

Culture-Historical Units and the Woodland Southeast: A Case Study from Southeastern Missouri

Michael J. O'Brien, R. Lee Lyman, and James W. Cogswell

The archaeological record of southeastern Missouri has long been a focus of attention, and there now exists a considerable body of information on that record, especially the part that postdates circa 500 B.C.—the point at which pottery first appeared in the region. Numerous overviews have appeared over the past two decades that address that segment of prehistory in southeastern Missouri (e.g., C. Chapman 1980; Lafferty and Price 1996; R. Lewis 1996; D. Morse and P. Morse 1983; O'Brien and Dunnell [eds.] 1998; O'Brien and Wood 1998), all of which in turn are based on over five decades of survey and excavation in the myriad physiographic zones that comprise the northern end of the Mississippi Embayment (Fisk 1944) (Figure 19.1).

Chronology has long been at the heart of these investigations, and no shortage of schemes exists to keep track of time (and space) in the region—a situation that parallels that for the greater Southeast. In several respects the Southeast has been witness to some of the most innovative archaeology ever undertaken in the United States (see reviews in Dunnell 1985; Lyman et al. 1997; O'Brien 2000; O'Brien and Dunnell 1998; O'Brien and Lyman 1998, 1999). It was in the Mississippi Valley, for example, that a concept central to culture history, the archaeological phase, was widely applied, and it was there that pottery typology reached its zenith (Phillips 1970; Phillips et al. 1951). Somewhere in the process, however, there developed a lack of differentiation between the analytical constructs used by archaeologists to keep track of time, space, and form and the empirical reality they were intended to describe.

Nowhere is this more evident than in southeastern Missouri, where there has arisen an incredible array of archaeological units used to track form over space and through time. Some units perform their intended functions quite well, whereas others do not. Given this assessment, one might think that all that needs to be done to bring better order to the record is to discard

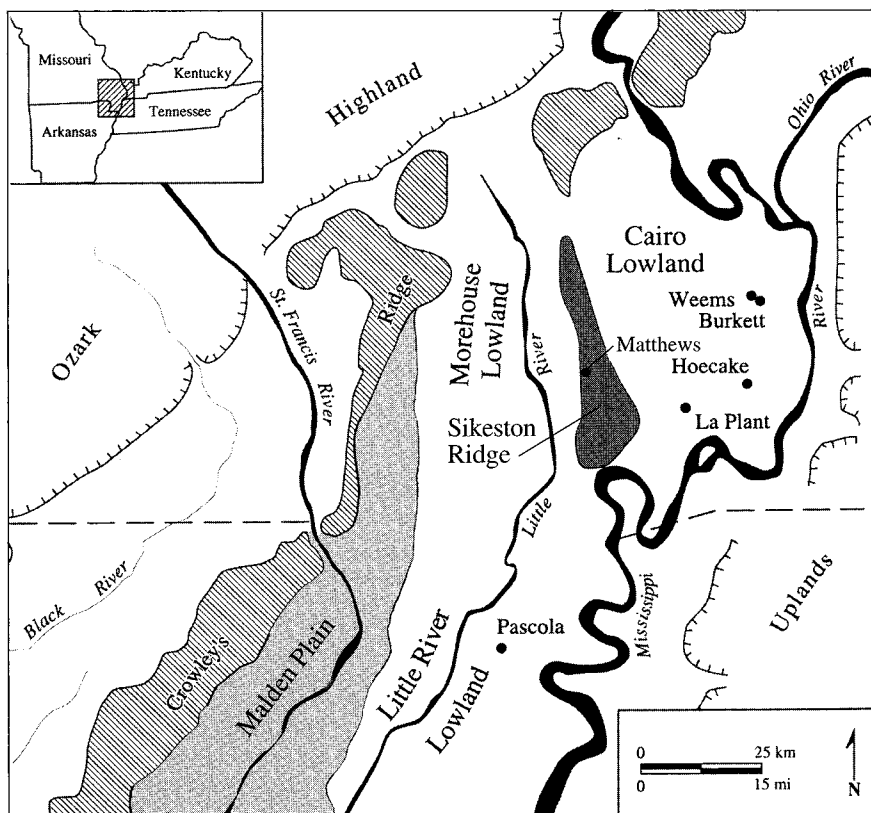


Figure 19.1 — Map of southeastern Missouri showing physiographic features and sites mentioned in the text

the less useful units and either keep the others or modify them. This argument, however, ignores a key epistemological issue: Are the units appropriate for the purposes to which they are being put? This is the critical question we address here by focusing on the three kinds of units—periods, phases, and pottery types—that together comprise archaeological systematics as used in the Southeast. Our comments are directed specifically to units employed by archaeologists working in southeastern Missouri, but they are applicable generally to the greater Southeast. Although we are critical of many of the units, our discussion should not be read as criticism of the researchers who laid the original foundation for time-space systematics. In terms of when they were working and the intellectual climate of the time, what they produced was no different from that produced by many other culture historians. Our point is simply that few efforts have been made in succeeding years to examine the usefulness of the units, most of which exist in unaltered form.

Initial Time-Space Systematics: Phases and Periods

Archaeological interest in southeastern Missouri was sporadic throughout the nineteenth and early twentieth centuries (see O'Brien [1996] for discussion), and it was not until 1941, when Winslow Walker and Robert Adams conducted large-scale excavations at the Matthews site in New Madrid County (W. Walker and Adams 1946) (Figure 19.1), that the region became a focal point of sustained activity. For assistance in analyzing the pottery from Matthews, the investigators turned to James B. Griffin, who at the time was involved with Philip Phillips and James A. Ford in the Lower Mississippi Alluvial Valley Survey (Phillips et al. 1951). Within a few years Griffin, with the help of Albert C. Spaulding, would initiate the Central Mississippi Valley Archaeological Survey as a northward extension of that project (Griffin and Spaulding 1952).

Several projects were carried out in Missouri during the course of the Griffin-Spaulding survey, one of which was a survey-and-excavation program conducted by Stephen Williams (1954). In the course of his analysis, Williams established a series of time-space units—phases—that D. Morse and P. Morse (1983:27) noted “are the basis for those still used in southeast Missouri today.” Now, almost two decades later, the Morses’ comments still apply, as a more recent summary of the region attests (Lafferty and Price 1996).

