideas were

also essential to historic Native Americans of the Woodlands and Plains. Six ideas overviewed here include: the three-layered universe, the four cardinal and four semicardinal directions, the cosmos as a spinning circle, the duality of Light and Darkness, ghost barriers of water, and the nature of the soul and soul-flight. (8)

Christensen, Bonnie L. (Mississippi Valley Archaeology Center) - **Parkaeology: Precollegiate Public Archaeology in an Urban Setting** - The Parkaeology Program is a cooperative venture between Mississippi Valley Archaeology Center, the City of La Crosse Park and Recreation Department and the La Crosse School District. Advantages for students participating are: 1) introducing them to the area's rich cultural heritage, and 2) involving students in archaeology by having them do supervised shovel testing in city parks. Information gathered is helpful in park management and development and contributes to the regional archaeology database. This ongoing program has surveyed five parks in three years. (3)

Christensen, Bonnie L. (Mississippi Valley Archaeology Center) - **Meeting: Archaeology and Public Education** - open to all (5)

Christensen, Bonnie L. (Mississippi Valley Archaeology Center) - **Meeting: SAA Educational Network Coordinators** (4)

Clay, R. Berle (Cultural Resource Analysts, Inc.) - see Cowan, Frank L. (8)

Cleland, Charles E. (Michigan State University) - see Dunham, Sean B. (14)

Cochran, Donald R. & Beth K. McCord (Ball State University) - **The Mounds and Enclosures of East Central Indiana: Ongoing Research and Other Frustrations** - A decade of research with the Early-Middle Woodland mounds and enclosures of east central Indiana has produced a working model of contemporary sites organized in an intentional ceremonial landscape. Recent research has revealed data that contradicts previously published interpretations of regional sites and requires updating of the regional model. This paper presents our current assessment of these sites and our frustrations with framing them in Midwestern terminology. (8)

Cochran, Donald R. (Ball State University) - see also McCord, Beth K. (9)

Conrad, Lawrence A. (Western Illinois University) - see Pelanck, Kathy A. (14)

Coon, Matthew S. (Purdue) - see Helmkamp, R. Criss (8)

Cowan, Frank L. (Cincinnati Museum Center) and R. Berle Clay (Cultural Resource Analysts, Inc.) - **Ground-Truthing Magnetometry Data at an Ohio Hopewell Site** - Investigators of large sites need rapidly acquired and reliable clues to the spatial structure of subsurface archaeological deposits prior to excavation. The imminent destruction of an 80-acre portion of the Stubbs Earthworks site, a large Hopewell geometric earthwork complex in southwestern Ohio, provided both an immediate need for speedy and robust predictions and an unusually large-scale test of modern remote sensing capabilities. Initial investigations combined a two-acre fluxgate gradiometer (magnetometry) survey with an intensive program of "ground-truthing" to gain a baseline understanding of the archaeological "meaning" of magnetometry signatures within the site. Subsequent, more extensive magnetometry surveys provided a basis for narrowing the focus of excavations. This paper addresses the utility of magnetometry surveys for predicting the location of significant archaeological deposits within a very large site. (8)

Dancey, William S., & Tori Saneda (Ohio State University) - **The Late Woodland to Late Prehistoric Transition in the Middle Ohio Valley as Viewed From Central Ohio** - In much of the Middle Ohio Valley the transition from the Late Woodland to the Late Prehistoric took place between A.D. 800 and A.D. 1000. In some areas it is represented by a change from the Newtown to the Fort Ancient culture historical units. In southern Ohio, this is the period of the Intrusive Mound culture. Older explanations of the change have included both intrusion and in situ development. Subsequent, anthropologically oriented, explanations have suggested an evolutionary progression of increasingly effective risk management within local traditions. Recent discoveries have led some observers to argue for political destabilization resulting from the introduction of the bow-and-arrow as a major factor in the transition. Others have revived the intrusion argument and claim that a southward population movement out of the eastern Great Lakes was instrumental in the transition. While often overshadowed by the problem of the Middle to Late Woodland transition, this brief period is no less important in understanding culture change in the eastern Midwest. The purpose of the present paper is to review past and present explanations of this significant time and to evaluate them on the basis of the archaeological record of central Ohio. (11)

Drooker, Penelope (Harvard University) - **Workshop: Midwest**

**Protohistoric Ceramics** - The late prehistoric/early historic period (16th to early 18th centuries) was a time of movement and change in the upper Great Lake and upper Mississippi and Ohio valleys. This appears to be reflected in ceramic assemblages from many sites, with exotic sherds and attributes frequently in evidence. Two problems have arisen in attempts to trace interaction patterns: 1) many regional ceramic types from this period have not been extensively published, and 2) for quite a few areas, fine-grained chronologies are only just being worked out. In order to further research along these lines, this preconference workshop is planned as an opportunity for people to examine and compare sherds and vessels firsthand. There will be table space for display plus access to a microscope and digital camera. (1)

Dunham, Sean B. (Great Lakes Research Associates, Inc.), Janet G. Brashler (Grand Valley State University), & Charles E. Cleland (Michigan State University) - **Cobbles, Cairns, and Manitous: An Examination of the Use of Stone in Native American Landscapes** - Enigmatic cobble piles and walls have elicited a variety of interpretations throughout the Great Lakes region, e.g., astronomical calendars, henge monuments, and burial mounds. While most of these features reflect early historic Euroamerican agricultural practices or natural phenomena, certain of the sites can be attributed to prehistoric and historic Native American land use. Both archaeological and historical sources have indicated a variety of possible interpretations for such features, including burial cairns, votive precincts, and the byproduct of agricultural field clearing. This paper will present a discussion of these stone features in the Upper Great Lakes from a variety of sources, including ethnographic, ethnohistorical, and archaeological. (14)

Dunham, Sean B. (Great Lakes Research Associates Inc.) - see also Hambacher, Michael J. (10)

Emerson, Thomas E. (University of Illinois - ITARP) - see Titelbaum, Anne R. (11)

Foor, Charles W. (University of Illinois - ITARP) - **Benefits and Problems of ITARP's Use of GIS** - This paper discusses tangible benefits and potential problems associated with using GIS technology on large Phase I archaeological survey projects, including use of such GIS processes as multivariate thematic overlay, orthophoto analysis, historic map source analysis, accurate calculation of areas surveyed and sites found, and

accurate assessment of impact to archaeological sites within project areas. Examples are taken from recently completed and ongoing ITARP survey projects which utilize GIS and GPS capabilities. GPS and total station field data, Department of Transportation engineering CAD data, USGS digital data, and various paper map and image data sources are combined to build an accurate and complete picture of the physical and cultural factors located within a project area and the surrounding region. The paper will present an overview of problematic concerns encountered during the data development and analysis processes of various ITARP projects. Advantages of using GIS/GPS technology for time and cost savings in large complex survey investigations will also be discussed. Finally, the paper will seek to stimulate interactions and discourse between those now using GIS/GPS in archaeological research and to involve newcomers interested in learning how the technology may aid their research programs. (3)

Garniewicz, Rexford C. (Indiana University) - **Patterns of Oliver Phase Faunal Exploitation** - Faunal remains from six Oliver phase sites in south-central Indiana have been analyzed by the author and a summary of available data is provided. Variations in seasonality and preservation may be responsible for the appearance of some assemblages as focused on particular species while other sites have much more diverse assemblages. Particular attention is paid to these variables when comparing Oliver phase remains and contrasting them with interpretations of animal exploitation by other late prehistoric groups in the region. (9)

Goatley, Daniel B. (Center for American Archeology), David J. Nolan (Illinois Transportation Archaeological Research Program), & Sarah J. Studenmund (Illinois Transportation Archaeological Research Program) - **An Assessment of Current Archaeological Research in the Uplands of West-Central Illinois** - During the past decade the CAA has located, tested and excavated numerous sites in buried contexts in upland tributary drainages of the Mississippi and Illinois Rivers. The occupations found in these sites range in age from at least the early Holocene Early Archaic to the Late Archaic period. This paper will examine distributions of these occupations and their settings on the landscape, site formation models, range of variability in the lithic assemblages, and spatial organization within these sites. We will also review the research potential of these sites for Archaic period settlement studies in the Midwest. (2)

Graham, Amy (Illinois Transportation Archaeological Research Project) - see Studenmund, Sarah (2)

