

The Inalienable Rite:  
Smoking Ritual During the Mississippian Stage in  
the South Appalachian Mississippian Region

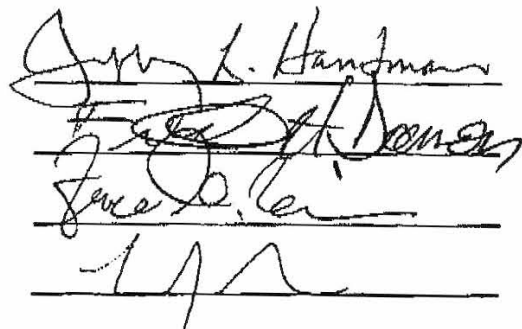
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The block contains four handwritten signatures, each written over a horizontal line. The signatures are in cursive and appear to be: 1. Jerry L. Handman, 2. Fred H. Denmark, 3. James D. Leach, and 4. L. A. (likely L. A. Starna).

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## Abstract

The role of religious ritual and circumstances of its change are explored through the case of late prehistoric Native American Indian smoking pipes in the South Appalachian Mississippian region of the United States. Attributes of specific pipe categories in use from AD 1000-1600 are formally defined and their temporal and spatial parameters are determined from archaeological contexts. Symbolic features applied to pipes are evaluated with reference to Southeastern Indian mythology and current understanding of the Southeastern Ceremonial Complex (SECC). Observed patterns are ultimately assessed and interpreted with respect to costly signaling theory.

The research addresses a neglected dimension of Mississippian material culture studies by thoroughly documenting a representative sample of smoking pipes. Results establish that the South Appalachian Mississippian region experienced unique elaboration of smoking ritual during the period following about AD 1000. Furthermore the rites underwent a process of change that corresponded closely with reorientations to other aspects of the regional Mississippian cultural pattern. The historical progression of the ritual was generally from low-profile practice, to abrupt elaboration, and then to more modest but still prominent expression. That trend, in the context of broader Mississippian developments, is consistent with expectations of costly signaling theory as well as other models addressing the role of religious ritual and the nature of its change.

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## Chapter 1.

### Introduction

*In the seventeenth century, Apalachee Indians vigorously resisted efforts of Spanish Catholic missionaries to abolish their much-revered ballgame. Every aspect of the game seemingly carried sacred connotations and was ritualized. Pre-game purification rituals involved smoking by the cacique of the most special type of tobacco, hachuma fina, in pipes lit directly from the sacred fire (Hann 1988:340; Peterson 1976; Scarry 2007b).*

*Each day, from the summit of a platform mound, the Natchez “Great Sun” solemnly presented a lit pipe to the rising sun, his source of power and authority, and then to each of the other quarters of the cosmos (Du Pratz 1972).*

*Lieutenant Timberlake recounted in 1761 how he was overcome physically by the effects of nicotine after participating in a lengthy Cherokee welcoming ritual involving repeated sharing of tobacco pipes (Jones 1999:399).*

*Tobacco figured significantly in rituals associated with the penultimate event of the annual Creek Indian ceremonial calendar (Grantham 2002; Springer 1981:219). At points during the days-long event known as the busk or Green Corn ceremony, tobacco was given as gifts, was used in multiple purification rituals, and was an ingredient in the white plaster applied to a central hearth before new fire was lit. Accounts of the rituals recorded as late as the twentieth century are widely believed to be survivals of ancient Southeastern Indian traditions (Hall 1997:138).*

*The nineteenth-century Georgia antiquarian, Charles Colcock Jones, remarked on common discoveries of prehistoric smoking pipes and implored, “The pipes of the North American Indians possess an importance, both traditional and historic, which, elevating them above the category of ordinary relics, claims for them a moral, religious, and political value, which must be duly appreciated in forming a suitable estimate of their office and in comprehending the various purposes they were intended to answer” (Jones 1999:383). This classically educated observer also commented on the varieties of pipes that had turned up in the Southeast and was moved to hazard a basic classification scheme. Mainly he recognized a broad category of human effigy “idol” pipes and a catchall category of “calumet” pipes, yet had no good basis for explaining the distinctions.*

*William Henry Holmes, Chief of the Bureau of American Ethnology, reserved brief sections for pipes in his landmark 1903 work on, Aboriginal Pottery of the Eastern United States (Holmes 1903). Drawing on his continent-wide perspective, he observed that, “In the East and Northeast the clay tobacco pipes of the aborigines were often superior in execution, design, and decoration [and]... In the central and southwestern sections pipes were for the most part remarkably rude and without grace of outline” (Ibid:98). He also recognized that changes in pipe forms between the Chesapeake and South Appalachian areas were “abrupt” (Ibid:158). Yet while he recognized a range of forms generally unique to the South Appalachian area, he was at a loss to offer explanations for them, remarking that, “the groups or varieties of pipes are not so well marked as are the groups of [ceramic] vessels” (Ibid:141).*

*Joseph D. McGuire (1899) made the first attempt at a comprehensive treatment of Native American smoking and smoking pipes, a work that was liberally followed and*

*expanded on by George A. West (1934). Both authors succeeded in better articulating the apparent temporal and spatial correlations of different pipe types. Although theirs were crude beginnings, still reliant upon categories like “Idol pipes” or “Southern Mound Pipes”, the prospects for fruitful study became increasingly clear.*

I have opened with this series of vignettes about Southeastern Indian tobacco and pipe use because they serve to frame my dissertation. Based on such accounts, I came quickly to appreciate the complexity and the enormity of the topic. Ethnohistorical accounts establish that the act of pipe smoking by Southeastern Native American Indians, and their use of tobacco in general, was anything but an invariant practice. Yet the literature review also exposed a startling lack of scholarship, especially subsequent to McGuire (1899) and West (1934), devoted to what was by all accounts an essential aspect of ritual and social life.

The same sources were indicating to me that smoking ritual was an enduring religious act, apparently so basic to sacred concerns that it was not allowed to disappear in spite of other, obvious cultural changes. Clearly, the persistence of the ritualized activity warranted a closer examination. Secondly, while it became abundantly clear that one pipe was not necessarily the same as another, the meaning of the variation remained unexplained. Together those circumstances effectively define a problem well suited for archaeological evaluation, particularly in view of the fact that the last ambitious attempt to comprehend the world of North American Indian pipes was published in 1934 (West 1934).

The value of the dissertation is derived from other conditions as well. As it happens, of all the scholarly activity devoted to Mississippian<sup>1</sup> in general, and to Mississippian religion and ritual in particular, the subjects of tobacco and pipe smoking have almost completely been neglected. The few exceptions pertain either to areas of the Mississippian world outside of my study area or they are cursory in nature (e.g., Emerson et al. 2003; Steponaitis and Dockery 2011). As I will demonstrate, smoking ritual was an indispensable feature of Mississippian religious practices and an appreciation of its role is necessary for a thoroughgoing portrayal of Mississippian existence.

My personal investment in the topic of smoking ritual began with recent research at a series of Late Mississippian sites in south-central Georgia, some of which have produced hundreds of smoking pipe fragments (Blanton and Snow 2010). That alone inclined me to suspect the centrality of smoking in the ritual realm of those cultures. Furthermore the elaborate symbolic embellishment of most of the same pipes provoked any number of questions about “meaning”, as well as about regional and temporal stylistic variability. As I sought to explain the role of pipes on those sites by comparing them to published descriptions of similar artifacts elsewhere in the region, it became clear that the standard archaeological treatment of pipes was superficial if not altogether dismissive.

In the most general sense this dissertation is my answer to those initial questions about the new artifact assemblages from southern Georgia. But in pursuing that explanation, I am compelled to situate those pipes, and now others in the region, within a fuller context that is a more appropriate basis for bridging the artifact-behavior gap.

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<sup>1</sup> Mississippian is a well-studied cultural expression of the late prehistoric southeastern United States marked by chiefly hierarchies, an agricultural economy, platform temple mound construction, widespread exchange, and a suite of distinctive iconic images (cf., Griffin 1985; Smith 1985).

However I recognized from the outset that the topic was vast enough to require a comprehensive, sober-minded approach delimited by clear space and time parameters.

To that end, I have chosen to constrain the project by first limiting its spatial scope to the area of the southeastern United States referred to as the South Appalachian Mississippian region (Ferguson 1971; Ferguson and Green 1984)(Figure 1.1).

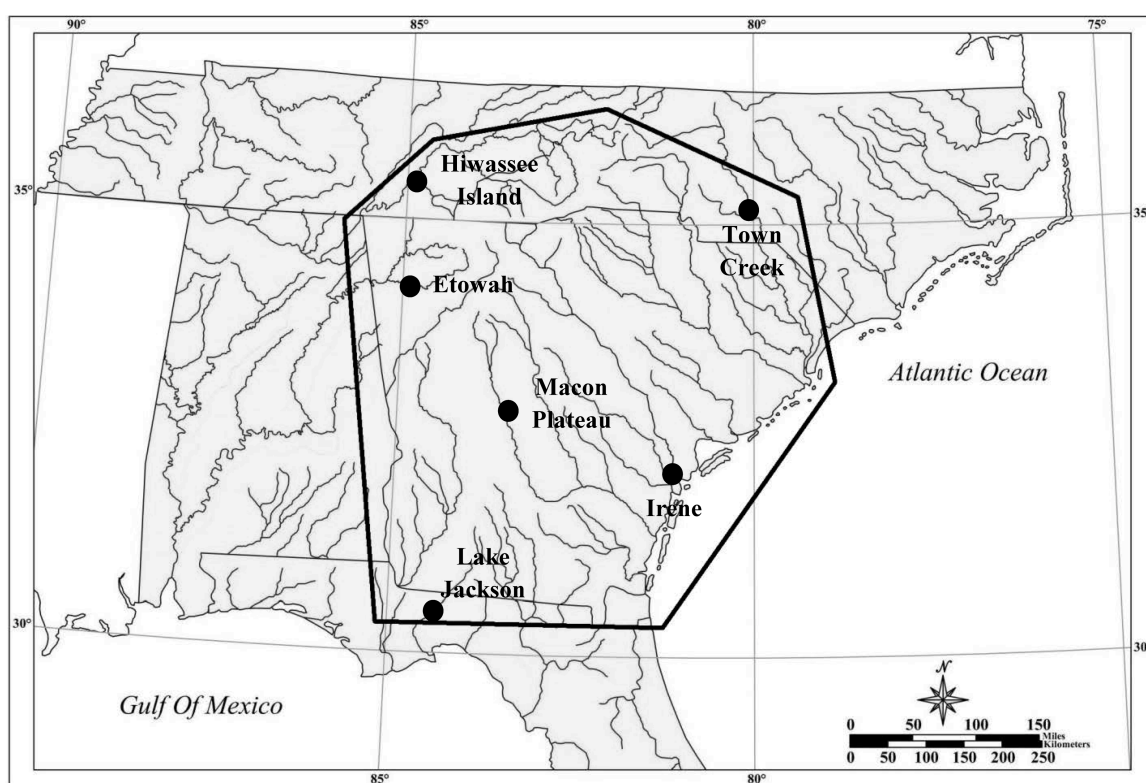


Figure 1.1 South Appalachian Mississippian region map

Like any so-called culture area, this one is untidy, challenged as it is by its own internal variability. However it does capture a series of fairly unique archaeological expressions of late prehistoric societies that imply a level of interrelation. If nothing else, the region constitutes a classic test case for evaluating the value of the culture area concept, and my project will consider it from the perspective of smoking pipes.

As the name of the culture area implies, I will further limit my treatment to the Mississippian Stage of the region, generally the period AD 1000-1600 (Figure 1.2). The South Appalachian area is a convenient laboratory for exploring a number of basic issues, including the nature of Mississippian culture change. It has become increasingly clear that Mississippian chiefly societies, of this region and beyond, experienced shifts over a multi-century interval (Anderson 1996b; Cobb 2003; Cobb and King 2005; Pauketat

Period	Dates (AD)	Lake Jackson (Scarry 1996)	Chattahoochee (Blitz & Lorenz 2006)	Etowah (King 2003)	Upper Tenn (Sullivan 2009a)	Savannah (Anderson 1994)	Oconee (Williams & Shapiro 1996)	Ocmulgee (Hally 1994)	Coast (Crook 1986)
Early	950-1100	Wakulla							
	1000-1100			E Etowah					
	1100-1200		Rood I	L Etowah			Cold Springs	Etowah	
	1100-1230				Hiw Isl I				
	1150-1250	E Lk							
Middle	1150-1300					Irene I	Scull Shoals		
	1200-1300		Rood II			Beaverda			
	1200-1300								
	1250-1325			E				Savannah	Savannah
	1200-1350				Hixon		Duvall		
	1250-1350					Hollywood			
	1250-1400	L Lk							
	1280-1310				Hiw Isl II				
	1275-1425						Iron Horse-Shin I		
	1325-1375			L				Stubbs	
	1325-1400				Hiw Isl III				Irene
	1300-1400		Rood III			Rembert			
	1300-1400					Irene II			
	1300-1450								
Late	1350-1410				Dallas				
	1350-1450						Shoulderbon		
	1400-1450		Singer						
	1400-1550	Velda				Tugalo	Dyar	Cowarts Square	
	1425-1550								
	1450-1550		Bull Creek						Altamaha
	1475-1550			Brewster			Shin II-Litt		
	1450-1550				Mouse				

Figure 1.2 South Appalachian Mississippian region cultural chronology

2007). Some such changes were unique to sub-regions, but others were driven by farther-reaching factors. My intention is to document this history in the South Appalachian area through the lens of smoking pipes that, as it turns out, appear to be at least as sensitive to change as most any other category of material culture.

The subject of religious ritual is at the core of the study. Its centrality extends from my assumption that Mississippian smoking was at least a solemn if not always sacred activity subject to various prescriptions that established appropriate timing and rules of ritual conduct. There is little in the archaeological or ethnohistorical records to suggest that smoking, or tobacco use in general, was a habitual or recreational activity among Southeastern Indians prior to the eighteenth century. Pipes and tobacco residues are, then, the sole tangible traces of a set of highly-charged and deliberate actions undertaken for the purpose of influencing the course of both worldly and otherworldly affairs.

Archaeologists have not avoided the subject of ritual (e.g., Dietler and Hayden 2001; Rakita 2009), but it remains one of the more inscrutable aspects of human behavior to address from the perspective of material remains. Ritual objects that survive to be discovered usually are items of paraphernalia designed originally to enhance the ritual experience, mainly by improving the efficacy of religious rites. And the contexts of the finds never fully capture the nature of the activities. Thus, rituals, like all behavior once viewed as aspects of an “ideotechnic” realm (Binford 1962), tend to reward creative yet measured research approaches. I seek to strike that balance.

Following this introductory chapter, the dissertation first develops necessary context in two important areas. Chapter 2 concerns previous scholarly treatments of

ritual, with an eventual focus on the manner by which evolutionary theorists have explored the topic. More specifically, the discussion examines the theoretical applications of costly signaling theory to the question. Chapter 3 provides an archaeological context. In addition to summarizing relevant research in the South Appalachian Mississippian area, this chapter also reviews how pipe smoking and tobacco use are documented by the ethnohistorical record of the Southeast. In Chapter 4, elements of the contextual information are applied to develop a testable model of smoking ritual, and the methods I use to evaluate the model are described.

Substantive findings of data analysis are presented in Chapters 5 and 6. The first of the two chapters concerns questions of time and space. Arguments are made about the intervals during which specific pipe types were made and used and then about how they are distributed across the study area. The next chapter turns to the topics of style and symbolism. Beyond descriptions of the symbolism so heavily loaded onto many pipe types, an effort is made to tackle the more impenetrable subject of symbolic “meaning.”

The final chapter of the dissertation, Chapter 7, describes the project’s findings relative to both theoretical and archaeological contexts, seeking above all to account for observed patterns in the results. The discussion first considers the impact of the findings on Mississippian studies, especially in the South Appalachian area and then speaks to the implications of the work for archaeological treatments of ritual, particularly from the perspective of costly signaling theory. An appendix provides detailed descriptions of each of the pipe types defined by the study.



## Chapter 2.

### Theorizing the Role of Religious Ritual in Traditional Societies

Religious rites are a hallmark of human cultural behavior, and they have been devised in a profusion of evocative forms. Generations of anthropologists have been compelled to study ritual practice, and many maintain that it is no less vital to the operation of cultural systems than economical and political activities. Still, there is less agreement on exactly *why* and especially *how* religious rituals play such an important role.

My objective in this study is to explore those issues. The ensuing discussion provides a selective review of approaches to the subject of ritual that will situate an analysis of Southeastern Appalachian Mississippian smoking rites. The literature devoted to the general topic of ritual is vast, but most of my attention is given to contemporary scholarship. Special emphasis is placed on the approaches of cultural anthropologists and archaeologists who adhere to evolutionary theory, including the related concept of costly signaling. Their work has generated a series of empirically testable hypotheses conducive to archaeological application. Particular attention is also given to the role of symbols in ritual activity. Archeological treatments of ritual are also reviewed.

#### What is Ritual?

Rituals are not always religious acts but, in the sense I consider them here, they cannot be contemplated seriously outside the context of religion. Yet because religion and ritual can be terms either conflated or used in opposition, it is necessary to establish some working definitions.

Religion, defined simply, is a set of beliefs concerning the cause, nature, and purpose of the universe (Dictionary.com 2011). Religious belief systems serve to distinguish what is sacred from what is not, and they act to resolve the inherent tension between the two. Religious practices are ultimately created by and practiced by human societies out of self-interest. By participating in a religion, individuals subordinate their interests to those of the group in order to achieve ends more difficult, if not impossible, to achieve alone (Wilson 2002:187). Codes of moral behavior derived from religious beliefs reinforce the subordination of the individual.

Ritual is not the same thing as religion but rather, as defined for this project, is a fundamental element of it. Rituals are activities conducted on behalf of religion that are ordinarily invariant (Rappaport 1999). A key aspect of ritual is *action*, as it is effectively synonymous with religious *practice*. Ritual actions create the contexts in which most individuals experience their religion. Rituals serve the purpose of religion by reifying and communicating essential, or canonical, elements of beliefs, and participation in them builds group solidarity (Alcorta and Sosis 2005:345; Bell 1997; Rappaport 1999). Ritual acts and symbols may also be purposely manipulated in order to achieve particular goals.

Anthropologists are in agreement that ritual *does* something, that it has sufficient value, even necessity, to be an activity worthy of study. Bell (1992:16) observes that, in spite of the complexity of the subject and the wide range of approaches to it, there is some consensus about what it is that ritual does and why it matters. She attempts to distill the essence of ritual as follows: “ritual is consistently depicted as a mechanistically discrete and paradigmatic means of sociocultural integration, appropriation, or transformation... [it] is a type of critical juncture wherein some pair of opposing social or cultural forces comes together” (Bell 1992:16).

Bell's encapsulating statement gains a greater measure of clarity if it is substantiated with some of the remarks other anthropologists and sociologists have made about the role of ritual in religious practice. At least as early as Tylor (1871) and Frazer (1922), religion and ritual were regarded as essential features of all human cultures, and a progression from more to less "primitive" forms was argued. More sophisticated assessments of religion and ritual were introduced through the work of Durkheim near the beginning of the twentieth century. He came to the conclusion that, in the words of Rappaport (1999:378), "God... is society mystified and apotheosized." Durkheim also recognized the importance of collective experience to the efficacy of religious rites and other social activities (Durkheim 1965:474-476), an idea Bell (1992:171) refers to as the social solidarity thesis. Later, Clyde Kluckhohn (1942:79) observed how myth and ritual, "tend to portray a symbolic resolvment of the conflicts which external environment, historical experience, and selective distribution of personality types have caused to be characteristic" of a society. Victor Turner (1969) recognized ritual to be the activity binding together *structure* and *communitas*. And Crocker (1973) wrote that, "Societies tend to meet... situations of crisis with ritual, which presents the enduring validity of certain principles of order."

Anthony Wallace is particularly notable for the clarity of his position on the integral role of religious ritual. In his view rituals were not only instrumental in bringing members of society together by expression of core values, but they achieved this by transforming states of being. Quoting him (Wallace 1966:239), "ritual, by reducing the information content of experience below the often bewildering level of complexity and disorder with which reality confronts [members of society], permits adaptive response." James Fernandez (1977:127) later echoed essentially the same view, saying that ritual, by

employment of metaphor, “is a hypothesis which makes some things in the world relevant and all other things quite irrelevant.”

Recognition of ritual’s important function is also found among more contemporary theorists like Pierre Bourdieu. A passage from *The Logic of Practice* (1990:96-97) bears repetition:

To understand ritual practice, to give it back both its reason and its *raison d’être*, without converting it into a logical construction or a spiritual exercise, means more than simply reconstituting its internal logic. It also means restoring its practical necessity by relating it to the real conditions of its genesis, that is, the conditions in which both the functions it fulfils and the means it uses to achieve them are defined... The relationship between economic conditions and symbolic practices is indeed practically realized, not in some ‘articulation’ between systems, but through the function that is assigned to indissolubly ritual and technical practice in the complex relationship between a mode of production and a relatively autonomous mode of perception, and through the operative schemes employed to fulfill that function.

I adhere to the view that an essential role of ritual, as an intrinsic aspect of religion, is one of communication. It is an act capable of priming participants and observers for action, usually of a sort that is ultimately advantageous to society as a whole (Alcorta and Sosis 2005:330). In this sense ritual can be a highly strategic form of behavior that individuals and groups engage in, in spite of obvious costs, with the expectation that doing so will have payoffs.

Most studies agree that ritual activity consists of several integral elements, the most universally recognized of which are settings, symbols, and performances. In a sense, each rite has a contrived, systematic aspect whereby all of the basic elements contribute to the achievement of a ritual’s intended goals - communication and inspired action.

Typically rituals are conducted in prescribed *settings* to create a suitably focused context, one that is appropriately respectful and that maintains a sacred aura (Knight 1981:83-84, 88; Renfrew 1991:359-360). The settings vary considerably in their formality and elaboration, from lavish temples to austere locations to merely pragmatic places.

*Symbols* are also integral aspects of ritual (Alcorta and Sosis 2005:330, 332; Bell 1997:155, 159; Douglas 1969; Renfrew 1991:358-359; Turner 1969; Wilson 2007:226-227). They are purposely made and manipulated to ensure that virtually every aspect of a rite conveys a symbolized message. Ritualistic symbols may be physical objects, called *sacra*, or they may be expressions in the form of special language, music, or dance. Regardless, symbols used in rituals have two important properties. One is condensation, the capacity to communicate tenets of religious belief economically (Turner quoted in Morris 1987:241). The other is emotional impact sufficient to inspire participant action and enhance retention of beliefs.

Finally, ritual *performances* involve the display of symbolic objects and behaviors within special settings (Bell 1997: 160, 167-169; Rappaport 1999:37, 393; Renfrew 1991:359-360; Robb 1998:333; Turner 1969, 1973). The performances tend to be scheduled according to a ritual calendar and often are presided over by religious specialists. Like the settings where rituals occur, the performances can vary widely in elaboration, formality, and visibility.

For obvious reasons, archaeological treatments of ritual must focus on investigation of its contextual and symbolic dimensions, especially where preliterate societies are concerned. Without the benefit of texts, recordings, and elaborate artworks,

less tangible aspects of ritual performances, including the timing of them, are largely out of reach. It is feasible, however, to gain a sense of ritual practice from the physical traces of ritual settings, like temples, altars, and mortuaries. The same is true of its symbolic aspects. More on archaeological approaches to ritual will be reviewed in a later section, but it suffices to note here that the focus of this project will mainly be on ritual symbols and setting.

Ultimately consideration must also be given to the question of whether smoking among traditional Native American Indian societies constitutes ritualized behavior or not, according to the definitions that have been presented. There is ample evidence, particularly of an ethnographic sort, that pipe smoking was almost exclusively a sacred and solemn act (Waselkov and Braund 1995; Von Gernet 2000). Pipes were not smoked casually as a rule until well after initial European contact. Instead smoking was an activity reserved for non-secular, if not always religious, occasions and the act of smoking was always ritualized. A more thorough description of smoking practices and their importance to Southeastern Native societies is presented in Chapter 3.

### The Perspective of Evolutionary Theory

Inheritance occurs among humans through both biological and cultural processes that are sometimes together referred to as a dual inheritance system (Shennan 2009). Mechanisms of cultural inheritance, very different from the mechanisms driving biological evolution, account for patterns of cultural evolution. Cultural evolution depends upon the transmission of cultural information through processes of social learning, as opposed to transmission of genetic information through biological ones

(Shennan 2008, 2009). And while biological evolution occurs only at the level of the individual, cultural evolution can also occur at the level of the group.

Cultural evolutionary theory works under the premise that humans tend toward optimal behavior (Shennan 2009). Optimal behaviors introduce adaptive advantages that improve fitness in ways ranging from higher rates of reproduction to improved responsiveness to outside aggression. The non-genetic inheritance mechanism driving cultural evolution is information exchange through social learning (Eerkens and Lipo 2007; Lipo et al. 2006; Shennan 2008, 2009). For example, advantageous ideas and skills emerge by means of innovation at the individual level, and further knowledge of them is accrued through varied means of sharing and learning. Because these are non-genetic processes, they can occur relatively quickly, often because advantageous innovations that improve opportunities for survival are highly attractive models for imitation. Although the multiplicity of possible pathways for transmitting cultural information may introduce levels of bias to the process (Eerkens and Lipo 2007, Shennan 2009), observed similarities in behavior and material culture are still explainable by this kind of non-genetic information exchange.

Biological evolution takes place only at the locus of the individual, but cultural evolution occurs at individual and a group levels (Richerson and Boyd 1999:256; Shennan 2008, 2009; Wade 2009:29; Wilson and Wilson 2007). The notion of group evolution is relatively new and seeks to explain the process by which groups operate as adaptive units. Groups function this way because they confer benefits to members beyond what could be gained individually and, in turn, groups function as units subject to natural selection. Groups also offer the advantage of channeling individual energies for collective action. Conformist pressures within groups, enforced by moral codes, reward altruistic

behavior among members and temper the tendency of individuals to act selfishly (Wade 2009:70). By those means, variation within groups is ultimately reduced as variation between them is enhanced; stronger social units are the outcome.

Religious behavior has recently become the subject of intense examination by anthropologists, sociologists, and psychologists with an interest in this cultural evolutionary process (Alcorta and Sosis 2005, 2007; Wade 2009; Wilson 2002). Among them, there is strong agreement that religion, a group-level behavior, is an evolved mechanism for enhanced social cooperation. Over the long span of human experience, religion evolved as an aspect of human nature that subordinated the interests of individuals to those of a collective, resulting in the advantages of coordinated action. The appeal of religion for individuals was enhanced survival options within a group, in addition to satisfaction of innate emotional needs. By way of example, self-restraint in favor of social cohesion improved opportunities for competing against rival groups.

Suppression of individual self-interest is achieved through institution of moral prohibitions that accord with instincts (Wade 2009; Wilson 2002). To wit, religions offer guiding principles for survival. The strength of this argument is made by the universal existence in human cultures of certain moral prohibitions. Theoretically, participation in religion offers both proximate and ultimate benefits (Wilson 2002:170-171). The proximate benefits, those experienced most directly and consciously by individual group members, mainly operate on an emotional level. Participation in religion instills a satisfying sense of belonging and accomplishment. The ultimate benefits, those less apparent but arguably more significant, are the adaptive advantages of religion. It has been proposed that one of the first and most important of these successes was in warfare (Wade 2009:51). Other benefits are economic in nature, such as the capacity to increase



agricultural productivity. The value of such benefits to human societies is manifest in a willingness to absorb the conspicuously high costs that religious activity can entail.

New research has sought to explain specifically how ritual can function to promote cooperation and attract group membership (Alcorta and Sosis 2005:325; Sanderson 2008:143-144; Wilson 2002:228). The argument is that participation in religious ritual improves social and genetic fitness by establishing costly and reliable signals of membership, principally in the form of institutionalized concepts derived from a prevailing model of existence (i.e., the religious belief system). These kinds of concepts, unique and often counterintuitive, become unbreakable codes to non-members (Alcorta and Sosis 2005:324, 344, 348; Dow 2004:2; Wilson 2002). By linking symbolic, social, and affective systems in this way, ritual becomes a highly flexible tool for motivating individual behavior, discriminating between friends and enemies, and forging inter-group alliances. As individuals are moved to give up a measure of self-interest on behalf of the collective, cooperative activities strengthen the group, and those successes serve to attract new members (Dow 200; Sanderson 143-144). These theorists further distinguish their position by reducing traditional concepts about ritual to the neurophysiological level, arguing that ritual is a vital religious mechanism because it elicits positive emotional responses and learning behaviors (Alcorta and Sosis 2005:332-340). Richerson and Boyd (2006:209) note, too, that because people are often inclined to imitate successful neighbors, cultural patterns associated with the most successful groups, including religious ones, will spread and often rapidly.

Some anthropologists and archaeologists have sought to evaluate religious behavior under models of costly signaling (Bird and Smith 2005; Shennan 2008; Wade 2009:59). As noted, the costs of religious behavior can be quite high, stemming from the

energy and effort required to create and maintain tangible symbols, to conduct public rites, and sometimes to support religious specialists. Generally, religious behaviors represent an acceptable form of costly signaling because they beget group cohesion. A key factor is the perception that there are fitness benefits from participation in organized religion. The costly signals are, fundamentally, a form of social competition through which symbolic capital is accumulated. Signalers and audiences each benefit from the honest representations of either individual or group qualities that the signals provide. Ultimately the costliness of religion, including explicit signaling behavior, is related to the kind of collective action problems that a society confronts (Alcorta and Sosis 2005:329).

According to Sosis (2003), the costs associated with rituals increase when group membership translates into obvious benefits, the makeup of a group is diverse, and many groups are operating in close proximity. He notes that ritual costs will also go up when social conditions are such that the risk of defectors is high, or when the risk of free riders is also great. In the latter case, ritual costs are elevated to engender faithful commitments. He argues that by and large the benefits of group membership increase as groups grow in size, since larger groups tend to realize greater political influence while simultaneously lowering their costs for acquiring specialized goods. Ultimately, however, levels of participation in costly religious activity are strongly determined by general economic conditions. More on this issue is presented in Chapter 4.

### Symbols in Ritual

Mississippian societies of the Southeast existed in a highly symbolized world (Power 2004; Townsend and Sharp 2004). The smoking pipe and associated rituals are

but one of many examples of symbolic Mississippian behavior. Because smoking pipes are the only viable bridge to the rituals in which they were central, an analysis of their physical symbolism is essential.