Williams’s spatial-temporal scheme is shown in Figure 19.2 in modified form. He divided southeastern Missouri into three regions: the Cairo Lowland and the Little River Lowland, both comprising surficial sediments from the Mississippi River, and the Malden Plain, a Pleistocene-age braided-stream surface at the eastern base of Crowley’s Ridge (Figure 19.1). The Burkett and Pascola phases marked the initial appearance of pottery in the Cairo Lowland and the Little River Lowland, respectively, and the Barnes Ridge phase marked the appearance in the Cairo River Lowland of pottery carrying stamped and incised designs similar to those on Hopewell vessels from southern Ohio. This phase soon was renamed the La Plant phase (S. Williams 1956) after the site of the same name in New Madrid County (Figure 19.1). Williams added another phase, Black Bayou, in the Cairo Lowland sequence, butting it against the late end of the Barnes Ridge phase (Figure 19.2). He extended the Black Bayou phase spatially into the Little River Lowland, but he inserted the Hoecake phase, named after the Hoecake site in Mississippi County (Figure 19.1), between it and the earlier Pascola phase. Only a single phase—Dunklin—was assigned to the Malden Plain, reflecting in part the lesser amount of work Williams conducted in that area but also the fact that little change in artifact-assemblage composition was evident.

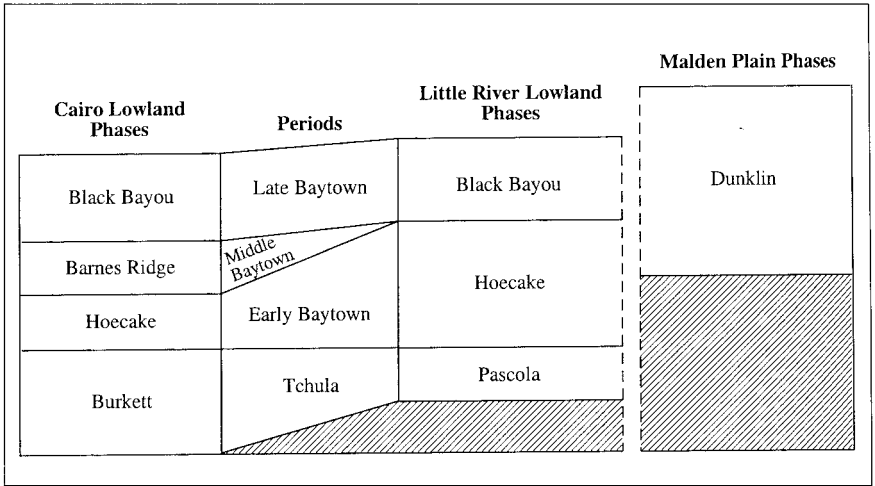


Figure 19.2 — Stephen Williams's correlation of phases and periods for three physiographic regions of southeastern Missouri (after Williams 1954)

Once he had constructed phases, Williams aligned the Cairo Lowland and the Little River Lowland sequences with periods (Figure 19.2)—an earlier Tchula period and a later Baytown period—but assigned no dates to them. He placed the Burkett and Pascola phases in the Tchula period and the Hoecake, Barnes Ridge, and Black Bayou phases in the Baytown period. He then subdivided the Baytown period and equated the Hoecake phase with the Early Baytown period and the Black Bayou phase with the Late Baytown period. He assigned the Barnes Ridge phase, which occurred only in the Cairo Lowland, to the Middle Baytown period. There was no corresponding Middle Baytown phase for the Little River Lowland.

Derivation of the names Tchula and Baytown is of interest here. Concerning Baytown, when Phillips, Ford, and Griffin (1951) undertook their survey of eastern Arkansas and northwestern Mississippi, one of the problems in which they were interested was the chronological placement of the stamped and incised pottery that bore striking resemblances to Hopewell pottery. Similar pottery was even more common in central and southern Louisiana, where it was referred to as Marksville (Setzler 1933a, 1933b, 1934). Sherds of what had become known as Marksville Incised (J. A. Ford and Willey 1940; Haag 1939b) and Marksville Stamped (J. A. Ford and Willey 1940) occurred in Phillips, Ford, and Griffin's survey area, but the farther north a site was, the less frequent the sherds became. Williams found very little of this pottery during the course of his southeastern Missouri survey.

Phillips, Ford, and Griffin used the term *Early Baytown* to refer to the period during which clay- and sand-tempered incised and stamped pottery was manufactured. Because their survey was carried out prior to the advent of radiocarbon dating, they relied on superposition for arranging pottery types chronologically. They found convincing evidence that there was considerable time between the end of the stamped and incised designs of the Early Baytown period and the advent of shell-tempered pottery, which they used as a marker for the beginning of the Late Baytown period. They sandwiched the Middle Baytown period in between, defining it as “the stretch of years that lie between the disappearance of the decorated Marksville types of early Baytown and the first showing of shell-tempered pottery” (Phillips et al. 1951:440). They placed the beginning of the Early Baytown period at A.D. 500, the beginning of the Middle Baytown period at A.D. 700, and the beginning of the Late Baytown period at A.D. 850 (Figure 19.3).

More important than the actual spans of time represented by the units was the relation of those units to units in Ford’s sequence for the Lower Mississippi Valley—what he eventually referred to as the Red River Mouth chronology (J. A. Ford 1952). Although the last piece of that chronology was not published until 1951, the basic ordering had been in place for a

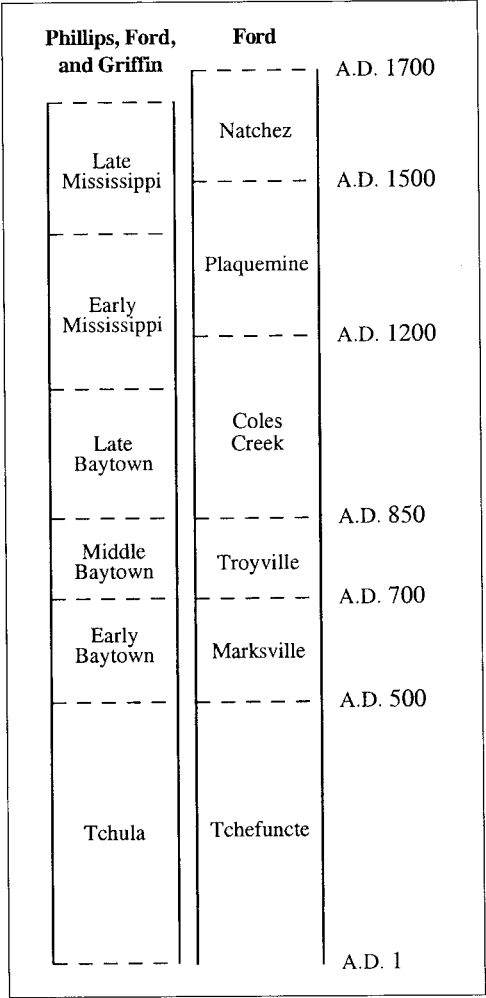


Figure 19.3 — Correlation of chronological arrangement of periods created by Phillips, Ford, and Griffin for the Lower Mississippi Alluvial Valley Survey region (left column) and Ford for the Lower Mississippi Valley (right column) (after Phillips et al. 1951)

decade (J. A. Ford and Willey 1940, 1941), a product of the WPA excavations in Louisiana directed by Ford (O'Brien and Lyman 1998, 1999). Ford's chronology is shown in the right-hand column in Figure 19.3. When Phillips, Ford, and Griffin aligned their periods with Ford's, they equated Tchula with Tchefuncte, Early Baytown with Marksville, Middle Baytown with Troyville, and Late Baytown with Coles Creek. The earlier periods in the two chronologies were aligned so that their boundaries matched perfectly; the later periods began to diverge at the upper boundary of the Late Baytown and Coles Creek periods (Figure 19.3).