Grauer, Anne - see Porubcan, Paula J. (2)

Greber, N'omi B. (Cleveland Museum of Natural History) - **From Simple to Complex: the Architectural Design of Strata Found in Ohio Hopewell Enclosure Walls** - In the last decade field work has added much information on the previously understudied interior structure of the many walls that defined the great enclosures that were a major part of the Ohio Hopewell planned landscape. The most elaborate design found to date in the Central Scioto region comes from part of the High Bank Earthwork located southeast of Chillicothe. The results of geophysical remote sensing surveys and small scale excavation at the site are compared with information from other walls at the site and with other sites both in the region and in other river valleys. (8)

Greene, Tammy (University of Indianapolis) - see Schmidt, Christopher W. (9)

Hambacher, Michael J. & Sean B. Dunham (Great Lakes Research Associates Inc.) - **The US-31 Highway Project: Recent Investigations at the Spoonville Site (200T1) and Other Middle and Late Woodland Occupations in the Lower Grand River Valley, Ottawa County, Michigan** - During 1995 and 1996 Phase I archaeological survey was conducted along several proposed highway corridor alternates associated with planned expansion of US-31 in Ouaws County, Michigan. One of the proposed corridor alternates provided an opportunity to conduct limited investigations across a previously unexplored portion of the Spoonville site (200T 1), an important Middle Woodland mound complex and associated village site. Although limited in scope, the data derived from this investigation provides an informative contrast to the data recovered from the associated village site, which has been the focus of the previous investigations at the site. Information regarding the nature of the settlement pattern in the immediate vicinity of the Spoonville site was obtained as part of this study. In addition to the Phase I survey, limited Phase II testing was also conducted at two multi-component sites, Robbins Road (200T239) and Boom Road (200T240), which are located a short distance downstream from the Spoonville site. These investigations revealed the presence of occupations spanning the Middle and Late Woodland periods. This paper will summarize the results of this work and present

a review of the current understanding of die Middle Woodland in the Lower Grand River Valley. (10)

Havill, Lorena M. (Indiana University), Andrew A. White (Southern Illinois University), & Kimmarrie Murphy (Indiana University) - **Bioarchaeological Analysis of Four Late Woodland Mortuary Populations from West Central Indiana** - The definition of Albee in west central Indiana is based largely upon mortuary sites. Skeletal and dental analyses of human remains from the Shaffer, Bucci, Shepherd and Albee Mound sites reveal considerable variability. Artifacts associated with burials from these sites indicate that Albee may encompass two distinct sequential traditions. Variability in nutritional indicators suggests differences in diet between early and later populations. Pathologies commonly related to increases in the use of maize, such as dental caries and cribra orbitalia, are more frequent at Shepherd and Shaffer than at Bucci or Albee Mound. Together, these sites attest to the diversity of lifeway encompassed in the Late Woodland. (11)

Helmkamp, R. Criss & Matthew S. Coon (Purdue) - **Archaeological Investigations at the West Bedford Site, 1932 to 1998** - The site contains extensive Middle Woodland and historic period components. We will focus on the Middle Woodland component and would be pleased to be included in the session on Middle Woodland if you and Bill Mangold feel that is appropriate. (8)

Henning, Dale P. (Illinois State Museum Society) - see Hollinger, R. Eric (14)

Hensel, Ken - see Loebel, Thomas J. (16)

Hill, Matthew G. (University of Wisconsin-Madison) - see Loebel, Thomas J. (16)

Hoard, Robert J., and Michael C. Meinkoth (Missouri Department of Transportation) - **Ground Penetrating Radar on Flood Plain Sites** - A Ground Penetrating Radar (GPR) survey was carried out on buried Missouri River flood plain sites in the state of Missouri. This technique is well suited for detecting solid targets such as rock in dry sediments such as silt or sand. Initial results show that this technique also is useful in determining the location and depth of clay-rich deposits common in a flood plain setting. However, clay also has a tendency to reduce the ability of GPR to detect features of archaeological interest in or below clay-rich horizons. Refinements in GRP detection techniques, or use in

conjunction with other techniques, provides promise for nondestructive detection of buried archaeological features. (12)

Holley, George R. - see Ringberg, Jennifer E. (14)

Hollinger, R. Eric (University of Illinois, Urbana) & Dale P. Henning (Illinois State Museum Society) - **The Cultural Context of Oneota Incised Stone Art** - Large numbers of incised artifacts representing portable art have been recovered from late Prehistoric sites throughout the midcontinent. These objects often take the form of pipestone tablets engraved with images of bison, birds, humans, water monsters and thunderbirds. As more information about such artifacts is becoming available, we are gaining greater understanding of the temporal, religious, and social context in which these items existed and the possible functions they may have served. (14)

Hollinger, R. Eric (University of Illinois, Urbana) - **Late Prehistoric Oneota Agricultural Practices in Southeastern Iowa** - Paleoethnobotanical analysis of material from recent excavations in southeastern Iowa has produced evidence of the intensity of Oneota agriculture just prior to European contact in the Midwest (ca. AD 1580-1640). The study shows that North American domesticates such as knotweed and little barley continued to be cultivated along with corn, beans and squash during this period. These data support the hypothesis that Oneota agriculture was both intensive and diverse and may have been increasing in intensity through time. (14)

Hollinger, R. Eric (University of Illinois, Urbana) - see also Pelanck, Kathy A. (14)

James, Wesley (Illinois Transportation Archaeological Research Project) - see Studenmund, Sarah (2)

Jeske, Robert J. (University of Wisconsin-Milwaukee) - **Middle Woodland in Southeast Wisconsin** - This paper presents a brief overview of the state of knowledge concerning Middle Woodland archaeology in southeastern Wisconsin. Data from historical documents, state site files and cultural materials present in the UWM collections will be used to illustrate subsistence, technology, mortuary, and social organization of groups living in southeastern Wisconsin ca. 2100-1500 BP. Although preliminary in scope, it is suggested that a core/periphery perspective may be an appropriate way of understanding social interactions between Wisconsin and more southern groups. (10)

Johnson, William C. (Michael Baker Jr., Inc.) - **Chautauqua Cord-Marked, McFate Incised and Conemaugh Cord-Impressed Ceramic Types and the Terminal Late Woodland Period McFate Phase of the Glaciated Allegheny Plateau of Northwestern Pennsylvania** - Chautauqua Cord-Marked was the exclusive ceramic type manufactured during the middle portion of the Late Woodland period on the glaciated Allegheny Plateau of northwestern Pennsylvania. Shell-tempered Chautauqua Cord-Marked was an in situ development from the earlier, igneous rock-tempered and undecorated Mahoning Cord-Marked type, ca. A.D. 1150-1200. The McFate Incised type represents the grafting of mid- to late fifteenth century decorative motifs and low to medium high collars, documented at Proto-Erie sites along the eastern Lake Erie Plain, onto indigenous Chautauqua Cord-Marked vessels. McFate Incised rapidly increased in popularity at the expense of Chautauqua Cord-Marked ware during the early sixteenth century. The original conservative decorative motifs were rapidly elaborated as the native potters incorporated collars and incised decoration into their pottery decorating repertoire. The origin of the pseudo cord-impressed decorative technique used to apply motifs found on the McFate Incised ceramics to the companion Conemaugh Cord-Impressed vessels is not as obvious. The signature of this population continuity during the Late Woodland is the presence of high frequencies of final S-twist cordage impressions on the surface of shell-tempered cord-marked sherds from the glaciated Allegheny Plateau and adjacent Lake Plain. The climatic deterioration and shortened frost-free day growing season associated with the onset of the Neo-Boreal climatic episode, precipitated the general abandonment of the glaciated Allegheny Plateau in the mid-sixteenth century. The McFate phase people appear to have sought succor with local Late Woodland/Late Prehistoric horticulturists around the periphery of the glaciated Plateau. The diaspora of these McFate refugees is marked by the presence of McFate Incised and Conemaugh Cord-Impressed ceramics in rockshelters and on ephemeral open-air sites in the Clarion River and Tionesta Creek basins and on terminal late prehistoric sites of the Bell/Kalgren phase at the headwaters of the West Branch of the Susquehanna River and, particularly, of the Johnston phase in the Kikskiminetas River basin in southwestern Pennsylvania. Smaller quantities of McFate Incised and Chautauqua Cord-Marked ware are also reported from Whittlesey and Genesee Valley Seneca sites. It is not certain, however, whether these latter vessels represent evidence of the late abandonment of the glaciated Plateau or slightly earlier interactions. (6)