Much about religion concerns symbolic communication, and ritual performances will produce none of their ascribed effects unless they integrate a cohesive set of symbols. Just as Durkheim believed that symbolism makes social life possible, others observe that symbols are “the heart of ritual mechanism” (Bell 1997:39; Wilson 2002:226). Endowed with the property of condensation, paraphernalia used in ritual performances encapsulate complex notions into manageable and evocative packages. As a result, physical symbols can convey religious messages more effectively than language alone (Rappaport 1999:156; Turner cited in Morris 1987:241; Wade 2009:61). However, because abstract symbols are devoid of inherent meaning and will not independently elicit innate responses, religious ritual also becomes a powerful context for teaching and learning their emotionally endowed meanings (Alcorta and Sosis 2005:331-332).

Symbols have an effect on behavior that influences survival and reproduction. Symbolic packages command a level of respect sufficient to organize the behavior of people who regard them as sacred. Not only can symbols represent a moral system, they are also capable of inspiring group members to put that system into action (Alcorta and Sosis 2005:330, 332; Bell 1997:159; Wilson 2002:227). Religion makes use of symbols and other kinds of metaphorical devices to connect with its concepts a reality or, to put it another way, to create a meaningful and consistent universe for believers (Fernandez 1977:127; Morris 1987:204; Wade 2009:74). Symbols have this effect because of their enduring quality and because they become emotionally charged (Alcorta and Sosis 2005:325). The emotional effect is often an outcome of lavish displays, or costly signals,

that engender collective action by demonstrating coalition quality or the superior knowledge and skill of authority figures (Bird and Smith 2005:235-241; Boone 2000; Neiman 1997; Plourde 2009).

More generally, symbols that become associated with particular groups offer the advantages both of allowing for selective interactions among group members and for allowing selective imitation both within and outside of the group (Richerson and Boyd 2006:212-213). The same authors argue further that symbolic markers are most likely to be closely correlated with specific groups and to persist as such if they foster positive interactions; in a sense, they can provide individual protections. For example, when people imitate such markers they increase their probability of acquiring traits that are locally advantageous because they elicit empathy. The advantage of that internalization to the group is the expectation that symbolic associations motivate constructive action (Ibid:221). It is also important to note that symbolic markers can serve to identify subgroups within a society. This is especially true of hierarchical societies wherein discrete social segments and affiliated institutions emerge (Ibid:233-234).

### Accounting for Variation

Religions take a seemingly endless array of forms, and the observed variation prompts us to ask why it exists. Certainly the question is relevant to the differences observed among Mississippian societies in the Southeast. Attempts to explain religious differences all tend to discover that strong correlations exist between forms of religious expression and levels of social complexity. Indeed, we are obliged to ask whether the observed, superficial variation in religious practice is what ultimately matters. Claude Levi-Strauss (1966:95), for example, argued that, “the form contradictions [in religious

content] take varies very much less than their empirical content. The poverty of religious thought can never be overestimated. It accounts for the fact that men have so often had recourse to the same means for solving problems whose concrete elements may be very different but which share the feature of all belonging to ‘structures of contradiction.’”

Religious differences from culture to culture are often described in terms of their intensity and degree of formality. Bell (1997: 173, 183-185) has referred to the contrasts as one of ritual “density,” but more recently the term “religiosity” has come into usage to capture this variable quality (Wade 2009:44). The observed variation is best explained by the simple fact that, like most behaviors, religions must be adaptive in order to have lasting value, especially given the costs involved. The circumstances of their adaptive success will obviously vary across different kinds of social systems and ecological contexts. The specific history behind a particular culture, including the collective wisdom of the group, will have considerable bearing on the character of its religion (Kluckhohn 1942:78-79; Wallace 1966). Also, more than one examination has concluded that it is the level of stress experienced in a society that accounts for observed patterns, all directly related to the complexity of a society’s circumstances.

Mary Douglas was among the first to attempt to expose these kinds of correlations in systematic terms (Barnard 2000:52-56; Douglas 1969; Morris 1987:229). She proposed that degrees of religious elaboration were the product of specific forms of social relations called “group,” in conjunction with the level of stress those forms imposed on a group’s solidarity and identity, a factor she called “grid.” Characterized according to crude measures of grid and group, Douglas discovered that the religious forms at extremes of the spectrum were distinguished by either a strong degree of control or by a strong expression of ecstasy. The place where a particular society fell within the range

was correlated with the degree of stress its social institutions placed on identity and hierarchy. For example, societies with few constraints along either dimension tended to feature relatively benign, non-ritualistic cosmologies. In the opposite situations, the predicted religious patterns would be highly regulative and authoritative.

In a similar sense Rappaport (1999:108, 169)(also discussed in Bell 1997:176) described a distinction between low and high ritual systems. The former, which he referred to as “indexical,” are largely self-referential and involve ritual acts that address more or less current concerns and, thus, have relatively immediate meaning and purpose. In contrast, he describes less variant and less personal “liturgical” ritual systems. These are concerned with much broader universal and “eternal” themes and carry with them a host of elaborate proprietary rules.

Others have also recognized that types of religious activity are correlated with measures of social complexity and integration (Alcorta & Sosis 2005:326; Sloan 2002:168). The contemporary model of Alcorta & Sosis (2007), derived from evolutionary theory, predicts not only that ritualized behavior will vary, but that its variability “will occur predominantly in relation to social concerns, and will display a range of intensity and expression in response to differing individual, developmental, life cycle, and ecological factors.” They assert, in effect, that the costliness of religious ritual bears a direct relationship to the nature of the collective action problems a society faces (Alcorta and Sosis 2005:329).

Two empirically testable hypotheses that extend from the Alcorta and Sosis model orient this project (Alcorta and Sosis 2005:348). First, religious ritual should be most pronounced (i.e., frequent) in groups of individuals who are not genetically related

and who are pursuing high-cost cooperative endeavors. Conversely, ritual will be least pronounced among kin groups pursuing individual subsistence strategies. Second, the highest intensity (i.e., formality or elaboration) of religious ritual will occur in groups composed of unrelated individuals who must engage in intermittent, high-risk, cooperative endeavors such as external warfare or long-term sharing of scarce resources. Conversely, the lowest intensity of ritual will occur among non-cooperating kin groups.

For example, in contemporary societies, religious participation and the demand for strong religious institutions is greatest in societies that experience the high levels of stress due to elevated rates of poverty and political unrest (Norris and Inglehart in Wade 2009:44, 260). The pattern is especially apparent among the members of such groups in their formative, adolescent years. Some substantiation of this claim comes from the observation that traditional societies regularly engaging in inter-group conflict have initiation rites for young men that are among the most elaborate and painful (Wade 2009:246). Alcorta and Sosis (2005:348) are particularly explicit about the relationship, predicting that adolescent rites of passage will be most intense and prolonged in societies that include unrelated adolescents and that also engage in high-risk, cooperative activities.

There are especially strong correlations between hierarchical societies and the form of religion they follow. Richerson and Boyd (1999) attribute the pattern to the fact that in complex societies religious leaders are moved to co-opt it in order to suppress populist challenges (see also Wade 2009:125). They refer to these religious control strategies as one among many kinds of “work-arounds” devised to prop up complex systems. Such devices are necessary because rigid, hierarchical orders are often in constant conflict with the basic social instincts of the individual members of the group.

Highly institutionalized religions, then, represent a notoriously fragile type of special adaptation designed to maintain solidarity, obedience, and the like. (Richerson and Boyd 1999:265-267).

### Accounting for Change

Inevitably, societies will be confronted by new conditions to which they must adjust in order to persist. Change of this nature is as true in the case of religion as in any other aspect of culture. The religions of traditional, preliterate societies tend to be capable of relatively rapid adaptive change, particularly as challenges to survival and reproductive opportunities change (Insoll 2004:125; Wade 2009:240). In most cases, a set of “bi-directional controls” is at work, wherein the leadership and the general populace exert a degree of control on one another (Sloan 2002:224). In other words, “Religions that do not promote an individual’s well-being should be abandoned and a new ones should be substituted” (Dow 2004:7; see also Aberle 1966:326; Wilson 2002:224).

It has been argued that while people share an innate desire to communicate directly with the supernatural, access to the divine in institutional religions is often under the heavy control of religious officials (Boyd et al. 2005:265-270). Those restrictions create an inherent condition of strain. According to Paul Johnson (cited in Wade 2009:138), the “central problem of the institutional church was always how to control the manifestations of religious enthusiasm, and divert them into orthodox and constructive channels.” So it is that contrary religious movements are the activities of socially deprived groups aimed at “remedial action to overcome the discrepancy” in access and control (Aberle 1966:211).



New movements can challenge religious leadership from within and attempt to advance beliefs and practices that have been suppressed, or they can introduce new variations of established practice (Wade 2009:133). Often the challengers are affiliated with religious cults or sects that act in express opposition to the established religion (Bell 1997:205-209; Pandian 1991:124). Change fomented by cults, such as revitalization movements, tend to follow a predictable pattern: a steady state of culture; a period of individual stress; a period of cultural distortion; revitalization; a new steady state (Wallace 1956, 1966 cited in Pandian 1991).

Linton (1943:232) described two specific kinds of religious movement. One type, the nativistic movement, is “modeled on the past... and the symbols which are manipulated to bring it about are more or less familiar... [and] to which new meanings have been attached.” In contrast, a non-nativistic movement can take several different forms: revivalist-magical, revivalist-rational, perpetuative-magical, or perpetuative-rational<sup>2</sup>. Aberle (1966:211) distinguishes between two kinds of religious movement using different terms: transformative movements represent efforts to transform the natural and social order (e.g., Ghost Dance), while redemptive movements are efforts to achieve spiritual changes in the individual (e.g., Sun Dance).

On one hand it has been argued that, by nature, symbolic and other aspects of rituals are conservative and resistant to change, even to the point of becoming anachronistic. This is so because their authority and efficacy are derived from a dominant cosmological model that, necessarily, is perceived to have a degree of timelessness (Bell 1997:211; Fogelin 2007:57). Under this view, one would expect ritual-associated symbols to persist over extended periods with minimal change and also surmise that their

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<sup>2</sup> More recently, Preucel (2002) has examined the 1680 Pueblo Indian Revolt as a religious revitalization movement.

symbolic continuity is the product of social learning behavior rewarding of faithful replication (Shennan 2008:77).

Obviously, however, modes of ritual strategy are subject to redirection, as they are adapted to remain relevant (Bell 1997:220). As noted, if unsatisfactory social, economic, or ecological conditions develop, the ritual order will lose legitimacy and necessitate adjustment (Aberle 1996:326; Bell 1997:220, 252; Dow 2004:7; Rappaport 1999:429-431). Disruption of persistent stylistic trends, or traditions, may expose the existence of stressful forces in a cultural system that compensates stylistic innovation and, perhaps, recalibration of the benefits of costly displays (Bird and Smith 2005:235). Alternatively, “as long as most individuals feel that existing institutions are reasonably legitimate and that reform can be achieved through ordinary political activity, considerable scope exists for collective social action, including deliberate evolution of new social institutions” (Richerson and Boyd 2006:234). Therefore, shifts along the continuum between opposing ritual states (i.e., more or less pronounced and more or less intensive ritualism) are to be anticipated over extended spans of space and time in accord with changeable circumstances.

### Archaeological Treatments of Ritual

Archaeologists are no strangers to the subject of ritual, and their treatment of the topic has been wide ranging. From the beginning, archaeologists were attracted to, at least, the contexts of religious practice, and much early work was devoted to exploration of graves and monumental structures that served to expose them to the locations if not the residues of ritual activity. Though not always the case in the early going, treatment of the subject was often reductive, characterizing the practices of non-western cultures as

bizarre and paganistic. It was not until later in the twentieth century that religion and its associated ritual practices were embraced as viable areas of specific archaeological study (Rakita and Buikstra 2008). Theoretical developments came quickly after about 1960, and they continue to come today.

The processualist approach that emerged in the 1960s sought to account for “ideotechnic” artifacts (Binford 1962) but ultimately failed to develop effective explanatory models and theories for them. Instead, most processualist successes fell into the realm of ecological and environmental analyses ill-suited to accommodate belief systems, symbolism, and the like. A tendency grew, then, to relegate ritual to the status of an epiphenomenon (Rakita and Buikstra 2008:9). To the extent religion and ritual were examined under this paradigm, the starting point tended to be a neo-functionalist one aimed at understanding how ritual practice played a regulatory role, especially in the realm of subsistence (e.g., Rappaport 1968). That perspective was not without value, however, because it drew attention to the question of *what* rituals do as opposed to *how* or *why* they work. Certainly, this was not a trend confined to the archaeological world, as much of the influence was flowing from the work of cultural anthropologists (e.g., Geertz 1973; Tambiah 1985).

Yet the material record of ritual can be amenable to analysis, particularly if the approach takes a historical perspective or if the focus is on tangible, symbolic representations. Still, the record is challenging, and the struggle to identify and untangle traces of religious practice has fostered diverse analytical strategies. The creativity and resourcefulness of the efforts have paid dividends, if in no other regard than demonstrating the value of a holistic approach. And ultimately, as Rakita and Buikstra (2008:9) note, “most of these methodologies recognize and base their analyses upon the

materialization of intangible meaning and belief within the tangible archaeological record.”

Fogelin (2007) suggests that archaeological approaches to ritual pursued in recent decades fall into two categories. The first and more traditional of the two is a structural approach focusing on the symbolic aspects of ritual. Generally this approach assumes that rituals are relatively stable phenomena, drawn from an existing belief system and designed to “enact or promote symbolic meanings... easily understood by masses” (Fogelin 2007:57). Rituals are, in this sense, a mechanism of communication that is heavily dependent upon symbols. Studies that begin from that premise often apply ethnographic analogy to explain observed patterns, using myths, for example, to decode symbolic representations of a belief system. Under such a view, ritual is something of a tool to be used merely for representing or enacting religious doxa, and archaeological treatments of it may simply entail identification of ritual contexts and paraphernalia. Fogelin (2007:64) also places cognitive studies in this realm, such as those dealing with shamanism and striving to understand the experience of trances and the creation of associated symbols.

The second general category of ritual analysis Fogelin defines is “practice-oriented.” The distinguishing feature of those approaches is explicit concern with agency, the deliberate manipulation of rituals by human actors to “construct, create, or modify religious beliefs” (Fogelin 2007:58). Rakita and Buikstra (2008:12) express the objective similarly, saying that, “Symbolic and ritual behavior and the physical acts of ritual have the power to transform material, behavioral, and conceptual structures.” Archaeologically speaking, this approach seeks to learn how material culture informs on the intentions and experiences of ritual participants. These kinds of analyses subordinate the symbolic

dimension of religion and ritual to a concern with functional questions, such as the ways that ritual is applied to achieve specific ends. For example, a common problem considered in recent times is “how rituals serve the interests of authority and resistance to authority” (Fogelin 2007:62). Here is where archaeologists seek to operationalize the notion certain objects and contexts materialize canonical beliefs, thereby representing a dominant ideology created and manipulated to reinforce relations of power. According to Barrett (cited in Rakita and Buikstra 2008:11), “we are now in a position to regard ritual as a process which creates a regime of truth...This is a different perception from that which expects ritual to reflect some pre-existing belief or creed.”

Renfrew (1991:359-360) has considered what the archaeological correlates of ritual activity might be and offers a series of criteria for recognizing and evaluating such. He organizes his criteria according to four aspects of ritual activity. The first of them concerns actions that focus the attention of participants. Archaeologically, these might be manifest in special locations, attention-focusing devices, and redundant symbolism. The second aspect involves establishing the presence of a deity, recognizable by recovery of cult-related imagery and other ritualistic symbols. The third aspect of ritual that sets up a liminal zone between sacred and secular, or between life and an afterlife. Manifestations of the latter may prove the most elusive of the archaeological correlates, since the concepts do not readily translate into material features. But, in general, cues could include certain types of conspicuous displays, esoteric knowledge, and symbols placing concepts in opposition, such as pollution and cleanliness. The fourth aspect is evidence of participatory activity and offerings. Evidence of this sort could include signs of prayer, offerings of myriad kinds, lavish and costly displays, and devices for inducing religious experiences.

James Brown's (1997) review of "The Archaeology of Ancient Religion in the Eastern Woodlands" situates my study of smoking ritual in a regional perspective. At the outset of the review, he asks what archaeology can contribute to the study of religion aside from identifying associated "equipment" before going on to give examples of productive research areas. One of the areas addresses questions of cosmology and is heavily dependent upon the "direct historical approach." Such studies, like those of Charles Hudson (1976), project the symbolism and structure of ethnohistorically documented myths and beliefs into the past to help explain archaeological observations. Another area focuses on the landscape, looking mainly at the configuration of large communities to identify sacred precincts and the process of earthen mound construction. Work of that kind can also make use of the ethnohistorical bridge, as James Knight (1986) has demonstrated, but it may also take into account factors like astronomical alignments. Yet another realm of study concerns symbolism and iconography. In the Southeast, it is exemplified by a host of past and present analyses of the so-called Southeastern Ceremonial Complex (King 2007a, 2007c; Waring 1968; Waring and Holder 1945). Lastly, he notes the influence of mortuary studies in developing ideas about past religious beliefs and practices.

Brown (1997:481-482) concludes with several suggestions for future research of religious practice in the Eastern Woodlands. The first encourages continuation of iconographic analyses but with emphasis on exploring the extent to which observed variations were culturally determined. The second recommends broad-scale excavations that raise the likelihood of exposing shrines and other kinds of specialized architecture. Thirdly, he advocates refinement of landscape documentation so that ritual activity can be better contextualized. And, finally, he encourages chemical analysis of residues "that can determine the nature of concoctions placed in pipes and specialized vessels."

The most recent reviewers of research on religion and ritual in archaeology choose to advocate for “holistic” (Rakita and Buikstra 2008:1) or “blended” (Fogelin 2008:66) approaches. The first two reviewers, for example, applaud the multi-dimensional treatment of Casas Grandes shamanism by VanPool (2003)(VanPool and VanPool 2007). In it, she supports an examination of effigy vessel iconography with a cross-cultural comparison of symbolism based in part on ethnohistorical and ethnographical sources. Fogelin (2007:65-66) observes in kind that the structural-cognitive approach and the practice-oriented approach can each “provide rich accounts of ritual activities in the past, but it is hard to deny that interpretations that also account for symbolic meaning would be even richer.”

My analysis of smoking ritual will involve a multi-faceted approach. Not only will archaeological and ethnohistorical evidence both be marshaled in the analysis, the investigation will address questions concerning historical change, symbolism, and agency. Where this project will diverge most is its exploration of the ways cultural evolutionary theory can be applied to the study of ritual, looking especially at the issue of costly signaling.

### Chapter 3.

#### A Context for South Appalachian Mississippian Smoking Ritual

In this chapter, I provide archaeological and ethnohistorical contexts for smoking ritual in the South Appalachian Mississippian area. The first parts review the archaeological framework that has been developed for the area as a way of establishing parameters of space and time. Following that is a discussion of past treatments and current understandings of Mississippian religious ritual drawn from archaeological evidence. The concluding sections of the chapter review ethnographical and ethnohistorical sources that speak to Southeastern Indian ritual practices and particularly those that involved tobacco smoking.

#### An Overview of the South Appalachian Mississippian Tradition

The cultural pattern known as Mississippian was dominant in the Midwestern and Southeastern United States between about AD 1000-1600 (Cobb 2003; Scarry 1996a; Smith 1996). Constitutive societies were hierarchical and, by common definition, functioned as chiefdoms. Distinguishing features include leadership transferred along hereditary lines, an agricultural economy, a flow of prestige goods through a sophisticated exchange system, a widespread ritual pattern featuring a platform mound tradition at civic ceremonial centers, the overt display of ceremonial goods to distinguish status and wealth and to reinforce religious beliefs and political power, a prominent use of representational art known as the Southeastern Ceremonial Complex (SECC), and institutionalized warfare (Brown 2004; Smith 1996).



It is also true that Mississippian societies were dynamic and varied. Individual chiefdoms exhibited idiosyncrasies derived from localized natural conditions and different social and economic histories. Mississippian polities tended to cycle between periods of ascendancy and decline, and archaeologists estimate that most were viable for less than a century (Anderson 1996b; Cobb 2003; Hally 1996; Smith 1996). The same body of evidence suggests that inter-polity competition was the dominant factor behind chiefdom demise. The outcome of a chiefdom's decline varied, from incorporation into another chiefdom to a shift to a lower level of complexity or total population loss (Hally 1996).

Archaeologists refer to the expression of Mississippian culture in the Carolinas, eastern Tennessee, Georgia, eastern Alabama, and northern Florida as the South Appalachian Mississippian tradition (Ferguson 1971; Ferguson and Green 1984)(see Figure 1.1). Archaeological hallmarks of this culture area tradition are production of non-shell tempered pottery with complicated stamped surfaces and, to a lesser extent, construction of semi-subterranean "earthlodges" (Boudreaux 2007; Ferguson 1971). Good temporal precision and spatial control has been achieved over the material traces of Mississippian societies in the Southeast, and there is confidence in a broad historical outline of their emergence, florescence, and decline. In the general overview that follows, I focus on Mississippian cultural expression in the South Appalachian sub-region and its uneven history of transformation, the causes and implications of which are ultimately of interest to this study.

The Mississippian emergence that followed a retrenchment during the Late Woodland is timed to about AD 900-1000 (Brown 2004:679; Hally and Rudolph 1995). Social organization at a sub-chiefdom level persisted but, in some places, nascent centers

developed. In the South Appalachian area, no sites with platform mounds or other new types of public architecture are recognized, yet fortified communities appear with greater frequency (Milner 1999).

The period AD 1000-1200 is widely recognized as the Early Mississippian interval (Brown 2004; Hally and Rudolph 1995). Most accounts identify the initial Mississippian developments among communities located along the Mississippi River, particularly in the Cahokia area, but the new pattern took hold over time from the Midwest to the south Atlantic seaboard. Regional exchange networks re-emerged after a multi-century hiatus, and social position was increasingly distinguished. Long-distance exchange served the needs of a burgeoning chiefly class, even though the variety and quantity of goods flowing through the system was limited. Public architecture indicative of platform mound ceremonialism first appeared in a few communities.

Sometimes Early Mississippian developments came to the South Appalachian sub-region by direct migration, but they arrived more commonly through increasingly regular interactions, generally for the purpose of prestige good exchange (Pauketat 2007:113). Representative settlements appear in most river basins, including at places like the well-known Mississippian center of Etowah, but they are usually small in number and constitute elements of only small-scale chiefdoms. An exception may have been the impressive but short-lived ceremonial center at Macon Plateau (Schroedl 1994; Williams 1994).

Mississippian societies everywhere achieved their pinnacle during the Middle Mississippian period (AD 1200-1400) (Brown 2004; Hally and Rudolph 1995). The tempo of exchange and interaction increased, inspired by, if not driven in some measure

by, the early ascendance of the Midwestern civic ceremonial complex at Cahokia (Pauketat 2007; Pauketat and Emerson 2000). Impressive ceremonial mound centers were created as the bases of chiefly functions and exchange transactions. Paramount chiefdoms led by elite lineages became dependent upon the unimpeded flow of prestige items through expanded networks of exchange. Myriad exotic goods were transformed into powerful symbols of chiefly authority according to the dictates of a highly codified iconographic system known as the Southeastern Ceremonial Complex (SECC) (Knight 2004). All of this development was supported by a subsistence economy based strongly on maize agriculture and an elaborate gift system.

The Etowah site emerged as the largest and most influential of Middle Mississippian ceremonial centers in the South Appalachian area (King 2003). The site featured several platform mounds, the largest of which is 19 meters tall, and an enormous encircling moat and palisade. From this powerful center, a distinctive local iconographic SECC style called Hightower was developed (Brown 2004). Multi-mound centers were also established in other South Appalachian river basins, but they did not attain the prominence of Etowah.

Late Mississippian (AD 1400-1600) transformations culminated in a general weakening of the hereditary elite and decline in cultural elaborations (Brown 2004; Hally and Rudolph 1995). Powerful paramount chiefdoms like Moundville and Etowah no longer exerted wide influence, and chiefdoms again operated and interacted at a more localized scale. As the exchange system underwent contraction, circulation of classic SECC objects was sharply diminished. New symbolic styles evolved that emanated from many, rather than few, localities. Mound sites continued to serve an administrative-

ceremonial role within localized, lower-level chiefdoms, but the scale of monumental construction was relatively modest (Anderson 1994; Blitz and Lorenz 2006; Hally 1996).

Notably, South Appalachian societies still enjoyed a level of activity after AD 1400 not evident over most of the Mississippian world (Brown 2004, 1997:481; Knight 2004). At any given time, between AD 1400-1600, up to fifteen independent Lamar chiefdoms were functioning, each within territories about 40 km across (Hally 1996; Hally and Rudolph 1995; Williams and Shapiro 1996:146). Although reduced, traditional exchange networks remained more active than they did elsewhere in the Southeast, as did the persistence of mound ceremonialism, though on a diminished scale. Newer styles of prestige goods were also evolving and circulating. Still, the elite were relatively impoverished by Middle Mississippian standards, and competition among the small polities led to frequent conflict. According to Cobb (2003:73), “these [post-1400] patterns were part of a reorganization related to the increased importance of secular power focused on individuals, as opposed to corporate or communal forms of authority practiced earlier.” Europeans would arrive during the sixteenth century, and the disruptions they caused were the eventual undoing of the vestigial Mississippian societies.

### The South Appalachian Mississippian Cultural Landscape

By virtue of an intensive history of archaeological investigation, marked by notable WPA and reservoir studies, the late prehistoric landscape of the South Appalachian Mississippian area is well documented. Accumulated evidence allows for identification of numerous discrete archaeological entities called phases that are defined by shared material culture traits specific to time and place (see Figure 1.2; Figures 3.1

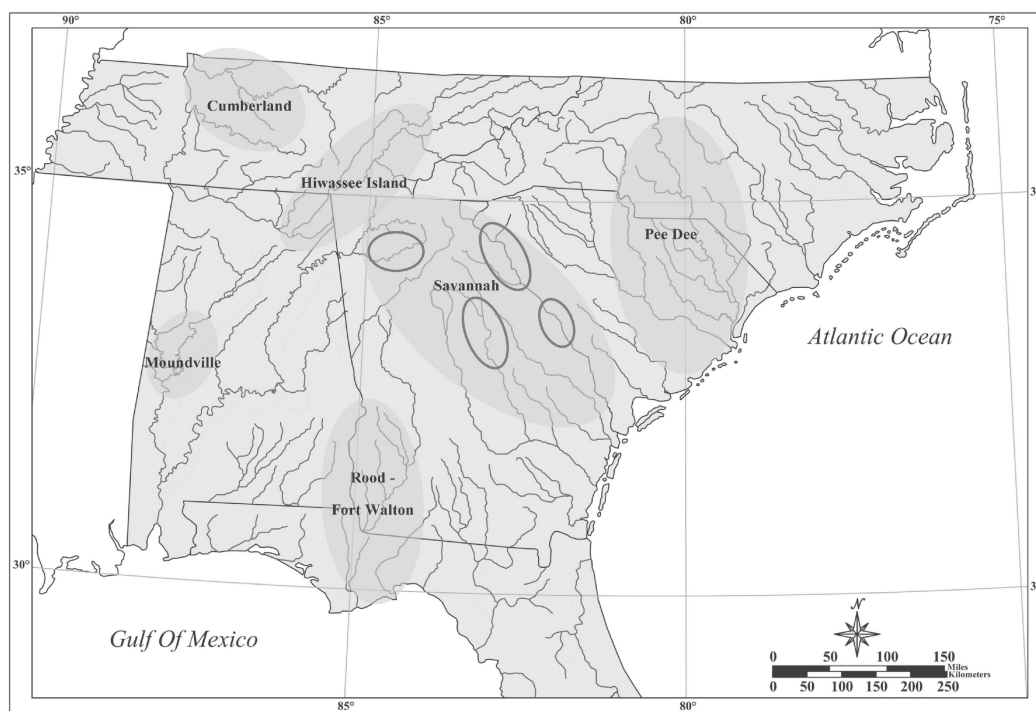


Figure 3.1 Locations of archaeologically defined Middle Mississippian culture areas.

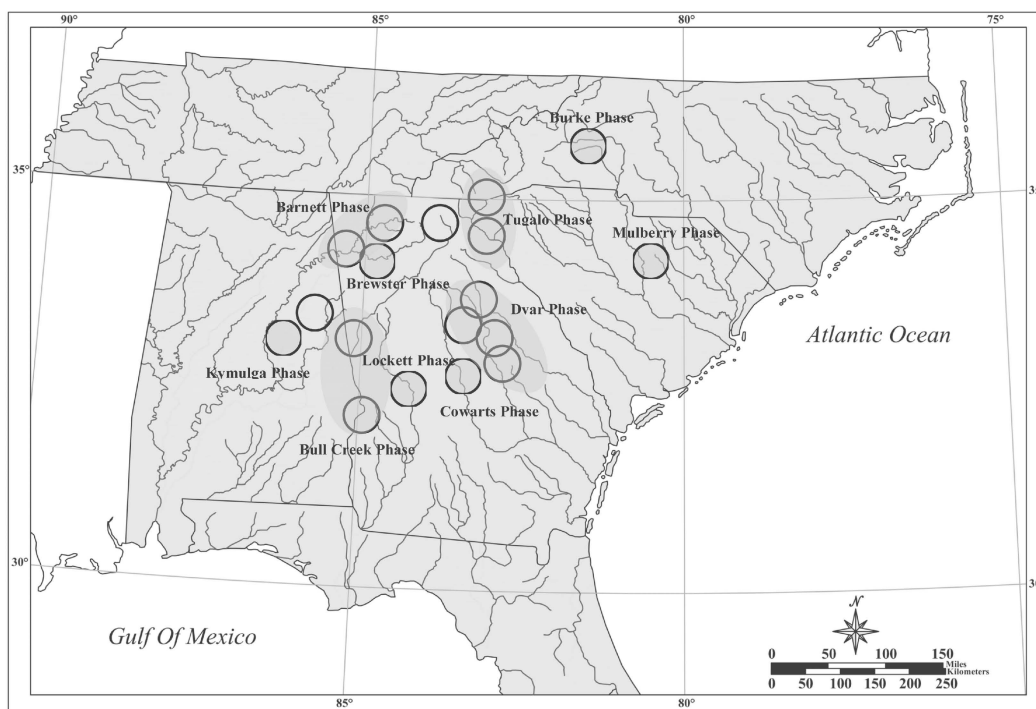


Figure 3.2 Locations of Late Mississippian-Protohistoric phase areas (shaded) and sociopolitical provinces (circled).

and 3.2). If nothing else, the different distributional pattern of phases isolates population concentrations within a given hundred-year span, and in many cases it is also possible to identify the specific administrative centers that governed a territory. For my purposes, the phases are one basis for calibrating evidence of smoking ritual.