The goal of the Central Mississippi Valley Archaeological Survey was to establish a chronology for eastern Missouri and western Illinois and align it with the other two chronologies. Two sites that figured prominently in the chronological efforts were Weems and Burkett (also known as O'Bryan Ridge), both located in Mississippi County, Missouri (Figure 19.1). Excavations carried out by Williams in 1950 as part of his search for "the solution to nascent Mississippian [culture] mysteries" (S. Williams 1992:195), showed that both sites had levels containing Poverty Point clay objects and other supposedly pre-pottery artifacts that were overlain by pottery-bearing strata. The analysis was never published, but Griffin and Spaulding (1952:2) had this to say about the sites: "Strata pit excavations... suggest that the earliest pottery rather closely follows the clay ball time period.... Some of the sites on this level have a few decorated sherds indicative of a connection with the general Early Woodland horizon in the Lower Mississippi Valley indicating the Tchefuncte culture."¹ This seemingly simple statement merits consideration because it set the tone for the kinds of remarks about the archaeological record of southeastern Missouri that have been made ever since.

Note that Griffin and Spaulding used *Early Woodland* to refer to the horizon of earliest pottery manufacture in southeastern Missouri. By 1952 the term was finding its way into common usage in the archaeology of the Midwest and East, largely at the hand of Griffin. He used it not only in the above-cited publication, but also in several chapters (J. B. Griffin 1952a, 1952d) of his edited volume *Archeology of Eastern United States* (J. B. Griffin [ed.] 1952). He had also used the term as a "stage" several years earlier in a summary article on Eastern prehistory (J. B. Griffin 1946),² but by the 1960s

¹ Griffin first reported Stephen Williams's discovery in 1952: "Survey and excavation in southeast Missouri in 1950 by the University of Michigan [Williams] has confirmed the association of a Late Archaic occupation and the clay ball horizon as pre-ceramic" (J. B. Griffin 1952d:228).

² Although Griffin's article was published in 1946, the paper on which it was based was presented in 1941 (S. Williams 1992:194).

it had reached the status of a full-fledged period (J. B. Griffin 1967). Griffin's efforts to integrate the entire archaeological record of the Mississippi Valley into a single chronological framework are noteworthy because by the early 1950s there was confusion over which chronology should be used and where. Griffin (1952a) used the Midwestern system of Archaic-Woodland-Mississippi in his article on the Central Mississippi Valley that appeared in *Archeology of Eastern United States*, and Jesse Jennings (1952) did the same in his article on the Lower Mississippi Valley that appeared in the same book.

Subsequent Efforts at Systematics

Beginning in the 1960s, archaeologists became concerned over the increased destruction of sites in the Central Mississippi Valley, especially southeastern Missouri and northeastern Arkansas (McGimsey and Davis [eds.] 1977; Medford 1972), where destruction through agricultural activity was especially severe. Between 1966 and 1968, the University of Missouri examined twenty-two sites during a three-year salvage program, which was directed by J. R. Williams (1967, 1968, 1972; R. Lewis 1972). On the basis of his excavations, J. R. Williams repeatedly modified Stephen Williams's phases; his 1972 summary appears in Figure 19.4. He retained the Burkett and Hoecake phases for the Cairo Lowland and the Pascola and Barnes Ridge phases for the Morehouse Lowland (a northern extension of the Little River Lowland [Figure 19.1]) and discarded the Black Bayou phase. He also inserted the Ten Mile Pond phase in the Cairo Lowland sequence. Slightly later, in a summary of Cairo Lowland phases, J. R. Williams (1974) extended the Barnes Ridge phase into the Cairo Lowland, sliding it in between the Hoecake and Ten Mile Pond phases. He discarded Tchula as a period designation and put all the phases in the Baytown period—a move that extended Baytown from the first appearance of pottery in the region up to the appearance of shell-tempered pottery and the beginning of the Mississippian period. J. R. Williams assigned no dates to his periods, although in his 1974 summary he placed tentative dates on his Cairo Lowland phases: Burkett, 300 B.C.–A.D. 100; Ten Mile Pond, A.D. 1–500; Barnes Ridge, A.D. 300–500; and Hoecake, A.D. 500–1100.

A few pages later, however, J. R. Williams (1974) presented the diagram shown in Figure 19.5. Note that phase boundaries are now shown, with one exception, as slanted lines. He explained that feature as follows:

The lines separating the phases are slanted rather than [horizontal] to emphasize the idea that most of the phases continued longer,

temporally, at certain sites in the Cairo Lowland than at other sites. That is, certain cultural traditions constituting a phase may have continued with large numbers of people while other peoples with a similar cultural base may have changed by accepting new cultural traditions. Since there were apparently large numbers of people who never received Hopewellian influence, the Barnes Ridge Phase is illustrated to show that it never completely encompassed the Cairo Lowland. (J. R. Williams 1974:103)

Notice also that J. R. Williams put no boundaries on his periods, noting that there were few cultural traits that marked the end of one period and the beginning of another.

Countless other projects conducted since the late 1960s have contributed to our understanding of the early half of the ceramic period in south-eastern Missouri, but for the most part they have relied unquestioningly on earlier work in chronological matters, specifically that of Stephen Williams. For example, when Phillips (1970) published his two-volume synthesis of

Cairo Lowland Phases	Morehouse Lowland Phases	Period
Hoccake		Baytown
Ten Mile Pond	Barnes Ridge	
Burkett	Pascola	

Figure 19.4 — J. R. Williams's correlation of phases and periods for two physiographic regions of southeastern Missouri (after Williams 1972)

