

# Woodland Period Systematics in the Middle Ohio Valley



Edited by  
Darlene Applegate and Robert C. Mainfort Jr.

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# Preface

## The Good Servant and Bad Master

### Historical Context

This volume on Woodland-related systematics in the Middle Ohio Valley is based on two symposia held in 2002 and 2003. The idea for the symposia originated over breakfast at the Society for American Archaeology meeting in 2002. As they discussed their research on Woodland period sites in the “periphery” of the Ohio Valley Adena/Hopewell “core,” Darlene Applegate and Jarrod Burks lamented about the problems they had in applying traditional formal and temporal units to the archaeological records in south-central Kentucky and eastern Ohio, respectively. Of course, these concerns were not new revelations about the state of Woodland period systematics in the Ohio Valley; many researchers before (e.g., Clay 2002; Fitting and Brose 1971) had expressed similar dissatisfaction. Nor were they limited to the Ohio Valley, as recent conferences on regional taxonomy attest (e.g., Williamson and Watts 1999). Nevertheless, the concerns were pressing enough to warrant organization of symposia.

The first symposium on Woodland taxonomy in the Middle Ohio Valley was held in October 2002 at the Forty-eighth Annual Meeting of the Midwest Archaeological Conference in Columbus, Ohio. Seven papers, six of which are included in this volume (Brown, Burks, Clay, Schlarb, Sieg, and Sieg and Hollinger), were presented at the meeting. Applegate and Robert Mainfort served as discussants. The second, similarly titled symposium was held in April 2003 at the Sixty-eighth Annual Meeting of the Society for American Archaeology in Milwaukee. Five of the eight presentations were new, and four of these are included here (Applegate, Brose, Pollack et al., and Rafferty). Mainfort, R. Barry Lewis, James Stoltman, and N’omi Greber served as discussants.

Both symposia were very well received, prompting Applegate and Mainfort to assemble the present volume. To expand geographic and temporal

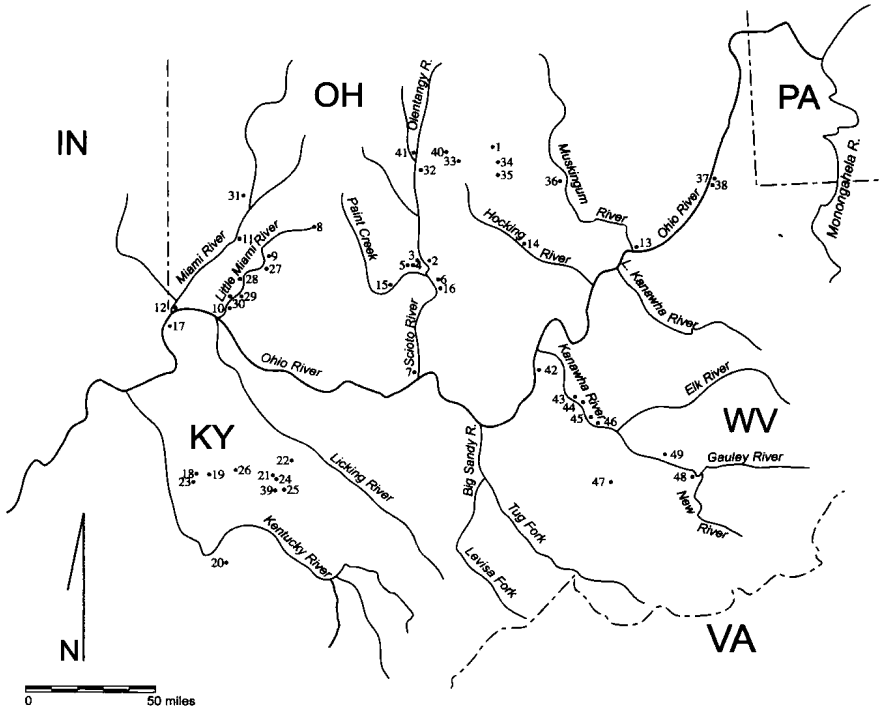


Figure P.1. Key archaeological sites mentioned in text. 1, Newark; 2, Hopeton; 3, Mound City; 4, Anderson; 5, Hopewell; 6, High Bank; 7, Tremper; 8, Pollock; 9, Fort Ancient; 10, Turner; 11, Miamisburg; 12, Miami Fort; 13, Marietta; 14, The Plains; 15, Seip; 16, Harness; 17, Robbins; 18, Drake; 19, Peter Village; 20, Walker-Noe; 21, Wright; 22, Morgan Stone; 23, Bullock Mound; 24, Camargo Earthworks; 25, Amburgey; 26, Auvergne Mound; 27, Stubbs; 28, Fosters; 29, Milford; 30, Camden Works; 31, Lichliter; 32, Scioto Trail; 33, Ety; 34, Strait; 35, Swinehart Village; 36, Linn 7; 37, Cresap; 38, Natrium; 39, Ricketts; 40, William Davis; 41, Toephner; 42, Woods and Childers; 43, Winfield Locks; 44, Parkline; 45, Murad Mound; 46, Charleston Mound Group; 47, Coco Station; 48, Mount Carbon Village; 49, Buck Garden.