David Hally (1994) has carefully considered the strengths and limitations of the regional spatio-temporal patterns and cautions that we cannot necessarily equate phases with chiefly polities. His examination of late Mississippian Lamar cultures is especially illustrative, because it is so well-substantiated by archaeological information and augmented by ethnohistorical accounts. During the Middle Lamar period (AD 1450-1550), for example, fourteen different phases have been identified across the South Appalachian area, each essentially confined to a segment of a particular river basin (see Figure 3.2). Within most of the phase areas at least one mound site has been identified, around which non-mound sites are generally concentrated. Hally has determined that platform mound sites within a given phase area are usually located either within 18 km of or more than 32 km from one another. This, he infers, reflects purposeful spacing of administrative centers and their respective populations and, thus, serves as a general basis for mapping independent chiefly polities. As a general rule, a given polity will be confined to a territory no greater than 40 km across, and the largest mound site within the territory will have served as its administrative center. He also notes that distances greater than 32 km usually separate coeval polities, and the vacant areas separating them represent buffer zones between rival groups.

Taking advantage of historical accounts, other researchers have sometimes been convinced of the direct correlation between archaeologically documented phase areas and historically described sociopolitical provinces. One such case is that of Ocute, on the

middle Oconee River, a province that was visited and described by Hernando de Soto (Smith and Kowalewski 1980). Within the overlapping range of the Dyar and Cowarts phases on the middle Oconee, there are five sixteenth-century mound sites around which the territories of four different polities have been postulated. Together these polities are argued to comprise the paramount chiefdom of Ocute. A similar argument is made for the location of an even larger paramount chiefdom known as Coosa, also visited by Soto (Hudson 1997; King 2003; Smith 2000). Its territory is argued to coincide with that of the Barnett and Brewster phase areas, in addition to that of the Mouse Creek culture in southeastern Tennessee, within which there were seven to ten separate polities (King 2003:6).

In the final analysis, it is at least reasonable to equate archaeologically defined phase areas with late prehistoric population concentrations and recognize the approximate locations of individual polities based on the distribution of platform mounds. Without the benefit of ethnohistorical records, it is less feasible to define the location and extent of larger sociopolitical entities, such as paramount chiefdoms. Hally (1994) and others (Smith 2000) have very clearly shown that these larger sociopolitical units encompassed multiple phase areas and mound centers. The complexity of the South Appalachian world is further indicated by Hally's (1994) consideration of exactly what the Lamar culture represents. Through his exercise, we are reminded that ,within the South Appalachian region, the latest Mississippian phases are distributed across an area that was occupied by "people speaking a variety of languages belonging to three different linguistic families and stocks" (Hally 1994:173).

## Case Studies of Specific Southeastern Appalachian Mississippian Sub-Areas

The variable developmental trajectories of Mississippian societies have important bearing on any regional treatment of them, and this section offers summaries of several well-studied cases in the South Appalachian Mississippian area. The presentation seeks at one level to reinforce the broader pattern of emergence-florescence-decline observed uniformly over the entire Mississippian world. However, while this approach exposes some of the factors favoring recognition of a separate South Appalachian Mississippian culture area, it also reveals how, within that culture area, the expression of distinct cultural identities, as through ritual, was influenced by unique geographies and histories. These aspects will figure significantly in later sections, which explore the stylistic dimension of smoking pipes and its implications for postulating interactions across this large space. The locations of sites referenced in the following discussion are provided in Figure 3.3.

*Macon Plateau.* I purposely begin my reviews of South Appalachian sub-areas with a summary of the enigmatic developments at Macon Plateau, which occurred very early in the Mississippian stage. They are testament to the idiosyncratic nature of events in a given locale, and they demonstrate how inspiration for Mississippian developments had, at least on occasion, extra-local origins.

Establishment of relatively short-lived major Mississippian communities at the fall line on the Ocmulgee River is perhaps the best example in the Southeast of a “site-unit intrusion.” That is, it represents the abrupt appearance of a very different population into the area with no local cultural precedent (Hally and Rudolph 1995:32-33; Williams



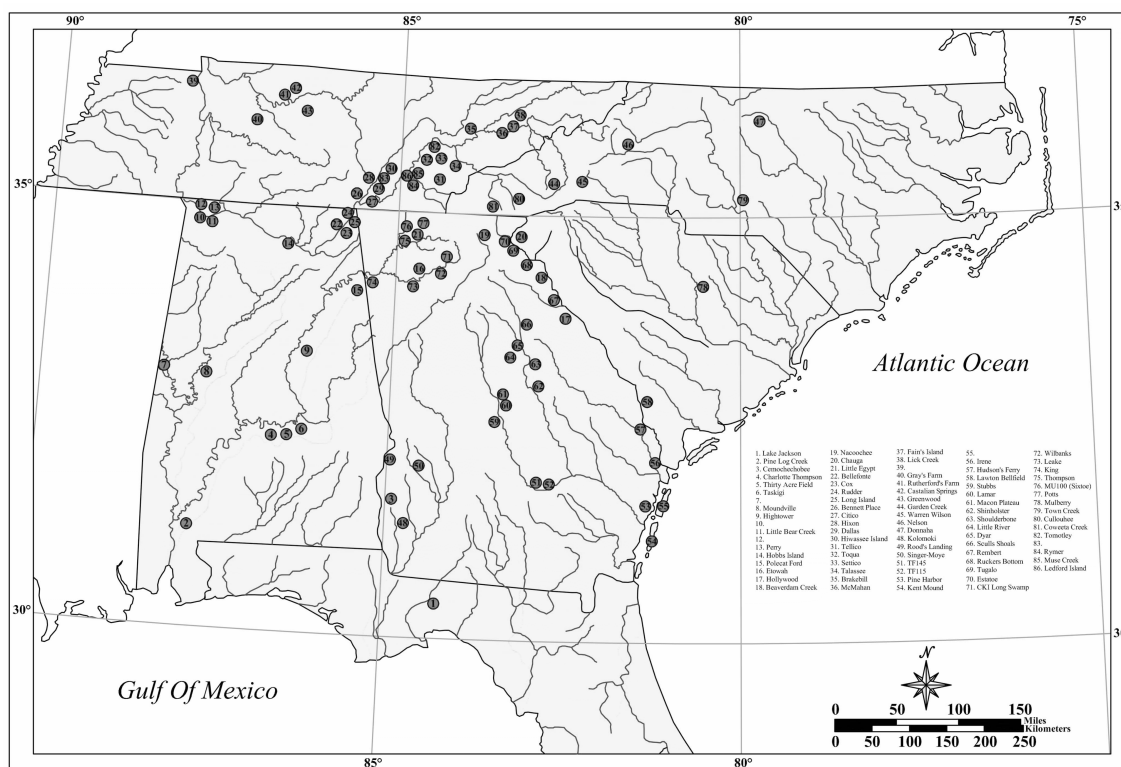


Figure 3.3 Locations of referenced archaeological sites.

1994). Generations of archaeologists have puzzled over the Macon Plateau case, and the age-old debate has given way to general consensus that the settlements *are* the result of such an intrusion. Questions are now focused on why it occurred and why it collapsed to leave no apparent local legacy.

What we understand from archaeological evidence is that around AD 1000, two major sites were established within 10 km of one another by an immigrant population probably originating in the Tennessee River valley. This intrusive group brought with it a wholly foreign cultural pattern and proceeded to develop an extensive Mississippian center marked by at least six platform mounds and several earthlodges. The companion site, though less extensive, also featured at least one earthlodge. In addition, this population was uniquely reliant on maize agriculture, organized according to a strict

hierarchy, and remained committed to a traditional material culture defined by a non-local ceramic technology and style.

Pauketat (2007:146) believes Mississippian communities like the one at Macon Plateau were established under the influence of migrants in the aftermath of Cahokia's "big bang" around AD 1050. Upon its transcendence, "impacts of Cahokia may have been in the realm of a political-religious cult... spread by direct contacts between Cahokians and southerners," elements of which are recognizable in iconography at Macon Plateau, Etowah, Moundville and other major sites (Ibid:158-159).

Because very few Macon Plateau culture sites have been identified beyond the two main communities, it would appear that this population remained insular and functioned within a landscape populated by indigenous people resistant to the Mississippian pattern (Williams 1994). The immigrants managed to flourish for a time in their new home, but the entire outpost failed within a century or so, vanishing without a trace.

New mound sites were eventually established in the vicinity of Macon Plateau during the Middle and Late Mississippian periods, but they are consistent with the South Appalachian Mississippian pattern. These new centers were presumably established under the influence of local Mississippian groups. Middle Mississippian occupation is not well-studied in this area, but archaeological components are documented at several places, such as the Stubbs Mound Site and the Lamar Site, where Etowah-Savannah period (AD 1200-1400) artifacts occur.

The major Late Mississippian site of the area is Lamar, the namesake of the definitive South Appalachian Mississippian cultural pattern after about AD 1350. Despite periodic excavations at Lamar since the WPA era, only the rudiments of its occupational history are established (Hally and Rudolph 1995). However, it is likely the two large mounds were initially constructed during the Middle Mississippian period and used further in the subsequent period, only to be abandoned before the sixteenth century.

*The Province of Coosa.* By the middle of the sixteenth century, Coosa was functioning as one of at least three paramount chiefdoms in the South Appalachian region, along with those of Ocute and Cofatichiqui (Smith 2000). The polities under its control, a series of separate chiefdoms, were spread over a large area some 500 km in length, extending from today's Tennessee southwestward into Alabama. We know of Coosa's prominence in this period from accounts associated with the *entrada* of Hernando de Soto that passed through the area in the summer of 1540, the incursion of Tristan de Luna's party in 1560, and the explorations of Juan Pardo's groups in 1566 (Hudson 1990, 1997; Hudson et al. 1985; Smith 2000; Hally 2008). The great deal of archaeology that has been carried out provides a reasonably precise historical perspective on the development and decline of Coosa and the potential for complexity in a Mississippian trajectory in a given area. It is beyond this overview to detail the histories of each of the individual chiefdoms that came and went within sixteenth-century Coosa, but a description of two settlement histories for particular site areas in Georgia provides a useful sense of the whole.

Little Egypt on the Coosawattee River in northwestern Georgia is the suspected capital of sixteenth-century Coosa, and it was excavated and studied by A.R. Kelly and David Hally (Hally 1979, 2008; Hally and Langford 1988; Smith 2000). Late in the

Mississippian stage, it served as the hub of several Mississippian sites in the river valley. However, its emergence was preceded by an ever-changing cultural landscape defined by occupation and abandonment of numerous sites. A long history of archaeological investigation indicates that, while Mississippian occupation in the Coosawattee valley was continuous after about AD 1000, the center of power shifted at least four times as a result of both internal events and developments outside the valley (Smith 2000). Hally (2008) specifically proposes that because chiefly societies were inherently fragile social formations, they were prone to collapse within a century of their formation, and it is such collapses that accounted for the pattern of “cycling” so widely recognized.

During the so-called emergent Mississippian period (Woodstock) of the tenth century AD, a low level of activity occurred on a few sites in the Coosa area, but the more prominent settlements of this culture were located farther south (Smith 2000:21).

Sustained but modest Mississippian settlement began during the early Etowah period (AD 1000-1100). A mound-centered community at the Sixtoe Field Site was the apparent center of a small chiefdom. Elite burials were identified there, but associated grave goods were few and generally unelaborated. As is the case through much of the Mississippian era in northwestern Georgia, material culture at this site is suggestive of influences from both the Tennessee River valley and farther south, in the vicinity of Etowah. The center of activity in the following century (late Etowah, AD 1100-1200) shifted to the Baxter Site, which featured at least one mound. Although evidence is sparse, there were likely at least a few smaller sites in the valley under the control of this new center.

The Bell Field mound site succeeded Baxter as the administrative center of the valley's chiefdom during the Middle Mississippian period (Savannah Period, Wilbanks Phase). From about AD 1200-1350, the site was occupied by a group that, based on material culture, was most strongly influenced by societies to the north, in the Tennessee valley, despite the prominence of the Etowah Site at that time. Classic Mississippian elaboration and centralization of power is evident in the elite goods that have been excavated, painted non-local vessels, copper costume ornaments, and an abundance of marine shell objects, among other things. Smith (2000) suggests that Bell Field was serving in an intermediary role in the exchange system linking Etowah and Tennessee valley centers.

The final seat of Coosawattee valley power was the Little Egypt Site, which rose to prominence after Etowah declined. The occupation of this center, in which at least two mounds were constructed, spanned from about AD 1350-1575, during the early and middle phases of the Lamar period (Little Egypt Phase and Barnett Phase). After AD 1475, during the Barnett Phase, population in the valley appears to have expanded significantly, leading to formation of a complex chiefdom that controlled both numerous valley settlements and smaller chiefdoms within the much larger province of Coosa. However Hally and Langford (1988:77) note that elaborate status-linked artifacts were not common at the Little Egypt site, especially relative to known Middle Mississippian centers in the region. This is a pattern observed widely in the late Mississippian period after AD 1450. It is also important to note that Barnett Phase material culture, especially its ceramics, show a stronger affinity with Tennessee Valley cultures than with those farther south, defined as Brewster Phase.

Another intensively studied settlement is the King Site on the upper Coosa River, believed to be a town within the province of Ulibahali, as noted by Soto (Hally 2008; Hudson 1997; Hudson et al. 1985). The Ulibahali province fell within the domain of the Coosa paramountcy and is believed to have been comprised of five large, nucleated communities under the control of a principal town at the Nixon Site. King is largely a single-component site with a Middle Lamar (Barnett Phase) occupation that began and ended during the sixteenth century. However the area of the greater Ulibahali province has a well-documented Mississippian history that is distinct from, yet linked with, the history of chiefdoms elsewhere in the Coosa territory. That history is summarized next.

The earliest Mississippian occupations in the upper Coosa valley began during the Late Etowah period (AD 1075-1150) (Hally and Langford 1988; Smith 2000). Relatively speaking, occupations of this period were somewhat limited, and it is not clear to what extent mound-building activity was occurring. While sufficient information exists to indicate that a small chiefdom was in operation by this time (Hally 2008:535), it had collapsed by the middle of the twelfth century. A hundred years passed before occupation of the valley resumed.

Another century of Mississippian activity occurred in the Coosa valley during AD 1250-1350 (Late Savannah period, Wilbanks Phase). These developments coincide with intensive activity elsewhere in the region, and mound construction is confirmed on at least one of the Coosa valley sites. Once again, however, the chiefly society collapsed after about one hundred years.

The final episode of Mississippian occupation came during the Middle Lamar, Barnett Phase, lasting from perhaps the late fifteenth century through the latter half of the

sixteenth century. At least five large towns, including the King Site, are identified for this period, in addition to a mound-centered administrative center. Hally (2008) argues that the new Late Mississippian occupants of the upper Coosa valley were an immigrant population, likely having split from another polity within the Coosa domain as a result of factional politics. Subsequently, as the newly relocated population, or at least its influence, grew, new settlements like the King Site were established. This collection of settlements formed the Ulibahali polity, under the control of the Coosa paramount chiefdom.

*Etowah: The Preeminent South Appalachian Center.* The major Mississippian site of Etowah, a changeable element of Coosa's history, has been the object of such intensive study and has had such a strong influence on regional developments that it warrants separate treatment. A considerably improved understanding of Etowah's history and its influence is derived from the ongoing work of Adam King (2003, 2004). In an article written with Charles Cobb, King's refinements to the Etowah story have been cast in a trajectory of "shifting dynamics between structure and agency" (Cobb and King 2005:168). Their model is a useful framework not only for evaluating the histories of other South Appalachian polities, but also for thinking about the development of smoking ritual across the region.

Cobb and King argue that the periodicity of Etowah's development is best explained by a series of site abandonments that, "provided inflection points where interest groups were able to distance themselves from previous conventions of structure and reformulate new forms of sociopolitical organization" (Cobb and King 2005:167). The new forms of organization are presented in terms of contrasting expressions of

temporality and power, specifically “differing conceptions of genealogical and mythical time.”

In the beginning (AD 1000-1200), as noted, a number of small chiefdoms emerged across northwestern Georgia that operated largely as independent centers. The new centers were marked consistently by small mounds but sometimes also by large communal buildings and earthlodges. Exchange of prestige goods occurred at only a modest level, and display of them was not a prominent aspect of the sociopolitical sphere. In addition, social status was largely undistinguished by burial treatments. Religious iconography is interpreted as expressive of universal cosmological themes that emphasized a mythical time, fertility, and world renewal. Symbolic motifs communicating those ideas, notably on shell gorgets, were the cross-in-circle, turkey cock, and spider. Such features of the early Etowah-related Mississippian societies imply to Cobb and King that a largely egalitarian ethos was at work and mediation of conflicts was conducted by way of reference to universal cosmological themes.

A very different society emerged in the subsequent Middle Mississippian period (AD 1250-1375), dominated by a highly centralized, exclusionary sociopolitical perspective. Under this regime, the Etowah site rose to regional prominence as great energy was devoted to public works. Major mound and plaza complexes were constructed, which delineated a series of exclusive precincts and public spaces. Also, prominent display of prestige goods was supported by a flourishing and far-flung exchange network. Such displays signified an emphasis on the importance of elite individuals, who sought to secure their power by reference to the sacred. Evidence of the rigidly hierarchical system is documented in obvious mortuary differentiations.



One means of maintaining elite dominance involved expressed linkage to ancestors by reference to charter myths. A unique feature of this strategy was legitimization of elite status by linking Etowah's privileged class to a foreign place of power (like Cahokia), effectively amounting to an "appropriation of otherness" (Cobb and King 2005:186). In this context, the classical Mississippian ideographic complex known as the SECC was developed; it included a distinctive Etowah-centric style known as Hightower.

Hightower religious symbolism was marked by individualistic, canonical themes involving anthropomorphic depictions of supernatural beings, most notably the bird-man figure. It is clear that this local style was strongly influenced by the classic Braden style that originated at Cahokia, which also prominently featured the bird-man motif, raptor imagery, and the bi-lobed arrow. However Etowah's SECC iconography also expresses traditional themes, including pervasive reference to the Upper World and probably to the Red Horn myth (Brown 2007). It is these connections that undergird the argument for the importance of elite legitimation by reference both to genealogical time and traditional cosmological themes.

The final stage of Etowah's history (AD 1475-1550) saw considerable erosion of elite power and contraction of the site's regional influence. During this time, Etowah became a satellite community of the province of Coosa, which is viewed by Cobb and King as one of several powerful paramount chiefdoms that emerged in the Etowah vacuum. Activity at Etowah became focused around a few small mounds and large council houses. Exchange of prestige goods still occurred, but the network was relatively localized and involved a limited range of materials. Although social status continued to be kin-based, individual rank within the elite class appears to have been achieved mainly

by competitive skill in politics or warfare. The emergence of these strategies betrays a new emphasis on secular power and a purposeful distancing from the previous tradition. Meanwhile religious symbolism exhibited a renewal of emphasis on mythic time and universalizing themes. There was a particular focus on fertility and cosmological order, including common reference to the natural world and the Beneath World. The cross-in-circle tradition continued, serpent depictions were prominent, and reference to the Twins myth was pronounced. In the aggregate, these features of the concluding stage signify a highly communalistic sociopolitical system.

*Chiefdoms of the Upper Tennessee River Valley.* The Upper Tennessee Valley of eastern Tennessee has an extraordinarily rich and intensively studied Mississippian record. Dozens of sites, including major mound centers, have been investigated, mainly in advance of reservoir construction that began during the WPA era. The region is confined largely to the Ridge and Valley physiographic province but also includes a section of the Blue Ridge along the eastern extent.

The Mississippian cultural history of this area was among the first to be developed in the Southeast, and though the basic framework of the Lewis and Kneberg (1946) scheme is still sound, studies in recent decades have brought increasing refinement and precision to the picture. By and large, the same three-part sequence applied elsewhere is in place in eastern Tennessee, and especially with its explicit reference to events at Etowah, the sequence serves as a ready basis for comparison with other sub-areas in the South Appalachian region. The following summary draws mainly on the description of Tennessee Valley trends supplied by Lynne Sullivan (2007, 2009).

Early Mississippian is referred to as the Martin Farm phase (AD 900-1000). This phase would elsewhere include what is referred to as emergent Mississippian, as it “bridges the transition from Late Woodland” (Sullivan 2009:183). Communities are described as semi-sedentary with an economy increasingly based on maize agriculture.

Middle Mississippian coincides with the Hiwassee Island phase (AD 1000-1300). Initially, change relative to the preceding Martin Farm pattern seems to have been modest and gradual. Exemplary of this trend is an occupation at the Davis Site dated between AD 1100-1200. Available evidence indicates that this mound site did not include a nucleated community, and indications from surrounding sites suggest the general population resided in dispersed farmsteads. The platform mound constructions at Davis supported large round and rectangular buildings, often with the small posts set into wall trenches. The size of the structures is indicative of their use for public functions at what was apparently an early civic-ceremonial center. However mortuary ritual was not highly elaborated, as revealed by the lack of burials within the platform mound and a general paucity of status-linked grave furniture. Burial continued to occur in numerous Late Woodland-style conical mounds located nearby. A general characterization, then, of the initial part of the Middle Mississippian period is organization of the population among small-scale chiefly polities, although some sites like Hiwassee Island began to emerge as more prominent and influential communities. This development is equated with those of the Etowah phase in northern Georgia.

The latter part of the Middle Mississippian Hiwassee Island phase (AD 1200-1350) witnessed more dramatic changes that led to the classical ascendancy of Tennessee Valley Mississippian societies. The Hiwassee Island site that had grown in prominence during the preceding century or so fell into decline, and in the vacuum, new sacred-

political centers were established. The most prominent of them appears to have emerged at the Hixon Site, which featured a platform mound enclosed within a palisade. Here, again, there does not appear to have been a resident population. Instead, Hixon functioned as a civic-ceremonial center at which high-status burials were made in a platform mound that also supported wall-trench structures. These structures were smaller on average than those of the earlier period, and combined with the fact they were sometimes screened from view by palisades, their size indicates that ceremonial activity had become less public. Controlling the religious activity was an elite class at the pinnacle of a more rigidly hierarchical society. Its power and prominence are manifest in considerable elaboration of mortuary ritual, expressed in part by inclusion of exotic, high-cost SECC paraphernalia in graves. By virtue of the classic-style funerary objects, Sullivan (2009:182) was led to believe that, “the rise and demise of Hixon parallels the Early Wilbanks phase of Etowah’s elaborate Mound C.” Developments at this time can be generalized as the establishment of a series of well-integrated chiefly polities controlled by elites in residence at platform mound centers. The new political order appears to have been legitimized by ancestor linkages and consumption of exotic goods, such as copper and marine shell, all facilitated by broad-reaching ties with other prominent centers, including Etowah.

Late Mississippian in the Upper Tennessee Valley is generally referred to as the Dallas phase (AD 1300-1550), but in its later span, Dallas co-exists with the Mouse Creek phase that itself is sometimes linked with Lamar developments farther south and east (Hally and Langford 1988). The onset of this era followed the decline of prominent, classic Middle Mississippian centers like Hixon and their wider regional exchange ties. Numerous Dallas culture communities were established in their place, each distinguished by a nucleated population, often protected by a defensive palisade and with a lesser

degree of internal segregation of elite-nonelite precincts. Platform mounds were still constructed and used, but elaboration of burials and partitioning of sacred versus secular space was less marked. Burial treatments still varied according to status, but the most prominent individuals received less elaborated treatment upon death, including decreased inclusion of SECC materials. Also, a new style of architecture was adopted using wall posts set in individual post holes rather than trenches.

*The Savannah River Chiefdoms.* The history of Mississippian societies in the Savannah River valley has been developed largely through the work of David Anderson (1994, 1996a). Anderson's analysis applies the concept of chiefly cycling to explain the pattern of social ascent and decline, identifying natural resource structure, climate change, and organizational change as the principal causal factors, but ultimately he assigns greatest influence to changes in the regional political landscape and a cycle of drought.

No ceremonial sites existed in the Savannah River valley at the end of the Late Woodland period (AD 900-1000), but by AD 1100-1150, four separate mound centers had emerged. Two were near the river's headwaters at the sites of Tugalo and Chauga, and two others were established near the coast at the Irene and Haven Home sites. Continued Mississippian expansion in the valley led to the eventual addition of two more mound centers between AD 1150-1200. Focal points of these sites were special-purpose earthlodges presumably devoted to political and religious purposes. However Anderson argues that the circular earthlodges are a style of public building construction suggestive of a relatively weak social hierarchy.

At the peak of Mississippian expansion in the Savannah basin around AD 1250, Anderson recognizes the existence of four clusters of mound sites composed of nine separate mound centers. Non-domestic architecture at these sites was dominated by platform mounds, many of which were constructed on top of the earlier earthlodges. In tandem with this climax in the number of mound-oriented settlements, SECC prestige goods made their initial appearance at some Savannah River centers. The ultimate disposal of these objects as high-status grave furniture signifies the existence of differential mortuary treatment. The importance of complex ceremonialism at this time is also indicated by the regular addition of earthen mantles to platform mounds. Two powerful complex chiefdoms emerged out of this competitive context over the course of the next century, centered around the multi-mound sites of Rembert and Mason's Plantation. Under their domination, the valley was temporarily devoid of active smaller mound sites. Also during this period, there is evidence that maize production had reached a peak and that chiefly power gave the elite rights to choice cuts of meat.

By AD 1400, only the Rembert multiple-mound site was still occupied, but it had become one of three loci of power in the basin, along with the re-occupied Irene and Tugalo sites. The replacement or conversion of platform mounds with burial mounds at these sites, together with the appearance of large council house structures, documents a renewed egalitarian orientation to sociopolitical organization. A gradual process of chiefly impoverishment is also apparent in the increasingly scarce occurrence of SECC objects, a pattern underscored by less preferential mortuary treatment. The presence of large storage features at some sites is a sign of a new level of household independence. These were short-lived developments, however, as the entire central and lower sections of the river valley were depopulated around AD 1450 and remained so at least through 1540, when Hernando de Soto described the area as an uninhabited "desert" (Anderson

1994). The imminent collapse of these late Mississippian populations was signaled by the appearance of fortifications at some sites, indicating the increasing threat of conflict and increasing insecurity of the elites.

*The Chattahoochee Chiefdoms.* Results of a regional study of Mississippian development in the Chattahoochee River basin have recently been presented by Blitz and Lorenz (2006). Significantly, the initial Mississippian development is attributed to arrival of an immigrant population, not unlike the case of Macon Plateau. They examine the complex histories of numerous mound sites and conclude that political integration was never stable, due in a large measure to the unsustainability of food surpluses and local competition (Ibid: 139). In their final analysis, they advocate an interpretive framework that “accommodates rapid, punctuated change” (Blitz and Lorenz 2006:140).

Between AD 900-1100, no mound-centered polities existed in the Chattahoochee basin, but from the end of this interval until about AD 1200 an immigrant population introduced fully developed Mississippian cultural features, including platform mounds. The Mississippian pioneers established at least three polities centered around mound sites, where they maintained their use of foreign styles of pottery and architecture. There is no evidence of significant assimilation of the new Mississippian population into the indigenous societies, or vice versa. In fact, Blitz and Lorenz suggest that separation between the groups was fiercely maintained. The most obvious reaction of the local populace was establishment of their own mound-centered communities in other parts of the river valley, signaling a counter-move to independently achieve stronger political integration.

The Mississippian population expanded in the valley from AD 1200-1400 and developed ties to groups beyond the Chattahoochee basin. Its expansion is attributed in part to climatic conditions favorable to maize agriculture and consequent population increase. An eventual outcome of the growth was the creation of three politically independent multiple-mound centers. The leaderships of these polities possibly sustained their prominence by acting as effective middlemen in the exchange of SECC goods between the dominant regional centers of Etowah, Moundville, and Lake Jackson. A distinctive beaker-bottle ceramic style emerged as an inter-regional prestige item that signaled those ties. The last of the mound settlements occupied by a relict indigenous population was abandoned by AD 1300, and from then until AD 1400, the Chattahoochee valley polities constituted “a single ceramic style zone” (Blitz and Lorenz 2006:137).

The major polities in the Chattahoochee basin were severely affected by the collapse of regional Mississippian centers like Etowah and Moundville around the turn of the fifteenth century. For a time, one of the valley’s multiple mound sites managed to survive, but sometime during AD 1450-1550 it, too, was abandoned. A few single-mound centers maintained resident populations, and late in the sixteenth century, some of the multi-mound sites were also reoccupied on a small scale. The fairly radical adjustments of this period are exemplified by wholesale adoption of entirely different ceramic styles.

*The Oconee Chiefdoms.* The upper Oconee River valley has attracted intensive study since the 1970s, and from it, the history of local Mississippian societies has been thoroughly documented (Hally and Rudolph 1995; Williams and Shapiro 1996). There may have once been as many as three separate chiefdoms operating within a 100-km stretch of the valley, and according to Williams and Shapiro (1996:143), change was constant. Hally (1994) argues that internal competition for power was a likely cause of



much of the volatility. The middle portion of the valley is recognized as the probable location of the sixteenth-century province of Ocute, a paramount chiefdom visited and described by Soto in 1540 (Hudson et al. 1985; Hudson 1997; Smith and Kowalewski 1980).

Initial Mississippian developments in the Oconee valley are dated to around AD 1000-1150, based on evidence from three sites. The first appearance occurs with a reasonably substantial early Etowah (Armour Phase) occupation at the Cold Springs Site, and later Etowah (Stillhouse Phase) settlement is best documented at the Dyar Site (Hally and Rudolph 1995:43-44; Williams and Shapiro 1996). Evidence for mound construction is negligible at Cold Springs, but the later occupation at Dyar included small sub-structure platforms and possible evidence of a large public building, perhaps an earthlodge. Otherwise, early Mississippian occupation is extremely sparse.

Middle Mississippian (Savannah Period, Scull Shoals Phase) occupation of the Oconee valley (AD 1288-1350) was more expansive but still far from dense. Settlement became focused around two multiple-mound sites established in new locations a considerable distance apart. There is evidence of only sparse settlement in the valley. Typical of other parts of the region, public architecture shifted to an emphasis on platform mounds, of which two are documented at the two main sites of this period, Scull Shoals and Shinholser. At the latter site, classic SECC objects have been recovered in association with burials in a mound.

Late prehistoric occupation was most intensive along the upper Oconee during the Late Mississippian (Lamar Period, AD 1400-1550). Mound building actually increased, and for the first time, up to five mound sites were occupied simultaneously. At the Scull

Shoals Site, two mounds were in use. In addition, an explosion of population is evidenced by a twenty-fold increase in the number of sites, most of which were small farmsteads established in the uplands flanking the river floodplain (Rudolph and Blanton 1982). More than likely, each mound site was the principal town governing a small chiefdom. Although classic SECC display is no longer in evidence, mound ceremonialism is amply documented by numerous construction stages. These developments are indicative of larger-scale political integration in the basin than ever before, culminating in the formation of the Ocute paramount chiefdom. After the encounter with Soto in 1540, a marked decline in occupation of mound centers occurred, as well as a reduction in the overall number of settlements (Smith and Kowalewski 1980).