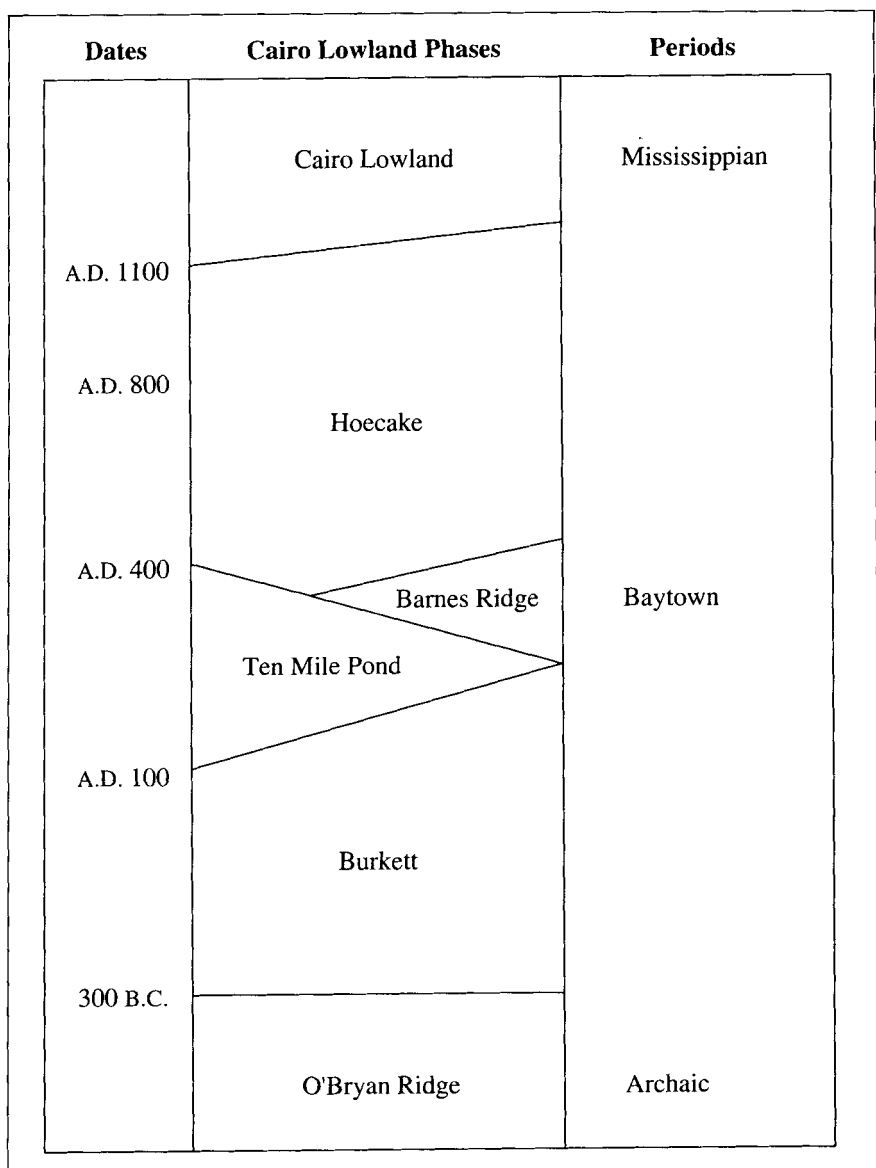


Figure 19.5 — J. R. Williams's correlation of phases and periods for the Cairo Lowland region of southeastern Missouri (after Williams 1974)

the Mississippi Valley, he retained Williams's phases without altering either their spatial extent or order. Phillips organized phases in the Mississippi Valley into the periods shown in the left column in Figure 19.6 and then aligned those periods against other chronological or developmental frame-

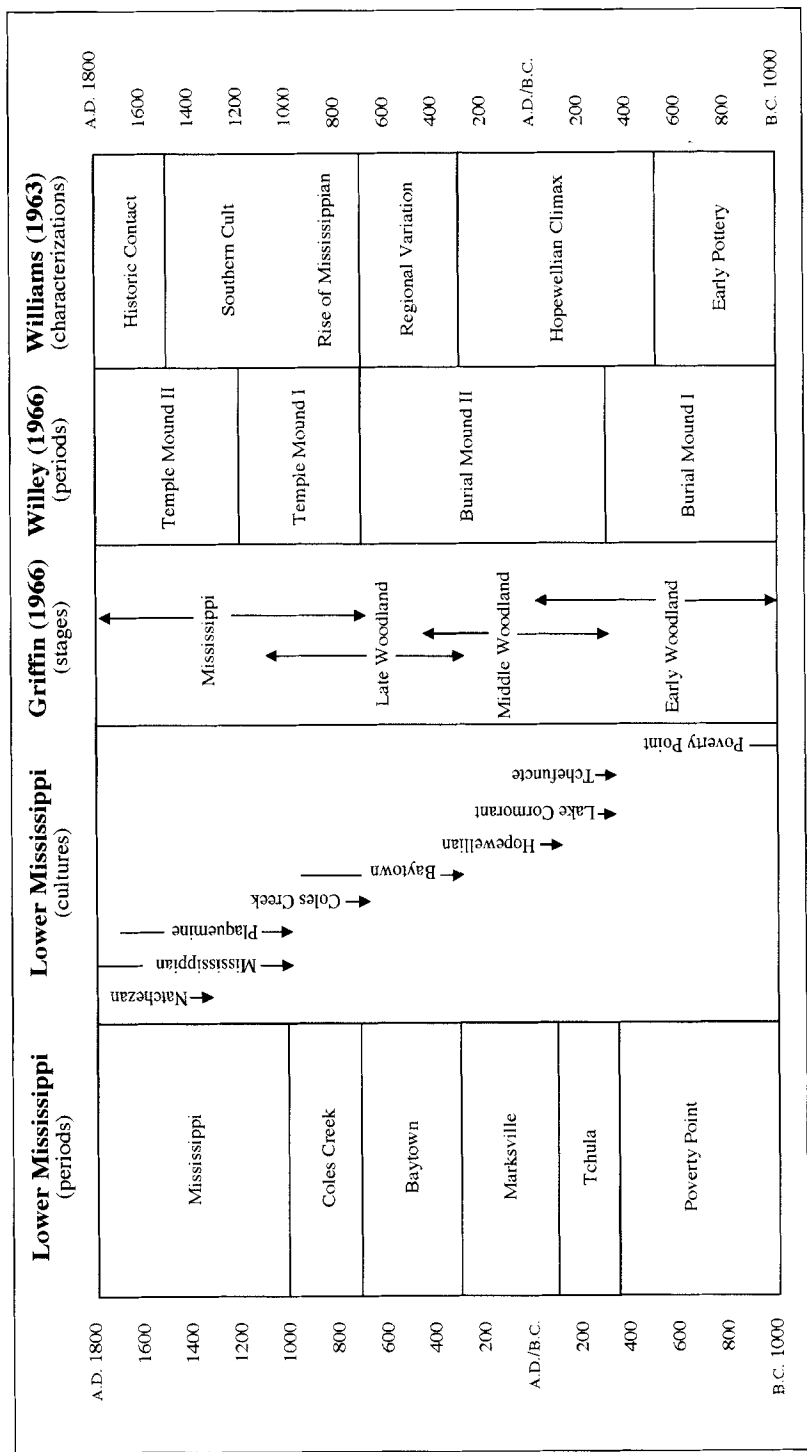


Figure 19.6 — Philip Phillips's correlation of periods in the central and lower Mississippi River valley with various chronological or developmental frameworks consisting of cultures, stages, periods, or characterizations (after Phillips 1970)

Date	Griffin (1967) (periods)	Phillips (1970) (periods)	Lewis (1996) (phases)
A.D. 800	Late Woodland	Baytown	Cane Hills
A.D. 600			Berkley
A.D. 400		Middle Woodland	Marksville
A.D. 200			
A.D. 1	Early Woodland	Tchula	Burkett
200 B.C.			
400 B.C.			
600 B.C.			