coverage, they solicited additional papers, resulting in the chapters by Dancey and Seeman, Greber, Richmond and Kerr, and Trader.

### The Middle Ohio Valley

The Middle Ohio Valley includes the intermediate stretch of the Ohio River in northwestern West Virginia, southern Ohio, northeastern Kentucky, and southeastern Indiana between the confluences with the Muskingum and Kentucky rivers (Figure P.1). Other major tributaries are the Little Kanawha, Hocking, Kanawha, Big Sandy, Scioto, Licking, Great Mi-

ami, and Little Miami rivers. The region encompasses four major physiographic zones: the Unglaciaded Allegheny Plateau section of the Appalachian (Cumberland) Plateau province in eastern Ohio, northwestern West Virginia, and eastern Kentucky; the Glacial Till Plain section of the Central Lowland province in central and western Ohio and southeastern Indiana; and the Bluegrass (Lexington Plain) and Knobs sections of the Interior Low Plateau province in north-central Kentucky (Fenneman 1938; Hunt 1967). As noted by Maslowski and Seeman (1992:12):

The mid-Ohio Valley region presents a distinctive environmental context when compared to other regions of the mid-continent. It evidences a moderately stressful cold season, a limited complement of aquatic and/or "floodplain" resources, but diverse and considerable nut and animal productivity. Within the region, environmental comparisons suggest that there are important disparities with regard to the distribution of large terrace surfaces, the length of the growing season, and flood potential. Differences in biological resources represent differences of degree rather than kind.

A volume devoted to systematics in Middle Ohio Valley archaeology makes sense because the prehistoric record of the region has figured prominently in the development of Eastern Woodlands archaeology and likely will influence the course of future growth. For instance, previous archaeological research in the region contributed substantially to the construction of archaeological units and concepts used by Eastern Woodlands prehistorians today. Of these, "Adena" and "Hopewell" are viewed by many archaeologists as the most significant, pervasive, and problematic, as is illustrated by most contributors to this volume. Greenman's research in central Ohio, Webb's work in north-central Kentucky, and Dragoo's investigations in West Virginia provided much of the data used to define "Adena," and the research of Mills, Shetrone, Moorehead, and others in southern Ohio produced data critical to the formulation of "Hopewell." Because units are the foundation of explanation in any scientific endeavor, it is appropriate and proper to present a comprehensive examination of systematics, classification, unit evaluation, and unit construction in Middle Ohio Valley Woodland period archaeology.

### Archaeological Systematics

Scientific research requires the creation and application of units that organize individual pieces of data in meaningful ways. These units are used in

collecting scientific data and in developing scientific explanations about the world around us. Unit creation is an intentional process, guided by the nature of the data and the goals of the research.

The term “systematics” refers to “the set of propositions, concepts, and operations used to create units for any scientific discipline” (Dunnell 1971: 7) or “the procedures for the creation of sets of units derived from a logical system for a specified purpose” (Dunnell 1971:25). Thus, systematics is the theoretical process of identifying, defining, and describing the units that are used in scientific research. Whereas systematics encompasses the *conceptual* framework for unit construction, there are several *operational* approaches to unit construction in science, including classification and grouping.

Classification is an idea-based endeavor that creates and defines universal (ahistorical and aspatial), subjective, a priori units referred to in general terms as “classes” (Dunnell 1971). Type, horizon, tradition, locality, and period are examples of class units used in archaeology. There are two approaches to classification: paradigms and taxonomies. Paradigmatic classification involves the creation of unique classes based on one set of equally weighted dimensions or criteria, and taxonomic classification involves the creation of classes (taxa) based on multiple sets of weighted or nonweighted dimensions or criteria. Paradigms are permutable, meaning the positions of classes in the classification are arbitrary. In contrast, taxonomies are non-permutable, meaning the structure of the classification is dependent on the relative positions of taxa. There are advantages and disadvantages to both classification approaches. Paradigms are unambiguous and parsimonious, but may include more classes than needed. Taxonomies allow one to display more complex relationships among classes, though they can be ambiguous and nonparsimonious.