*The Coastal Chiefdoms.* Mississippian developments with their own unique history and expression occurred in the coastal zone of Georgia and lower South Carolina. The Middle Mississippian expansion there seems to reflect a process driven by outside influence on conservative indigenous cultures. Late Mississippian Irene development represents a local variation on the widespread Lamar culture of the interior. Overviews by Crook (1986) and Thomas (2008) provide useful outlines of the local trends.

The process of Early Mississippian (AD 900-1200) emergence on the coast is not well-understood but appears mainly to have involved new adaptations among the local populations with minimal indication of strong outside influence or intervention. Minor changes in ceramic styles and technology were accompanied by a tendency toward greater nucleation of settlements and at least limited maize agriculture. At the same time, mortuary patterns, often involving burial mound ceremonialism, suggest there was stronger segmentation of society.

Middle Mississippian (AD 1200-1350) developments involved obvious foreign influences, namely the appearance of classic Mississippian features better known from interior areas. An administrative-ceremonial center was established near the coast, at the Irene Site, featuring a complex arrangement of mounds, plazas, and enclosed spaces. One of the Irene Site mounds is one of only two known platform mounds in the coastal zone, and it rose in at least seven separate construction stages. Classic Savannah complicated stamped pottery and new vessel forms were also introduced at this time. Middle Mississippian settlements are known elsewhere along the coast, sometimes including small burial mounds, but the occurrence of classic Mississippian features was less prominent, especially with greater distance from the Irene Site. The pattern of increased settlement nucleation that began earlier seems to have continued.

Late Mississippian (AD 1350-1550) on the coast is marked by the abrupt appearance of Irene culture, and it is defined by a series of features similar to those observed among interior Lamar groups. Among them is an altered ceramic technology with new styles of decoration. Also, while use of burial mounds continued, platform mound ceremonialism ceased. New forms of public architecture included large circular council houses and charnel structures. Irene sites were widespread, and there appears to have been a trend toward a more dispersed settlement pattern. However, the Irene Site appears, at least for a time, to have served as the principal ceremonial center for the coastal zone.

Terminal Mississippian (AD 1550-1700) developments on the coast were very closely correlated with the period of European arrival and initial colonization. Local societies were still organized as small chiefdoms, but mound construction appears to have all but ceased. A rich ethnohistorical record tells the fascinating story of strategic

machinations by the Indian leadership to convert their relations with Spanish missionaries and regional authorities into greater prestige (Jones 1979; Worth 1996). In spite of the intensive interactions with the colonizing Spanish, native traditions persisted until the ultimate breakdown of the societies after about AD 1680.

*Other Case Studies.* South Appalachian Mississippian societies in the Piedmont and large sections of the Coastal Plain in the Carolinas are referred to generally as expressions of the Pee Dee culture (Boudreaux 2007; Coe 1995; Ferguson 1971). Seminal work defining this cultural variant came mainly from explorations of the Town Creek Site in Piedmont North Carolina, first led by Joffre Coe (1952, 1964, 1995). Over time, numerous related sites were identified, such as Mulberry and Adamson in central South Carolina, as well as the major sites of Hollywood and Irene at the periphery of the Pee Dee culture area on the Savannah River (Boudreaux 2007:8). The summary of Pee Dee culture history I present below is taken largely from the recent overview of Boudreaux (2007).

Early Mississippian in the Pee Dee area is referred to as Teal Phase (AD 900-1150). At Town Creek, there is strong evidence of continuity from the preceding Late Woodland pattern, reflected by construction of domestic structures with round versus square plans and only minor elaboration of material culture.

Mississippian influence is most apparent during the Town Creek Phase (AD 1150-1300), when a formalized community plan was instituted, featuring large, public buildings adjacent to a plaza as well as exclusive mortuary areas. Early in this era, public structures included earthlodges, and it was also at this time that an encircling palisade was put up. Around AD 1250, the focal point of the public space was a large platform

mound erected above the earlier earthlodges. Also, for the first time, funerary objects of exotic materials, such as mica, marine shell, and stone, began to signify the high status of certain individuals. Because domestic structures appear to be largely absent from the community starting late in the Town Creek Phase, the site is believed to have functioned largely as a ceremonial center. The cultural pattern of this period is argued to be related to that called Savannah farther south, which is associated with the pinnacle of Etowah's influence.

The Mississippian tradition extended into the subsequent Leak Phase (AD 1300-1450), but the scale of mound-building and other public works was diminished. By the middle of the fifteenth century, the site appears to have been largely abandoned, a pattern consistent with observations elsewhere in the region and especially along the Savannah River. The Leak Phase tradition is apparently related to that of the Lamar culture better known from sites of the same period in Georgia.

Poised at the southern limit of the South Appalachian Mississippian region, near Tallahassee, Florida, is the Lake Jackson Site. The extensive, multi-mound community there experienced occupation throughout the Mississippian Stage, but like Etowah, it underwent its most impressive spell of growth during the Middle Mississippian period (Scarry 1996b, 2007a). Archaeological investigation of the site has been rather sporadic and sometimes opportunistic, but a basic sense of its history and connections has emerged.

Intensive middle-period occupation of the site is expressed by the contents of large mounds. Investigation of Mound 3 in particular documents a series of construction stages and elite burial events that confirm a period of significant interactions with other

prominent chiefly centers in the region, such as Etowah, during the thirteenth and fourteenth centuries (Lake Jackson phase). Embossed copper plates and axes, in addition to shell objects and pipes, are all of styles indicative of mainstream SECC participation (LeDoux 2009; Scarry 2007a, 2007b).

### Interpretations of Mississippian Ritual

Religious ritual was an ingrained and prominent aspect of Mississippian existence. Ultimately, the structure and specific features of Mississippian religion have obvious bearing on my analysis of smoking rites. Its importance, as Knight (1981:136) has proposed, is that Mississippian religion and its associated rituals served as the “sociological mechanism for conserving conventional orders by investing them with unquestionable truth.”

Knight (1986) specifically argues that Mississippian religion was based on a dualistic structure organized around the competing but complementary beliefs and activities of two cult institutions (Figure 3.4). A third cult mediated the dynamic tension between them. The relationship between the two competing cults was asymmetrical and dominated by a chiefly institution devoted mainly to warfare and cosmogony. In opposition to the chiefly institution was a platform mound cult concerned primarily with issues of fertility. A priestly cult devoted to ancestor worship played the mediative role. Ultimately, the institutionalized relationships served to codify structural tensions so that they could be channeled to achieve complementary, coordinated actions (Knight 1986:676). This formulation, he proposes, is what provided “the context of Mississippian political power, along with the kinship system” (Knight 1986:685).

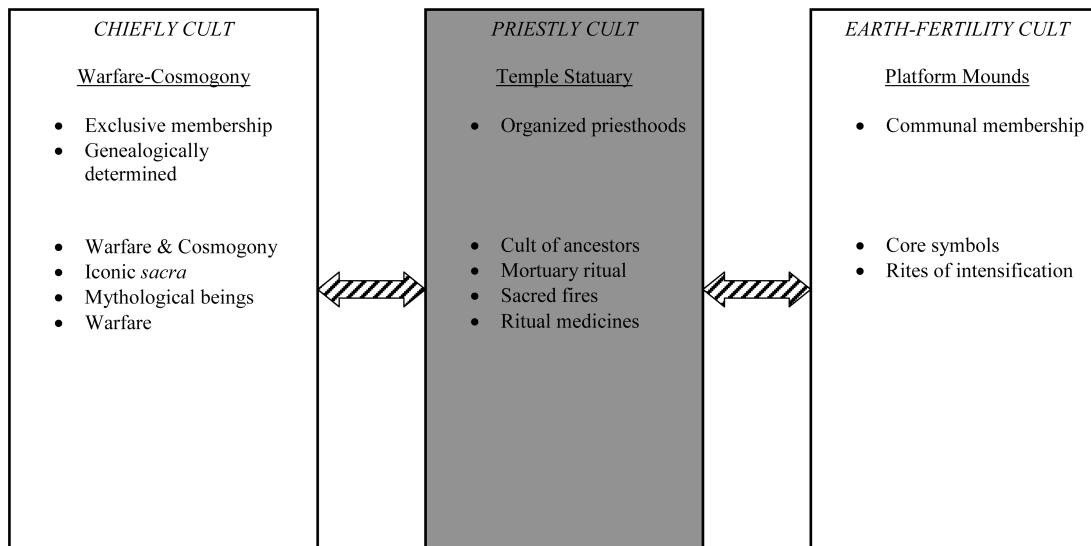


Figure 3.4 Knight's (1986) model of Mississippian religion and ritual.

Each of the three cult institutions Knight recognizes would have been defined by unique roles, histories, core beliefs, rites, and representative symbols. They also would have generally been supported by different social groups. Of special relevance is the suggestion that each cult will be visible archaeologically by distinctive sets of associated *sacra*, by which he means the “totality of representational art, artifacts, and icons that by inference appear to have been charged with conventional supernatural meaning, in the context of ritual activity or display” (Knight 1986:675). Also, those materials would likely occur in separate contexts, or settings.

Mississippian religious *sacra* may be subdivided into “iconic families” that constitute the symbolic identities of the three cults (Knight 1986:676-681). The first is what Knight refers to as the Warfare-Cosmogony Complex, associated with the chiefly cult of Mississippian nobility. This cult was concerned with supernatural influences on success in warfare, and the warrior-chiefs that were members of the group held strict

control over relevant esoteric knowledge. Its sacra consisted of relatively rare, well-crafted, largely portable objects made of exotic and costly materials. Such objects clearly were favored for their display value and tended to be disposed of as grave furnishings. Associated symbolism featured representations of weapons and mythic imagery that was generally integrated into the coherent SECC system all aimed at sanctifying political power.

The second iconic family, representing a less exclusive communal cult devoted to fertility and rites of intensification, is the Platform Mound Complex symbolized by earthen platform mounds and their associated rituals. It appealed to fundamental core symbols and metaphors revered by the broader community. The iconic mounds and the rituals associated with their creation, effectively acts of burial, were representative of earth, purification, and renewal.

The third iconic family, symbolizing the mediative priesthood, is the Temple Statuary Complex. It was symbolized by temple and other human statuary basic to the rites of a cult of ancestors. The organized priesthoods comprising this cult institution would have been devoted to maintenance of temples and ossuaries, the administration of mortuary rites, maintenance of sacred fires, and the preparation of ritual medicines. Its membership would have been restricted by age, gender, and training regimens. Quoting Knight (1986:681), "These priesthoods might be viewed as mediating between chiefly and community affairs, yet clearly having exclusive ritual and supernatural prerogatives distinct from both of the former." Knight does not specifically reference smoking ritual, any of the associated paraphernalia, or tobacco in his formulation of Mississippian religion. However, I will explore whether, under his scheme, tobacco ritual would have



been an important and perhaps exclusive element of the Temple Statuary (i.e., priestly) Complex.

*The Southeastern Ceremonial Complex.* The material expression of what is known as the SECC has long captivated the interest of archaeologists, and it reveals how highly ritualized Mississippian societies could be (Brown 1997:480-481; Galloway 1989; Knight 2004; Lankford et al. 2011; Reilly and Garber 2007). The SECC experienced a zenith in development during the Middle Mississippian period, but its influence lasted in a transformed condition well into the era of European contact. A corpus of elaborate iconographic symbols, executed on marine shell, copper, stone, ceramic vessels, wood, and textiles, was essential to the maintenance of chiefly authority and religious practice. These symbolic objects served in lavish ritual displays designed to mediate the sacred-secular divide, presumably in closest association with the Warfare-Cosmogony Complex that Knight describes.

In its classic Middle Mississippian format, a standardized body of SECC symbols depicts a series of common cosmological themes related to equilibrium, fertility, death, and warfare. The conceptual touchstone for the SECC, and an enduring basis of southeastern Indian worldview, was a tripartite model of the universe (Hudson 1976; Lankford 2004; Reilly 2004; Smith 1996)(Figure 3.5). An Upper World populated by heroes and raptorial birds, recognized as the realm of the Sun, the ultimate source of life, was a place of order and predictability. An Underworld regarded as a place of disorder, change, and death was inhabited by monsters and animals with peculiar features and behaviors. Situated between the Upper- and Underworlds was Earth, the realm of humans. In the Earthly dimension, there was constant tension between the opposing forces of the realms above and below, and people struggled continually to maintain a

balance between them with rites and other means. Standardized symbolic depictions of this cosmological model are pervasive in the SECC.

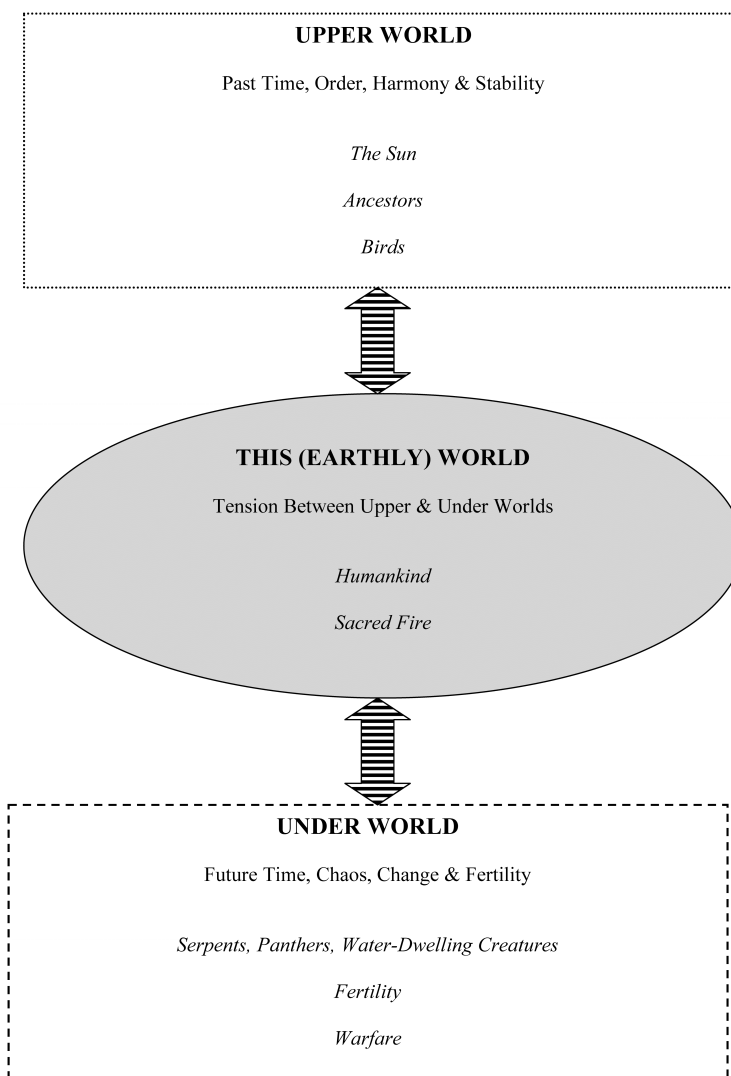


Figure 3.5 Southeastern Indian cosmological model.

Common themes in representational art of the SECC establish that there was a cohesive worldview – a core of ideas - at work, but it was neither a static nor completely uniform system, especially in the context of cyclical sociopolitical transformation (Brown

1997:481, 2004; Cobb 2003; Reilly and Garber 2007). The SECC enjoyed its initial consistent expression under the influence of a Cahokia-centric style. Later in the Middle Mississippian period, sub-regional styles, such as Hightower at Etowah, eventually emerged, and they subsequently underwent their own evolutions (King 2004, 2007b; Hally 2007). After AD 1400, SECC symbolism persisted more strongly in the Southern Appalachian sub-region than elsewhere but in a much-transformed and more secularized expression portrayed in different materials and with new kinds of symbols. For example, new styles of marine shell gorgets and groundstone ceremonial objects replaced earlier types (Hally 2007).

#### The Archaeological Context of Tobacco Use in the Southeast

Smoking rituals in the Southeast undoubtedly involved combustion of numerous plant species, only one of which is tobacco (*Nicotiana* sp.) (Hall 1997; Knight 1975; McGuire 1899; Paper 1988; West 1934; Winter 2000). Available information indicates, however, that tobacco was a key ingredient, if not the sole substance consumed, in Mississippian smoking rituals. In the following discussion, I focus mainly on evidence of tobacco use, first reviewing direct archaeological evidence of tobacco in North America before turning to questions of its ultimate origin and spread.

The earliest documented tobacco seeds in North America were found in a Late Archaic (387-205 BC) context at a site near Tucson, Arizona, and possible tobacco pollen was identified in a slightly later context in New Mexico (87 BC-AD 208) (Winter 2000d:114). Similar evidence appears farther east during the Middle Woodland period (70 BC-AD 250), specifically on four sites near the confluence of the Mississippi and Illinois rivers (Wagner 2000:190). Tobacco remains, whether seeds or pollen, always

seem to be rare in eastern North American archaeological contexts, but relatively speaking, they become increasingly common after AD 300. Still, the handful of sites that have produced tobacco evidence from contexts predating AD 800 are concentrated in the middle and upper Mississippi valley (Wagner 2000:189-194). Traces of tobacco, while still not abundant, have been found far more often and more widely in contexts that postdate AD 800, including in solid Mississippian contexts. Eighteen sites dating from AD 800-1000 have produced such evidence, and 40 Mississippian (AD 1000-1500) components have tobacco in association, at locations extending from the Mississippi Valley to the Atlantic coast (Wagner 2000:194-195). The fact remains, however, that tangible evidence of tobacco in the eastern United States is, so far, “strikingly concentrated” in the Mississippi, Missouri, Illinois, and Ohio river drainages (Wagner 2000:195). There are, in fact, no documented tobacco residues from any site within the expansive South Appalachian Mississippian area, and traces are recorded from only two sites in the lower south, Moundville, Alabama and Osceola, Louisiana (Wagner 2000:Table 40).

A question important to my treatment of smoking ritual pertains to the context of tobacco residue finds: Are they isolated to any degree in specialized, potentially ritual-associated contexts or not? Wagner (2000:196-199) exhaustively considers the matter and concludes that, overall, tobacco remains “overwhelmingly” occur in domestic, as opposed to unique, contexts, very often in samples that also include common food plants like maize and starchy seeds. Yet the fact that masses of tobacco seeds occur in some of these situations may be an indication that tobacco was handled differently from food plants.

Wagner describes a few cases from Cahokia-related sites where tobacco appears to be tied to specialized spaces and activities. Tobacco was found, for example, within a council or chief's house (Lohmann Phase, AD 1000-1050) together with nightshade (*Solanum* sp.) and "exotic material" (Wagner 2000:196). One Stirling Phase (AD 1050-1100) structure also produced tobacco together with nightshade. In another Stirling structure, a "household temple" contained tobacco, nightshade, and eastern red cedar (*Juniperus virginiana*) as well as non-local goods like a cache of stone hoes, grinding stones, and bauxite figurine fragments. In addition, she notes the recovery of tobacco from several Cahokia-area pit features that are believed to have been filled as part of ritual activities, such as busk-like ceremonies. All of the apparent specialized contexts on Cahokia-related sites with tobacco residue date from the period AD 900-1200.

Smoking pipe artifacts provide indirect archaeological evidence of smoking ritual. A human presence is established in the southeastern United States since at least 11,000 BC, but prior to about 500 BC, the record is essentially silent on the question of smoking as a ritual activity. The initial appearance in the region of obvious, ritually-oriented smoking paraphernalia, including pipes, coincides with the cultural stage called Woodland (500 BC – AD 900) (Cordell and Smith 1996; Wagner 2000), and the first elaboration of smoking paraphernalia occurs in conjunction with Hopewell cultural development (AD 1 – 400) (Brown 1997:472; Knight 2004). After the Hopewell decline, the region's Woodland societies assumed a more provincial pose, with less evidence of routine, far-flung interaction, projects requiring corporate labor, or elaborate ritual (Cordell and Smith 1996:246-247.)

In the succeeding Mississippian era, smoking pipes clearly were important elements of ritual practice, but they are a category of paraphernalia neglected by

archaeologists, perhaps because they are a less obvious element of mortuary rituals. In fact, the symbolic features of Mississippian pipes in the South Appalachian area may or may not be expressive of the SECC concepts that attract so much intensive study. Thus, an impression is forming through this study that pipe symbolism is a uniquely independent form of expression, often detached from mortuary ritual in particular and directed to other cosmological concerns. Also, South Appalachian pipe styles tend to be distinctive from those common to other Mississippian regions, and they exhibit more variety than those common to other parts of the greater Mississippian culture area (Holmes 1903:140; Jones 1999; West 1934).

#### Ecology of Tobacco in the Southeast

Claims are made that tobacco is possibly the first plant domesticated in the New World (Winter 2000a:4). Furst suggested that there is “no reason why the first cultigens should not have been intended to feed the spirit rather than the stomach” (Furst cited in Von Gernet 2000:79). Because the origin stories of so many North American tribes refer to knowledge of tobacco early in their group’s history, its use is believed by some to be of great antiquity (Winter 2000f:315). Winter (2000f:313) has proposed that “tobacco use is a very ancient and far-reaching cult complex that formed or at least became a part of the foundation for other kinds of plant manipulation.”

Ninety-five species of tobacco are recognized worldwide, and all but twenty of them are specific to the Americas (Winter 2000d:90). *N. rustica* was the only variety propagated in the Eastern Woodlands, but six other species in the genus *Nicotiana* sp. were used elsewhere by indigenous North Americans. The origins of *Nicotiana* are traced to South America, where genetic research identifies wild, ancestral species in Ecuador,

Bolivia, and Peru (Winter 2000d:90). Just as the history of *Nicotiana*'s biological evolution is complex, so is the story of its radiation beyond the region of origin.

Winter (2000d:90, 97) describes how plants ancestral to *N. rustica* (*N. paniculata* and *N. undulate*) probably evolved in north-central Peru and northwestern Argentina and later expanded north to Mexico, where additional new species emerged. Those species, like *N. attenuata* and *N. rustica*, eventually spread into the area of the United States, but the exact sequence of those events is far from settled. In fact, it is uncertain whether the plant was fully domesticated by the time it spread north from Mexico. One suggestion for the path of *N. rustica* into the Eastern Woodlands is via northeastern Mexico, based on the recovery of apparent *N. rustica* in archaeological contexts dated to AD 300-800 in Tamaulipas caves (Winter 2000d:108). There is no evidence that the species spread into eastern North America through the Caribbean, as *N. tabacum* did after European contact (Wagner 2000:185).

As noted, *N. rustica* is one of seven species of *Nicotiana* that has been found living north of Mexico (Winter 2000d:90), but it is the only one of the species that was grown east of the Mississippi River by indigenous people before contact with Europeans (Von Gernet 2000:65-66). Viable habitats for three of the other species (*N. attenuata*, *N. quadrivalvis*, *N. trigonophylla*) lie west of the Mississippi, where they occur in relatively limited but sometimes overlapping ranges (Setchell 1921 and Linton 1924 cited in West 1934:61; Winter 2000b:20). Of those species, only *N. attenuata* has a range that overlaps at all with that of *N. rustica*, specifically at the eastern edge of the plains region in the Mississippi basin. *N. rustica* has been historically documented as having been grown throughout eastern North America, within an area extending from northern Canada to the Gulf Coast and from Texas and the Midwest to the Atlantic Ocean. However the eastern

United States, especially the Middle Atlantic and Northeast, is described by Winter (2000b:14) as the “heart of Indian tobacco-growing country in North America.” The earliest graphic depiction of tobacco plants is Theodore de Bry’s engraving of it growing among North Carolina Algonquians (Von Gernet 2000:64). Written descriptions from seventeenth-century Virginia and the Carolinas are sufficiently clear and consistent in their details to identify the species grown there as *N. rustica* (Von Gernet 2000:64-65). It was accurately described as about a meter in height and bearing a resemblance to henbane with its small yellow flowers.

Varieties of tobacco like *N. rustica* require human intervention for survival (Winter 2000f:310, 312, 317). Like other domesticated plants, the species is not capable of reproducing itself in the wild beyond one or two generations. However, because tobacco matures quickly and requires infrequent care, it is not difficult to grow (Knight 1975:126 citing Skinner 1925). A Seneca informant described how tobacco is relatively easy to propagate because it can germinate directly from the previous season’s seeds (Winter 2000e:286). In most places in North America, it was propagated under special conditions (Wagner 2000:199-200). At times, it was grown among food crops (Waselkov and Braund 1995:45, 54 citing Bartram), probably somewhat apart from them, but many more accounts describe how it was carefully tended in specific, secluded plots, very often in accordance with ritual prescriptions (Hariot cited in Jones 1999:395; Paper 1988:6; Springer 1981:218; Von Gernet 2000:67-70; Winter 2000b:14, 16, 19).

In addition, tobacco production and use is almost universally described as a male activity (Williams cited in Paper 1988:6; Von Gernet 2000:70; Wagner 2000:199; Winter 2000e:269). Explicit prohibitions often existed against any contact between tobacco and women (Winter 2000e:280). Occasionally men tended to other special crops like



ceremonial maize fields, but under ordinary circumstances, food crops were the responsibility of women (Hudson 1976; Waring 1968:51). Among the Kickapoo, tobacco was grown by male clan leaders in isolated and easily watered locations that were protected by fences and, at times, by human guards (Winter 2000b:19). According to Von Gernet (2000:70), “This sexual division of labor suggests an Amerindian taxonomy that classified tobacco not in the same category as subsistence cultigens but rather as a symbolically distinct product.”

The chemical effects of tobacco on the human body were the sole attraction of the plant, and to achieve them, tobacco was smoked, eaten, drunk, and applied to the body (Springer 1981:219; Von Gernet 2000:74; Winter 2000a:3). Ritually, it seems the plant itself, by virtue of its effects, was just as important and perhaps more so than the means of consuming it (Von Gernet 2000:74). Early observers were quick to remark on the effects (Drake cited in Jones 1999:397; Vaca and Hawkins cited in McGuire 1899:411; West 1934:77; Lawson cited by Winter 2000f:305). As one example, Lawson observed in eighteenth-century North Carolina that Indian men and women both were addicted to tobacco. He went on to observe that because the Indians did not use it the same way as whites, presumably in smaller quantities, the difference between the species (*N. rustica* vs. *N. tabacum*) must be considerable (Lefler 1984:175-176). Lawson said that the Indians referred to the much-desired powerful effect as “hogoo.”

A host of studies show that tobacco is a narcostimulant, and some varieties like *N. rustica* can be extremely potent (Winter 2000d:97+, 2000f:307). Tobacco is a member of the Solanacea family, to which a range of other plants containing narcotic compounds belong. Among them are jimsonweed (*Datura* sp.) and belladonna (*Atropa* sp.), also used widely by humans. The commonly used tobacco today, *N. tabacum*, usually contains a

nicotine level of 1.5 percent, but varieties of *N. rustica* have been tested that contain up to 18.7 percent nicotine (Winter 2000f:307). This quality is almost certainly the outcome of intentional human manipulation aimed at increasing nicotine and alkaloid content, effects that ultimately enhanced the survival of the species (Winter 2000f:317). In fact, the suggestion has been made that the greater the levels of nicotine or other alkaloids in a tobacco species, the more widespread it became in the Native world (Winter 2000f:320). Because the levels of alkaloids in tobacco are correlated with the length of its growing season, plants grown in the Southeast would probably have higher content than the same plants grown in the Northeast (Paper 1988:4).

Two key addictive and psychotropic alkaloids produce tobacco's effects, nicotine and anabasine (Winter 2000f:322-327). Together they are known to alter blood pressure, stimulate and paralyze cervical ganglia, and increase the flow of adrenaline. Nicotine specifically acts to release the psychoactive hormones epinephrine, dopamine, and serotonin by freeing the flow of the neurotransmitter known as norepinephrine (Paper 1988:3). Nicotine is described as a biphasic drug, as different dosage levels can have markedly different symptoms. In small doses, it can be a stimulant that increases locomotive activity, vigilance, and learning rates but at the same time have a calming effect, perhaps even with beneficial medical results (Knight 1975:126, 131). In addition, small doses can suppress hunger and thirst (Winter 2000f:327). In stronger doses, nicotine produces mind-altering effects like hallucinations, trances, seizures, catatonia, or, in the extreme, even death. Some or all of these effects became desirable under different circumstances, and tobacco emerged as the "core religious drug of choice" (Winter 2000e:266).

As noted, tobacco was almost certainly not the first plant to be consumed by fire for ritual purposes, nor was it the only one. Early pioneering and foraging populations can be expected to have made use of an untold variety of plants for healing and symbolic purposes, many of them ingested by smoking, among other means. Following tobacco's introduction and adoption, several plants are known to have been used in conjunction with it, often as admixtures in blends that were smoked (Knight 1975; Springer 1981:219; West 1934:107). Many, if not all, of the plants blended with tobacco probably had long been in use. Some of them, like *Datura* sp., also known as jimsonweed, had powerful mind-altering effects, while others, like sumac (*Rhus* sp.), red osier (*Cornus sericea*), and red cedar (*Juniperus virginiana*), appear to have been utilized for color-related and other kinds of symbolism. Specifically, sumac, red osier, and cedar share a red color. Bartram (quoted in Waselkov and Braund 1995:164) notes that ginseng, a plant with its own unique properties, was sometimes dried and mixed with tobacco.

#### Ethnohistorical and Ethnographical Documentation of Smoking Ritual in the Southeast

The customs of southeastern Native societies recorded by early European observers, along with knowledge of relevant myths, are sufficient to give a useful sense of the importance, meaning, and context of smoking ritual. While pitfalls come with attempts to bridge the ethnohistorical and archaeological records, there are also obvious and compelling reasons to make a measured effort. In the following section, I summarize documentary information in a way that illustrates something about the nature of Southeastern tobacco ritual. It will expose aspects of the richness and complexity that must have existed in tobacco rituals of the late prehistoric Southeast and thereby serves as a context for situating my later analysis.

Today, we know tobacco as a popular product disseminated from the American hemisphere to the rest of the world, but before it gained global popularity, tobacco smoking was not only the most universally recognized ritual activity of North American Indians, it was also a practice quite unique to the Americas (Paper 1988:3). Early European observers from the sixteenth through the nineteenth centuries did not fail to recognize the general importance of tobacco to Indian peoples, but they were not always clear about its meaning (Jones 1999:383-399). Non-Indian observers were subject to biased interpretation of sacred activities, whether intentionally or not. For example, pipe smoking popularly came to be associated with peace-making ceremonies simply because those occasions were probably among the few that non-Indians might be invited to attend. In addition, Indian informants of the post-contact era were themselves relating practices and beliefs that had not always come to them in an unchanged form. Clearly, however, smoking sanctified and legitimized a host of actions beyond entreaties for peace.