Figure 19.7 — Barry Lewis's correlation of phases in the Cairo Lowland region of southeastern Missouri and the western Kentucky border region with chronological sequences proposed by James B. Griffin (1967) and Philip Phillips (1970) (after Lewis 1996)

works consisting of cultures, stages, periods, or characterizations. His period names were derived from both the Phillips, Ford, and Griffin (1951) chronology and the Ford (1951) chronology. Notice that he deleted all mention of Early, Middle, and Late Baytown and inserted Coles Creek after Baytown. Robert Lafferty and James Price (1996) recently imported Phillips's chronology into southeastern Missouri, complete with Williams's phases.

One exception to the status quo is the work by R. Barry Lewis and his colleagues (e.g., R. Lewis 1996; Sussenbach and Lewis 1987) in the Cairo Lowland and western Kentucky. Lewis created two phases to rectify the Baytown period/phase problem discussed above. Lewis's (1996) scheme is shown in Figure 19.7. Notice that Lewis aligned his phases with both J. B. Griffin's (1967) period sequence—the mainstay of Midwestern and Eastern archaeology—and Phillips's (1970) composite sequence—the mainstay of Lower Mississippi Valley archaeology. Lewis changed Phillips's beginning date for the Tchula period (300 B.C.), making it roughly a hundred years earlier in his scheme.

Pottery Types: The Underlying Criteria

Although Phillips (1970) retained Stephen Williams's phases when he published his synthesis of the Mississippi Valley, he apparently had a few reservations about them. For example, with reference to the Pascola and Burkett phases, he expressed "some reservations about the separation of the two phases at this stage of our knowledge of the archaeology" (Phillips 1970:878). Although he did not phrase it as such, implicit in Phillips's skepticism was the question, "What are the necessary and sufficient criteria for defining two separate phases?" To begin to answer that question, we need to have at least a basic knowledge of pottery from southeastern Missouri, in that it is the basis upon which all ceramic-period phases in the region have been created. Two dimensions—paste and decoration—form the core of most pottery types, and we emphasize them in the following discussion.

Phillips, Ford, and Griffin (1951) made no mention of phases in their survey monograph—Phillips, working in conjunction with Gordon Willey, had not yet formally defined the term as a spatio-temporal unit of culture, the way it would be used thereafter (Phillips and Willey 1953; Willey and Phillips 1958)—although spatial and temporal considerations formed the basis of their field and analytical strategies. They did, however, create a series of types to segment the variation in pottery they encountered. Almost all work conducted in southeastern Missouri subsequently has employed their types, although some studies (e.g., Cogswell and O'Brien 1998) have broken with tradition. This does not mean that the type descriptions have remained true to what Phillips and his colleagues envisioned when they created the types. To the contrary, the sometimes rather tight descriptions as originally formulated have been broadened to incorporate considerable variation. There is nothing inherently wrong in so doing, but it makes little sense to use a series of pottery types as the distinguishing characteristics of a phase and then later change the criteria for the types without at least considering what effects such an action might have on phase recognition. Of course, if the phase definitions were never clearly stated in the first place, there is little reason to expect that modifications of type descriptions will have *any* effect.

Concerning the term *Tchula*, one of the first descriptions of pottery from southeastern Missouri was that provided by Griffin and Spaulding (1952) for pottery from Weems and Burkett. Following their lead and with advice from Griffin, Stephen Williams (1954) noted that some of his Tchula period pottery from Weems, Burkett, and sites such as Pascola in Pemiscot County, Missouri (Figure 19.1), was similar to Baumer pottery from southern Illinois, but he emphasized what he saw as stronger connections between the southeastern Missouri sherds and early pottery from farther south in the

Mississippi Valley. He emphasized these southern connections by using the period designation Tchula and placing the sherds in several types created by Phillips, Ford, and Griffin (1951) on the basis of their survey—types such as Cormorant Cord Impressed, Withers Fabric Impressed, and Mulberry Creek Cord Marked. Thus Williams was following Griffin's lead not only in pointing out connections between southeastern Missouri and the Ohio River—the Baumer material—but also in emphasizing connections between southeastern Missouri and locations farther south in the Mississippi Valley. Griffin, remember, had pointed out that a few of the sherds from Weems and Burkett were “indicative of a connection with the general Early Woodland horizon in the Lower Mississippi Valley indicating the Tchefuncte culture” (Griffin and Spaulding 1952:2). Phillips (1970:877) later noted that “I suspect that the key word in this passage is ‘general.’ I should be surprised if good examples of Tchefuncte types were to be found this far north.” He also stated in a footnote that “Griffin's present opinion is that there is no Tchefuncte pottery in Southeast Missouri” (Phillips 1970:877).

Griffin never pursued the Tchefuncte connection. Instead, he commented to Stephen Williams that there were close affinities between some presumably early southeastern Missouri pottery from the Pascola site and Alexander series pottery from northern Alabama—a sandy-paste pottery with an incised and/or punctated (pinched) surface (Griffin and Sears 1950; Haag 1939a). Williams (1954) and Phillips (1970) accepted the designation for southeastern Missouri specimens, with Phillips (1970:878) noting that “no one has yet been able to explain how or why, but these [Alexander series] types have turned up in acceptable purity in many places in the Lower Mississippi Valley as far south as the Lake Pontchartrain region [Louisiana], always in association with local complexes upon which the concept of a Tchula period is based.” This is an interesting statement, especially Phillips's mention of “local complexes.” What makes it interesting is that Williams was dealing with “local complexes” in his treatment of early pottery from southeastern Missouri. He mentioned that sherds from the Pascola site in Pemiscot County were sand tempered, but he never mentioned the kind of temper in sherds from Weems and Burkett. He used the type designations Cormorant Cord Impressed and Withers Fabric Impressed to refer to some of the sherds from those sites. When Phillips, Ford, and Griffin established those types, one key distinguishing characteristic was the presence of clay, not sand, as temper. With respect to Cormorant Cord Impressed, they noted that “in almost all specimens, particles of clay are clearly present; only a minority would qualify as sand-tempered, in the usual sense of the term” (Phillips et al. 1951:73). Phillips, Ford, and Griffin established a “provisional” type, Twin Lakes Fabric Impressed, as the sand-tempered parallel to

Withers Fabric Impressed. They provided no such parallel to Cormorant Cord Impressed.