Jones, James R., III (Indiana Division of Historic Preservation and Archaeology) - **Evidence for Late Prehistoric and Early Historic Native American Cultural Connections** - Major historically documented Native American occupations in Indiana include Miamis, Weas, Piankashaws, Potawatomis, Kickapoos, Mascoutens, Shawnees, and Delawares. In the archaeological literature, various late prehistoric groups have been posed, in particular, as ancestral to the Miamis, Potawatomis, and Shawnees. This paper investigates the empirical evidence for cultural connections from late prehistoric cultures to historical ones, and poses questions about protohistoric groups in Indiana. (9)

Koralewski, Jason M. (University of Toledo) - **Ceramic Designs and Socio-Political Development Among Sandusky Tradition Populations: Towards an Understanding of Cultural Self Identification in the Lower Great Lakes** - Almost two decades of research on sites within the Green Creek Settlement Area (formerly Gibbs Settlement Area) in northcentral Ohio has demonstrated a rapid shift in prehistoric ceramic styles at two distinct points in time. The first shift ca. 1250 A.D. involves a movement from cordmarked and tool-impressed ceramics developing into distinctive Parker Festooned hallmark varieties. A stable development of various Parker Festooned motifs is succeeded c. 1450 A.D. by dramatic changes in vessel morphology, temper and design. These two distinct upheavals in ceramic trends in conjunction with new understandings of tribalization and confederation among Sandusky tradition populations may suggest that changes in ceramic styles may parallel socio-political developments within these populations through time. This paper will utilize a conjunctive approach drawing together ethnohistoric, linguistic and ceramic data in an effort to support this position of cultural and artifactual co-development. (6)

 Kuehn, Steven R. - (State Historical Society of Wisconsin) - **High and Dry: Crow Hollow, A Middle Archaic Base Camp on the Kickapoo River Floodplain** - Discovered in 1996, the Crow Hollow site was initially identified as a diffuse lithic scatter of undetermined temporal affiliation. Subsequent test excavations revealed an essentially intact Middle Archaic occupation, associated with a buried Holocene alluvial terrace. The archaeological materials recovered provide significant new information on Middle Archaic lifeways in the region, including subsistence and settlement patterns, climatic conditions, and lithic technology and resource utilization. The artifact assemblage is

N 4300 & Y 300 Melancon points 28  
AB - S. 1366  
mostly in E

compared and contrasted with more well-defined Middle Archaic components from the Midwest. Finally, and perhaps most importantly, the evidence from the Crow Hollow site, in conjunction with data from other recently-excavated sites in southern Wisconsin, provides significant information which helps to fill the perceived Early-Middle Archaic "gap" in this region. (2)

Kullen, Douglas (Allied Archeology) - **On the Edge of the Havana Tradition: Middle Woodland Lifeways in the Chicago Hinterland, as seen from the Fiddyment Creek Site, Will County, Illinois** - The Fiddyment Creek site is a relatively large, multiple-component camp, portions of which date to the terminal Middle Woodland Period. ~~Phase II and Phase III hand excavations of 163m<sup>2</sup> and several hundred shovel-test units in 1995 and 1996 determined that the site is a series of fairly~~ discrete, spatially-related activity areas, which were occupied on a relatively short-term basis over the course of many years. ~~The activity areas consist of domestic camps, flintknapping workshops, and residential midden deposits which are undisturbed by cultivation. Analysis of the lithic reduction sequence suggests that three size categories of bifacial stone tools were being manufactured contemporaneously - large knives of the Snyders type, dart points--of the Steuben type, and arrow points of several configurations. The high degree of variation in arrow point morphology suggests an early experimental phase in bow-and-arrow technology. Ongoing analysis is being directed toward the reconstruction of camp design and layout. Mapping of refitted sherds from reconstructible vessels and of refitted, fire-cracked rocks has enabled a reconstruction of specific activity areas in the general absence of preserved features. Carbonized residues from a reconstructed Havana bar-stamped pot yielded a solid Middle Woodland AMS date. Sets of gaming pieces were recovered in association with a bird effigy and a Casper-the-Ghost figurine. A bone bed comprised of calcined deer bone was documented. The site produced scrapers, drills, flake tools, grinding stones, hammerstones, and bifaces. Large quantities of chipping debris, including exotic raw materials, were also recovered. The Fiddyment Creek site is one of very few extant, undisturbed domestic sites to be investigated in northeast Illinois, but it appears to be representative of single-family, cold-season Middle-Late Woodland camps which have been found nestled in sheltered locations within the dissected bluffs adjacent to major stream valleys in the region. (10)~~

Landefeld, Carol (Landefeld Communications) - **Comparison of Two Late Pleistocene Great Lakes Archaeological Sites** - A site-to-site

comparison of two well-dated Midwestern Paleoindian sites, Sheriden Cave and the Hiscock Site, reveals important similarities and differences. Tool assemblage, faunal remains, botanical materials, geology, and site formation processes all contribute to our understanding of the diversity of environments and human adaptations at the Pleistocene/Holocene transition. (16)

Lepper, Bradley T. (Ohio Historical Society), Richard W. Yerkes (Ohio State University), & William H. Pickard (Ohio Historical Society) - **Prehistoric Flint Procurement Strategies at Flint Ridge, Licking County, Ohio** - The Flint Ridge quarry was utilized for over 10,000 years, but recent investigations offer new views on how flint procurement changed over time. Paleoindian and Archaic foragers obtained Flint Ridge flint through an embedded procurement system. Resharpened "exotic" Archaic points were discarded at Flint Ridge as foragers visited the quarry to retool. During the Early and Middle Woodland periods a direct procurement strategy was employed, as shown by the extensive debris from the manufacture of bifaces, bladelets and bladelet cores at the quarry and the construction of ritual structures nearby. The Late Woodland and Late Prehistoric periods are marked by a return to an embedded procurement system, but the decline in the use of Flint Ridge flint at this time may also be the result of a conscious avoidance of "Hopewell flint." (2)

Loebel, Thomas J. (University of Illinois, Chicago), Daniel S. Amick (Loyola University of Chicago), Matthew G. Hill (University of Wisconsin-Madison), Robert F. Boszhardt (Mississippi Valley Archaeology Center), & Ken Hensel - **Early Paleoindian Lithic Technology in Wisconsin: Evidence From Two New Sites** - Two recently documented surface collections made from single component sites in the driftless area of western Wisconsin have produced assemblages of materials diagnostic of early Paleoindian technology. The Gail Stone site, located in Trempealeau County, has produced dozens of tools including fluted point preforms and scrapers made of a distinct variety of locally available Cochrane chert, while the Morrow-Hensel site, located in Pierce County has produced hundreds of tools including fluted points, preforms, scrapers, and debitage made almost exclusively of Hixton silicified sandstone. Preliminary analysis of these collections indicate distinct patterns in raw material reduction strategies and procurement. Information from these sites have the potential to provide valuable insights into the technology and site distribution of fluted point using groups within the Upper Midwest. (16)

Lovis, William A. (Michigan State University) - **Clay Effigy**

**Representations of the Bear and Mishipishu(?) from the Late Woodland Johnson Site, Cheboygan County, Michigan**

A small series of intact and fragmentary clay animal effigies were recovered from the Late Woodland Johnson site, Cheboygan County, Michigan. Bear representations are evident. Several fragments appear to represent missipisiw. While portable mnemonic devices are known for later ritual activities associated with the Midewiwin, or the Grand Medicine Society, there are no known local Odawa or Ojibwa traditions of such devices in clay; they are manufactured of organic materials such as birchbark. Larger scale representative devices are produced as petroglyphs or pictographs. Further, the presence of iconographically similar representations of postcontact period deities at a middle Late Woodland time depth suggests earlier origins to certain Algonquin cosmologies, and potentially the ritual activities associated with them. This is consistent with other archaeological data from the Great Lakes. (3)