Grouping is a phenomenon-based endeavor that creates and describes particularistic (temporally and spatially bounded), objective, *a posteriori* units referred to in general terms as “groups” (Dunnell 1971). Because they were formulated on the basis of recovered artifactual remains and they applied to actual archaeological materials from specific sites and time periods, Hopewell and Adena trait lists are examples of group units used in archaeology. The particularistic nature of groupings can be problematic if the group units are used outside their particular temporal and spatial contexts. As subsequent chapters will reveal, this has certainly been the case for Adena and Hopewell trait lists. “Because grouping counts and thus requires actual phenomena [objects or events], the products are groups restricted in their organizing capacity to the data upon which they are based” (Dunnell 1971:91).

It is important to note that classification and grouping provide organiza-

tional units (classes and groups) rather than explanatory devices (models). As such, classes and groups are tools for explanation, not explanations in and of themselves. Particular class and group units will not be appropriate for developing all manner of archaeological explanations. Class units must be evaluated with respect to the explicit goal of the classification in terms of logical consistency, validity, parsimony, and relevance. Group units can only be evaluated with respect to the objects or events from particular times and locations on which they are based (Dunnell 1971; Ramenofsky and Steffen 1998; Stothers 1999). Unit evaluation must be an explicit and intentional component of archaeological systematics.

### Volume Overview

This volume is concerned with archaeological units used to organize data about those portions of the prehistoric record in the Middle Ohio Valley dated from about 1000 B.C. to A.D. 1000. On the most general level, one goal of the volume is to consider the role of systematics in archaeology. To what extent do scales of archaeological data coincide appropriately with scales of archaeological research questions? Should the “culture” unit be applied in archaeological research, and, if so, how can this be best accomplished? What is the relationship between formal similarities in the material record and historical continuities of past human groups? Given recent advances in absolute dating methods, is it still desirable to use chronological units to temporally order the archaeological record? Fundamental issues such as these are relevant for archaeologists working in any geographic region of the world.

The more specific goal of the volume is to critically examine archaeological units devised by and used by Middle Ohio Valley archaeologists. Central to this goal is consideration of two taxa that are cornerstones of Woodland archaeology not only of the Middle Ohio Valley but also of the Midwest and Midsouth: Adena and Hopewell. How were these taxa originally developed and applied? Why, after more than a century of research, are these taxa so problematic? Are they still effective constructs given our current research questions and our current understanding of the archaeological record? If not, what alternative units might be used? If so, how are these taxa best defined—are they horizons, traditions, phases, aspects, cults, or cultures? Over what geographic ranges and to what parts of the archaeological record can the taxa be appropriately applied?

In addition to Adena and Hopewell, contributors consider other archaeological units that have implications beyond the Middle Ohio Valley, namely, the Early Woodland, Middle Woodland, and Late Woodland periods. What

criteria are useful in defining the periods, and over what temporal-spatial boundaries do those criteria hold? How can we accommodate regional variation in the development and expression of traits used to delineate these periods? Is it prudent to equate these chronological units with cultural types?

Finally, several archaeological taxa specific to the Middle Ohio Valley are evaluated in the volume. These include the Cole Complex of central Ohio and the Kanawha Tradition of West Virginia. General lessons learned from these historical reviews and critical analyses can be applied to other Woodland units in the Middle Ohio Valley, such as the Intrusive Mound complex and the Newtown phase.

The chapters are organized according to three central themes: unit application, unit evaluation, and unit construction. Applegate's introductory chapter lays out some fundamental issues in the construction of formal, synthetic, and chronological units, illustrating these with examples from the Middle Ohio Valley. McKern's (1939) *Midwestern Taxonomic Method*, the integrative approach of Willey and Phillips (1958), Ford and Willey's (1941) stage approach and Griffin's (1946, 1952a, 1967, 1978a) period scheme are summarized. The manner in which these classificatory systems have been applied in the Middle Ohio Valley—especially in reference to Adena, Hopewell, Woodland, Early Woodland, Middle Woodland, and Late Woodland—are considered.