Almost universally, indigenous people in North America held tobacco in reverential esteem, often treating it with a level of respect beyond that of subsistence staples like maize, beans, and squash (Winter 2000e:269, 279). Emblematic of its importance are the common claims among Indian groups that tobacco was among the original gifts made to humans by their gods and that it was also *the* primary means of communication with the spirit world (Paper 1988:3,53; Von Gernet 2000:72-74; West 1934:83; Winter 2000f:308). Tobacco was believed to be as much desired by supernatural beings as by humans and, sometimes described as the food of the gods, was critical for divine survival (Winter 2000e:266, 278, 284, 302). Tobacco offerings were required by a covenant between humans and the gods and represented an act of gift exchange between them (Paper 19988:63; Winter 2000e:284). Paper (1988:53) notes how

the Cherokee claimed that their people would die without tobacco. It was, in effect, an “essential life force” (Paper 1988:57; Winter 2000e:278).

*The Origin of Tobacco.* The importance and apparent antiquity of tobacco use specifically among Southeastern Indians is exemplified by its mention in origin myths (Grantham 2002:235). Tobacco was counted among a small number of sacred plants whose powers were revealed at the beginning of time and almost always at a western place of origin (Grantham 2002:56-57), the direction associated with the souls of the dead (Power 2004: 209) or, I infer, ancestral spirits. Among Muskogean groups like the Creek, these myths have been referred to as cult bringer legends (Waring 1968:44). The legends recount how essential knowledge was imparted to them before they migrated from a location west of the Mississippi River (Grantham 2002:8-9,56-57; Waring 1968:65; Waselkov and Braund 1995:140). According to the Muscogee, four men from the four corners of the earth brought sacred plants and sacred fire to them, providing two means of communication with the sacred powers (Grantham 2002:57). The most universally mentioned of these sacred plants among Southeastern groups are tobacco, button snakeroot, red root, and yaupon holly (Grantham 2002:55). Those “medicines” were mainly used for purification before and during annual ceremonies like the busk. By way of example, Natchez myths tell how cult bringers guided them to build a temple that would house a sacred fire that originated with the Sun and to conduct rites and feasting ceremonies (Waring 1968:48). According to the Creek, the cult bringers gave them knowledge of fire, the busk ceremony, their laws, and their medicines, which included tobacco (Waring 1968:48).

Waring (1977:66) hypothesizes that the Southeast was seeded with proselytizing immigrants from the west. His hypothesis states that:

the archaeological spread of Middle Mississippian represents the original migration from a small area of groups possessing a closely related ceremony which was strongly oriented to agriculture. It probably contained the basic fire-sun-deity beliefs, fire ceremonial, and the chieftain in a strong central position. The temple mound was also in use in its dual function as temple and dwelling for the Chief. The Southern Cult [SECC] seems to represent the appearance of a new ceremony integrated on a somewhat later and more mature level, yet based largely on the earlier ceremonial.

He further proposes that the cult bringers were “small groups of men passing over a great portion of the Southeast under intense religious excitement, moving from group to group, and armed with a simplified version of the old Temple Mound I ceremonial, urging the ‘white way,’ sharing the fire, medicines, and distributing ceremonial tokens as gifts from Sky Being.”

*Fire and Sun Symbolism.* Symbolic linkages between fire and fertility were widely made in the course of tobacco rituals. Fire itself was universally revered and consumption of tobacco by use of it reinforced the standing of both. Fire was regarded as the earthly manifestation of the sacred Sun, and smoke produced from it was a visible avenue of communication with a higher realm (Jones 1999:385, 393; Paper 1988:13). Smoke was also the product of an act of sacrifice involving the burning of sacred plants like tobacco (Gatschet 1969:45; West 1934:66; Winter 2000c, 2000e). Among the Huichol of Mexico, for example, Grandfather Fire, the patron of life and health, was said to own tobacco (Winter 2000e:278). Among the Kickapoo, tobacco and fire were both important manitous (Winter 2000a:19).

The symbolic linkage between smoking tobacco and fire was as strong in the Southeast as it was elsewhere. Among Southeastern Indians, fire represented the sacred Sun. Numerous accounts describe how the sun was symbolized by a sacred fire maintained in special sanctuaries, fed by four logs oriented to the cardinal directions. By

extension, SECC motifs like the cross-in-circle are identified with fire-sun deity symbolism (Lankford 2004; Power 2004; Waring 1968:33-35). The busk, or Green Corn, ceremonies of Southeastern Indians (described more fully in a later section), representing annual world-renewal rites, certainly emphasized maize fertility but also involved much related interest in fire symbolism (Grantham 2002; Hall 1997:146). Observations made by William Bartram (cited in Waselkov and Braund 1995:149) in the eighteenth century serve as an example:

First, “they venerate Fire” and “They keep Eternal Fire in the Great Rotunda.” And, second, “They do seem to pay homage to the Sun as a Symbol or Minister of the... Great Spirit. Thus at Treaties, they first puff, or blow, the smoke from the Great Pipe & Calumet up to that planet, look upwards towards him with great reverence and earnestness; & when they confirm their talks & speeches in council as a witness of their contracts. And when they make their martial harrangues or speeches, at the head of their army when setting out or making onset...

*Fertility Symbolism.* The symbolic linkage between tobacco and concerns with fertility are equally clear and more widely expressed, often quite explicitly in the context of myths. This is true among groups both within and beyond the Southeast. For example, a Huichol (Mexico) myth relates:

The Deer Person and the Deer Girls took off their clothes and went into the lake. The girls said, “If you make love to us, we will give you your arrows back.” Deer Person needed the arrows to take to the peyote desert. Well, you know how people are, they fooled around, and as he made love with them some of his seed fell on the ground. A beautiful plant grew where his seed fell. The plant was “makuchi” (Winter 2000e:280).

Female fertility is also cited as one of the key reasons for the Crow tobacco society’s existence (Winter Ibid:291). Likewise, the Pima are known to equate tobacco smoking with rain and fertility (Winter 2000c:44).

In eastern North America, late prehistoric and post-contact pipes were almost always comprised of two key parts: a bowl and a stem, each with its own symbolic

importance (Paper 1988:9; Springer 1981:218). Based mainly on French accounts from the upper Midwest, the stem, or *calumet*, was regarded as the more important of the two (Hall 1997:4; D'Iberville cited in Jones 1999:391). The stem had obvious phallic symbolism and represented the male element of the pipe (Paper 1988:39-40, 74). Additionally, Hall (1989:250) equates long pipe stems with the anatomy of a windpipe, the passageway for life-giving breath. The Pawnee *calumet* ceremony illustrates that conception, normally a function of sexual organs, may also be accomplished with breath, which symbolizes introduction of the spirit (Hall 1989:255). In an obvious male allusion, pipe stems have also been interpreted as symbolic weapons (Hall 1977:502-506; Springer 1981:221). The significance of the association, according to Hall (1977:503), is the act of exchanging ritual weapons, based on his tracing of the *calumet* stem to earlier use of atlatls (spearthrowers) and later use of arrows.

The pipe bowl is sometimes described as a sacrificial vessel symbolizing the cosmos in miniature (Paper 1988:38), or as a portable altar (West 1934:382). It is also regarded as the female element of the pipe (Paper 1988:39-40, 74), and by virtue of its material, usually stone or clay, the bowl also is a symbol of Earth. Another aspect of the female symbolism of pipe bowls is the vessel-like form, linking women and the manufacture and use of pottery. The hole in the pipe bowl that receives the stem is representative of the vagina.

Great significance is assigned to the pairing of the male stem and the female bowl, often as a distinctive ritual action (Paper 1988:38-40, 74; Springer 1981:221). The pipe is believed to attain its full power and significance only through this potent act of union. By connecting the two physical parts of the pipe, connection is metaphorically



made between Sky (Male) and Earth (Female). Hall (1997:95) describes the Pawnee Hako *calumet* as expressive of male:female and, therefore, earth:sky duality.

Waring (1977:38) contemplates concerns with fertility in Mississippian symbolism by observing that the SECC bi-lobed arrow symbol is a likely representation of male genitalia. He notes that smoking pipes made in the form of male genitalia are known from at least three sites in Georgia. Hall (1989:250) also argues that the bi-lobed arrow is an explicit symbol of “male generative power.” He (Hall 1977:506) infers that it represented both a bow and arrow or atlatl and dart as well as sun symbolism, noting that both carry the idea of sun, fire, and male piercing weapons. Likewise Hall (1997:121) notes that, in the Creek language, the words for tobacco and penis were once the same or closely related. Citing Swanton (1929), he says that tobacco was known as the “copulator” and references a Creek myth that says “when we smoke we shall call it the same as *quum coimus*, meaning ‘when we have intercourse’.” Hall (1977:506) also points out that the Chickasaw and Choctaw use similar words for sun (*hasseh*) and penis (*hasse*). Additionally, he cites Hitchcock’s observation that newly married Creek couples spent their first night together in the corn crib, a point Waring (1977:38) clarifies by citing Adair’s note that the Cherokee “call the corn-house, Watohre and the penis of any creature, by the very same name.”

The tobacco-fertility association is also exceedingly obvious in Southeastern Indian myths describing the origin of tobacco (Urban and Jackson 2004:710). As Grantham (2002:61) notes, “The mythological origin of tobacco among all Creek groups is almost always linked to a liaison between a man and a woman.” Most often, tobacco is described as having been discovered in the forest where a sexual encounter occurred and sometimes that it specifically grew from the man’s semen. The Yuchi believe in a

different but not dissimilar immaculate act, that tobacco's creation immediately followed that of humans, who sprang from a drop of blood that fell from the Sun (Grantham 2002:18, 22). I have paraphrased these myths below as they were assembled by Grantham (2002).

The first is a Yuchi tobacco origin myth recorded by Speck (1909). In it, a man and a woman ventured into the woods where they had intercourse. Some of the man's semen spilled to ground. The woman later returned to the same place and found tobacco growing. She showed it to the man, and her son named it. The son carried the plant home and tended to it in a select place where the plant thrived. He tried and liked the tobacco, after which he taught other people about it.

Another such myth was recorded among the Hitchiti by Swanton (1929). A man and a woman lost their horses and went together to search for them. During the search, they laid down together in the woods. The next summer the man returned to the place and found an unusual weed [tobacco]. He reported the discovery to old men, who said that he should test it. The man tended the plant, and it did well. He took leaves and seeds from the tobacco to the old men, and one of them pulverized them and smoked them in a cob pipe. The man declared it good and called it "hitci," which means "a man and woman together created tobacco."

Two variations of the myth were recorded by Swanton (1929) among the Muscogee (Creek). In the first, a man found a pretty plant near a log, which marked the place where a man and a woman had lain. The plant was the result of their meeting. The old man nurtured the plant [tobacco] and eventually tried and liked it. He taught others

about the plant. The first name given to the plant was “coeuns” (haisa), which means “intercourse.” Later the plant was made a warrior with the name “hitci.”

In the second Muscogee variation, a man loved a woman, and they got lost together. She accepted his marriage proposal, and he took her to his camp. Later the man went back to the place and found a pretty plant where they had first lain. He told people about it and learned to like it. It was decided that, “We shall call it hitci, and when we smoke we shall call it the same as quum coimus (haisa),” which means “intercourse.”

Swanton (1929) recorded another kind of tobacco origin myth among the Alabama. Six brothers were traveling on a bear hunt, and the youngest had no food. He went alone to find food and met two men who invited him to their camp. They followed a blood trail, which led to a field of corn and tobacco. The two men showed him about corn and tobacco, taught him how to build corn cribs, and gave him tobacco seeds before they left him.

The power of tobacco and smoke is also related in other myths. One from the Yuchi tells how Wind kills Iron Monster by blowing smoke on him from a pipe whose bowl was fashioned from a bullfrog and the stem from a snake (Grantham 2002:24). In another, bands of animals living in creation time blow smoke as a screen to enable their passing of groups of fighting humans (Grantham 2002:43). Also, conjurers are said to have the power to attract the affection of someone of the opposite sex by taking tobacco in a small sack, repeating the name of the person sought, and blowing tobacco through a short cane four times (Grantham 2002:49).

*Tobacco in Green Corn Ceremonialism.* The annual Green Corn Ceremonial, or busk, is a world-renewal rite generally regarded as a vestige of an ancient, pre-contact Mississippian ritual activity (Hall 1997:138; Knight 1981:741, 1989). In its essence, the busk was conducted as a temporary unraveling of balance between the mythical Upper and Lower worlds, representative of contradictory forces such as male-female, cosmos-chaos, and order-disorder. In the course of the ceremony, existence was returned to a state of nothingness, as before creation. In the climax of the ritual, the universe is restored with new Fire, symbolically re-establishing balance and retrieving the cosmos from chaos (Grantham 2002:82).

There are several indispensable elements of the busk ceremony observed across Muskogean-speaking Indian groups that trace their ancestry to the Southeast. Working from Grantham's (2002:80-82) presentation they are as follows:

- fasting and abstaining from sexual contact, a prohibition that ensures temporary disassociation from Middle World (Earthly) activities;
- taking of medicines in order to attain purification before participation in the busk;
- sacrifice of new crops, but especially corn, so as to return them to their sacred origin or transmit them to the sacred realm (among the Yuchi, this act also involves blood-letting); and
- extinguishing the old fire and rekindling a new fire; fire is representative of the entire community and the embodiment of the sacred, serving as the connection to ancestors, spirits, and other cosmic forces.

Ethnohistorical and ethnographical accounts describe how sacred plants were used in the busk ceremony, of which tobacco and smoking pipes were vital features (Grantham 2002:67). Even preparation of the plants for ceremonial use was highly

ritualized (Grantham 2002: 58). In one description of a busk ceremony, Swanton observes how the four bearers of knowledge consume Black Drink and then one of them, “puts a few roots of the button snakeroot, with some green leaves of an uncommon sort of tobacco, and a little of the new fruits, at the bottom of the fire-place, which he orders to be covered up with white marley clay, and wetted over with clean water” (Grantham 2002:60). Adair also observes mixing of tobacco with the clay used to refurbish the hearth that would contain the sacred fire (Adair cited in Waring 1968:57). In a similar sequence, Bartram describes how Black Drink was circulated and consumed formally, after which the entire assembly partook, at which time “tobacco and pipes are brought” (Grantham 2002:59).

A number of other accounts are cited to illustrate how tobacco was used in busk renewal rites:

- Among the Yuchi: the “rite concluded with a feast of new corn, the smoking of tobacco, and a ball game” (Grantham 2002:71).
- Among the Muscogee (Hawkins-1798-99): On the eighth day of the busk ceremonial, “Two men brought some flowers of small tobacco (‘old man’s tobacco’) and gave a little to everyone present. The mico [chief] and advisors proceeded four times around the fire and, when facing east, threw some of the flowers into the fire. They then stood to the west while the warriors repeated the same ritual.” Then, later on the same day, “With all standing beside the water... they all put a grain of the ‘old man’s tobacco’ on their heads and in each ear. At a signal given four times, they threw some of the tobacco into the river and every man plunged into the water, picking up four stones from the bottom.” (Grantham 2002:75-76).

- Among the Creek: Adair describes how, on the first day of the ceremony, the hearth was cleaned and roots of button snakeroot, green leaves of little tobacco, and a little of the “new fruits” were placed at bottom of fireplace, then covered with white clay and clean water. Then, on the third day, a quantity of small-leafed tobacco was placed outside the square for those not allowed in. An old, beloved woman distributed it to women, children, and “worthless men,” according to her estimation of their “capacity to sin”; they chewed and swallowed it in order to purify themselves. In addition, the ceremonial leader fasted and ate the small-leafed tobacco and drank button snakeroot in a separate hut for three days and three nights before the busk began (Grantham 2002:78).
- Among the Creek: *Assi luputski* – small leaves – or “old man’s tobacco” was used in the busk (or *Ilex cassina* as a substitute). The leaves were prepared as a ceremonial “physic” on first day of busk and distributed on last day. Tobacco sacrifice was an important part of the rituals (Gatschet 1929:45[77]).

Hall (1977:514) describes a Cherokee tobacco-remaking ceremony, noting that the plant was believed to have no inherent powers, and to acquire them, human intervention was necessary to “remake” it for ritual purposes. According to Kilpatrick and Kilpatrick (1967:8-12, 80-82), the remaking ceremony was conducted at dawn near emerging or flowing water. The ritualist faced the rising sun and held tobacco in the palm of the left hand, singing and repeating the charm four times, all the while stirring or rolling the tobacco with four fingers of the right hand in a counterclockwise direction. He then spat onto the tobacco and blew breath onto it, after which it was held up to the rays of the rising sun. The entire sequence was repeated four times.

*Bird Associations.* An association is also commonly made between tobacco paraphernalia and birds (Hall 1977:514; Springer 1981:229; Von Gernet 2000:73). Waring (1977:44) notes that the eagle functioned as a symbol in rituals associated with both peace and war and that it was closely identified with the *calumet* among Muskogean groups in Georgia and Alabama, describing the *calumet* among them as their “royal standard.” Quoting Swanton, Waselkov and Braund (1995:242) state that the “‘royal standard’ can only have been the *calumet*, or, more specifically, the tail feathers of the southern bald eagle attached to the cane stem of the *calumet*, with pipe bowl detached.”

*Ethnohistorical Descriptions of Pipes.* The smoking pipes of Southeastern Indians were not usually described by European observers in great detail. Lawson (cited in West 1934:119; cited in Jones 1999:399) gives one of the few descriptions of pipe manufacture, telling how Carolina Indians fashioned pipes from material dug in a “vein of white clay” to use in trade for skins and other things.

James Adair (Braund 2005:412) gives the most detailed description of pipes from the eighteenth century:

They make beautiful stone pipes; and the Cheerake the best of any of the Indians: for their mountainous country contains many different sorts and colours of soils proper for such uses. They easily form them with their tomohawks, and afterward finish them in any desired form with their knives; the pipes being of a very soft quality till they are smoke with, and used to the fire, when they become quite hard. They are often a full span long, and the bowls are about half as large again as those of our English pipes. The fore part of each commonly runs out with a sharp peak, tow or three fingers broad, and a quarter of an inch thick – on both sides of the bowl, lengthwise, they cut several pictures with a great deal of skill and labour; such as a buffalo and a panther on the opposite sides of the bowl; a rabbit and a fox; and, very often, a man and a woman *puris naturalibus*. Their sculpture cannot much be commended for its modesty. The savages work so slow, that one of their artists is two months at a pipe with his knife, before he finishes it: indeed, as before observed, they are great enemies to profuse sweating, and are never in a hurry about a good thing. The stems are commonly made of soft wood about two feet long, and an inch thick, cut into four squares, each scooped till they join very near the

hollow of the stem; the beaus always hollow the squares, except a little at each corner to hold them together, to which they fasten a parcel of bell-buttons, different sorts of fine feathers, and several small battered pieces of copper kettles hammered, round deer-skin thongs, and a red painted scalp; this is a boasting, valuable, and superlative ornament. According to their standard, such a pipe constitutes the possessor, a grand beau. They so accurately carve, or paint hieroglyphic characters on the stem, that the war-actions, and the tribe of the owner, with a great many circumstances of things, are fully delineated. This may seem strange to those who are unacquainted with the ancient skill of the Egyptians this way, and the present knowledge of the Turkish mutes. But so it is, ...

Pipes and tobacco were also described as important components of medicine bundles. For example, such items were among hundreds of sacred objects in Seminole bundles (Capron cited in Grantham 2002:52). The Shawnee deposited sacred pipes with their keepers of the busk grounds (Grantham 2002:52). Public buildings like council houses were also repositories of sacred caches, and pipes were common objects included in them. Bartram (quoted in Waselkov and Braund 1995:173) describes such a repository and its contents: “the Back apartment of the council house is close and dark with low doors... In this place are deposited all the most valuable Publick Things (as the Eagle Tail, or National Standard) Calumet & War Pipe, Drums & all the Sacred Things or Apparatus of the Priests, etc, etc.” He also notes that the entrance of the sacred space by unprivileged persons guaranteed their death..

*Typical Contexts of Pipe Use.* Tobacco ritual is documented in many different guises, and Winter (2000e:265-268) categorizes them into three main types, recognizing, however, that they are not necessarily mutually exclusive. The first is individual ritual use by shamans. Shamans served as intermediaries between their communities and the spirit world and learned to receive and transmit information by entering altered states. Another is communal use of tobacco by the members of a “society”. The initiated members of a tobacco society also worked on behalf of a community. The third is more



exclusive, institutionalized use by privileged priests or other elites. These users carried out similar functions in the context of more formalized and esoteric rites that occurred according to a ritual calendar.

Accounts of pipe use in the Southeast were frequently recorded by European observers. At least by the eighteenth century, smoking ritual was prominent in a range of solemn and important observances, some more reverent and sanctified than others and some carrying more ritual prescriptions than others (Jones 1999:386; Mooney 1900:424; West 1934:47-51, 77). Appropriate occasions for pipe smoking were numerous and involved from one to many participants.

The earliest description of pipe use from the Southeast comes from the area of Florida. Sir John Hawkins (cited in McGuire 1899:411) describes how the Indians used a “cane and earthen cup,” and “with fire and the dry herbs put together do suck through the cane the smoke thereof, which smoke satisfieth their hunger and therewith they live four or five days without meat or drink.” The first graphic depiction of pipe use is found in a Theodor de Bry engraving showing the Timucua [Florida] Indian, Saturiwa, in the act of smoking (Paper 1988:90; McGuire 1899:414; Von Gernet 2000:72).

In the simplest, most prosaic terms, tobacco was shared as the first civil gesture toward a stranger (Jones 1999:397). A famous quotation of the French Jesuit missionary, Father Marquette, is often presented to exemplify this act. Speaking of the *calumet*, he calls it the “God of peace and war, arbiter of life and death, ... [it] enables one to walk safely through the midst of enemies” (cited in Winter 2000c:22). Bartram (cited in Waselkov and Braund 1995:115) recounts how tobacco, together with food and drink, was a universal element of welcoming visitors. Among Muskogean tribes, tobacco was

“the first civility offered a stranger” (Jones 1999:397). According to Grantham (2002:60), during the eighteenth and nineteenth centuries, “The smoking of tobacco, along with the daily consumption of Black Drink, was the most commonly practiced informal ceremonial. Pipe smoking was practiced to greet friends or make peace.” He also says that, among the Yuchi, Black Drink was less important but “pipe smoking was of great importance. Yuchi men, women, and children smoked for pleasure, their pipes often carved in the form of a frog (which relates to Wind myths...). In addition to recreational use, tobacco smoking was a means of welcoming strangers, and pipes were smoked during important discussions” (Ibid:60).

Pipe smoking, especially when it was done communally in a restricted space like a council house, served as an important mechanism of social bonding. Some researchers argue that the sharing of a pipe was, in essence, a key element of adoption rituals (Hall 1977:514, 19997:83; Paper 1988:34-38). Circulation of a pipe to everyone in a group created a level of social communion that effectively joined the participants in a sacred circle. Such accounts of pipe smoking are the most common sort recorded by eighteenth- and nineteenth-century observers, and several are quoted in full below, beginning with John Bartram.

In Florida, after a public feast, Bartram describes “repairing” to a more private council house where seats were taken according to order of rank. Then, “Tobacco and pipes are brought, the calamut is lighted and smoaked, circulating according to the usual forms and ceremony, and afterwards black drink concluded the feast” (Waselkov and Braund 1995:62).

Earlier ritual activity in Florida that involved tobacco was included in an account of the Apalachee ballgame recorded by a Franciscan missionary in the seventeenth century (Hann 1988:340 and Peterson 1976 cited by Scarry 2007b). The ritualized ballgame became a source of consternation to Spanish authorities, who attempted to abolish it. As part of the preparations for the game, purification rituals were conducted. The role of tobacco is described in the following excerpts from Frai Paiva's account:

...they put the fasting cacique behind the players' benches [in the council house], and between the cacique and the players they put the fire, which has to be a new one, and cannot be used more than for the cacique to smoke tobacco. The tobacco must be his own *hachuma fina* and no one else's. As state earlier, it must be mixed with the herb or leaf *atabac*... The cacique must be given *cacina*, even though he might not want it. What he drinks, being full he throws up. He is always smoking tobacco, about which I have spoken.

Among the Cherokee, Bartram tells of entering the "chief's apartment" after a meal, at which time, "Tobacco and pipes were brought, and the chief filling one of them, whose stem, about four feet long, was sheathed in a beautiful speckled snake skin, and adorned with feathers and strings of wampum, lights it and smoaks a few whiffs, puffing the smoak first towards the sun, then to the four cardinal points and lastly over my breast, hands it towards me, which I cheerfully received from him and smoaked, when we fell into conversation" (Waselkov and Braund 1995:78).

Bartram also tells of arriving at an Alabama (Creek) village. Among his hosts, he eventually "repaired to great rotunda," where he and the chiefs "spent the greater part of the night together, in drinking Cassine and smoking Tobacco". He notes that the rotunda was relatively private, "and [it] seem[ed] [the all-male] participants were dedicated to political affairs." The rotunda was also the setting of mystical fire arranged to burn in a spiral and where the proceedings also involved black drink (Waselkov and Braund 1995:102-103). Describing pipe smoking on the same occasion he says that:

As soon as the drinking begins, Tobacco and pipes are brought. The skin of a wild cat or young tiger stuffed with Tobacco is brought, and laid at the king's feet, with the great or royal pipe beautifully adorned; the skin is usually of the animals of the kin's family or tribe, as the wild-cat, otter, bear, rattle-snake, etc. A skin of Tobacco is likewise brought and cast at the feet of the white chief of the town, and from it passes on from one to another to fill their pipes from, though each person has besides his own peculiar skin of Tobacco. The king or chief smokes first in the great pipe a few whiffs, blowing it off ceremoniously, first towards the sun, or as it is generally supposed to the Great Spirit, for it is puffed upwards, next towards the four cardinal points, then towards the white people in the house, then the great pipe is taken from the hand of the mico by a slave, and presented to the chief white man, and then to the great war chief, whence it circulates through the rank of head men and warriors, then returns to the king. After this each one fills his pipe from his own or his neighbours skin" (Waselkov and Braund 1995:104). Also at the same town he described a special building near the square with a "secluded place appears to me to be designed as a sanctuary dedicated to religion or rather priest craft; for here are deposited all the sacred things, as the physic pot, rattles, chaplets of deer's hoofs and other apparatus of conjuration; and likewise the *calumet* or great pipe of peace, the imperial standard (Waselkov and Braund 1995:105).

Timberlake also left a similar account in 1761 of tobacco use by the Cherokee (cited in Jones 1999:399): "I was almost suffocated with the pipes presented me on every hand, which I dared not to decline. They might amount to about 170 or 180; which made me so sick that I could not stir for several hours."

The true form of the *calumet* ceremony, as practiced by native groups of the upper Mississippi Valley and the Great Lakes region, was not a feature of Southeastern Indian ceremony, outside its limited adoption in the lower Mississippi River valley, such as among the Choctaw (Brown 1989:311; Springer 1981:226). The term *calumet* was embraced widely among Europeans, however, to describe virtually any activity involving a pipe in the east. For this reason, *calumet* ceremonies are often referred to as having occurred among native groups in the Southeast, but the citations refer only in the most general way to smoking rituals. The ceremonies are most often referenced among those groups in the context of greeting rituals. By way of example, one lengthy account of a so-

called *calumet* ceremony performed by Seminole headmen before meeting with a white governor is summarized (Waselkov and Braund 1995:248). The party of Indians approached the group of whites with a column of six in front. Each in the front column carried a pipe dressed with eagle feathers. As they advanced, they stroked the feathers attached to the pipes about heads and faces of governor and superintendent. They then retired backward but returned to shake hands and sit down. Standing a distance away, one Indian chief held the pipe by the bowl while the governor, superintendent, and other chiefs smoked it. Afterward, the smoking ceremony was opened to all in attendance.

Springer (1981:228-229 citing Fenton 1953) suggests that, among the Cherokee and perhaps other Southeastern tribes, an Eagle Dance substituted for the *calumet* ceremony. By way of example, he describes how Timberlake was greeted with a Cherokee Eagle Dance upon a diplomatic visit.

One of the most common prescriptions of tobacco ritual was directing the smoke in at least five directions, the four cardinal points and skyward (Hall 1997:5; Jones 1999:383; Winter 2000e:269). Paper (1988:21) cites two accounts of this act in Southeastern tobacco ritual. In the first, a Natchez ritual carried out in the eighteenth century, “a pipe, which was never used but upon this occasion, was then handed to him, from which he puffed smoke, first toward the sun and then toward the other three quarters of the world” (Picket 1851 quoting Charlevoix). In the second, Bartram describes a 1789 Cherokee meeting during which an Indian leader, “blew smoke first to the east, then the other three quarters, then the pipe was passed to principal leaders, etc while all others were taking black drink and smoking tobacco.”

Tobacco sacrifices also occurred as direct deposits (Springer 1981:219; Von Gernet 2000:72). In Virginia, John Smith observed how tobacco was sometimes arranged on the ground and also dropped into the water (Hariot and Smith cited in West 1934:66; Paper 1988:8). Southeastern groups are known to have ritually added small quantities tobacco to the clay for new hearths created to contain sacred fire (Adair cited in Waring 1968:57).

### An Ecological Basis for Tobacco in Southeastern Indian Myth

There is a Cherokee Indian myth recorded by James Mooney (1900:254-255) that describes the origin of tobacco differently from those of other Southeastern groups emphasizing relations of a man and woman in the forest. The Cherokee myth, called *How They Brought Back Tobacco*, is retold as follows:

In the beginning, there was only one tobacco plant that everyone used, but it was stolen away and controlled by the geese. Knowing how essential it was to life, many different animals tried and failed to recover it. At last, the hummingbird offered to go and steal it back. The other animals were incredulous but, in desperation, agreed to the plan. Because the hummingbird was so small and flew so swiftly, the guardian of the plant could not see it, enabling the hummingbird to snatch away part of the seeds and leaves and escape.

In another version of the myth, a young conjurer disguised himself with a hummingbird skin and stole tobacco back in the same way. And in yet another telling, a large red-brown moth substituted for the hummingbird. The moth was able to fly very

quietly around the tobacco plant flowers in the evening and take back a part of the plant (Mooney 1900: 438-439).

The heroic role of the hummingbird and the moth in these Southeastern Indian myths has never been explained. I will introduce the idea here, and elaborate upon it in a later chapter, that there is a sound ecological basis for the stories. Recent research establishes, first, that hummingbirds and hawkmoths are the principal pollinators of “native” species of tobacco (Kessler and Baldwin 2006; Kessler et al. 2008). The same research also explains the substance of the pollinator-plant relationship. Other authors show us how sophisticated indigenous peoples throughout the Americas became in their knowledge of horticulture and ecological connections (cf. Nabhan 1989), making it easy for us to understand how such observations could be recorded in myth.