Lurie, Rochelle (Midwest Archaeological Research Service, Inc.), Daniel Amick (Loyola University of Chicago), & Sara Pfannkuche (University of Illinois - Chicago) - **The 1997-1998 Prehistoric and Historic Investigations at Macktown** - The 1997 and 1998 archaeological field school investigations at the Macktown National Register site (11-Wo-237), part of a long term research project on landscape use through time, focused on sampling a large Early to Late Woodland shell midden at the confluence of Rock and Pecatonica Rivers and on locating the remains of one of the earliest nineteenth century structures just to the south, Stephen Mack's double log cabin. The shell midden which extends along the river for some 60 meters is over a meter thick in some places. Intact deposits of lithic, ceramic, floral, and faunal debris have been recovered from the midden itself and from associated habitation areas. A large rectangular feature, probably a root cellar, was found in a poison ivy-covered area where the reconstructed plat of Pecatonica (Macktown) indicates Mack's cabin was built. Architectural, household, personal, and food items from this cellar suggest an 1830 to 1850 date for occupation. (8)

Mangold, William L. (Indiana Department of Natural Resources) -

**Symposium: Investigating the Final Millennium of Indiana**

**Prehistory: A.D. 700 to 1700** - The last one thousand years of the Indiana prehistory encompassed the terminal Late Woodland and the Late Prehistoric periods. During these ten centuries, prehistoric

societies from the central Till Plain in the north to the Ohio River valley in the south developed sedentary lifeways based on the cultivation of maize and other crops. The pace and intensity of local developments varied considerably within this region. In the forks of White River and the southeastern Lake Michigan drainage basin, tribal-level (Upper Mississippian) societies succeeded Late Woodland horticulturalists after A.D. 1000. At the same time, chiefdom-level (Middle Mississippian) societies dominated the Wabash Lowlands of southwestern Indiana. By ca. A.D. 1500 all but a few of these contemporary cultural trajectories terminated as the result of either out-migration or assimilation with societies living in adjacent 'core' areas. At the time of Euroamerican contact, much of Indiana was inhabited by tribal groups that are not directly traceable to these antecedent cultural complexes. This symposium will present the results of recent archaeological research on the diverse cultural developments and complex cultural relationships that characterized this final chapter of Indiana prehistory. (10)

Mangold, William L. (Indiana Department of Natural Resources) - **Ernest W. Young and the Goodall Site (12Le9), LaPorte County, Indiana** - The artifacts from the Goodall site gathered by Ernest W. Young of South Bend over a period of almost fifty years comprise one of largest and oldest collections known to exist from the site. His record keeping was meticulous for the time period, providing day by day inventories of collecting activities, maps and personal insights. The data contained within the collection is important to the interpretation of current findings at the Goodall site (which remains as one of the least understood of the major Middle Woodland sites in Indiana) and conceptualizing Middle Woodland in the region of northwestern Indiana and western Michigan. Areas of ceramics and lithics will be discussed and comparisons will be made with others from the Midwest, especially those from the Illinois River Valley and western Michigan. (10)

Mansberger, Floyd (Fever River Research) & Christopher Stratton (Fever River Research) - **Stuck in the Mud of Northern Illinois: The Archaeology of Canal Boats along the Illinois and Michigan Canal, Grundy County, Illinois** - During the late summer of 1996, an unusually extreme thunderstorm deposited over 15" of rainfall on Chicago's southwestern suburbs within a 24-hour period of time. A result of this torrential downpour was the destruction of a dam across the Du Page River at Channahon which supplies a large section of the Illinois and Michigan Canal with water. The unexpected result of the dewatering of the canal was the exposure of 7 canal boat hulls within a section of canal known as the Morris Wide Water. Archaeological

investigations at the Morris Wide Water have resulted in the detailed documentation of seven nineteenth century canal boats and have contributed to our understanding of these nineteenth century maritime resources. (15)

Marshall, James A. (independent) - **Pilgrimage Stations in Ohio** - In his book, *Hidden Cities* (on page 55), Dr. Roger G. Kennedy with Dr. Bradley Lepper advances a hypothesis that certain Ohio Hopewell earthworks are stations on a prehistoric pilgrimage route bearing resemblance to the Christian practice of Stations of the Cross. This researcher surveyed and mapped these sites in the 1960s and 1970s and has unpublished data that indicate that fourteen or so of these works, each one to five or more miles apart, were together designed, laid out, and constructed with such a singular purpose in mind. (8)

Martin, Andrew V. (Ball State University) - **Identifying Non-Extant Rockshelters** - Rockshelters are not static features of the landscape; they change, sometimes substantially, over time. What may have been a utilized rockshelter in the past may now be nothing more than a cliff face or some other currently non-discernible landmark, one which could be easily overlooked during conventional archaeological surveys. Furthermore, in looking at extant rockshelter sites, it is seen that some are actually examples of partially collapsed or filled-in rockshelters, where the areas of rock fall and/or sediment fill may not be investigated. It seems likely that the oldest archaeological deposits within these sites would be beneath the rock fall or within the sediment fill, therefore warranting identification and examination of those areas. This paper addresses this issue by focusing on a project area within south-central Indiana initially chosen for its abundance of rockshelter sites. In addition to expanding the inventory of culturally utilized rockshelters, several potential non-extant rockshelter sites were recorded as well. The recording process involved documenting such things as bedrock formation; disturbances, both human and natural; sedimentation, including extent of rock fall; and detailed locational information. Ultimately, by recording rockshelters as dynamic features of the landscape and identifying areas where potentially undisturbed, buried archaeological deposits may occur, it is hoped that a better understanding of the prehistory of this region is reached. (3)

Martin, Terrance J. (Illinois State Museum) - see Meekhof, Erin (10)

McCord, Beth Kolbe, & Donald R. Cochran (Ball State University) - **The Morell-Sheets Site: Refining the Definition of the Albee Phase** - The

Morell-Sheets site (12My87) represents the most thoroughly documented excavation of an Albee Phase habitation. Radiocarbon dates document a 400-year span of seasonal occupation. The range of attributes associated with Albee Phase ceramics are defined from the ceramic assemblage. Although Jack's Reef points are usually considered diagnostic of the Albee Phase, the lithic assemblage from Morell-Sheets contained only triangular points. Subsistence remains demonstrate a reliance on horticulture supplemented with hunting and gathering. These data allow for a refined definition of the Albee Phase. (9)

McCord, Beth Kolbe (Ball State University) - see also Cochran, Donald R. (8)

McCullough, Robert G. (Southern Illinois University & Indiana Division of Historic Preservation and Archaeology) - **Cultural Interaction Along the West Fork of the White River During the Late Prehistoric Period** - The West Fork of the White River during the Late Prehistoric was characterized by the presence of a variety of archaeological complexes that differ in material culture, site location and structure, and chronology. While Oliver Phase settlements dominate the area, Huber, Western Basin, Vincennes-Mississippian, and an anomalous upper Mississippian settlement are also present. Earlier attempts to explain this diversity were limited by provisional data and a lack of reliable C-14 dates. This paper presents an overview of these diverse cultures, discusses newly acquired C-14 dates, and reevaluates possible mechanisms underlying the variability along the West Fork of the White River. (9)

McPherron, Alan (University of Pittsburgh) - **Re-locating old excavation units at the Juntunen site using GPR** - The 1960-61 excavation units at Juntunen (20-Mk-1, Bois Blanc Island, Straits of Mackinac) were not fixed geographically. Several attempts to do this were made in 1996 and 1997. Ground-penetrating radar, with the assistance of the Institute for Minnesota Archaeology, finally provided the solution, designed to facilitate any future investigations at the site. (12)

Meekhof, Erin (Western Michigan University) & Terrance I. Martin (Illinois State Museum) - **Middle Woodland Animal Exploitation in the Middle Grand River Valley. Michigan: Impressions from the Prison Farm Site (20IA58)** - Following 35 years of avocational surface collecting, Grand Valley State University initiated systematic investigations at the Prison Farm site in 1996 and 1997. Excavations at the Ionia, County. Michigan site confirmed that the principal

component is a Middle Woodland occupation. Accompanying assemblages of Havana-like ceramics and lithic artifacts are surprisingly well-preserved animal remains. An analysis of approximately 15,000 specimens from the surface collection and the 1996 excavations has been completed, and these materials provide some preliminary impressions of Middle Woodland terrestrial and aquatic animal exploitation practices that can be compared to other Middle Woodland sites in the lower Grand River Valley end to the Schultz site in the Saginaw Valley. (10)

Meinkoth, Michael C. (Missouri Department of Transportation) - see Hoard, Robert J. (12)