Subsequent excavations at Weems by J. R. Williams (1968) and at Burkett by James Hopgood (1967) produced material that is still available for analysis. Inspection of sherds from those excavations demonstrates that several sherds exhibit surface treatments similar to those on sherds Phillips, Ford, and Griffin (1951) placed in the types Cormorant Cord Impressed and Withers Fabric Impressed. It also demonstrates that there is considerable variation in temper, with some sherds tempered exclusively with clay and numerous sherds tempered with either sand or clay and sand. The high frequency of sand-tempered sherds is not surprising, given the location of the two sites on topographically high, Pleistocene-age sediments connected with the ancestral Mississippi-Ohio river system. But do these sherds qualify as Withers Fabric Impressed and/or Cormorant Cord Impressed? On the basis of published criteria, they do not. The designs are similar to those on archetypal examples, but the temper is different. Likewise, some sherds carry surface treatments similar to those found on Baumer and Crab Orchard pottery from southern Illinois (Butler and Jefferies 1986; Muller 1986), but they are tempered with sand, not limestone or other kinds of rock.

Not all clay-tempered pottery in southeastern Missouri falls into the types Cormorant Cord Impressed and Withers Fabric Impressed. Far more common are plain-surface sherds and sherds from vessels that were cord marked over most or all of their exteriors instead of only around the rim, the latter the distinguishing feature of Cormorant Cord Impressed sherds. Phillips, Ford, and Griffin (1951:82) created the type Baytown Plain to house plain-surface, clay-tempered sherds, terming it "the basic, clay-tempered plain ware of the Survey Area." Although clay was the temper highlighted in the type description, the authors recognized that a minor amount of sand often occurred with the clay, possibly the result of "accidental inclusion" (Phillips et al. 1951:76). If the sand appeared to have been added purposely, a sherd or vessel was placed in the type Thomas Plain—a name that never caught on and later was given the status of a variety by Phillips (1970). If a clay-tempered vessel or sherd exhibited cord marking over most if not all of its exterior, it was placed in the type Mulberry Creek Cord Marked, first described by William Haag (1939a) on the basis of sherds from the Pickwick Basin in Alabama. If a clay-tempered sherd was red slipped, it was placed in the type Larto Red Filmed. The dating of these types is imprecise—not only in southeastern Missouri but also in areas to the south—but they certainly span considerable lengths of time, from the pre-Christian era up to perhaps as late as A.D. 600. Mulberry Creek Cord Marked and Larto Red Filmed probably date later in time than Cormorant Cord Impressed and Withers Fabric Im-

pressed, although there undoubtedly was temporal overlap between the two suites of clay-tempered pottery.

We point out that the literature on southeastern Missouri, especially the older literature, is replete with type names for clay-tempered pottery that add nothing to our understanding of the archaeological record and, in fact, confuse matters significantly. For example, three pottery types that are mentioned repeatedly in the literature (e.g., C. Chapman 1980) are Korando Cord Marked, Korando Plain, and Westlake Plain. Korando Cord Marked was a type name coined by Griffin (1941) to refer to pottery from the Korando site in Jackson County, Illinois, and he later used it in reference to pottery from the Matthews site (Walker and Adams 1946). Griffin subsequently dropped the name in favor of Mulberry Creek Cord Marked, but Carl Chapman (1980) and others kept it alive. Korando Plain and Westlake Plain are regional names evidently created by Chapman (e.g., 1980) for Baytown Plain. Phillips (1970) relegated Westlake Plain to a variety of Baytown Plain. In our opinion (see O'Brien and Wood 1998), all of these names should be dropped with the exceptions of Mulberry Creek Cord Marked and Baytown Plain.

What does one do with sand-tempered temporal equivalents of Baytown Plain and Mulberry Creek Cord Marked? If you were Stephen Williams, you would create two new types in which to house such specimens. Thus he created Barnes Plain as the sand-tempered equivalent of Baytown Plain and Barnes Cord Marked as the equivalent of Mulberry Creek Cord Marked. Phillips (1970:43) later changed the type name Barnes Plain to Kennett Plain, but it never stuck. More important, he had this to say about Williams's formulations:

The types Barnes Plain...and Barnes Cord Marked were set up by Williams...to give classificatory status to a sandy textured ware occurring in Southeast Missouri that seems to be more than merely a sandy variant of the dominant "clay-tempered" ware represented by Baytown and Mulberry Creek. Although this material does occur in minority association with the last-named types in the more easterly portions of the region, it is numerically dominant in the Baytown period sites in the west, particularly those on the Malden Plain, where it carries the main burden for the recognition of a Dunklin phase. (Phillips 1970:43)

In our opinion, Stephen Williams's decision to create separate types for this later sand-tempered pottery was the correct one. It certainly solved the problem of what to do with sand-tempered "varieties" of the earlier types Coramant Cord Impressed and Withers Fabric Impressed. The problem has

been, as Price (1986) pointed out, that far too often investigators unfamiliar with sand-tempered pottery types have tended to refer to any plain-surface, sand-tempered sherd as Barnes Plain and any sand-tempered, cord-marked sherd as Barnes Cord Marked. This has had the effect of masking the variation present in sand-tempered pottery in southeast Missouri, some of which undoubtedly is of chronological significance (Dunnell and Feathers 1991).

What can we make of temper differences in pottery from southeastern Missouri? In discussing the preponderance of sand-tempered Tchula period pottery in the northern and eastern parts of their survey area (northwestern Mississippi), Phillips, Ford, and Griffin (1951:432) stated that "Ford and Phillips interpret this preponderance of sand-tempering as a local specialization without chronological significance, while Griffin sees in it a reflection of the [chronological] priority of sand- over clay-tempering that obtains in northern Alabama." Phillips (1970:887) later made a telling remark regarding the distribution of those two tempers in the northeastern-Arkansas portion of the Little River Lowland:

In a brief foray into the Little River Lowland (south) region at the close of the 1940 season, we picked up on several sites a "Baytown" complex that included sizable percentages of the sandy-textured varieties of the familiar clay-tempered types: Baytown Plain, var. Thomas; Mulberry Creek Cord Marked, var. Blue Lake; Withers Fabric Marked, var. Twin Lakes. Samples were small and in all cases mixed with later Mississippian components. We were, and still are, at a loss how to interpret this sandy material—whether a reflection of the priority of sand over "clay" tempering or the effect of local environmental conditions.

Thus, two decades after Phillips, Ford, and Griffin first pondered the question of why there was a dichotomy in temper in otherwise identical vessels, Phillips was still undecided. He did, however, reiterate his earlier position, assuming that in the "absence of evidence that sandier texture is significant of an earlier date" (Phillips 1970:175), the difference might be environmentally related.

The environmental factors to which Phillips was referring are the two great hydrophysiographic subdivisions evident in the Mississippi Valley: the braided-stream (valley-train) deposits on both sides of Crowley's Ridge that relate to the ancestral Mississippi and Ohio rivers and the more recent meander-belt deposits from the Ohio and Mississippi rivers (Figure 19.1). The Pleistocene braided-stream sediments are in general coarser than those in the meander belt, although local conditions vary significantly. Phillips

was suggesting that sites located on the braided-stream surfaces would contain sand-tempered pottery, whereas sites located in the meander-belt zone, with greater access to clays in backwater areas, would contain clay-tempered pottery. This was a reasonable proposition, although perhaps not universally true (D. Morse and P. Morse 1983). We agree that site context did not necessarily dictate what type of temper was used, although one is struck, as Phillips must have been, by the distribution of clay- and sand-tempered pottery relative to the features left by the two fluvial regimes.