The flowers of all plants serve multiple ends: They attract visitors, compel efficient pollination, and repel nectar thieves and herbivores, all of which ultimately boost species fitness. In plants like tobacco, the ability to attract and repel is enhanced by floral chemistry. For example, hummingbirds are primarily adapted to non-scented flowers, but certain chemical compounds in tobacco can also attract them. In *N. attenuata*, nicotine and benzyl acetone are the most abundant attractants *and* repellents. Both chemicals attract the pollinators, but nicotine in particular deters them from lingering on a single flower too long. That deterrent effect improves the likelihood that individual hummingbirds and hawkmoths might visit multiple plants while, simultaneously, discouraging herbivores and nectar thieves. The researchers determined that nicotine maximized the number of pollinator visits per unit of nectar produced and doubled the number of visits specifically by hummingbirds. They also documented hummingbird and hawkmoth activity around the same plants but generally on different

schedules. Hummingbirds, for instance, were most active early in the growing season, while the moths were more active later. Also, because hummingbirds are diurnal and moths are nocturnal, they only came at dusk and dawn.

I will argue that the Cherokee, and probably other native groups of the Southeast, observed the intimate relationship of hummingbirds and hawkmoths with tobacco. In the case of the Cherokee, the uniqueness of the relationship, and perhaps the perceived importance of it, was impetus for a mythological explanation. Indeed, the same set of basic relationships appears to have been recognized and mythologized throughout the hemisphere (cf. Levi-Strauss 1983:423-426). These ideas, merged with the noted concern with fertility, will be developed further to explain depictions of hummingbirds on Mississippian smoking pipes.



## Chapter 4.

### A Model of South Appalachian Smoking Ritual and Methods for Testing It

In view of the theoretical perspective presented in Chapter 2 and the contextual information provided in Chapter 3, I develop a model in this chapter that will serve as an analytical point of departure. The model's three components are presented below, followed by a series of testable hypotheses and methods for testing them. The respective components are based on a series of assumptions about tobacco and pipe use, tenets of costly signaling theory, and the framework for region-specific Mississippian evolution developed by Cobb and King (2006).

#### Assumptions About Tobacco and Pipe Use

The following six assumptions about tobacco and pipe use are derived from the background information already presented: Religious rituals were integral practices of South Appalachian Mississippian societies; tobacco smoking rites were a pervasive, unique, and costly element of those practices; Mississippian religion was dominated by male practitioners; Mississippian rituals were strategic signaling mechanisms; Mississippian religious institutions and practices evolved to accommodate changing social and economic conditions; and Mississippian religious institutions and practices could be drivers of social and economic change. A discussion of these assumptions follows.

It has become axiomatic that Mississippian societies everywhere were highly ritualized. Evidence of lavish mortuary and mound ceremonialism alone has been a sufficient basis for arguing that significant investments in religious rites were a defining

hallmark. Models of the institutional organization behind those practices have been supported by analyses of archaeological and ethnohistorical information. An influential one developed by Knight (1986) postulates the existence of three cults that were simultaneously competing and complementary. His model is, however, a somewhat timeless and generalized portrayal of Mississippian religious institutions that does not fully address the fact of change over several centuries.

Tobacco ritual is documented as a prominent element of Southeastern Indian religious practice, just as it appears to have been elsewhere in North America, since the time of initial contact with Europeans in the sixteenth century. Also, there is ample archaeological evidence within the South Appalachian region to suggest that tobacco smoking rituals had been regularly practiced since well before the time Mississippian cultures began to emerge, around AD 1000. Various lines of evidence indicate the Mississippian rites entailed a unique set of activities that were costly to engage in, including husbandry of non-native plants, passage of specialized knowledge, crafting of specialized paraphernalia, and performance of rituals. Exactly how and why tobacco rituals were performed over that long span, and to what end, is less clear. However ethnohistorical evidence does reveal that tobacco ritual was not a singular practice. Rather, it was one that infused meaning into a host of sacred and solemn observances.

The weight of available evidence, whether of an archaeological or ethnohistorical nature, indicates that males ordinarily held the most prominent positions in Mississippian societies, including those that carried religious duties. There is believed to have been an influential priesthood among them that included shamans or conjurers in different guises. Much evidence from within and beyond the Southeast suggests that men controlled all aspects of tobacco ritual, including the propagation, harvest, and control of tobacco

plants. Clear proscriptions existed in many traditional North American societies against contact between tobacco and women. The evidence suggests that close control by men of the sacred plants and the rituals that consumed them is indicative of institutionalized social and economic control strategies.

Like all chiefly, hierarchical societies, those of the South Appalachian area were based upon a system of relatively rigid institutions designed to maintain and influence both internal and external social and economic relations. Mississippian religious beliefs, and associated ritual practices in particular, are believed to have functioned as an overt mechanism for engendering a worldview uniquely suited to those societies and their circumstances. Ritual practices, and the views they instilled, would have been critical for the maintenance of both the prevailing social order, defined in part by exclusionary social statuses and political and religious institutions, and inter-polity relations, whether for developing commerce or forging defensive alliances. Based on that premise, and with reference to costly signaling theory, Mississippian rituals, including tobacco ritual, provided honest signals about the underlying qualities of individual religious practitioners, subgroups that sponsored them, and the polities they represented. The audiences of the ritual acts were thus provided a reliable basis from which to judge the fitness of the signaling individuals and groups, and, by extension, to evaluate how their own fitness would benefit by affiliation with the performers. Ultimately, then, group-specific forms of ritual expression, including aspects of ritual paraphernalia, would have served to symbolically mark one group relative to another, including as more or less successful. This approach to Mississippian ritual practice, discussed more fully in the next section, promises to better explain *how* and *what* the costly rites actually accomplished.

The Mississippian cultural pattern persisted in the Southeast for over five centuries. Over that interval, significant social and economic changes can be charted. The long-standing, prevailing model describes a period of emergence and expansion, followed by a middle period of classical florescence, and then a general replacement of the classical pose with less elaborated, provincial patterns. There is a logical basis and good physical evidence for believing that ritual practices were altered to accommodate those larger, systemic adjustments, and certainly in tandem with necessary adaptations of fundamental religious beliefs. However the process by which these broad changes unfolded, and particularly the local expressions of them, has not been fully developed. Doing so will ultimately yield far more accurate portrayals of the processes by which hierarchical societies, such as the Mississippian, evolve in general and associated religious institutions with them.

As a rule, ritual is a practice resistant to change, but it is not inflexible (Bell 1997; Rappaport 1999:427-431). When rituals do undergo change, the tendency is to maintain relevance by altering meanings rather than structure (Bell 1997:220, 223). Structural transformation of ritual would likely signal a response to deteriorating material or social conditions, calling the legitimacy of authority into question. Smoking ritual was perpetuated for centuries in the Southeast, but substantive cultural transformations would theoretically demand periodic adjustments to its meaning and role. In the South Appalachian Mississippian case, the circumstances of cycling, involving fluctuation in population size, economic structure, social organization, and chiefly authority, could have necessitated changes (Anderson 1996a, 1996b). Cultural histories for a number of the region's chiefdoms have been sufficiently developed to expose their unique patterns of cyclic transformation, thereby setting up testable predictions about the timing of ritual

change (Anderson 1996a; Blitz and Lorenz 2006; Hally and Rudolph 1995; King 2003, 2004; Scarry 1996; Smith 2000).

The efficacy of ritual performance depends upon manipulation and display of material symbols that are active parts of the sacred order (Rappaport 1999:141; Renfrew 2001:130). Their totalized iconic styles economically impart authoritative, transcendent information derived from a definitive system of ideas (Bell 1997:156, 159).

Archaeologists use the term “materialization” to describe the action of giving ideology a physical reality for the purpose of asserting and exerting control over communication of essential messages (DeMarrais et al. 1996; Earle 1990; 2002:350).

Authority within the hierarchical societies of the Mississippian era has been described as knowledge-based, and the elaborate symbolism of the SECC is testament to the extent to which ideology was materialized to control essential knowledge (Cobb 2003:73). While it is true that some fundamental aspects of SECC symbolic style recurred throughout the Mississippian world, there is increasing recognition that the common ideological framework was expressed in styles particular to times and places (Power 2004; Reilly and Garber 2007; Waring and Holder 1945). The South Appalachian Mississippian area is, in fact, recognized not only for unique kinds of symbolic representation but also for the way the local styles seem to have developed and been deployed over time. Because Mississippian populations were organized into relatively autonomous chiefly polities within territorial provinces, the stylistic features of smoking pipes might well exhibit variation that correlates with discrete sociopolitical units either at the regional or local scale, perhaps as the result of elite control over the pipe production.

Styles of symbolic representation on smoking pipes are also expected to exhibit patterned variation that will reveal both the manner by which Mississippian ideology was ritually conveyed and the advantages that were accrued from it. For example, if smoking ritual communicated closely controlled ideas definitive of and essential to the Mississippian world order, then those ideas would have been materialized on smoking pipes according to a relatively limited and standardized complex of motifs. Given the assumed conservatism of ritual symbolism and authoritative control over symbolic expression in ritual, patterned evidence of this kind should be indicative of a host of factors, such as group cohesion, socioeconomic stability, degree and extent of authoritative control, and level of extra-local influence.

Also, for the purposes of developing a model, the chronicle of Etowah's rise and fall recently presented by Cobb and King (2005) establishes a framework for initial evaluation of ritual change throughout the South Appalachian Mississippian world. Cobb and King (2005:167) posit that episodes of abandonment at Etowah created opportunities for "interest groups," including immigrant populations, to distance themselves from past structures and "reformulate new forms of sociopolitical organization." In a typical tripartite sequence, they go on to characterize a series of different agent-induced structural formulations that are summarized below and later discussed more fully (Figure 4.1).

During the Early Mississippian period (AD 1000-1200), an egalitarian ethos prevailed among small chiefdoms, manifest by minimal displays of status and modest public architecture. Supportive of the egalitarian ethos was an ideology emphasizing universalizing themes that referenced mythical time and focused on fertility and world renewal.

A new structure took hold during the Middle Mississippian period (AD 1250-1375) featuring centralized and exclusionary organization of social, political, and religious institutions. Under that hierarchical scheme, elite individuals conveyed their status with elaborate displays of accumulated wealth and invoked ancestry to legitimize their positions. They further distinguished themselves by residence and activity in exclusive precincts within their capital communities, such as in and around artificial mounds. The system was sustained by an ideology dominated by individualizing (anthropomorphic) themes, reinforced with rituals and charter myths that sought to explain the social order on a basis of supernatural communications, genealogical time, and reference to foreign places of power.

Cobb & King (2005) Etowah Model		
Early Mississippian	Middle Mississippian	Late Mississippian
Cultural Pattern		
Social Organization: <ul style="list-style-type: none"> <li>• Egalitarian</li> <li>• Autonomous, local chiefdoms</li> </ul> Religious Themes: <ul style="list-style-type: none"> <li>• Universalizing</li> <li>• Mythical time</li> <li>• Fertility</li> <li>• World Renewal</li> </ul>	Social Organization: <ul style="list-style-type: none"> <li>• Hierarchical</li> <li>• Exclusionary</li> <li>• Paramount chiefdom(s)</li> </ul> Religious Themes: <ul style="list-style-type: none"> <li>• Individualistic/anthropocentric</li> <li>• Foreign sources of power</li> <li>• Genealogical time</li> <li>• Supernatural communication</li> </ul>	Social Organization: <ul style="list-style-type: none"> <li>• Communal</li> <li>• Secular</li> <li>• Autonomous, local chiefdoms</li> </ul> Religious Themes: <ul style="list-style-type: none"> <li>• Universalizing</li> <li>• Mythical time</li> <li>• Natural world</li> <li>• Fertility</li> <li>• Cosmological order</li> </ul>
Ritual Correlates		
<ul style="list-style-type: none"> <li>• Unelaborated practices</li> <li>• Small quantities of paraphernalia</li> <li>• Modest range of paraphernalia</li> <li>• Unelaborated paraphernalia</li> <li>• Communal events (i.e., feasting)</li> <li>• Regional variability</li> <li>• Specialists with limited power</li> </ul>	<ul style="list-style-type: none"> <li>• Elaborate practices</li> <li>• Abundant paraphernalia</li> <li>• Wide range of paraphernalia</li> <li>• Elaborate paraphernalia</li> <li>• Exclusive and/or formalized events</li> <li>• Regional uniformity</li> <li>• Powerful specialists</li> </ul>	<ul style="list-style-type: none"> <li>• Moderately elaborate practices</li> <li>• Reduced quantity of paraphernalia</li> <li>• Reduced range of paraphernalia</li> <li>• Moderately elaborate paraphernalia</li> <li>• Communal events</li> <li>• Regional variability</li> <li>• Specialists with reduced power</li> </ul>
Anticipated Smoking Ritual Pattern		
<ul style="list-style-type: none"> <li>• Infrequent activity</li> <li>• Non-exclusive contexts</li> <li>• Small number of pipes</li> <li>• Minimal elaboration of pipes</li> <li>• Regional variation in pipe styles</li> </ul>	<ul style="list-style-type: none"> <li>• Frequent activity</li> <li>• Exclusive contexts</li> <li>• Larger number of pipes</li> <li>• Elaborated pipe styles</li> <li>• Regional uniformity in pipe styles</li> </ul>	<ul style="list-style-type: none"> <li>• Frequent activity</li> <li>• Diverse contexts</li> <li>• Large number of pipe styles</li> <li>• Moderately elaborate pipe styles</li> <li>• Regional diversity in pipe styles</li> </ul>

Figure 4.1 Cobb & King (2005) model of Mississippian cultural change at Etowah.

During the subsequent Late Mississippian period (AD 1375-1550), the landscape was dominated by competing paramount chiefdoms, within which power was far more secularized and based on the prowess of individuals, indicated by their exploits in war and politics. Under the new pattern, Mississippian societies again embraced a more communalized system of order consummated with universalizing ideological themes, such as reference to mythical time, the natural world, fertility, and general cosmological order.

### Review of the Tenets of Costly Signaling Theory

The question remains as to how religious ritual, including tobacco ritual, as a strategic signaling mechanism, would manifest itself. This section will review the theoretical argument for ritual as an adaptive, costly signaling mechanism, after which specific hypotheses will be developed for the Mississippian case.

Religion and the rituals that activate religious beliefs require, as has been noted, significant investments of time, energy, and resources that could otherwise be channeled toward seemingly more essential secular needs, namely subsistence. Yet there is no society that does not engage in some form of religious ritual, often at great expense. With costly signaling theory, the aspects of ritual that are initially counterintuitive from a cost standpoint may be revealed to have adaptive value. In other words, most religious rituals appear to have beneficial payoffs for certain individuals and groups that compensate for their high cost (Figure 4.2). Hypotheses framed by Alcorta & Sosis (2005), together with related models (Bird and Smith 2005:235-241; Boone 2000; Neiman 1997; Plourde 2009) anticipate the kind of ritual strategies applied to solve collective action problems.



The principal theoretical arguments, or predictions, around ritual that stem from costly signaling theory can be summarized as follows:

- Costly behaviors, like organization of or participation in a religious ritual, are hard-to-fake signals of unobservable qualities of signalers, including beneficial abilities of individuals and groups alike to marshal resources, influence people, or access and control esoteric knowledge.
- Because a willingness to sponsor or participate in costly religious ritual signals the level of commitment individuals or subgroups have to a larger group, it serves to enhance overall cohesion.
- Stronger cohesion stemming from participation in rituals improves the ability of group members to cooperate in ways that are beneficial to the whole.
- Intensity of ritual activity will be positively correlated with increasing levels of diversity among group members, whether ethnic, social, or otherwise.
- Intensity of ritual activity will be greatest in groups that are engaged in high-risk cooperative endeavors, such as external warfare or long-term sharing of scarce resources, or in those that experience other kinds of stress caused by environmental or other factors.
- Social rank will be positively correlated with the elaborateness, or cost, of representative rituals.
- The strictest and most arduous ritual practices will produce the highest levels of cooperation, especially among male members of a group.
- The efficacy of religious rites is tied to their ability to evoke emotional responses that can be associated with enduring, unfalsifiable supernatural concepts and symbols.

- When unsatisfactory social, political, economic, or ecological conditions develop, the ritual order will lose legitimacy and necessitate adjustment to the cost-benefit equation.

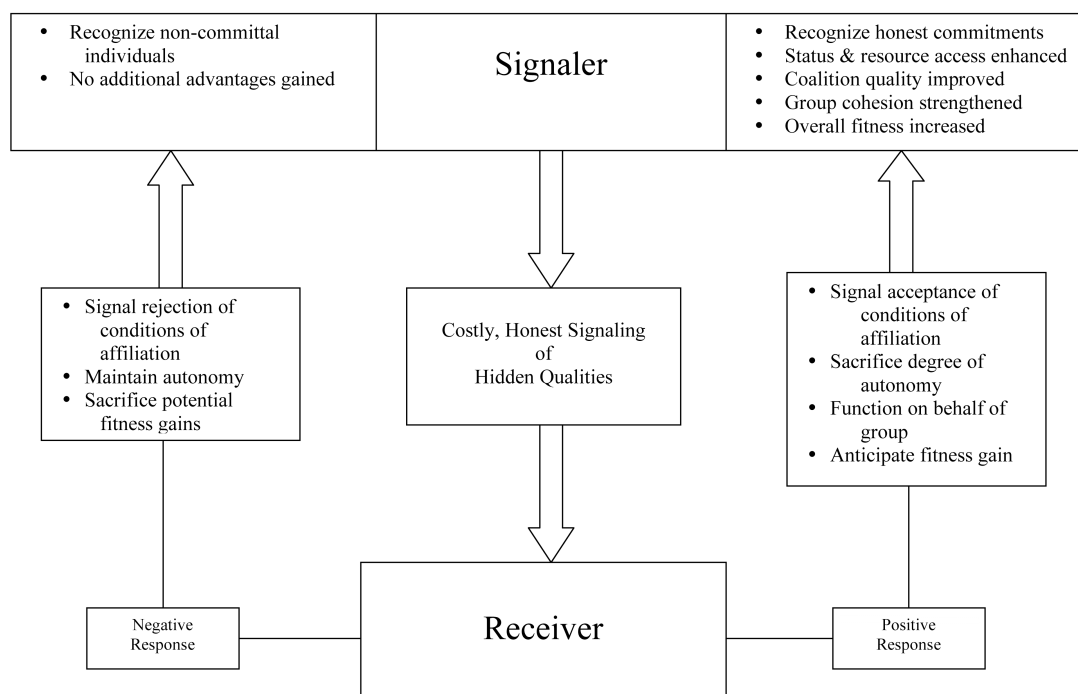


Figure 4.2 Graphical depiction of the main elements of costly signaling theory.

The payoffs that accrue from costly religious rituals are numerous, beyond enhanced cooperation with groups. Strong groups are more successful at meeting their goals, which might include recruitment of new members. Enhanced levels of cooperation have also been shown to result in higher rates of reproductive success, as well as increased chances of surviving calamity. Perhaps most important is the fact that strong groups have a greater ability to defend themselves and to compete generally against other groups.

## Expectations Derived from the Cobb and King Model of Change

All South Appalachian Mississippian societies, by definition, operated as chiefdoms, meaning they were organized around hierarchical social orders. Also, they all would have been concerned with managing relationships with other chiefdoms, whether of a cooperative or a competitive nature. Under those circumstances, the strength of a group (i.e., chiefdom), judged in terms of overall cohesiveness, leadership quality, and competitive strength, would have been of central interest to its members. Tobacco ritual may have been one means to validate authoritative statuses and foster group cohesion. Beyond these basics, we know that chiefly societies functioned in a wide range of modes, as Cobb and King (2005) have proposed, and this section lays out expectations of ritual patterns representative of three forms of chiefly organization (see Figure 4.1).

Cobb and King describe the typical Early Mississippian society as a small, largely autonomous chiefdom with a relatively egalitarian social order. Status differences were not prominently marked, and ideologies were concerned with universalizing themes. In this mode, religious rituals are expected to have been only moderately elaborate and costly and relatively inclusive of group members. For example, inferred emphasis on world-renewal rites would likely translate into public feasting or similar ceremonials. High-status individuals as well as religious specialists, most commonly males, would have still been compelled to signal qualities of leadership and competence in such ceremonies with displays of costly goods and rituals.

Under the Early Mississippian scenario, it seems reasonable to suggest that most, if not all, religious rites, including tobacco-smoking ritual, were not highly elaborated. This is a relative judgment meaning that the level of elaboration is expected to have been

lower than it was during later Mississippian periods, yet greater than during the preceding Late Woodland period. There is reason to believe that new forms of tobacco ritual were introduced to the region early in the Mississippian stage, most likely by immigrant populations and/or by proselytizing religious men, but the timing of the introduction is not yet clear. In this initial period then, smoking ritual might have developed along at least two different lines. One of those paths would have involved gradual elaboration of a long-standing, local Late Woodland tradition. The other would be elaboration of the same tradition but under foreign influence. Regardless, the model offered by Cobb and King suggests that, from the beginning, Early Mississippian tobacco and other associated rituals could have been controlled by individual figures of authority, which might include religious specialists, for the purpose of signaling personal qualities that justified their special statuses. In addition, tobacco smoking could have been incorporated into public, community-oriented rituals, presided over by privileged figures, designed to sanctify the social order, and, thereby, foster group cohesion. The paraphernalia associated with tobacco ritual, like smoking pipes, would neither have been produced in large numbers nor circulated widely. There is also no reason to expect that pipes of the early period would have been highly embellished, as, on a relative scale, most other Mississippian contemporary religious objects were not. These early, low-level chiefly societies would not likely have justified the cost of importing large quantities of exotic materials or supporting craft specialists. Because Early Mississippian chiefdoms were largely independent, one could expect that most pipes were locally produced, perhaps according to a localized style. However it is also reasonable to expect that immigrating or proselytizing foreigners might have introduced a non-local style. One scenario, then, is that there could have been greater variability at this time in smoking ritual practice, at least geographically speaking, as there seems to have been unevenness in the extent to which a Mississippian cultural pattern was embraced.

Middle Mississippian societies were distinguished by far more rigidity, exclusivity, and elaboration. Regionally-dominant chiefdoms like Etowah asserted wide influence through exchange-based and other kinds of alliances. At the heart of this pattern was centralization of power by elite individuals, who worked to maintain their positions by establishing genealogical ties to ancestors and tight control over access to labor and exotic goods. The elite also maintained a degree of physical separation by creation of exclusive precincts. Religious beliefs were more highly codified under the so-called SECC, and a number of elaborate and sometimes exclusive rituals evolved to support the religious order, including mortuary rituals and earthen mound constructions, and craft specialists producing necessary paraphernalia were supported. Tenets of costly signaling theory would predict that Middle Mississippian societies would exhibit a high level of ritual intensity, or religiosity, because they were engaged in high-risk cooperative endeavors, including external warfare, long-term sharing of scarce resources, and, arguably, allocations of labor for major public works projects, and because they likely experienced increasing levels of diversity among group members. The diversity experienced could have been the product of both structural, hierarchical distinctions and ethnic, linguistic, and “cultural” ones, especially in outlying, peripheral areas.

Because religious rituals of every kind tended to be highly elaborate and costly during the Middle Mississippian period, it is reasonable to expect that tobacco rituals were elaborated and formalized as well. Also, by this period, South Appalachian populations were certainly responding to foreign influences. There are indications that tobacco ritual came to hold a special status that set it apart from the better-known ritual activities devoted to burial of the dead and earthen mound construction. Working from the model of Mississippian religious organization developed by Knight (1986), the evidence suggests that tobacco ritual could have been most closely associated with roles

of the priestly class, as opposed to the chiefly and warrior classes, during this interval. In this social and religious environment, virtually every element of tobacco ritual might have been highly controlled by men that were privileged specialists. For example, the propagation and distribution of tobacco itself was very likely an exclusive activity. Control over the origin and flow of the ritual substance, itself a costly kind of provisioning activity, would have signaled unique qualities of certain privileged individuals. Consumption of tobacco, by smoking or otherwise, would have also been highly controlled and probably reserved, in part, for indoctrinated specialists. The apparent exclusivity of some ritual activity at this time would imply that tobacco consumption might have occurred in both secluded and public contexts. In the tradition of symbolic elaboration that was a hallmark of this period, tobacco pipes would be expected to have become more elaborated according to a strict and unique symbolic code, calculated especially to make connections with ancestor figures and foreign places of authority. Production of pipes, some of rare materials and bearing highly specific symbolism, would have been a costly endeavor signaling myriad qualities of elite individuals and communities. Given the reach of influence enjoyed by dominant Mississippian centers, it is to be expected that a greater uniformity of pipe styles existed across the region than during the preceding period. However, as an effect of ritual exclusivity, the number of pipes and the quantity of tobacco in circulation were probably still relatively low. Also, elaboration of pipes for visual effect, such as for public ritual performance, might have been less important if they were handled and displayed only among a cadre of specialists ordinarily operating out of public view. However this is not to say that costly elaboration did not occur as a signaling mechanism, only that it was aimed as much at an audience of competing specialists, such as members of the chiefly or warrior classes, rival leaders, or trade partners, as it was at the assembled masses of a home community or home chiefdom.

Cobb and King argue that the Late Mississippian pattern involved a sharp change from the centralized system of the previous period and a revival of many of the views inferred of Early Mississippian societies. The decline of dominant, regional centers created a landscape dotted with competing chiefdoms, sometimes organized as paramountcies. Once again, the social order and associated beliefs became more secularized and communalized, and individual status was achieved in part through public demonstration of political and warrior skills. Ritual life is believed to have once more emphasized world renewal and fertility.

Although a new pattern was ushered in by significant structural and other changes, the Middle Mississippian legacy must have influenced aspects of Late Mississippian life, including religious ones. Tobacco ritual, for instance, had attained a superior status in Middle Mississippian religious practice, and there is no reason to believe that it did not continue to command respect. In other words, just as it seems to have been adapted from the first period to suit conditions of the middle period, Middle Mississippian rituals were probably reimagined and modified to accommodate conditions of the latest period. Yet, even if it maintained importance, it is likely that tobacco ritual lost some of its exclusivity. Under a less centralized system, there was probably both wider accessibility to tobacco and possibly less restriction on the timing and context of its use. This might have been especially true at such a time when both individual and inter-group competition seems to have increased. In effect, tobacco ritual might have begun to serve the strategic signaling needs of a broad spectrum of competing individuals more than those of a select sub-group composed of hyper-privileged authorities seeking to maintain their hold over powerful regional centers or their special status within those societies. Presumably, under such conditions, pipe production would have been subjected to less control, leading not only to an increase in the numbers of pipes in circulation but

also to a profusion of localized styles. Furthermore, because long-distance exchange networks had weakened, pipes would have been less likely to be made of exotic materials. One aspect of Middle Mississippian legacy that does not seem to have strongly influenced the succeeding period was the symbolism of the SECC. It is widely recognized that specialized goods bearing the signature motifs of this style become rare, opening the door for new and perhaps more varied styles to emerge. Also, tobacco pipe use might have expanded to a wider range of contexts, including more secular ones. The efficacy of tobacco ritual in more public settings would have been enhanced by stylistic features that improved signaling capacity, such as larger size and greater elaboration.

### Specific Testable Hypotheses

A series of testable hypotheses can be derived from the foregoing model, framed around the expectations that have been presented for each period and the perspective of costly signaling theory. They will be evaluated against data presented in subsequent chapters.

*Early Mississippian.* Expectations about the early period emphasize the emerging nature of what was to become classic Mississippian ritual practice. The process occurred, in part, in the context of low-level chiefly societies that eventually began to react to foreign concepts. Tobacco ritual, as a costly signaling behavior, would foremost have served the needs of individual authority figures, such as chiefs and religious specialists.

It is therefore hypothesized that:

- Tobacco ritual was a relatively unelaborated, low-cost activity in the minimally centralized and largely autonomous chiefly societies of the early period.



- Smoking ritual exhibited continuity from Late Woodland practices.
- Pipes were made in minimally elaborated styles.
- Pipes were made from local materials.
- The diversity of pipe styles was low.
- The number of pipes produced was relatively low.
- Early Mississippian tobacco ritual began to be elaborated under the purview of privileged individuals as degrees of social stratification and extra-local contact increased.
  - Pipes occurred in specialized contexts.
  - Pipes were primarily associated with males.
  - New styles of pipes appeared.
- Early Mississippian tobacco ritual responded to foreign influences.
  - New styles of pipes appeared.
  - Pipes began to be made of non-local materials.

*Middle Mississippian.* Modeled expectations for this period emphasize the development of a rigidly hierarchical and highly centralized society led by privileged social classes and learned specialists, all of which signaled their special status by authority over elaborate rites. Within the South Appalachian area, middle-period societies evolved to possess a unique character. Costly signaling through tobacco ritual would have served the interests of both privileged individuals and the larger group but under different, specific sets of activity.

It is therefore hypothesized for this period that:

- Tobacco ritual was further elaborated as a strategy for conveying messages that justified the increasingly privileged status of authority figures and specialists.

- Pipes occurred in exclusive contexts.
- Pipes were made in a wider array of standardized styles.
- Symbolic attributes of pipes were elaborated.
- Pipes were made of non-local or costly materials.
- Pipes were fashioned by craft specialists.
- The number of pipes produced increased but still remained low.
- Tobacco ritual became the exclusive domain of religious specialists.
  - Pipes occurred in exclusive contexts.
  - Pipes were associated with males.
  - Symbolic attributes of pipes were unique.
  - Pipes were fashioned by craft specialists.
  - The number of pipes produced was not great.
- Rituals overtly concerned with ancestral kinship and sophisticated canonical religious or ideological themes influenced the stylistic features of pipes.
  - Unique pipe styles were produced.
  - Pipes were made in a wider array of standardized styles.
  - Symbolic attributes of pipes expressed concern with ancestral figures.
  - Symbolic attributes of pipes expressed concern with foreign places of power.
- Tobacco rituals served the interests of paramount chiefdoms reliant upon distant exchange relations, recruitment of new members, and defense against foreign aggressors.
  - Particular styles of pipes were representative of prominent chiefly centers.
  - Particular styles of pipes were distributed widely in small numbers.
  - Particular styles of pipes occurred mainly in burial or other specialized contexts.

*Late Mississippian.* Late Mississippian societies are believed to have become more secularized such that exclusive rituals and elite control of exotic goods were diminished, yet the legacy of the middle period remained strong. Costly signaling behavior through tobacco ritual mainly served the interests of individuals competing to gain or maintain positions of influence, including shamans.