Messenger, Phyllis (Hamline University) - **The Power of Place: Uncovering the Past Through Community Partnerships** - In the Twin Cities metro area of Minnesota, archaeologists and communities are working together to discover stories from the 19th-century European-American settlement of the area. Through partnerships with a city and school district, a county historical society, and a regional park system, Hamline University has developed field programs and summer day-camps involving students, senior citizens, and the public. This presentation will discuss the process of balancing research and educational needs. And it will give examples of the magnetic power of place in drawing out a community's stories long hidden in attics, photo albums, and memories, as well as underground. (3)

Mocas, Stephen T. (Indiana State University) - see Stafford, C. Russell (2)

Morris, Larry L. (Archaeological Society of Ohio, Sugarcreek Valley Chapter), Mark F. Seeman (Kent State University), & Garry L. Summers (Archaeological Society of Ohio, Sugarcreek Valley Chapter) - **Fluted Points and Bifaces from the Nobles Pond Site** - Nobles Pond (33ST357) is a multicomponent site in Stark County, Ohio. The site has a large early Paleoindian occupation consisting of at least ten loci distributed across 22 acres. This paper will examine the biface industry of the Paleoindian component as it relates to previous discussions of distinct lithic traditions in the region, specifically Clovis and Gainey. All stages of fluted point manufacture represented at Nobles will be used to address this issue. (16)

Munson, Cheryl Ann (Indiana University) - see Pollack, David (9)

Murphy, Kimmarrrie (Indiana University) - see Havill, Lorena M. (11)

Nienow, Jeremy L. (Center of the Ecological Management of Military Land, Fort McCoy) & Roland L. Rodell (Mississippi Valley Archaeology Center) - **Perrot or Linctot? Investigations of a French Era Site in the Northern Mississippi Valley** - The 1887 discovery of European remains two kilometers west of Trempealeau, Wisconsin, in the northern Mississippi Valley, fostered wide-spread speculation that the 1685-86 winter camp of the French explorer and diplomat Nicolas Perrot had been found. A series of brief archaeological investigations between 1887 and 1912 confirmed a French presence at the site. The investigators came to realize, however, that the most conclusive evidence identified an occupation that most likely was of the René Linctot expedition in 1731 and not that of Perrot. Despite this information, the site has become known as "Perrot's Post" (47Tr30). Recent excavations of 47Tr30 by the Mississippi Valley Archaeology Center (The University of Wisconsin-La Crosse) have recovered French era artifacts from midden contexts, which include glass trade beads, gun-flints, lead shot, and a Jesuit ring. The diagnostic attributes of these finds and archival sources appear to reaffirm that 47Tr30 was Linctot's 18th century encampment, while evidence of Perrot's 1685-86 camp at this specific Trempealeau location remains, at best, only speculation. (15)

Nolan, David J. (Illinois Transportation Archaeological Research Program) - see Goatley, Daniel B. (2)

Pelanck, Kathy A (University of Illinois, Urbana), Lawrence A. Conrad (Western Illinois University), & R. Eric Hollinger (University of Illinois, Urbana) - **Application of Geophysical Prospecting at the Protohistoric Iliniwak Village Site, Clark County, Missouri** - In 1998 the University of Illinois-Urbana/Western Illinois University field school assisted the Missouri Dept. of Natural Resources in ongoing research into early contact between the French and Ilini in northeast Missouri (ca. 1640-1683). Efforts focused on conducting a large-scale resistivity survey of the site to identify the distribution and density of pit features and buildings and to delineate the community plan. Ground truthing (testing) of anomalies confirms the reliability of resistivity data as an indicator of subsurface features and has contributed to our knowledge of Ilini material culture and subsistence. (14)

Pfannkuche, Sara (University of Illinois - Chicago) - see Lurie, Rochelle (8)

Pickard, W. H. - see Lepper, B. T. (2)

Pollack, David (Kentucky Heritage Council) & Cheryl Ann Munson (Indiana University) - **The Angel to Caborn-Welborn Transition: Late Mississippian Developments in Southwestern Indiana, Northwestern Kentucky, and Southeastern Illinois** - Throughout much of the lower Ohio and central Mississippi valleys, the early fifteenth century is marked by collapse of regional Mississippian chiefdoms. As in other regions, the demise of the Angel chiefdom led to a decentralization of power. However, the Angel to Caborn-Welborn transition differs from other collapse situations in that it was not associated with wide population dispersal nor decreased intersocietal interaction. The archaeological record of the Angel to Caborn-Welborn transition points to regional population continuity, perpetuation of the subsistence economy and household material culture, and expanded interaction with distant Mississippian chiefdoms and more egalitarian tribal societies. (9)

Porubcan, Paula J. (Midwest Archaeological Research Services, Inc.) & Anne Grauer (Loyola University) - **Life and Death along the Fox: Investigations at the McGraw Farm Site** - The McGraw Farm Site, located along the Fox River in northeastern Illinois, is a multi-component, multi-use site spanning the Early Archaic through Late Woodland Periods. Phase III mitigation of the site in the fall of 1996 identified 39 subsurface cultural features including 16 pits, 4 hearths, 3 post molds, 1 smudge pit (containing a complete Point Sauble pot with an uncorrected C14 date of  $990 \pm 60$  BP), 7 pits containing probable cremated human remains, and 8 formal mortuary features containing a minimum of 31 individuals. Multiple mortuary treatments are present within single Late-Middle Archaic mortuary features (e.g., uncorrected C14 date of  $4690 \pm 50$  BP) including complete and partial cremations, bundle reburials, and primary inhumations. Only primary inhumations (extended and flexed) are represented within Late Woodland mortuary features (e.g., uncorrected C14 date of  $1060 \pm 60$  BP). (2)

Purtill, Matthew P. (Gray & Pape, Inc.) - **Concepts, Models, And Speculation: Preliminary Synthesis of Fall/Winter Fort Ancient Community Dynamics in the Middle Ohio River Valley** - Recent research regarding community organization (e.g., settlement patterns, subsistence strategies, technological organization) of middle to late Fort Ancient (AD 1250-1650) groups indicates that various segments of village populations relocated to small habitation sites on a seasonal basis. This paper adds to this research by discussing a newly discovered

late Fort Ancient fall/winter encampment along the Little Miami River, Ohio. Furthermore, this paper provides a synthesis of what is known and speculated regarding middle to late Fort Ancient community organization during the fall through winter months. This research draws heavily from (a) ethnohistoric analogy, (b) fall/winter camp sites, and (c) seasonal indicators at year-round villages. (11)

Ramseth, Adam (Luther College) & John P. Staeck (College of DuPage) - **GIS and the Late Woodland Effigy Mound Manifestation in Northeastern Iowa and Southwestern Wisconsin** - The Late Prehistoric Effigy Mound manifestation is examined with the assistance of GIS. Sites are plotted and examined for unifying physical or symbolic themes that may have helped to dictate selection of mound locations. The capabilities of ESRI's ArcView are employed to test for such themes and, subsequently, to help formulate a new hypothesis for the location of mound groups in this region. Throughout the capabilities and potential for GIS to assist with archaeological interpretation and hypotheses building are discussed and illustrated. (12)

Redmond, Brian G. (Cleveland Museum of Natural History) - **The Oliver Phase Occupation of the East Fork White River Valley in Southcentral Indiana** - Archaeological research since 1990 has revealed an extensive and intensive late prehistoric occupation of the East Fork White River valley of south-central Indiana. The material remains of this occupation most closely resemble Oliver phase assemblages originally documented in the upper West Fork valley to the north. Survey and test excavation projects conducted in the central East Fork valley have provided evidence for the occupation of small (ca. 0.7 ha), horticultural village settlements as well as seasonal habitations and extractive campsites. Villages were commonly situated on riverine terraces and consisted of circular arrangements of pit features, midden dumps, burials, and presumably house structures, all surrounding open, central plazas. Two of the most extensively excavated village settlements were enclosed by wooden post stockade defenses. Radiometric determinations for Oliver phase habitation sites point to no more than a two-century occupation of the East Fork valley between ca. AD 1250 and 1450. Settlement, subsistence, and material adaptations of these societies show affinities with more northerly Oliver phase inhabitants as well as with Anderson phase Fort Ancient societies located to the southeast. (9)

Redmond, Brian G., & Katharine C. Ruhl (Cleveland Museum of Natural History) - **Notched, Opposed, Plain, and Filleted: A New Look at**