Five chapters concerned with unit application follow. Greber provides an incisive comparison of Adena and Hopewell, using the type sites as a point of departure. Recognizing the legitimacy of calls for the abandonment of these taxa, Greber argues that they can be employed fruitfully when defined spatially and temporally in a manner suitable to consider questions appropriate for the data available. To this end, Greber suggests the use of central Scioto Hopewell and central Scioto Adena taxa for the Ross County, Ohio, area, where the type sites are located. Furthermore, Greber contends that in order to define units that can be useful in seeking answers to specific questions related to specific research goals, archaeologists must organize the diversity seen in the archaeological cultural remains in local, regional, and wider contexts in a manner that retains more than trivial distinctions. To illustrate this point, Greber suggests that archaeologists develop a new classificatory system that combines spatial terminology (e.g., Middle Muskingum, Central Bluegrass) with formal terminology (e.g., Adena, Hopewell).

Burks argues that use of the Adena and Hopewell concepts outside the traditional core areas has masked data critical to understanding diachronic changes in settlement patterns in central Ohio. Research from regions that express the more classic taxonomic characteristics as defined in the literature

has, over the years, eclipsed much of the variability from more peripheral areas. Loss of this variability has resulted in island-like concepts such as “Adena” and “Hopewell” with little linkage through time and space. Burks demonstrates that continuing research at the edges of taxonomic units of time and space shows that important changes in Woodland period community organization, such as household aggregation, began in areas thought to be peripheral. Furthermore, these changes began well before the decline of the Hopewell phenomenon, to which they are commonly linked.

Three case studies (Schlarb, Pollack et al., and Richmond and Kerr) bring to the fore the difficulties that arise when attempting to apply the traditional concepts of Adena and Middle Woodland to previously unpublished and new data from sites in central Kentucky. Schlarb’s examination of the Bullock site reveals that a traditional trait list approach to the site made it difficult to assign cultural affiliation, because the site contained traits that are diagnostic of both Adena (Adena Plain pottery) and Hopewell (rectangular submound structure). Schlarb concludes that the Bullock Mound is a late Adena site that reflects interaction with Hopewellian groups north of the Ohio River.

Pollack et al. describe recent archaeological investigations at Walker-Noe, a small mound that lacks a submound structure and burial tombs or pits but contains a centrally located area of intensive burning surrounded by cremations. Noting that the site reflects variability in Middle Woodland mortuary practices and mound construction on a local level, Pollack et al. argue that at a regional level Walker-Noe reflects problems in using broad taxonomic units, such as Adena and Hopewell, to characterize all Middle Woodland sites in the Middle Ohio Valley.

Richmond and Kerr describe a Middle Woodland component at the Amburgey site, where a Connestee Series tetrapodal vessel, copper ear spools, a copper celt, and a possible circular structure recently were discovered. Based on comparisons of the artifact content, site structure, and radiometric assays from the site with contemporaneous sites in the immediate vicinity and region at large, Richmond and Kerr conclude that the site represents a regional Hopewellian variant. The presence of Hopewell artifacts in a non-mound context and in an area traditionally associated with Adena, the absence of inhumations at an apparent ritual facility, and the unusual post mold pattern illustrate the types of variability that make it difficult to use traditional systematics to describe sites outside the core.

The next six chapters in the volume focus on unit evaluation. Clay and Brown deal with Adena from different but complementary perspectives. Clay specifically addresses the expropriation of the Adena concept by influential Washington-based archaeologists advocating migrationist views of

culture change in eastern North America. His historical review of the Adena concept—its development and its use—coupled with his long involvement in Adena research leads him to propose that archaeologists “deconstruct” Adena and replace it with localized Woodland culture sequences.

Brown considers the historical development of the “Adena Culture” unit, arguing that the underlying conceptual propositions—the age-area view of culture—and the inconsistent content of this unit make it invalid and in urgent need of reformulation. Brown sees in this taxon a prime illustration of the problems in archaeologically identifying “cultures.” Another taxonomic issue Brown addresses is the relationship between formal similarities and temporal units. Using the Late Woodland period as an example, he cautions against the definition of temporal units on the basis of formal similarities that are time-transgressive and lack evolutionary significance.

The history of Hopewell taxonomy is considered by Sieg and Hollinger, who propose strict adherence to the systematics of Willey and Phillips (1958) as one means to untangling the current morass. Historically, Hopewell has been considered a culture, complex, horizon, phase, period, style, trading system, mortuary and religious system, symbolic system, and interaction sphere. Sieg and Hollinger argue that the Hopewell taxon has become problematic because it was defined without any theoretical taxonomic context; it was defined largely on the basis of mortuary and ceremonial objects to the exclusion of other types of artifacts; it includes such a large list of diagnostic traits that its archaeological visibility may not be justified; and it has been used inconsistently by archaeologists. They conclude that, at a broad geographic scale, Hopewell is most productively and appropriately classified as a horizon as defined by Willey and Phillips.