It is therefore hypothesized that:

- Tobacco ritual became a less exclusive activity during the late period.
  - Pipes occurred in diverse contexts.
  - There was an increase in the number of pipes produced.
  - Pipes were less strongly associated with males.
  - Pipes were produced using local materials.
  - Pipe styles became more diverse and less standardized.
  - Pipes were less frequently produced by craft specialists.
- Smoking rituals were concerned with new religious and ideological themes such as world renewal and fertility.
  - Symbolic attributes of pipes changed to accommodate new themes.

## Methodological Approach

The neglected state of research into the topic of smoking ritual did not afford the luxury of immediate exploration of theoretical concepts. Instead, my project required development of a basic data set followed by analysis of the data, before specific questions drawn from the theoretical perspective of costly signaling and other concepts could be addressed. A description of the research and analytical process is provided in following sections. Appendix A lists the collections from which unpublished information about

representative pipes was recorded, and Appendix B summarizes the archaeological sites from which pipe information was used.

*Creation of a Database.* The foundation of the project is a database of smoking pipe artifacts. The database contains contextual information in addition to quantitative and qualitative attribute data for individual artifacts. In brief, database fields capture several major categories of information primarily concerning regional context, site-specific context, metric and descriptive attributes of pipe bowls, and metric and descriptive attributes of pipe stems. Bowl and stem attributes concern basic morphology and decoration.

*Analysis of Stylistic Variation and Symbolism.* Physical attributes of smoking pipes were assessed intuitively and analyzed quantitatively in order a) to define unique pipe styles, or “types”; b) to establish the temporal and spatial associations of those types; c) to measure the costliness of pipe production and the visibility of symbolic signals; and d) to discern discrete constellations of symbolic features that materialized specific aspects of Mississippian ideology. The results establish spatial, temporal, and stylistic parameters that constrain analyses devoted to questions of costly signaling.

The existence of numerous, distinctive pipe styles was apparent from a preliminary examination of published sources and collections. Most styles appeared to have discrete temporal and spatial associations. *An initial step in the analysis was to define unique pipe styles, or types, based on physical features.* As is true of any effective taxonomic scheme, explicit sorting criteria are described and standardized descriptions of each type are created. Arguments have been made by others in support of the effectiveness of intuitively defining useful groupings or types of artifacts from observable

variation in physical attributes. Neff (1993:30) notes that, “computerized approaches may simply provide a longer route to the same end reached by intuitive approaches.” An intuitive, empirical process is the principal basis for the traditional artifact taxonomies developed and used in the Southeast, including the type-variety system for ceramics, and I first followed this process in defining specific pipe types and varieties. Examples of research more apropos to this study of pipes are analyses of stylistically “typed” artifact classes such as shell gorgets (Brain and Phillips 1996). However, as described below, I sought to support this intuitive process with quantitative approaches, including correspondence and cluster analysis.

*Quantitative evaluation was made of particular attributes in order to independently test the validity of intuitively-defined pipe types and varieties.* Descriptive statistics and graphical summaries of them were a means of comparing specific attributes, especially those that are metrically measured. Simple side-by-side inspection of boxplots, for example, is a useful “exploratory” step (Drennan 1996:). *Concerning the issue of ritual elaboration or cost, measures were made of how smoking pipe visibility varied in time and space.* Based on the assumption that relative degrees of visibility are indicative of the value placed upon ritual communication, the level of smoking pipe elaboration becomes a barometer of willingness to invest in costly ritual paraphernalia. Criteria of elaboration, or visibility, include size, raw material, and extent and manner of decoration. These kinds of attributes were examined relative to dimensions of time and context using descriptive statistics and summary graphs.

*Temporal and spatial associations of unique pipe styles are explored by application of multivariate ordination techniques like correspondence analysis (CA)* (Manly 1994:184, 201-206; Shennan 1997:265-327). These methods of distance

measurement are designed to identify clusters or gradients in data plots through a process of measuring covariation between multiple variables and then analyzing the resulting matrix. In this case, the kinds of associations that are explored include the relationship of specific pipe types with time periods, drainage basins, physiographic provinces, and inferred Mississippian sociopolitical territories known as provinces.

CA is best suited for frequency data and is similar in its operation to a chi-square tabulation, with the unique effect of “downweighting” the most common types in the data and “upweighting” the rarer types. CA plots depict the best possible two-dimensional portrayal of relationships in a data set, as based on relative frequencies, and quantitative output includes a measure of inertia, or the total variance of a matrix (sum of weighted distances), eigenvalues, which are the totals of variances of scores along one principal component, and eigenvectors, the maximum variance of principle component scores (or, the coordinate cosines).

Quantitative methods are less appropriate for assessing the meaning of symbolic features that conveyed transcendent messages through smoking ritual performance. An objective of the project was to evaluate the extent to which the content of such messages changed over time and varied according to context. The process for making this evaluation involved *interpretive, structural analysis of the symbolic content specific to particular pipe styles previously assigned a chronological position*. In addition to the classic work of Waring (Waring and Holder 1945; Williams 1977), a proliferation of such studies has recently been devoted to SECC iconography (Lankford 2004; King 2007; Reilly 2004; Reilly and Garber 2007). No pretense is made for achieving true comprehension of symbolic content, but the effort evaluates the extent to which symbolic elements correspond to prevailing interpretations of southeastern Indian myth and the

corpus of ideas expressed by the SECC. Ready examples include the exploration of trends in the occurrence of symbols linked with fertility, ancestor worship, warfare, and ecology.

*Ritual density, or frequency, was measured by simple quantification of pipe artifact occurrence relative to particular contexts of recovery and other categories of artifacts.* The quantities of pipe artifacts recorded at different times, in different contexts, and relative to other kinds of sacred and secular material afford a basic measure of ritual density. An aspect of this analysis will concern framing contexts of ritual performance, such as the occurrence of smoking pipe artifacts in sacred versus secular situations. For example, chi-square tests are applied to gauge the correspondence of pipes with mound versus non-mound contexts, feature versus non-feature contexts, and so forth. The Cramer's V statistic is computed to measure the strength of the relationships in the contingency tables (Drennan 1996:193-194). Other dimensions of ritual performance, such as the association of pipes with sub-categories of age and sex, may be revealed by pipes found in burial contexts.

## Chapter 5.

### The Temporal and Geographical Dimensions of Smoking Pipe Styles

In this chapter, my concerns are the temporal and spatial associations of different types of pipes. Higher-order questions about the social, economic, and ideological meaning of tobacco ritual are best formulated only after those controls are in hand.

The first step in my treatment is to establish the intervals of time during which different pipe types were made and used. The timing of a particular type's production and use is determined mainly from contexts of discovery, including artifactual and other associations, and only rarely by direct dating, such as of residue on pipes themselves or of samples within discrete features. Sealed contexts, as in burial features and mound deposits, are particularly important for making the determinations.

The second step involves establishing the broader spatial distributions of each type of pipe. Geographical distribution is determined relative to geophysical areas, such as physiographic provinces, and according to river basins but also with respect to cultural "provinces." The latter is observed archaeologically as site clusters with shared material culture, usually identified as of particular archaeological phases, like those discussed in Chapter 3.

I also examine the finer-scale contexts of pipe occurrence within specific sites, such as associations with particular feature types, particular genders as determined from burial remains, and other distinctive classes of artifacts. Of specific interest is whether pipes of a particular type are prone to occur in relatively exclusive contexts or not, such as in mounds or with elite burials, and whether they occur in association with other



specialized artifact types believed to signify positions of special status or a specific time period. Where feasible, the strength of an association is evaluated by quantitative measures as described in Chapter 4.

### Temporal Patterns of Pipe Style

Pipe forms underwent significant changes over the course of the Mississippian Stage in the South Appalachian Mississippian region. The general progression, through the three basic Mississippian periods, was from a small number of relatively simple forms in the early period, to a proliferation of elaborated styles in the middle period, and then to adoption of numerous, quite different styles in the late period.

Before proceeding, the classification scheme I applied merits review to ensure that the terminology used to describe temporal changes is clear. *Type categories* distinguish the major stylistic groups, while *type styles* distinguish particular variants within the major categories (Appendix C). I will show how type categories of one period tend to be replaced by those of the subsequent period, often without evidence of stylistic continuity, such as might be expected if certain traditions were perpetuated from one period to the next. In essence, it appears that, through time, the common element was the act of smoking, while otherwise the meanings around the activity seem to have changed, to the extent that such can be judged by charting patterns of stylistic change.

*Early Mississippian Types (AD 1000-1200).* Only one type category is obviously unique to the Early Mississippian period, the Simple Long category. The category exhibits clear continuity from the preceding Late Woodland tradition, particularly in the lower part of the upper Tennessee River valley, where it is prevalent. The temporal

position of the category is established by its common recovery in early deposits, such as in sub-mound contexts and in early burials at mound centers like Etowah and Hiwassee Island. As noted, the category shares aspects of form that also occur among Late Woodland pipes, specifically a small, simple bowl and a long stem that is tapered toward the bit end (Figure 5.1-a). The design creates a single unit usable without a separate stem. Indeed, it is not always a straightforward matter to distinguish Late Woodland from Early Mississippian types of this category when the artifacts are fragmentary and out of context.

However further discussion of the attributes of Simple Long pipes will distinguish them more clearly (Figure 5.2). The most distinctive feature of this category is the long, tapered stem designed for use as-is, as a self-pipe, without insertion of a separate wood stem, such as those integral to so-called *calumet* pipes of the historical period. Pipes of the Middle and Late Mississippian periods discussed later were designed to have just such separate stems. The integrated stems of Simple Long pipes are relatively lengthy, almost always more than four times the height of the bowl. In comparison, later pipe styles have bowls and stems of more equal proportions. By this design, the stem of the Simple Long category terminates with a slight taper and is without the reinforcing thickened band common to the bit end of shortened stems on later pipes. In cross section, many of these long pipe stems are round, just as they were made during the Late Woodland period. However it becomes increasingly common to observe D-shaped, plano-convex cross sections, frequently embellished with fine tick marks along the top edges. In addition, it is not uncommon to find pipes of this category with a surface finish of red film. These kinds of changes to the stem mark an Early Mississippian elaboration over the traditional form.



a.



b.



c.



d.



e.



f.

Figure 5.1. Representative Early Mississippian pipes:  
 a-Simple Long, b-Simple Long with foot, c and d-Footed, e-Large Elbow, f-  
 Large Elbow, Curved (a & d-permission Frank H. McClung Museum,  
 University of Tennessee; b-from Plate 64-A, Lewis and Kneberg 1946; c-  
 permission Ocmulgee National Monument, NPS; e-from Figure 38, Moore  
 1903; f-permission (Cat. No. A091092-0) Department of Anthropology,  
 Smithsonian Institution).

The bowls of Simple Long pipes are somewhat shallow and basic in appearance, usually slightly cone- or bowl-shaped. They do not exhibit the obvious form of a ceramic vessel, as so many later-style pipes do. Several examples are known to feature a knob-like projection at the forward end of the bottom of the bowl, similar to the projection at the front of Footed pipes described next (Figure 5.1-b). This addition appears to signal the influence of a new smoking tradition, also discussed below.

Specific contexts that determine the date range of this pipe category are known mainly from sites in the northwestern and northern sections of the South Appalachian region. At Etowah, they are not only the dominant category present in the sub-mound deposits at Mound C, all dated to AD 1000-1250, but they do not occur at all in secure contexts of the later periods. The same category of pipe is documented at Hiwassee Island in Tennessee within mound contexts of the same age. Other sites with early components that have produced Simple Long pipes are Wilbanks, Long Swamp, Cemocheechee, Hixon, and Dearmond.

	Integrated Design “Self pipe”	Modular Design “Calumet pipe”
Advantages	<ul style="list-style-type: none"> <li>• Low production cost</li> <li>• Portability</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced visibility</li> <li>• Symbolic manipulation</li> <li>• Minimal heat transfer = extended use period</li> <li>• Durability</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Low visibility</li> <li>• No symbolic manipulation</li> <li>• Rapid heat transfer = shortened use period</li> <li>• Fragile</li> </ul>	<ul style="list-style-type: none"> <li>• High production cost</li> <li>• Less portable</li> </ul>

Figure 5.2 Comparison of self vs. *calumet* pipe designs.

Another pipe category, which I refer to as the Footed category, probably made its first appearance late in the early period. The distinguishing characteristic of this category is a forward-pointing projection at the bottom edge of the bowl, sometimes referred to as a “prow” (Brain and Phillips 1996), but variably bulbous, shovel-shaped, bifurcated, or somewhat vestigial in form (Figure 5.1-c, d). Dating of this category is based on its usual occurrence on sites with early occupations, its recovery in closed early contexts on some of those sites, and its association with relatively early Mississippian occupations in regions to the west. In Georgia, as one example, the large, classic style of this category occurs in early context at Macon Plateau and a nearby associated site. Also, as noted, the foot-like appendage that defines the category was sometimes added to early pipes of the Simple Long category.

Although the Footed category clearly made its first appearance during the Early Mississippian period, unlike the Simple Long category it occurs in early Middle Mississippian contexts as well. When it does so in the classical form, as at Moundville and in stone box burials in Tennessee, for instance, it may occur as an heirloom, or instead it reflects interaction with societies farther west, toward and in the lower Mississippi Valley, as late as the thirteenth century. Sometimes, though, it is possible that it appears for both reasons. There is certainly no question that the category bears testament to a westward connection, regardless of the period in question, since it is so much more prevalent there. Comparable examples are relatively common at Mississippian sites in Arkansas, for example (West 1934).

The Footed type also persists into the middle period in vestigial forms such as the Wrapped pipes common to the Chattahoochee Valley. This category has a somewhat

limited range of occurrence that, notably, is at the western limit of the South Appalachian region. The implications of the distribution will be addressed in later sections.

In general, then, two early categories developed, respectively, out of a local stylistic tradition and under external influence. The Simple Long category clearly has a local antecedent in the Late Woodland forms known from the lower part of the upper Tennessee River valley. The Footed styles appear to have been introduced under western influence, perhaps in association with the pioneering Mississippian populations that entered the deeper Southeast from the west.

Less distinctive pipe forms also appear in the early period but perhaps less uniquely. One is a simple elbow form that was made widely during many periods (Figure 5.1-e). It is, in fact, the pipe form that has been universally adopted regardless of time and place. While the basic elbow pipe is known to have appeared in the Southeast as early as the Middle Woodland period, it is also known to have been the principal type made by much later groups with less developed tobacco ritual, including in areas like Florida that are adjacent to the South Appalachian area (Dilworth 1979; Moore 1894, 1895, 1901, 1902).

Perhaps the most distinctive category in this group is the somewhat large, Curved Elbow (Figure 5.1-f). Instead of an angled junction of the stem and bowl, the bowls of this category are formed by an uninterrupted upward curve from the stem. Few examples have been recovered in secure Early Mississippian contexts, but they are documented from Etowah, Moundville, and Irene. One style of this category bears a spiraling incised line decoration, as found in early context at Wilbanks (Sears 1958), at Site BY11 in Tennessee, and possibly at Cemochechobee.

*Middle Mississippian Types (AD 1200-1375).* A number of distinctive new pipe type categories appeared during the middle of the thirteenth century, establishing a unique stylistic tradition that carried through at least the first half of the fourteenth century. The conspicuous stylistic discontinuity observed between most pipes from the early and the middle periods is indicative of the remarkable and sometimes radical changes that occurred among South Appalachian societies during the same span. As is the case with a host of other artifact classes unique to this time, the attributes of the new pipe categories enhance the prospects for dating their ranges of production and use. It is not coincidental that the trend is timed with the emergence and pinnacle of development at the major mound center of Etowah and at associated subsidiary sites. I will argue elsewhere that certain of these styles emanated from Etowah and, therefore, must be emblematic of its influence, if not of the site itself.

I recognize at least nine pipe type categories, and varieties of them, that are uniquely representative of this period. There are a number of characteristics that most of them share and set them apart from pipes diagnostic of the preceding and following periods. These types are relatively small in size and they have distinctive stem and bowl forms. The majority of Middle Mississippian pipes were obviously made to accommodate a separate stem, such as defines the classic *calumet* style. For this reason, pipes of the period were made with bowls and stems of near equal proportions, meaning bowl height is usually comparable to stem length. Among them are a larger number of effigy styles than appear in other periods, and more of them are made of stone. Compared especially with type categories of the late period, several of the unique Middle Mississippian categories appear to occur only in small numbers across the region. Furthermore, individual examples of the types used in this period are often so similar in execution that it suggests specialized production at the hands of skilled craftsmen.

As noted, there are basic features of Middle Mississippian pipe stems and bowls that I identify as strongly diagnostic of the period. A large proportion of the pipe stems are quite short in length and feature a bit end that has been thickened with an expanding band, leaving the terminal bit diameter considerably larger than the diameter of the stem itself. In the following chapter, I will argue that this attribute of pipe stems carries important meaning associated with concepts of gender roles and fertility. Additionally, on several of the types of this period, the junction of the stem and bowl is “direct,” meaning that the stem joins the side of the bowl at a point above its base. Also, the bowls of Middle Mississippian pipes were routinely given the distinct form of a ceramic vessel or “urn,” usually made as a jar-like form with a restricted neck and out-flaring rim. Sometimes the vessels are depicted so realistically as to include loop handles and other typical embellishments at the neck and rim. Pipe bowls of this period also commonly feature a flaring, ledge-like rim. More on these features of Middle Mississippian pipes is presented later in this chapter.

The Obtuse category, stylistically speaking, may be a bridge both between the early and middle periods and between a tradition dominant in the Carolinas and one reflective of the South Appalachian heartland farther south and west. By and large, the basic characteristics of the category are typical of pipes in what historically is recognized as the territory of Siouan- and Algonquian-speaking groups. The category name is derived from the obtuse angle formed by the junction of the stem and the bowl (Figure 5.3-a). Because the bowl-stem junction of Simple Long pipes can be slightly obtuse and the stems of Obtuse pipes can be somewhat long, I argue that the latter represent a transitional form between the dominant traditions of the early and middle periods.



Obtuse pipes are most securely dated by contexts at the Beaverdam Creek mound site on the Savannah River. This site is dated to early in the Middle Mississippian period, around AD 1200-1250 (Hally 2007; Rudolph and Hally 1985). They also occur at the Irene mound site, near the mouth of the same river, which was first established close to the time Beaverdam was occupied. Obtuse pipes were recovered in Mound C contexts at Etowah as well. The co-occurrence of this category with the Jointed category, discussed below, confirms a period of production and use relatively early in the middle period. The northward orientation of the type is borne out by its occurrence at coeval sites in North Carolina, like Town Creek, Lenoir, and Warren Wilson, among others.

At least three type categories of the middle period have strong ties with the Etowah site: the Jointed, Noded, and Square forms. In general, each of the three categories is known only from sites with prominent middle-period occupations. Dating of the first two types is supported by their recovery in burial contexts within Mound C at Etowah. The same two types are also found as funerary associations in burials at other Middle Mississippian sites, such as Lake Jackson and Moundville. At Hollywood, all three of the types, among others, were found in direct association in mound context (Anderson 1994; Thomas 1894). A fourth type, Tube, also seems to be linked with Etowah.

The Jointed, or “spittoon,” category is probably the earliest of the three (Figure 5.3-b). This suggestion is based on the fact that it not only occurs in early middle-period context at Beaverdam, but that it also occurs there with Obtuse pipes. Some of the Jointed pipes at Beaverdam also have an obtuse stem-bowl angle. Furthermore, I have wondered if the bulbous joint at the bottom of the bowl is an adaptation of the projection on Footed pipes. Regardless, the Jointed category is a solid Middle Mississippian period marker,

given the contexts alluded to earlier. The category simply does not occur in earlier or later contexts but is well known from contexts dated to between AD 1250-1325. For example, such pipes were recovered in closed contexts in the Beaverdam Mound, in Mound C at Etowah, in Mound A at Hollywood, in middle-period context at Irene, at Greenwood (Tennessee), and at Town Creek and Warren Wilson in North Carolina. At Greenwood, two Jointed pipes were recovered in stone slab “box” burials, a style of interment usually associated with the early part of the middle period (AD 1250-1325) (King 2007). At Etowah, however, the Jointed category occurs in Final Mantle burials that King (2003, 2007) assigns to the Late Wilbanks phase (AD 1325-1375). The co-occurrence of Jointed pipes with other Middle Mississippian pipe types as well as in association with other distinctive Middle Mississippian artifact types, including classic SECC objects, is discussed in a later section. Finally, some Jointed pipes were fashioned from steatite or “soapstone,” which is a hallmark of some other pipe categories of the middle period.

A distinctive variant of the Jointed category is Jointed Incised, so-named for a pattern of nested incised lines on the raised “joint” where the bowl and stem intersect (Figure 5.3-c). This style is believed to be contemporary with the Jointed type, yet it occurs only at Etowah and at sites along the Savannah River, like Beaverdam and Irene.

The Noded, or “bubble,” category is also unique to the middle period (Figure 5.3-d). It has been recovered in obvious Middle Mississippian contexts at Etowah, Moundville, Lake Jackson, Hollywood, Irene, Nacoochee, and Warren Wilson. The category also occurs in contexts with prominent middle-period assemblages, including Dearmond and Fains Island in Tennessee, 1JA1 in Alabama, and Shoulderbone in Georgia. At Etowah, such pipes were recovered from log tombs, a type of grave typical

of the period AD 1325-1375 (King 2003, 2007). Noded pipes also have been found in direct association with other middle-period pipe types and with classic SECC objects. Several Noded pipes are made of stone, always steatite.

The Noded category has two other stylistic variants. One represents variations of the classic, short-stemmed type described above. These forms diverge from the classic type in different ways, ranging from less refinement overall to differing stem bit forms, rim forms, and the like. Examples include a Noded pipe at Warren Wilson that is rather crudely formed with an obtuse bowl-stem angle and another at Site 40JE1 in Tennessee with a short, ringed bit, as opposed to the usual expanded bit.

The second Noded variant is one that I call Weak Noded (Figure 5.3-d). The style is named for the very low profile nodes on the bowl. In fact, in many cases the nodes are not raised at all but are simply indicated by incised circles. Also, examples of this style usually have fewer nodes on the bowl than do those of the classic type. Pipes of this style are also distinguished by an obtuse bowl-stem angle and a stem that is at least twice as long as the bowl is high. These pipes show a strong orientation to the northern and eastern sections of the South Appalachian region, specifically north of the Savannah River where Pee Dee and Pisgah phase sites occur. This association dates the style to AD 1200-1350.

Square pipes are known from only two sites, where they occur in good Middle Mississippian contexts (Figure 5.3-f). This category takes its name from a bowl and stem that are sharply square in cross section. Most of the known examples are from Etowah, where at least one was recovered from Mound C. At Hollywood, one Square specimen was found in a cache of pipes that also included middle-period Jointed and Effigy types



Figure 5.3. Representative Middle Mississippian pipes: a-Obtuse, b-Jointed, c-Jointed, Incised, d-Noded, e-Weak Noded, f-Square (a-from Plate 44, Sears 1958; b-permission University of Georgia; c & f- permission (Cat. Nos. A170851 & A171125-0) Department of Anthropology, Smithsonian Institution; d-permission Georgia Department of Natural Resources; e-permission Frank H. McClung Museum, University of Tennessee).

paint still fill them. Other embellishments to this form tend to be of two sorts. One has very large, well-formed loops at the termination of the elongated projections of the bowl. These are generally homologous with the perforated beaks of gridded pipes but are much more prominent and of a different form. The other major variation on the Noded bowl form is the addition of a large bird effigy, although bird effigy appendages are also known on gridded Trumpets.

There is another, much rarer style of the Trumpet type distinguished by an elongated bowl with small loop handles, very similar to the bowls of Monolithic Axe pipes with vessel-shaped bowls, that has a stem clearly modeled into the form of male genitalia.

Dated contexts in which these more elaborate varieties of Trumpet pipes occur extend into the early sixteenth century. The latest dated contexts coincide with encounters between exploring Spanish and Native cultures in the first half of the sixteenth century. One of the best cases of this association comes from the Glass Site, where hundreds of fragments of these types occur within a council house structure where glass beads and metal artifacts diagnostic of a pre-1550 Spanish encounter also occur (Blanton 2011; Blanton and Snow 2010). Residue removed from two Trumpet-style pipes found at this site have produced radiocarbon results in the middle of the fifteenth and sixteenth centuries. Another example is from the Bowden Boulder Cache, where glass beads were also found (Ledbetter 2006). Although the associations with early European artifacts are not direct there, the presence of the same kinds of pipes at Etowah, Peachtree, Coffee Bluff, among other sites, is also indicative of a protohistoric time frame.

A Short Trumpet category is also recognized as a Late Mississippian form (Figure 5.7-c). It occurs exclusively on Dallas period and related sites, such as Barnett Phase occupations in northwestern Georgia. The distinctive feature of this category is a shortened version of the Trumpet bowl with a very wide, ledge-like rim. Also, the stems of this category are longer than those of the Tall Trumpet types, although in both cases the bit ends are finished with a thickened band. Another distinctive feature of the Short Trumpet category is a strong pattern of manufacture from light-colored limestone.

Another Late Mississippian pipe category with a limited spatial range is the Citico-style Effigy (Figure 5.7-d). This category is distinguished by a bowl modeled into the form of a human-like head with unusual features, such as bared teeth of unusual form, eye and mouth surrounds, and a feathered plume extending behind the head. These features are very similar, if not identical to, those incised into Citico-style shell gorgets that depict a coiled serpent and, in particular, the head of the serpent-like creature at the center of the design field.

Generally speaking, the shared stylistic features of these Citico-style Effigy pipes and the Citico gorgets implies a similar age. I suggest, by the well-established date range of the gorgets between AD 1525-1600, that the pipe type falls within the same period. Independent support for this inference is provided by the contexts of some of the pipes. Examples were recovered from a mound at the Pine Harbor site and at another called the Kent Mound that both contained early European artifacts (Cook 1976). The category is also documented in mound context on Sapelo Island (Larson 1998).

The rattlesnake motif appears elsewhere in the region under at least one other pipe style (Figure 5.7-e). The two variants feature an abstract depiction of a rattlesnake



Figure 5.4. Representative Middle Mississippian pipes: a-Tubular, b-Wrapped, c-e-Effigy, Human Seated, f-Effigy, Owl (a-permission American Museum of Natural History; b-permission Columbus (GA) Museum; c-from Plate 24, Thomas 1894; d-from Figure 82, Thruston 1897; e-permission Frank H. McClung Museum, University of Tennessee; f-permission (Cat. No. A135217-0) Department of Anthropology, Smithsonian Institution).

There are other Effigy types with Middle Mississippian affiliations. One of the best established is an owl effigy form, but only three examples of the type are known (Figure 5.4-f). It is distinguished by the full depiction on the bowl of what appears to be a great horned owl. The ceramic bowl is fully modeled into a bird's form, which faces the smoker, and on two of the examples, the sides of the pipe stem are held between the legs and feet of the bird. Dating of this type is based on recovery of two of the pipes at middle-period mound sites on the Savannah River, Hollywood and Lawton (Larson 1998; Thomas 1894). The same pattern indicates that it is a type somewhat peculiar to the lower part of the Savannah basin. However, the third example of the type is from the Sale Creek site in eastern Tennessee.

I refer to another middle-period category as Ringed because of the series of raised rings encircling the bowl and/or stem (Figure 5.5-a). It is not a common category, and it occurs at sites with earlier occupations, such as Etowah, Hiwassee Island, and Long Swamp. However, because raised rings on the stem are a common feature of Noded pipes, I have chosen to include it with the middle-period types. Fragmentary pipe stems with raised rings are known from Hollywood, Shinholser, Shoulderbone, and Lamar, among other sites.

Certain types of relatively unembellished elbow pipes also appear to date from the middle period. One of the categories is called the Direct type, named for the way the stem is attached directly to the side of the bowl (Figure 5.5-b). Most of these pipes also have a ledge-shaped bowl rim. Examples of this type have been found in secure contexts in Mound C at Etowah, in mound context at Bourbon Field and at the Norman Mound on the Georgia coast (Larson 1957, 1998), in a mound at Thirty-Acre Field (Alabama) (Moore 1900), and in a burial at the Bennett Place (Tennessee). The type is also



documented from Shoulderbone, Nacoochee, Estatoe, Irene, and Mulberry (SC), all sites with prominent Middle Mississippian components, usually Savannah Phase-related.

More problematic to date precisely are the numerous relatively large, heavy elbow pipes discussed earlier that bear little or no embellishment. I assign many of them to the middle period simply because they occur with assemblages of that interval but never in secure contexts, such as in sealed mound deposits or burials. That said, it is also true that the general category occurs with Late Mississippian components, although always rarely.



Figure 5.5. Representative Middle Mississippian pipes: a-Ringed, stems, b-Direct (a-permission Robert S. Peabody Museum of Archaeology, Phillips Academy; b-permission (Cat. No. A384924) Department of Anthropology, Smithsonian Institution).

*Late Mississippian and Protohistoric Types (AD 1375-1600).* A different set of distinctive pipe type categories emerges in the region in the latter half of the fourteenth century and in the fifteenth century, the features of which seldom show clear continuity with the Middle Mississippian types. Otherwise, the overall number of unique pipe categories is not reduced and standardization of them indicates an ongoing degree of

specialization in production. Types diagnostic of this period are seldom, if ever, made of stone. Later, I describe how the contexts of occurrence diversify.

Dominant new stem and bowl attributes commonly crosscut the late-period types. The bit end of a large proportion of the late-category pipes is finished with a thickened band. The relatively short stems of this period, with their thickened bits, indicate that the *calumet* design with a long, separate stem continued to be favored. Bowl forms become more variable. Some retain a vessel-like shape, but the newly prevalent Trumpet form is a marked change, as is its large capacity. In fact, for the first time, the dimensions of Trumpet-category bowls routinely exceed those of their stems, meaning bowls are usually twice as tall as stems are long. Life-like effigy forms are rare, and the effigies that do occur generally represent highly stylized birds. However the basic pipe form, a short-stemmed bowl to which a longer separate stem was affixed, remains the norm.

The Monolithic Axe category makes its first appearance at the beginning of the Late Mississippian period, around AD 1350, and is perhaps stylistically indicative of sociopolitical conditions during the transition from the middle period (Figure 5.6-a). As will be discussed, the category is among the most widespread types in the South Appalachian region. Generally speaking, the first appearance of the category after the first quarter of the fourteenth century, if not later, is confirmed by its total absence in earlier contexts, and consequently, it is not referenced in association with SECC objects. Yet stylistically it carries over the ceramic vessel form that typifies many earlier pipe bowls. Still, the category has been frequently documented in post-middle period contexts, and variants of it persist until European contact.