**Whittlesey Ceramics** - Ever since the definition of the Whittlesey Focus, the study and classification of ceramics has been a primary objective of research on the late prehistoric inhabitants of northeast Ohio. Type-variety classifications of Whittlesey pottery have evolved from relatively simple to complex with a parallel expansion of comparative analyses to include ceramic developments in adjacent regions of the Northeast and Midwest. The present study involved the examination and recording of ceramic assemblages from six Whittlesey Tradition sites. Rimsherd samples used in the analysis were taken from both closed (pit feature) and more open (midden) contexts, and the morphological and stylistic attributes of individual rim sherds were recorded. The accumulated attribute data were compared within discrete (feature) contexts, between contexts at individual sites, and between site assemblages in order to evaluate the relative degrees of ceramic variability (or homogeneity) between Whittlesey archaeological contexts. Finally, the ceramic data were compared to existing typological classifications in order to evaluate the relative utility of each for addressing spatial and temporal questions related to the late prehistoric occupation of northeast Ohio and beyond. (6)

Redmond, Brian (Cleveland Museum of Natural History) - see also Tankersley, Kenneth (16)

Ringberg, Jennifer E. (University of Kansas, Lawrence) & George R. Holley (Southern Illinois University, Edwardsville) - **Terminal Mississippian Ceramics in Southwestern Illinois** - A study of three ceramic collections has led to a reexamination of the terminal Mississippian ceramic sequence in southwestern Illinois. One collection, the Suffer Collection, comprises 32 complete and near complete vessels presumably from mortuary contexts at the Cahokia site and curated at the Madison County Museum. The remaining collections derive from recent excavations in the environs of Monks Mound, directed by William I. Woods, and from Mississippian villages excavated along Silver Creek resulting from IDOT-funded mitigation of the Scoff Joint-Use Archaeological Project. These collections, when compared with the scant ceramic remains from domestic contexts and the abundant mortuary sample resulting from the FAI-270 Project in the American Bottom, afford a new perspective for the region. We recognize three strands: one connected to the prior Moorehead phase that is a devolution of those ceramic standards, another involving the mortuary vessels, and a third that represents a hybrid of northern and southern traditions. (11)

Rodell, Roland L. (Mississippi Valley Archaeology Center) - see Nienow, Jeremy L. (15)

Rovner, Irwin (Binary Analytical) - **Computer Imaging and Morphometric Analysis: How to Replace Arbitrary Typology with Measured Reality in Archaeology** - Computer-assisted morphometry, the measurement of morphological characteristics of objects, including size, shape and topography, can expand analytical capability, speed, and accuracy as well as effectively resolve many problems of artifact analysis, especially problems of classification and identification. Employed by J. Russ and I. Rovner in archaeology for more than a decade, morphometry has been used successfully in a broad range of archaeological artifact populations, from projectile points to plant microfossils. Unfortunately computer-based morphometry is not yet widely used, probably due to limited exposure and experience with the method. Morphometry is not conceptually complex or mysterious. Basic concepts and standard morphometric measurement are reviewed and applications in phytolith analysis are suggested. Software systems, available for today's personal computers, are truly inexpensive and accessible to virtually everyone. (12)

Rovner, Irwin (Binary Analytical) - **Why Not Phytoliths? Applications in Midwest Archaeology** - Large, well-preserved opal phytolith assemblages are virtually guaranteed in your site. Yet, the system is rarely employed unless failure of flotation or pollen demands last-resort analysis. Recent archaeological studies of phytoliths in the Central and Eastern U.S. provide robust, often unique, archaeobotanical data. This is especially true of specific, small-scale contexts including individual homes and yards, middens, pit features, animal teeth, and food remains on sherds. Time intervals are short--sometimes centuries, decades, or even years. Such specific behavior has been identified at several archaeological sites of historic and/or prehistoric age in the Eastern U.S. Such sensitivity to small-scale situations is not typically found, for instance, in pollen data. Phytolith evidence is therefore useful in studies of taphonomy, landscape history, and paleoethnobotany in a broad spectrum of Midwestern archaeological sites. (3)

Ruhl, Katharine C. (Cleveland Museum of Natural History) - see Redmond, Brian G. (6)

Saneda, Tori (Ohio State University) - see Dancey, William S. (11)

Sasso, Robert F. (University of Wisconsin-Parkside) - **Searching for the Sites of Ancient Agriculture in Southeastern Wisconsin 1997-1998** - Preliminary research into prehistoric and early historic Native American agricultural sites yielded an unexpectedly high number of agricultural sites noted in the historic literature within a seven-county area of southeastern Wisconsin. Field survey focusing on several areas of Waukesha County resulted in the relocation of several corn hill sites and the identification of three previously unreported extant garden bed sites. Two sites, the Carroll College Corn Hills and the Buechel Garden Beds, were subjected to evaluatory testing. The results of investigations demonstrate that while many such sites have been destroyed or seriously damaged over the 160 years of Euroamerican settlement here, traces of past agricultural activities yet endure in select locales and offer promise for further illumination of variation in Native American cultivation practices. (11)

Schmidt, Christopher W., & Tammy Greene (University of Indianapolis) - **Dental Evidence for Maize Consumption During the Albee Phase in Indiana** - Generally speaking, foods that are masticated produce diagnostic patterns of dental macrowear (wear visible to the unaided eye), dental microwear (microscopic wear), and dental pathology (such as dental caries). In this study, these dietary indicators are analyzed in order to determine if Albee Phase people from Indiana consumed maize. The determination is made via multivariate comparisons with known maize consumers (from the Mississippian period Angel and Wickliffe sites) and non-maize consumers from a number of Middle Woodland populations from east, central Indiana. Our results suggest that maize was a component of the Albee Phase diet, although, in all likelihood, it was only a dietary supplement. (9)

Schneider, Andrew M. (University of Toledo) - **A Ceramic Synthesis of the Western Basin Tradition in the Western Lake Erie Drainage Basin** - Since the 1930's, hardly a decade has passed in which significant contributions were not made, regarding the archaeology of what is currently referred to as the Western Basin Tradition. These contributions have defined, refined, and/or significantly altered our interpretations of this cultural manifestation through time and space. This paper will address current interpretations related to a diachronic synthesis of Western Basin Tradition ceramics. Accordingly, a description of the current typological divisions will be presented, as well as a discussion involving the necessity of ceramic attribute analyses in the context of the Western Basin Tradition. Directions for future

research involving distribution of these attribute frequencies across space will also be presented. (6)

Schneider, Andrew M. (University of Toledo) - see also Stothers, David M. (9)

Schurr, Mark R. (University of Notre Dame) - **Goodall Mound 16** - The Goodall site (12 Le 9), the "type site" for the Goodall focus, has been central to archaeological conceptions of the Middle Woodland occupations of northwestern Indiana and southwestern lower Michigan for half a century. However, the archaeology of the site is known primarily from surface collections and poorly controlled excavations (none of which were conducted by professional archaeologists). Over the last three years, crews from the University of Notre Dame have conducted controlled surface collections, shovel probe surveys, geophysical surveys, and test excavations designed to ground-truth the geophysical data. Most of the work has been conducted in the vicinity of what is presumed to be a badly damaged remnant of Mound 16, one of the 22 mounds that once stood at the site. The excavations have collected artifactual, floral, and faunal evidence of various aspects of the site's occupation including chronology, subsistence, and exchange. Mound 16 was probably constructed between A.D. 1 to 350, when Illinois Hopewellian occupations were in their most classic expression. Artifactual evidence suggests frequent and intense interactions with populations located several hundred kilometers to the west in the Illinois Valley during this period. (10)

Schurr, Mark R. (University of Notre Dame) - **The Late Prehistory of Northwestern Indiana: New Perspectives on an Old Model** - Much of the prehistory of northwestern Indiana is poorly known, but the Late Woodland period (between about A.D. 700 to 1300) has been almost completely neglected. Sandwiched between the better known Middle Woodland and Upper Mississippian occupations of the region, the Late Woodland of northwestern Indiana has been described in only the most generic terms. Faulkner's 25 year old model, still the most comprehensive to date, terminates the Late Woodland period with an Oneota intrusion from the west. This model leaves the origin, nature, and ultimate fate of regional Late Woodland occupation(s?) completely obscure. Frequent, small scale, multi-ethnic migrations characterize the region during the Historic period (after A.D. 1679), and are usually attributed to the disruptions of European contact. While information about the Late Woodland of northwestern Indiana remains limited, archaeological and ethnohistorical data provide clues suggesting that the

historic occupations may have had their roots in much earlier patterns of landscape utilization. (9)