Discussion

What are we to make of the various schemes aimed at bringing spatial and temporal control to the archaeological record of southeastern Missouri? In the first place, simply organizing the schemes into some kind of coherent order is difficult because of the way phases appear and disappear in the literature and phase and period boundaries get moved around. Some archaeologists would argue that there is nothing wrong with this, given that the archaeological record of southeastern Missouri is “extremely complex and at best only partially understood [and the schemes] are approximate at very best” (Lafferty and Price 1996:3). Spatial-temporal schemes are *always* going to be approximations, but it is strange that the scheme Lafferty and Price used in their summary of the prehistory of southeastern Missouri—the phases established by Stephen Williams in 1954—was forty-two years old when their summary appeared. It is difficult to escape the conclusion that little progress had been made in the intervening period. More important, we need to ask specifically what it is we are seeking an approximation of. We get caught up in such issues when we treat archaeological constructs—periods, phases, and pottery types—as empirical (real) units rather than as ideational (measurement) units. Only if they are real can we “approximate” them. But such units can never be real; the stuff they are used to measure is real, but the units are not. This critical dichotomy was not lost on Phillips, Ford, and Griffin:

[T]here is magic in names. Once let a hatful of miserable fragments of fourth-rate pottery be dignified by a “Name,” and there will follow inevitably the tendency for the name to become an entity, particularly in the mind of him who gives it. Go a step further and publish a description and the type embarks on an independent existence of its own. At that point the classification ceases to be a “tool,” and the archaeologist becomes one. (Phillips et al. 1951:61–62)

Exigencies of language require us to think and talk about pottery types as though they had some sort of independent existence. "This sherd is Baytown Plain." Upon sufficient repetition of this statement, the concept Baytown Plain takes on a massive solidity. The time comes when we are ready to fight for dear old Baytown. What we have to try to remember is that the statement really means something like this: "This sherd sufficiently resembles material which for the time being we have elected to call Baytown Plain." Frequent repetition of this and similar exorcisms we have found to be extremely salutary during the classificatory activities. (Phillips et al. 1951:66)

The equation of measurement units with empirical units is exemplified in reactions to Ford's creation of the Troyville period for his Lower Mississippi Valley sequence. In the latter stages of constructing his chronology, Ford redrew period boundaries, in the process designating a new period, Troyville, between the earlier Marksville period and the later Coles Creek period. Most archaeologists were not happy with Ford's modified scheme, and he answered their criticism:

This readjustment of the named divisions for the time scale in this area seems to have puzzled a few of the archaeologists working in the Mississippi Valley, even some of those who have been best informed as to the field-work which led to this rearrangement. Complaints have been made that pottery types that were formerly classified as Coles Creek in age are now assigned to the Troyville Period. Discussion develops the opinion that if this latest chronological arrangement is correct then the former must have been in error. The adoption of new names for all the periods in the more recent arrangement may have avoided some, but not all, of this confusion. These serious and earnest seekers after truth really believe that we have discovered these periods and that this is a more or less successful attempt to picture the natural divisions in this span of history. This is obviously an incorrect interpretation. This is an arbitrary set of culture chronology units, the limits of each of which are determined by historical accident, and which are named to facilitate reference to them. (J. A. Ford 1951:12-13)

Ford viewed time as a continuum as opposed to a series of natural periods or stages, and it did not matter where one happened to slice that continuum. Years later, Phillips (1970)—clearly unhappy with Ford's procedure of modi-

fying his set of periods—still could not comprehend why Ford had done what he did. Phillips, like most of his contemporaries and successors, believed in the reality of units such as periods and stages and therefore wanted the boundaries of those units to coincide with visible (one might say “objective”) junctures in the archaeological record. Given that any number of criteria could be used to designate period boundaries, along with the fact that such criteria did not appear everywhere at the same time, “regional” chronologies sprang up. The next step was to link these chronologies, as Phillips, Ford, and Griffin (1951) attempted to do for the central and lower sections of the Mississippi alluvial valley and Griffin (1952a, 1967) attempted to do for the eastern United States. The results of such exercises often were nightmarish concoctions, as Barry Lewis (1996:49) noted with reference to southeastern Missouri:

There are few one-to-one correlations between the time slices emphasized in the Griffin and Phillips frameworks, and the archaeological literature of the region contains a certain amount of terminological chaos that reflects the conflicts between them. One finds, for example, confusion about whether the term Baytown in a given context refers to part or all of the Early, Middle, or Late Woodland periods; about whether Tchula is properly considered comparable to the Early Woodland, the Middle Woodland, or parts of both; about whether the Poverty Point period in the northern Lower Valley is appropriately considered Early Woodland, Late Archaic, or part of both; and about how one patches the Lower Valley sequence to accommodate the fact that the Coles Creek period, which has strong trait-based connotations in the Yazoo Basin [of western Mississippi], is meaningless in the Bootheel [of Missouri]. I suspect that everyone who works in this region has felt the frustration of trying to calibrate the two temporal frameworks with sufficient accuracy and precision so that they can get on with their research.

Such problems obtain even at the level of regional chronology. For example, given the way in which Stephen Williams arranged his southeastern Missouri phases, there is no way of illustrating the relation between phases and periods except by showing each set of phases separately (Figure 19.2). This is because the beginning point for the Tchula period and the ending point for the Baytown period were figured differently for each area. Thus, period boundaries did not coincide with phase boundaries for each of the two areas. One could argue that what the formulation is showing is the time-transgressive nature of traits as a result of diffusion, population movements, and

the like, and perhaps this is what Phillips, Ford, and Griffin (1951:39) had in mind when they labeled Middle Mississippi as "an archaeological facies." This is difficult to defend when the issue is solely elapsed time, but that was not the only issue at stake. Thus boundaries of time periods were tied directly to events such as the appearance of stamped or incised pottery in a region, and those events could occur at different times in different places. The critical issue is whether those events serving as definitive criteria of phases and periods were in fact the same criteria across all of the included units. Sometimes they were not.

If periods are viewed as real, there is no reason to suspect that phases—those "practical and intelligible unit[s] of study" (Willey and Phillips 1958:22)—are anything other than real. Willey and Phillips set up phases as temporal-spatial units used to keep track of variation in the archaeological record. Components, from which phases were constructed, were vertically bounded excavation units that represented a phase at a particular site. The important point is that phases and components originally were viewed solely as archaeological constructs. Although Phillips and Willey (1953:617) expressed the opinion that "archeo-sociological correlations may eventually be possible," they suggested that "the archaeologist is on firmer footing... with the conception of an archeological culture as an *arbitrarily defined unit* or segment of the total continuum" (emphasis added). But even Willey and Phillips, despite issuing such a caveat, forged ahead and made correlations between archaeological and sociocultural phenomena. Components were more or less equivalent to occupations or communities, and phases were "time-space-culture units" equivalent to societies (Lyman and O'Brien 2001). Thus we have D. Morse and P. Morse (1983:313) equating native provinces in northeastern Arkansas as related in the Hernando de Soto chronicles with archaeological phases.