Dancey and Seeman discuss a post-Hopewellian taxonomic construct in central Ohio, presenting a valuable summary of data and refreshingly arguing against further formulation of the Cole Complex until more data are available. Originally formulated to describe the reemergence of a local, nonagricultural tradition following the Hopewell “collapse,” the Cole Complex was defined largely on the basis of ceramic assemblages. Due to inadequate empirical support for the taxon, Dancey and Seeman propose to replace the Cole Complex with a systematics that is grounded in time-space distributions of artifact styles and geocultural deposition units and that uses the concepts of horizon (at various scales), tradition (at various scales), and style zone to estimate the broad outline of human history along with the size, shape, and local histories of interacting populations.

A multiscale approach to regional Woodland diversity is advocated by Rafferty, who focuses on mortuary data and its messages. Using data from six sites in the Middle Ohio Valley, Rafferty demonstrates that, rather than

being a monolithic construct with a single characteristic mortuary program, Adena encompasses distinct regional mortuary patterns that vary in terms of mound structures, burial modes, and grave goods. These differing patterns are indicative of significant regional differences in the ritual practices associated with death.

Brose argues that the study of the human past can succeed not only to the degree that the scales of data and questions are similar but also to the extent that our descriptions of past and present scales are critically rethought, for we cannot know whether the scales of the problems are comparable if we have no comparability between the tools with which to measure the scales. He recommends replacing sociopolitical models inferred from ethnographic simulations of distant archaeological contexts with those based on appropriately bounded taxonomic structures of archaeologically recoverable indices of economic and social complexity. Emphasizing the importance of scale, Brose argues that this approach demands justifying the criteria used for defining each and every cultural/chronological system and that it succeeds only to the extent that it explicitly describes the boundary conditions over which such defined taxonomic units may be valid or useful.

Two chapters in the volume focus on unit construction. In her chapter on Ohio Hopewell, Sieg, like Rafferty, argues against monolithic views of archaeological taxa. Using data from domestic and ceremonial sites in southern Ohio, Sieg identifies local distinctions in site age, architecture, artifacts, and geographical proximity while at the same time recognizing horizon-like Hopewell influences that were part of a broader Middle Woodland cultural landscape. She proposes a potentially useful series of regional Hopewellian phases that, whatever their final form, call attention to diversity within individual river drainages that often is masked by the overarching Hopewell construct.

The history of Woodland period classification in the Kanawha River basin of West Virginia is summarized by Trader, who also provides important new data that lead to a call for Woodland unit revisions. Trader recognizes the fundamental contributions made by Edward McMichael to the development of formal and chronological units for the Kanawha Woodland while at the same time noting the shortcomings of McMichael's formulations in the light of recent archaeological research. Trader uses data—including radiocarbon dates, faunal and floral remains, and settlement patterns—from more than a dozen domestic and ceremonial sites to formulate a revised taxonomic scheme for the Kanawha Woodland.

The volume concludes with an overview by Mainfort, whose perspective has been shaped by experience in the lower Mississippi Valley. He emphasizes that archaeologists tend to forget that their taxonomic units are arbitrary

constructs that should be retained only so long as they prove useful for explaining the archaeological record. As tools, they are subject to modification and refinement and, if no longer useful, to discard. Following the other contributors, Mainfort argues that research questions should dictate appropriate taxonomy and that existing taxonomy should not constrain research questions. In this regard, both flexibility and awareness of appropriate geographic scale are critical to the utility of taxonomic units at any level.

### Acknowledgments

This volume represents a herculean effort on the part of the contributors to synthesize recent Woodland period research in the Middle Ohio Valley and to evaluate and, in some cases, to reformulate the archaeological units used to measure variability in that data. Certainly this volume would not have been possible without their dedication to the discipline and their willingness to “think outside the box.” We greatly appreciate the time and effort they put into their contributions and the timely manner with which they submitted drafts for review.

Mary Lynn Kennedy (Arkansas Archeological Survey) was instrumental in producing several graphics. Tom Green, director of the Survey, provided encouragement and support throughout the production process. Lynne Sullivan and David Anderson provided insightful reviews of the manuscript.

The title of the preface is drawn from Trigger’s statements, “Yet if typology is a good servant, it can be a very bad master” (1999:303) and “We must welcome the creation of new typologies and be prepared to evaluate both old and new ones on their merits. In this way we do our best to ensure that classifications, which we cannot get along without, remain our servants and do not become our masters” (1999:322).

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