Seeman, Mark F., & James R. Branch (Kent State University) - **A Cultural Landscape Model of the Woodland Period, Ross County, Ohio** -

This poster will examine a cultural landscape constructed by a succession of Woodland populations using mounds, earthworks, and key features of the natural environment in southcentral Ohio. The value of this perspective will be demonstrated using the differential access to valuables (copper bracelets) as a test case. (7)

Seeman, Mark F. (Kent State University) - see also Morris, Larry (16)

Sieg, Lauren (University of Illinois at Urbana-Champaign) - **A**

**Characterization of Ohio Hopewell Ceramic Assemblages at Habitation Sites: Recent Data from Houses at the Fort Ancient Site** -

Ceramic assemblages from Ohio Hopewell habitation sites associated with earthworks are characterized by more than grit-tempered plain or cordmarked pottery. A large ceramic assemblage from at least seven houses recently excavated in the interior of the Fort Ancient enclosure offers insight into the composition of pottery assemblages associated with habitation at Ohio Hopewell earthworks. This pottery differs from the ceramic assemblage excavated from the structures on the exterior of the earthworks. The ceramic patterns suggest correlates for Hopewellian habitation sites that may be added to the existing expectations for lithic assemblages. (8)

Simons, Donald B. - **An Update on the Early Paleo Indian Gainey Site Project and Typological Comparisons With Several Gainey Phase Sites in the Lower Great Lakes** -

Excavations ongoing since 1979 now total over 6400m<sup>2</sup> at the Gainey [20GS49] "type" site in Michigan. A "sister" site, Butler is located 1.61km east of Gainey where 3391m<sup>2</sup> was excavated in 1991-3. An updated overview of these projects is given. Artifacts from Gainey and Butler are shown to demonstrate the range of tool types. They are also compared with artifacts from several other early sites to demonstrate the morphological range of several tool types. Also considered are the types and relative quantities of flaked tool materials which serve as indicators of patterns of technological change, travel and social interaction during the colonizing period of the region. (16)

Smith, Aaron O. (Ball State University) - **Ethnicity, Material Culture, and Meaning in Nineteenth-Century Rural Indiana** - Historical

archaeology has suggested that material culture is inherently a function of values and behaviors that create and sustain ethnic boundaries. Recently, a more dynamic understanding of ethnicity has questioned this role of material culture. While archaeologically investigating Quaker and African-American nineteenth-century farmstead communities from Randolph County, Indiana, it became clear that meanings of ethnicity attached to material culture were by no means intrinsic. It is, therefore, epistemologically argued that while material culture can act to promote ethnic identity, this relationship was a product of elective and contextual choices by different ethnic groups. (15)

Staeck, John P. (College of DuPage) - **Symposium: Computer Assisted Archaeology** (12)

Staeck, John P. (College of DuPage) - see also Ramseth, Adam (12)

Stafford, C. Russell, Mark Cantin, & Stephen T. Mocas (Indiana State University) - **Preliminary Results of the Caesars Archaeological Project in the Falls of the Ohio River Region** - Large-scale excavations conducted continuously over the past eighteen months at the Caesars Riverboat Casino development in Harrison County, Indiana, have revealed a stratified prehistoric sequence that spans much of the Holocene. Buried occupations are contained in Ohio River and Knob Creek levees and terraces of varying age. Major components at a series of sites consist of buried Early Archaic occupations from which some 300 Kirk cluster points have been recovered, a surface Middle/Late Archaic rock-filled midden, and stratified occupations in a levee adjacent to the modern Ohio River channel that includes early Middle Archaic, Late Archaic, Riverton, Early Woodland, and Middle Woodland components. Project results obtained to date are summarized and discussed. (2)

Stothers, David M. (University of Toledo) - **Symposium: The Late Prehistory and Protohistory of Northern Ohio and Pennsylvania** (6)

Stothers, David M. (University of Toledo) - **Confederacies and Cultures of the Circum-Lake Erie Drainage at the Dawn of History: A 1998 Perspective** - A conjunctive approach to archaeological, ethnohistoric, historic, cartographic, and linguistic documentation has offered resolution and clarification to the longstanding historic debate and controversy concerning the identity and location of the constituent tribal groups included within the Central Algonquian speaking

Assistaeronon/'Fire Nation' Confederacy. This protohistoric confederacy and others of the circum-Lake Erie drainage have disclosed European-derived trade items dated to the late 16th and early 17th centuries. Based upon historic documentation, an initial source and route of introduction which originated in the St. Lawrence River Valley and extended inland along the St. Lawrence-Lower Great Lakes water route to the western end of Lake Erie is suggested. It is further suggested that this route of entry extended along a pre-existing Algonquian controlled trade axis. (6)

Stothers, David M. & Andrew M. Schneider (University of Toledo) - **Implications of the Wolf Phase Dispersal of Terminal Western Basin Tradition Populations into Northern Indiana during Late Prehistory** - Long-standing archaeological research in northern Ohio has not only defined and refined our understandings regarding the cultural manifestations of this area, but has also revealed the dynamic socio-political dimensions by which these populations are characterized. Data argues that ca. A.D. 1250-1300, Algonquian speaking Wolf Phase populations of the Sandusky Tradition, a well-documented member of the Assistaeronon/'Fire Nation' Confederacy in late prehistoric times, dispersed resident Western Basin Tradition populations from the western Lake Erie region. Evidence suggests that Western Basin Tradition populations not only withdrew northward to the Straits of Mackinac and into Ontario, but also disperse westward up the Maumee valley into Indiana. Recently Western Basin Tradition pottery has been identified as far south as the Indianapolis area on several single- and multi-component sites. This paper will discuss implications for the dispersal of Western Basin Tradition populations into northern Indiana. In addition, the current interpretation of the Oliver Phase taxonomic construct is called into question. (9)

Stratton, Christopher - see Mansberger, Floyd (15)

Strezewski, Michael (Indiana University) - **A Closer Look at Indiana University's 1964 excavations at the Crable Site, Fulton County, Illinois** - The Crable site, a late Mississippian town and temple mound center, has been excavated by both professional and non-professional archaeologists over the past one hundred years. Despite the intensity of the investigations at the site, little quality published data exist as to the nature of this occupation. In 1964, George Neumann at Indiana University directed an excavation at Crable in which the village area and platform mound were investigated. This paper presents the details and results of these excavations and discusses the implications of Neumann's

findings for the understanding of the Mississippian occupation of the Central Illinois River Valley. (11)

Studenmund, Sarah, Amy Graham , & Wesley James (Illinois Transportation Archaeological Research Program) - **New Perspectives on Archaic Period Upland Occupations in West-Central Illinois** - Recent contract archaeology projects conducted in the upland drainage basins between the Illinois and Mississippi Rivers have revealed previously unknown aspects of Holocene settlement patterns in west-central Illinois. Excavations of prehistoric occupations ranging in age from Early Archaic through Late Archaic have documented short-term residential occupations, logistically-organized special activity occupations, and chert quarries in a number of drainages on either side of the divide between the Mississippi and Illinois Rivers. This paper will present a summary of the available data on the Archaic occupations in these drainages, and incorporate these data into the wider regional models of Archaic settlement strategies in the region. (2)

Studenmund, Sarah J. (Illinois Transportation Archaeological Research Program) - see also Goatley, Daniel B. (2)

Summers, Garry L. (Archaeological Society of Ohio, Sugarcreek Valley Chapter) - see Morris, Larry L. (16)

Tankersley, Kenneth (Kent State University) - **Symposium: Paleoindian Studies on the Midcontinent: Current Research** (16)

Tankersley, Kenneth (Kent State University) & Brian Redmond (Cleveland Museum of Natural History) - **Description of a Paleoindian Bone Foreshaft from Sheriden Pit** - In 1995, a carved and beveled split-bone point artifact was discovered in late Pleistocene deposits at the Sheriden Pit Cave site in northern Ohio. This artifact closely resembles bone and ivory foreshafts found at early Paleoindian sites in western North America and Florida. The artifact was recovered from a depositional stratum radiocarbon dated to between 10,970 and 10,550 uncalibrated radiocarbon years B.P., and which contained a Holcombe point, a cut snapping turtle cervical vertebra, and bones of the extinct flat-headed peccary. Radiographic and scanning electron microscopic examination of the foreshaft indicates manufacture from the longbone of a very large mammal such as bison, mastodon, or mammoth. (16)