Artifact types and phases are not the only places where analytical difficulty resides. Precisely the same problems afflict the larger scale, more inclusive units regularly used by culture historians. For example, Gerald Smith (1996:109) stated in a recent paper on the prehistory of western Tennessee that "Late Woodland and Baytown are here regarded as distinct cultural traditions following [the] Middle Woodland [period] and preceding the appearance of local Mississippian culture.... The Late Woodland tradition... is regarded as an extension of Midwestern Late Woodland, whereas Baytown is regarded as an extension of the Gulf Coastal tradition." Smith is caught here in a no-man's land in his use of terms such as *Woodland* as both a period and a cultural unit (tradition). When he discusses the Middle Woodland he uses it as a period designation, but when he discusses Late Woodland he uses it as a tradition designation. We empathize with Smith because

his study area is complex archaeologically. For the period roughly A.D. 1 to 400, the Middle Woodland period, the archaeological record is relatively homogeneous across the area, but after A.D. 400, the record becomes complicated. Pottery that looks like contemporary materials to the north—Smith's Late Woodland tradition—also looks like contemporary materials to the south—his Baytown tradition. What does one do in such a case? Whatever option one selects, different kinds of units cannot be used interchangeably.

Recall how Griffin attempted to merge his Midwestern chronology with Ford's chronology for the Lower Mississippi Valley by equating the Early Woodland horizon with the Tchefuncte culture. In so doing he went well beyond chronology by using the terms *horizon* and *culture*. What he could have said is that some pottery from southeastern Missouri resembles in certain respects what Ford and Quimby (1945) called Tchefuncte pottery, based on their examination of sherds from southern Louisiana. The term *Early Woodland* started life as a period designation, but it soon became a horizon designation, which apparently was then equated with a cultural designation. This was not unique to Gerald Smith or J. B. Griffin; culture historians working in the Southeast routinely conflate the terms. Perhaps this quote from John W. Griffin (1996:120–21) says it best: "One of the hallmarks of the earliest years of the Southeastern Archaeological Conference... was the definition of and discussion of pottery types in what came to be known, informally at least, as the Southeast Binomial System. We began to take our potsherds seriously. And pottery types and pottery series were soon joined by named cultural units (periods, phases, foci, assemblages, cultures—whatever)." Whatever indeed.

Conclusion

We were amused to read what Lewis (1996:75), using an apologetic tone, said about the archaeology of southeastern Missouri:

In my first attempt to sort out the southeast Missouri chronological muddle, I could do little more than describe the disarray of published phase descriptions (Lewis 1972:38–40). I later learned that this affliction—the desire to save the chronological sequence from the legacy of researchers with long experience in the region—is common among new researchers in the Bootheel. In my case I wrote arrogantly, "These phases are in general poorly described and frequently based on little more than surface collections or perhaps one or two lightly tested components. Most, if not all of the phases

which have been formulated for Southeast Missouri have been erected on a rather shaky archaeological foundation of crossdating [and]...a few radiocarbon dates scattered here and there."

Lewis has nothing to apologize for; his words are as true today as they were in 1972. Southeastern Missouri phases are poorly described, but even worse, they have never been defined. By that we mean that the necessary and sufficient criteria for membership in a phase have never been spelled out. When Stephen Williams created the phases, he used pottery types as tentative phase markers, but he did not define the phases. Almost half a century later, they remain undefined.

Phases can be one of three things (Dunnell 1971; Fox 1998). First, they can be classes, which means that the members of a phase share unique traits—phrased as some abstraction (historical types), such as Phillips, Ford, and Griffin's (1951) pottery types—none of which is shared with members of any other phase. Second, phases can be groups, which means that the actual members of a phase are more similar to one another—again measured in terms of abstractions (historical types)—than any one is to a member of another phase. Third, phases can be historical accidents formed on a loose, ad hoc basis. Fox's (1992, 1998; O'Brien and Fox 1994a, 1994b) examination of late prehistoric phases proposed by researchers working in southeastern Missouri (e.g., Klippel 1969; R. Marshall 1965a; Phillips 1970; G. Smith 1990; J. R. Williams 1967, 1968, 1972; S. Williams 1954, 1956) shows they are neither groups nor classes, but rather inconsistent sets of assemblages. That is, they are historical accidents. If we go back and look at the published criteria for any phase thus far named for southeastern Missouri, it is clear that the necessary and sufficient conditions for membership in those phases are never stated clearly. In other words, phase "definitions" are written so loosely that the criteria are variously ambiguous and overlap.

Once reality is attached to archaeological units, it becomes easy to conflate them (Lyman et al. 1997; O'Brien 1995; O'Brien and Lyman 1998, 2001). Thus, despite the precise definitions that each carries, units such as "period," "stage," "phase," "horizon," and "tradition" often are used interchangeably, sometimes being mixed in with "culture" and "people." This is not what early culture historians intended when the concepts were introduced, but laxity in how units and the terms for them were used was evident almost from the beginning. Beginning with artifact types as the building blocks of larger units, cautions such as those of Phillips, Ford, and Griffin (1951) were overlooked, despite repetition by others such as Alex Krieger (1953:261), who noted that the typological definitions being used by archaeologists were "highly individualistic, determined by inclination or by

force of personality in various local situations, without regard to what happens when results must be compared objectively in different areas.” And the larger units that rested upon artifact types also were highly individualistic, with some considering a period to comprise only a slice of time (e.g., Rowe 1962), whereas others considered a period as comprising a particular cultural form (e.g., Rouse 1953). Confusing stages with periods and similar problems was a predictable result (e.g., Rowe 1962; Trigger 1968).

Traditional culture-historical units are alive and well in southeastern Missouri, just as they are throughout the Southeast. Despite the fact that they mask variation instead of highlighting it, there are no signs that these units will soon disappear. Archaeologists will continue to use them, often with little regard for the original purpose for which a particular kind of unit—period, phase, type—was created. Nor is there any reason not to suspect that various units will continue to be used interchangeably. As long as we ignore epistemological issues involved in archaeological systematics, we can continue creating audience-friendly stories about the past, but at the same time we should be honest about what we are doing.

Acknowledgments

We thank David Anderson and Robert Mainfort both for inviting us to participate in the Southeastern Archaeological Conference symposium in which this paper was delivered and for their helpful comments. We also thank E. J. O'Brien for extensive editorial assistance, Dan Glover for producing the figures, and Steve Williams for helpful comments on an early draft.