Titelbaum, Anne R., & Thomas E. Emerson (University of Illinois - ITARP) - **Filling the Void: Understanding the Late Woodland of North**

**Central Illinois** - Until recently, North central Illinois posed a grey area with regard to understanding the Late Woodland period. Excavations conducted along the Rock River in Winnebago County, Illinois shed light on this period, by yielding information concerning the late Late Woodland, and in particular, Starved Rock Collared. This paper will discuss attributes of the Starved Rock Collared culture, and examine its placement within a broader, regional context. The Des Plaines Phase, to describe the late Late Woodland manifestation of this region, is proposed. (11)

Walz, Gregory R., and Thomas E. Berres (University of Illinois, Urbana) - **The Dunecrest Site (11BU151): A Small Middle Woodland Occupation in the Green River Lowlands of Bureau County, Illinois** - The Dunecrest site, 11 BU 151, is a small Havana Middle Woodland occupation situated at the crest of a large sand dune that rises above the surrounding floodplain of the Green River lowlands in Bureau County, Illinois. The Green River lowlands are characterized by large aeolian sand dunes which formed in sandy glaciofluvial and lacustrine deposits during the terminal Pleistocene, and intervening, extensive marsh and swamp habitats. To date, little professional archaeological research has been conducted in this portion of Illinois and the Dunecrest site represents the first excavated Middle Woodland site in the region. This paper describes the site setting, the temporal parameters of the site's occupation, and details the material remains recovered from the excavated features. Finally, the paper provides a regional Middle Woodland context within which to place and evaluate the Dunecrest occupations. (10)

Waters, Nikki A. (Ball State University) - **Rockshelter Utilization in the Hoosier National Forest, Indiana: A Late Archaic Example from Hemlock Cliffs** - Archaeological investigations conducted at Indian Cave (12-Cr-59) by the U.S. Forest Service and the Archaeological Resources Management Service of Ball State University resulted in the recovery of important information concerning the site's prehistoric past. Bone and lithic tools, a fragment of cordage and exotic marine shell beads all hinted at a varied pattern of utilization. Radiocarbon analysis of burned nutshell dated these artifacts to the Late Archaic. When taken with an understanding of how this shelter formed and changed over time, these excavations contributed significantly to our understanding of the regional prehistory of the Hoosier National Forest. (2)

Watrall, Ethan (Indiana University) & Neil Birch (University of Regina) - **Markup Languages and Digital Document Types: Implications for**

**Management and Distribution of Archaeological Information - In** 1989, Tim-Berners Lee and Robert Cailliau of the European Particle Physics Laboratory (CERN) submitted a proposal to the World Wide Web consortium outlining the development of Hypertext Markup Language (HTML). Up until this point, the Internet had been composed of groups of computers that sent information packets through routers to their intended destination. What HTML allowed was a way to link and access information as a web of nodes the user could browse at will. Essentially, it provided a single user interface to many different types of information. More importantly, however, was the fact that HTML allowed a simple visual interface in which information could be distributed over computer networks. HTML and the World Wide Web (W3) offers archaeology a unique opportunity for the creation and distribution of documents which normally, in hard copy format, are time consuming to obtain and archive. In addition, the visual nature of the HTML and the W3 offers an unparalleled opportunity for instruction in a field where much of the important information is best experienced visually. However, despite the extraordinary opportunities offered by the distribution of digital documents, HTML is not without its problems. Anyone who has authored a digital document is well aware of the lack of layout flexibility. In addition, interactivity, essential for both instruction and information distribution, is almost totally lacking in HTML. Many of these problems, however, have been addressed in the next generation of markup languages and digital document types. In light of recent advances, this paper is designed to provide an introduction to the next generation markup languages, such as DHTML and XML, and digital document types, such as Adobe PDF. In addition, how these markup language and digital document types can aid the efficient design, implementation, distribution, and archiving of archaeological documents will be discussed. (12)

White, Andrew A. (Southern Illinois University) - see Havill, Lorena M. (11)

Wiant, Michael D. (Illinois State Museum), & Larry Binns - **Middle Woodland Sites Along the Lower Reach of the Kankakee River** - Drawing on information from documented and previously unrecorded sites, we provide an overview of Middle Woodland sites along the lower reach of the Kankakee River. Among the topics to be discussed are the pottery and stone tools assemblages, settlement locations, and evidence for exchange. (8)

Willis, John (Northwestern University) - **Early Historic Ceramics of the Zimmerman Site (11Ls13) and Starved Rock (11Ls12) of Illinois: A**

**Review of Previous Descriptions and a Re-Analysis of Some of the Materials These Descriptions Were Based On** - In 1949 Keller attempted to determine the stylistic relationships between Danner Cordmarked and Danner Grooved Paddle excavated at the Zimmerman Site and Starved Rock, and the LaSalle Filleted ceramic material excavated at Starved Rock. In his discussion of these ceramic types he noted that they were stylistically similar enough to suggest a close genetic relationship between the historic Indian groups that made them. He further noted that these ceramic types were similar to those of the historic Madisonville ceramic materials of Fort Ancient Ohio. Since then there have been several attempts to relate these and other early historic Illinois ceramics, such as Keating Cordmarked and Zimmerman Filleted, to historic Fort Ancient material. Other researchers have attempted to match the historic ceramics of northeastern Illinois to the Indian groups mentioned in the first French accounts of travel via the Mississippi and Illinois Rivers. This paper is a report on a comparison of descriptions and analyses developed by Keller (1949), J. Brown (1961, editor), and M. Brown (1975) for the historic ceramic material classified as Danner Cordmarked, Danner Grooved Paddle, Keating Cordmarked, Zimmerman Filleted, and LaSalle Filleted, and my own analysis of some of the sherds excavated at the Zimmerman Site and Starved Rock. This analysis was conducted in order to develop criteria for comparing the early historic ceramic material of northeastern Illinois that we now believe to have been made by Central Algonquian groups, with the early historic ceramic material of Indiana, Michigan, Ohio, and Missouri. (15)

Wright, Timothy (Ball State University) - **Madison Triangles: There Must Be A Point** - As currently defined, the Madison triangular point of the Eastern Woodlands is of little diagnostic value. It appears in the archaeological record at approximately A.D. 800 and persists into the Historic Period. The time depth and wide geographic distribution of the Madison point ensures that this artifact type cuts across prehistoric "culture" groups. As a result, it has considerable potential as a cultural and/or temporal diagnostic. However, the simple morphology allows for little stylistic variation which makes temporal trends difficult to document and cultural assignments problematic. The goal of this research is to see if a group of well-provenienced Madison points can be defined in such a way that they are culturally distinct. If a way can be found, this artifact will more fully realize its diagnostic potential. (9)

Yerkes, R. W. - see Lepper, B. T. (2)

## Erratum

The following abstract was inadvertently omitted from page 38:

Redmond, Brian G. (Cleveland Museum of Natural History) - **Symposium: Investigating the Final Millennium of Indiana Prehistory: A.D. 700 to 1700** - The last one thousand years of Indiana prehistory encompassed the terminal Late Woodland and the Late Prehistoric periods. During these ten centuries, prehistoric societies from the central till plain in the north to the Ohio River Valley in the south developed sedentary lifeways based on the cultivation of maize and other crops. The pace and intensity of local developments varied considerably within this region. In the Forks of White River and the southeastern Lake Michigan drainage basin, tribal-level (Upper Mississippian) societies succeeded Late Woodland horticulturists after A.D. 1000. At the same time, chiefdom-level (Middle Mississippian) societies dominated the Wabash Lowlands of southwestern Indiana. By ca. A.D. 1500 all but a few of these contemporary cultural trajectories terminated as a result of either out-migration or assimilation with societies living in adjacent "core" areas. At the time of Euroamerican contact, much of Indiana was inhabited by tribal groups that are not directly traceable to these antecedent cultural complexes. This symposium will present the results of recent archaeological research on the diverse cultural developments and complex cultural relationships that characterized this final chapter of Indiana prehistory.

Notes -

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not for remote users.