Monolithic Axe pipes are recovered most often with late prehistoric Dallas and Lamar components, both bracketing the period AD 1350-1600. In general, they are not uncommon in midden contexts and in association with domestic structures, but they are also regular occurrences in burial features. Pipes of the category have been recovered from Dallas period burials at the Cox, Ledford Island, Fains Island, Dallas, Sale Creek, Hixon, and Citico sites in Tennessee. They have also been recovered from Lamar burials at Etowah, Nacoochee, and Bull Creek in Georgia. In short, Monolithic Axe pipes occur widely in the region in association with late prehistoric occupations.

I recognize a second style of the Monolithic Axe category called the Monolithic Axe Trumpet (Figure 5.6-b). It is an uncommon variety compared to the other, and it appears to have emerged later in the period, perhaps after the fifteenth century. The variety is also more restricted in its spatial range, with known examples only from Piedmont and Atlantic coastal plain sites; none of these pipes occurs in the Tennessee River valley, where the other Monolithic Axe variety is so common.

A category that dates from the early part of the Late Mississippian period, and perhaps later as well, is the Hummingbird category (Figure 5.6-c). Like those of the more common variety of Monolithic Axe pipes, the bowls of the Hummingbird type are typically in the form of a ceramic vessel. The distinguishing traits are raised, vertical depictions of narrow beaks on one or two sides of the bowl and an incised or punctuated eye just beneath the bowl, suggestive of a bird clutching a ceramic vessel. One style of this category replaces one of the beak halves, that on the stem side of the bowl, with a raised, incised panel. A more lifelike and presumably earlier example was found at the Stubbs Site in central Georgia (Figure 5.6-d).

The post-1350 date assigned to this category is determined by its absence in earlier contexts. However it does not appear to occur in sixteenth-century contexts like one variety of the Monolithic Axe category, suggesting that it may be confined to the period AD 1350-1500. Occurrences in secure context are found at the Tallassee and Toqua (TN) sites in burials. Otherwise the category is known to occur widely in good late prehistoric contexts, including at Etowah, Lamar, and King, among other sites.

The most distinctive new form to emerge in the late period is the Trumpet category, under which several variant type styles are defined. The distinguishing feature of all the styles in this category is an oversized, trumpet-shaped bowl, usually finished with a thickened band rim. Commonly, the trumpet-shaped bowls are made with beak-like projections on opposing ends, a feature that has earned them the name “canoe pipe” among some collectors. Regardless, pipes of this category clearly date to the fifteenth and sixteenth centuries. Most often, these pipes are found in association with Lamar culture or on related sites, where they are a common, if not dominant, form in general contexts. Their persistence into the period of earliest European contact is confirmed at sites like the Glass Site, the King Site, and Etowah.

The simplest of the Trumpet forms has a tall cone-shaped bowl with a plain, round bowl orifice (Figure 5.6-e). Some undecorated examples are known, but more commonly the exterior of the bowls feature one to four narrow, encircling dentilated bands. The simplicity of the variety might imply it is the earliest of the Trumpet forms, but that suggestion is unconfirmed. However the fact that they are known from burial contexts at the King Site indicates their period of popularity also extended into the early sixteenth century.

A series of other Trumpet varieties occurs together on the same sites or on closely related sites, thus indicating that they are coeval. Among these variants are the more embellished forms with a somewhat elongated bowl terminating in beak-like projections and those with surface adornment ranging from bolder gridded patterns to large round nodes, notched ridges, and bird effigy adornos.

The most common of the elaborated Trumpet varieties has a relatively large, somewhat elongated bowl, giving it a form that, in plan view, is oval-shaped. The elongated appearance is emphasized to varying degrees by forming the opposing, narrower ends into beak-like projections. The projections ordinarily are aligned along the axis formed by the stem and bowl, but very rarely they are formed perpendicularly to the stem. The typical rim treatment of these types is an undecorated, slightly thickened band.

Numerous varieties of pipes were created on this basic form by applying a range of somewhat standardized decorative treatments. Most prevalent are varieties featuring a raised, grid-like pattern on the main body of the bowl. On one variety, the gridded pattern covers the entire bowl (Figure 5.6-f), and on another, it is present only as one or more bands (Figure 5.7-a). Often those varieties are further distinguished by additional features, either present alone or in combination. One such feature observed on elongated Trumpet pipes is a notched “keel” running down the narrow ends of the bowl. Sometimes the beak-like projections are long and pointed, but in other cases, they terminate in a rounded prow that is perforated.

Another style of the elongated Trumpet types features a bowl decorated with large raised nodes, rather than a gridded pattern (Figure 5.7-b). Usually the nodes are indented to create small depressions on their surfaces, and in several cases, traces of bright red



Figure 5.6. Representative Late Mississippian pipes: a-Monolithic Axe, b-Monolithic Axe, Trumpet, c & d-Hummingbird, e-Trumpet, Simple Plain, f-Trumpet, Gridded (a-permission (Cat. No. A010008-0) Department of Anthropology, Smithsonian Institution; b-from Plate 55, West 1934; d-from Plate 17, Williams 1992; e-permission Frank H. McClung Museum, University of Tennessee; f-permission Louie Harper).

paint still fill them. Other embellishments to this form tend to be of two sorts. One has very large, well-formed loops at the termination of the elongated projections of the bowl. These are generally homologous with the perforated beaks of gridded pipes but are much more prominent and of a different form. The other major variation on the Noded bowl form is the addition of a large bird effigy, although bird effigy appendages are also known on gridded Trumpets.

There is another, much rarer style of the Trumpet type distinguished by an elongated bowl with small loop handles, very similar to the bowls of Monolithic Axe pipes with vessel-shaped bowls, that has a stem clearly modeled into the form of male genitalia.

Dated contexts in which these more elaborate varieties of Trumpet pipes occur extend into the early sixteenth century. The latest dated contexts coincide with encounters between exploring Spanish and Native cultures in the first half of the sixteenth century. One of the best cases of this association comes from the Glass Site, where hundreds of fragments of these types occur within a council house structure where glass beads and metal artifacts diagnostic of a pre-1550 Spanish encounter also occur (Blanton 2011; Blanton and Snow 2010). Residue removed from two Trumpet-style pipes found at this site have produced radiocarbon results in the middle of the fifteenth and sixteenth centuries. Another example is from the Bowden Boulder Cache, where glass beads were also found (Ledbetter 2006). Although the associations with early European artifacts are not direct there, the presence of the same kinds of pipes at Etowah, Peachtree, Coffee Bluff, among other sites, is also indicative of a protohistoric time frame.

A Short Trumpet category is also recognized as a Late Mississippian form (Figure 5.7-c). It occurs exclusively on Dallas period and related sites, such as Barnett Phase occupations in northwestern Georgia. The distinctive feature of this category is a shortened version of the Trumpet bowl with a very wide, ledge-like rim. Also, the stems of this category are longer than those of the Tall Trumpet types, although in both cases the bit ends are finished with a thickened band. Another distinctive feature of the Short Trumpet category is a strong pattern of manufacture from light-colored limestone.

Another Late Mississippian pipe category with a limited spatial range is the Citico-style Effigy (Figure 5.7-d). This category is distinguished by a bowl modeled into the form of a human-like head with unusual features, such as bared teeth of unusual form, eye and mouth surrounds, and a feathered plume extending behind the head. These features are very similar, if not identical to, those incised into Citico-style shell gorgets that depict a coiled serpent and, in particular, the head of the serpent-like creature at the center of the design field.

Generally speaking, the shared stylistic features of these Citico-style Effigy pipes and the Citico gorgets implies a similar age. I suggest, by the well-established date range of the gorgets between AD 1525-1600, that the pipe type falls within the same period. Independent support for this inference is provided by the contexts of some of the pipes. Examples were recovered from a mound at the Pine Harbor site and at another called the Kent Mound that both contained early European artifacts (Cook 1976). The category is also documented in mound context on Sapelo Island (Larson 1998).

The rattlesnake motif appears elsewhere in the region under at least one other pipe style (Figure 5.7-e). The two variants feature an abstract depiction of a rattlesnake





a.



b.



c.



d.



e.

Figure 5.7. Representative Late Mississippian pipes: a-Trumpet, Gridded Band, b-Trumpet, Noded, c-Short Trumpet, d-Citico, Coastal, e-Rattlesnake (a-permission Antonio J. Waring, Jr., Archaeological Laboratory; b-permission Frank H. McClung Museum, University of Tennessee; c-permission (Cat. No. A171126-0) Department of Anthropology, Smithsonian Institution; d-permission Frankie Snow; e-permission Robert S. Peabody Museum of Archaeology, Phillips Academy).

incorporating both the bowl and stem portions of the pipe, but neither has obvious human characteristics. All examples are from the northwestern reaches of the South Appalachian region, two at Etowah and the other at the Dallas Site. One of the variants, represented at both Etowah and Dallas, has a Citico-like head modeled onto the bowl and an arched extension that connects with the pipe bit. The other variant seen at Etowah is different, but the fragmentary condition of the pipe limits description beyond noting obvious rattlesnake elements.

There are two types with human head effigies on the bowl that also date from the Late Mississippian period, but otherwise their span of popularity is difficult to narrow. One style is similar to the Citico type described above but lacks any parallels aside from the depiction of a human head (Figure 5.8-b). On this style, the bowls are relatively large and the features rather artistically rendered. One common trait is a beak-like nose. Bowl size, rim finish, and clay quality suggest a relationship to the general Trumpet category most prevalent in sixteenth century contexts.

The other human head style features a human face on a smaller bowl, with its details rendered by a simple modeling of the clay (Figure 5.8-a). The depiction is strikingly standardized across most examples, but relatively speaking, it is a more abstracted representation. My sense is that this style dates mainly to the earlier part of the period, during the late fourteenth and fifteenth centuries.

Another type unique to this period is distinguished by depiction of a raptor-like bird and is very possibly a variant of the Hummingbird type (Figure 5.8-c). On these pipes, the bird clutching the pipe bowl is rendered with a very prominent hooked beak. The bowls are vessel- or urn-shaped, as are those of the Hummingbird type.



Figure 5.8. Representative Late Mississippian pipes: a-Effigy, Human Head, Small, b-Effigy, Human Head, Full, c-Effigy, Raptor (a-permission Robert S. Peabody Museum of Archaeology, Phillips Academy; b-from Figure 163, Ledbetter 1997; c-permission Antonio J. Waring, Jr., Archaeological Laboratory).

Also unique to the late period, and extending into the protohistoric era, is a Stemless form, almost always made of stone (Figure 5.9). These pipes consist of a simple, cone-shaped bowl into one side of which a hole is directly drilled to intersect the bowl cavity, clearly a type used in conjunction with a detachable stem. The category is most common in association with Dallas and related sites. The category is relatively

common in eastern Tennessee and is known to occur in a burial at the Ledford Site and in a house at the Cox Site. The category is also known from northern Georgia, including at Etowah and the King Site.



Figure 5.9. Representative Late Mississippian-Protohistoric pipe: a-Stemless (permission Frank H. McClung Museum, University of Tennessee).

*Later Historical Period Native Pipes (Post-AD 1600).* Although they are not the focus of this study, a series of other type categories is recognized that is unique to seventeenth and eighteenth century native contexts. Most of the types are readily dated by their association with European objects diagnostic of the later post-contact era, like glass beads and metal tools.

Most distinctive are so-called Disk pipes that are always made of stone, including red catlinite. Ian Brown (1989, 2006) has thoroughly documented occurrences of the type

across the Southeast and concludes that most of them in the South Appalachian region date from the eighteenth century. Chris Rodning (2011) has also contemplated the meaning of the type in western North Carolina.

Many of the other types diagnostic of this era are also carved from stone, mainly steatite. The Cherokee gained the reputation of making the most elaborate forms, which were adorned with a range of effigy figures, but simple elbow types are known to occur on historic Creek sites as well (Witthoft 1949). Often these pipes were made such that the stem and/or bowl was square or faceted in cross section.

#### Regional Distribution of Pipe Categories

The numerous types of pipes defined in the preceding section do not all share the same pattern of distribution across the South Appalachian Mississippian region. Here, I describe category- and style-specific distributional patterns relative to the physical geography of the study region, including with respect to river basins, archaeologically defined phase areas, and sociopolitical provinces. A following section describes site-specific physical contexts in which particular pipe types have been found.

The spatial distribution of specific pipe categories and styles is most likely indicative of, among other things, the extent to which interaction networks were operating at a given time, whether through direct or indirect contacts, or whether in the context of sociopolitical or economic relations. As discussed in Chapter 3, the nature of Mississippian interactions could be variable from period to period and even from place to place. The same argument has been made of the meaning of distributions of different classes of Mississippian material culture, such as shell gorgets and other SECC

paraphernalia, not to mention particular types of ceramic vessels (Brown 2004). The implications of the distributional patterns of smoking pipes will be discussed more fully in a later chapter, but it bears noting now that their ranges do not always coincide directly with those of other kinds of artifacts. Regardless, pipe type distributions probably reflect the extent to which authority figures were compelled to signal their interests and influence. I would extend the latter use of pipes to religious cults as well, imagining how certain types or varieties of pipes could have been unique to ideocentric activities, such as self-interested promotions by cults or even individuals.

*Early Mississippian Types (AD 1000-1200).* The earliest Mississippian category is the Simple Long type that exhibits obvious continuity with similar Late Woodland styles. While complete specimens are rarely found and bowl fragments are difficult to distinguish, fragments of the long, well-finished stems, sometimes with distinctive cross-sections and decorative treatment, allow for reasonable identification of the range of occurrence. In general, based on the present sample, this category shows a strong spatial orientation to the Ridge and Valley and Piedmont-Upland physiographic areas (Figure 5.10). More specifically, it is a category that has strong linkage with Early Mississippian populations in the Coosa and upper Tennessee river basins. The category also has a distribution that extends southward into the Gulf Coastal Plain. In effect, the Simple Long category is confined mainly to the far western reaches of the South Appalachian area.

Stylistically speaking, the traditional Late Woodland form of Simple Long pipes undergoes embellishment by altering the cross section of the stem from round to plano-convex and by adding fine tick marks on the margin as well as a surface finish of red film. Furthermore, the occurrence of foot-like appendages on some Simple Long pipes is

suggestive of influences linked to the use of Footed styles, which also tend to occur in the western sections of the region.

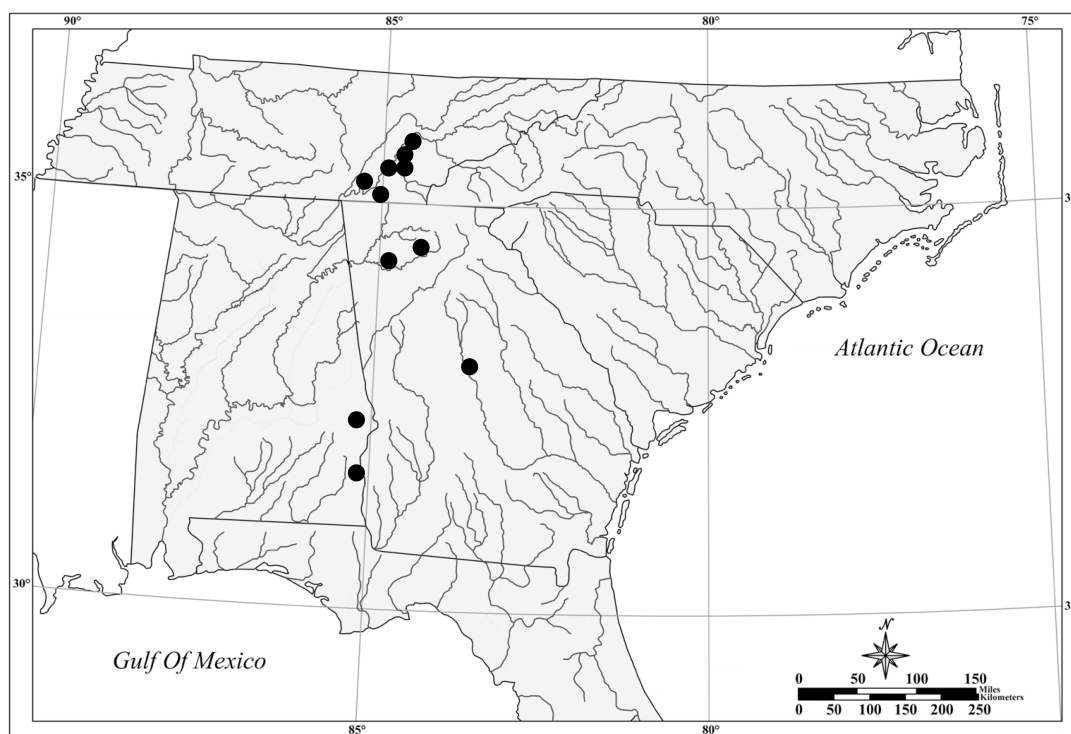


Figure 5.10 Distribution of Simple Long pipes.

The Footed styles, which make their first appearance during the early period, have a widespread occurrence in the South Appalachian area, but their frequency in a given locale is usually lower. In fact, these styles are identified at numerous early sites throughout the Southeast and appear to be more common farther west, in and around the lower Mississippi River valley. Within the South Appalachian region, Footed types are identified on sites only westward of the Atlantic Coastal Plain, mainly in the Piedmont and Gulf Coastal Plain areas (Figure 5.11). This pattern and its link to initial expansion into the South Appalachian region of Mississippian-influenced groups will be discussed

later. At least in eastern Tennessee, Footed pipes are documented from stone box graves, a burial practice widely recognized as prevalent prior to AD 1325 (King 2003:68, 75).

Like many pipe categories, the Footed form was made according to several somewhat standardized variations appearing to have fairly specific spatial ranges. One of the more distinctive styles has the look of two conjoined cones. On this style, the bit end of the stem is formed by the larger open end of one cone, and the other cone is joined to it, at a perpendicular angle, near the narrow end. A common feature of this variety is the addition of small loop handles near the lip of the bowl. The variety is very much restricted to the western section of the study area, in Alabama and Tennessee.

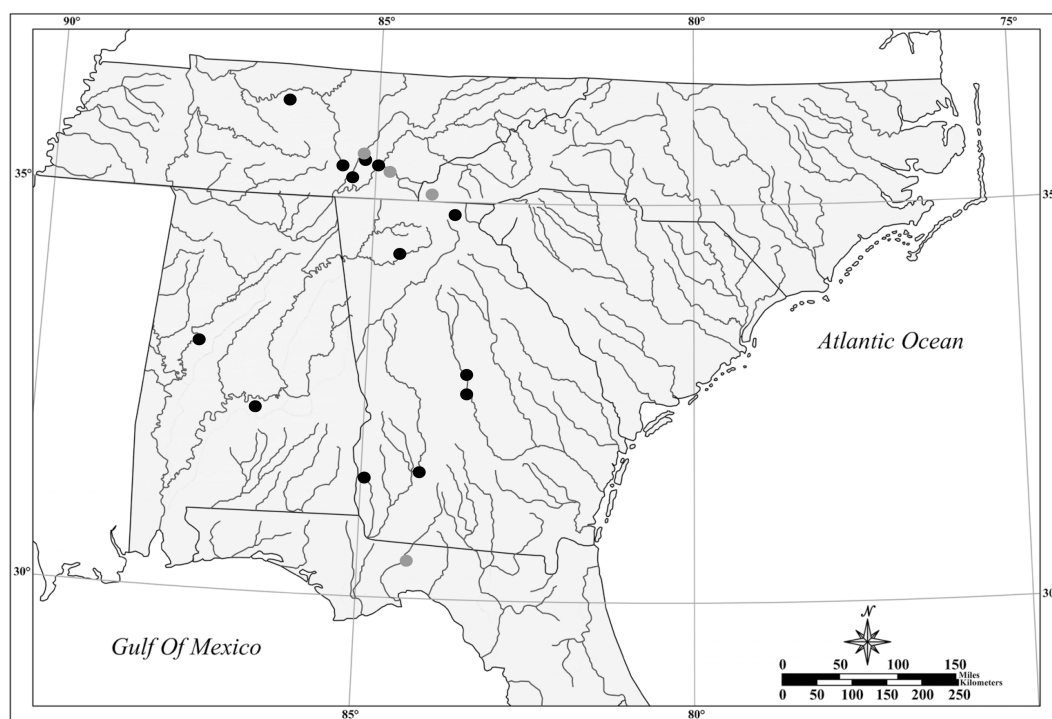


Figure 5.11 Distribution of Footed pipes.



Another style is relatively large and heavy and is formed with only the merest suggestion of a foot below the bowl. The other defining features of it are a plano-convex stem cross section with the flattened surface at the base and an otherwise unembellished surface. This variety appears to occur more widely in the region.

Another potential early category is called Large Curved. It is known to occur mainly in the southern and western ranges of the region. Specific examples are documented at Etowah, Wilbanks, in Tennessee at Site BY11, and westward in Alabama at Moundville.

*Middle Mississippian Types (AD 1200-1375).* The Middle Mississippian period experienced an increase in the number of standardized pipe styles, often elaborated stylistically over the earlier types. In the study region, several of these categories appear to be Etowah-centric with distributional patterns that emanate from the prominent mound center. However the categories do not share a single spatial pattern.

The Jointed category, of which there are two styles, is relatively common in Late Wilbanks Phase contexts at Etowah and occurs at coeval sites within a restricted range, generally eastward of the mound center (Figure 5.12). This pattern of distribution conforms closely with the extent of Savannah ceramic types that typify the classic Middle Mississippian florescence associated closely with Etowah's dominion. The Jointed Incised variant is less widespread and occurs only at Etowah and at sites on the Savannah River, namely Beaverdam and Irene.

A second Etowah-centric category is the Noded type. Here, again, examples of this category are relatively common at Etowah, but in this case, the full spatial range of

occurrence is much greater (Figure 5.13). Noded pipes occur most commonly within the same range as the Jointed styles, but they are also found in low numbers farther north and west into the upper Tennessee valley, north and east into the Pee Dee-Yadkin basins, south and west into the Apalachicola basin, and westward at the Moundville site. Cruder varieties of the Noded type, perhaps representing copies of the classic form, are not common but known from sites in North Carolina and Tennessee. Both the Noded and Jointed categories, as judged by their widespread distribution relative to Etowah, more than likely map onto the Etowahan sphere of influence that extended into the Appalachian and Piedmont region of the Carolinas, to the Atlantic and Gulf coasts, and to sites like Hixon, Moundville, Lake Jackson, Irene, and Town Creek.

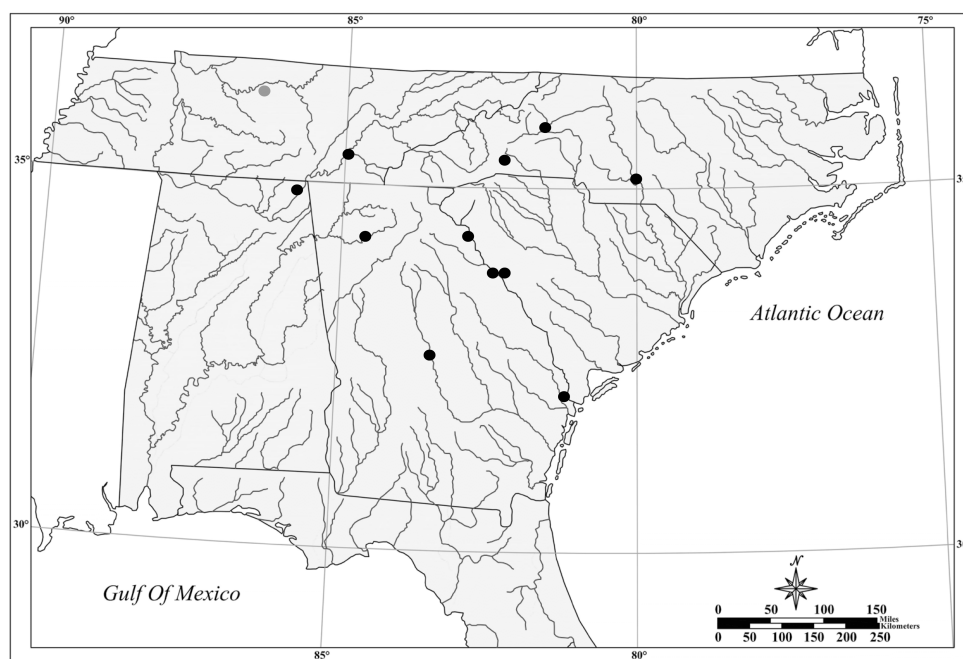


Figure 5.12 Distribution of Jointed pipes.

There is a third category, the Square type, that is quite rare but shows obvious ties to Etowah but in a limited eastward range outside the mound center. The type is known beyond Etowah only at the Hollywood Site on the Savannah River.

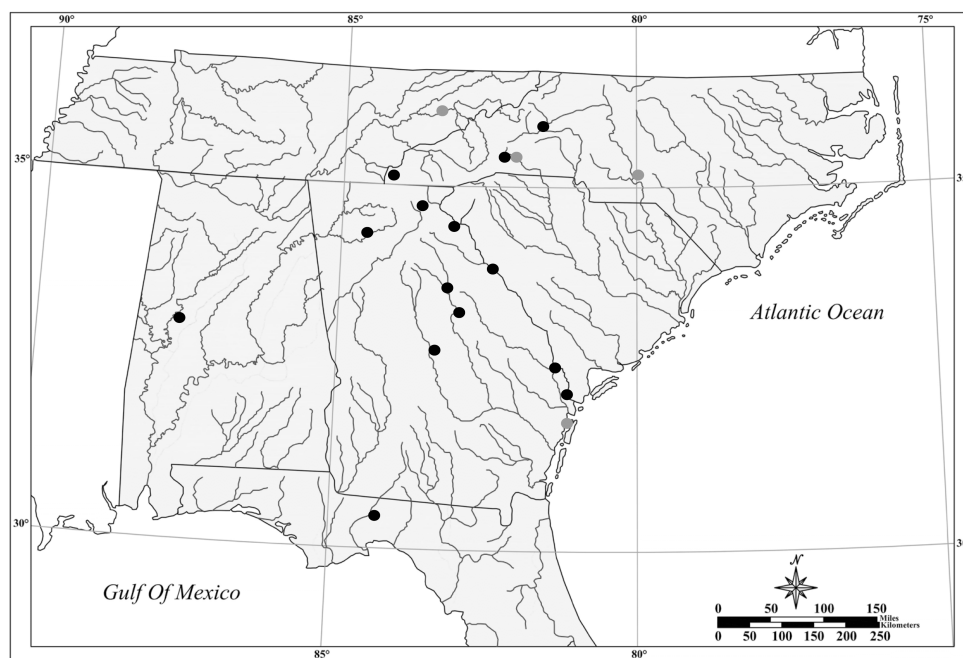


Figure 5.13 Distribution of Noded pipes.

The fourth pipe category with probable Etowah affinities is the Tube type. It, too, is a rare form that occurs mainly at Etowah itself. The only example known at another site is documented from Hollywood.

The Wrapped styles obviously radiate from the middle-lower Chattahoochee River basin, perhaps specifically from the Middle Mississippian Cemocheechee mound center (Figure 5.14). Impressive numbers of pipes of this category were recovered at that site, and they occur with some regularity in the general area, including over into the lower Flint River basin. It is notable that occasional examples of the type also occur at

sites well beyond its primary range, both to the north and the south. A few examples are known from Etowah to the north and west, from the upper Chattahoochee basin in the same direction, at the Hiwassee Island site well to the north in the Tennessee basin, and at the Lake Jackson site south and west in the Apalachicola basin. Variation occurs among Wrapped pipes, but I can recognize no meaningful correlations with specific areas.

All told, the Wrapped pipes are confined to a corridor that extends from deep into the Gulf Coastal Plain northward to at least the lower part of the upper Tennessee River valley. Based on different evidence, others have identified this Chattahoochee-Coosa-Tennessee corridor as the principal zone of marine shell movement between the Gulf of Mexico and major Tennessee Valley centers. An immediate inference, and one also expressed by John Scarry (2007a, 2007b), is that the Wrapped pipes somehow secured the relations necessary to move marine shell from the Gulf, first through domains controlled by Lake Jackson site paramounds, then into Etowah territory, and finally into Hiwassee Island-Hixon site territory in the Tennessee Valley. Because this pipe category is most prevalent in the middle Chattahoochee valley, and particularly so at the Cemocheechee Site, it probably reflects a strategy of chiefly elites based at the center of that corridor to manage a controlling interest in the flow of goods.

Obtuse category pipes have a pattern of distribution with an obvious north-northeastward orientation (Figure 5.15). They are known to occur at Etowah, and their spread overlaps that of the Jointed styles. However the Obtuse pipe range is greater and marked by more prevalence from the Savannah River basin northward and occurrences east to the mouth of the river. The stylistic affinity of this category with similar forms in the Carolinas and Virginia will be addressed later.

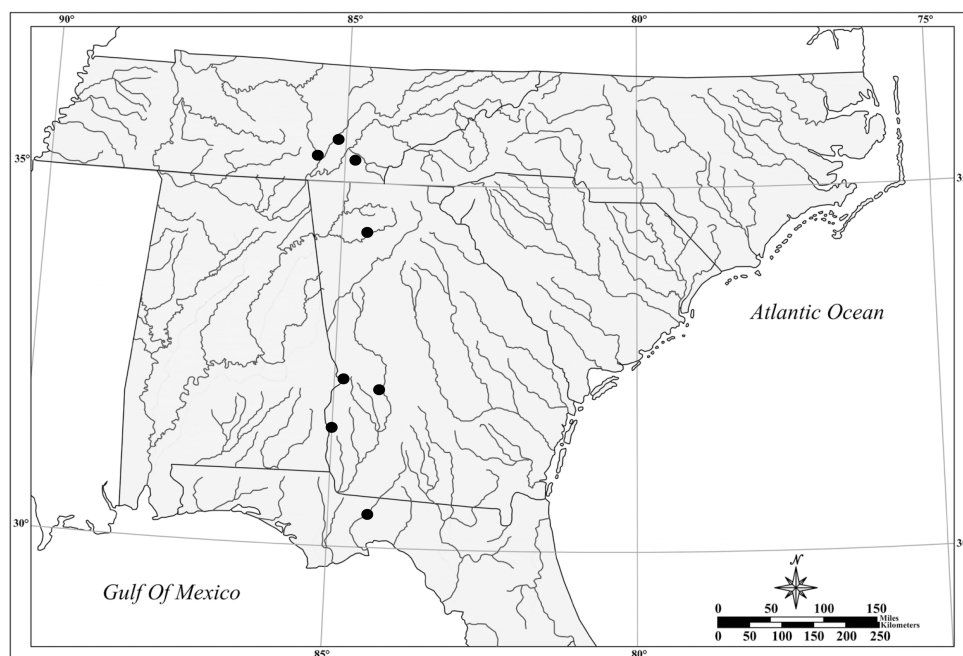


Figure 5.14 Distribution of Wrapped pipes.

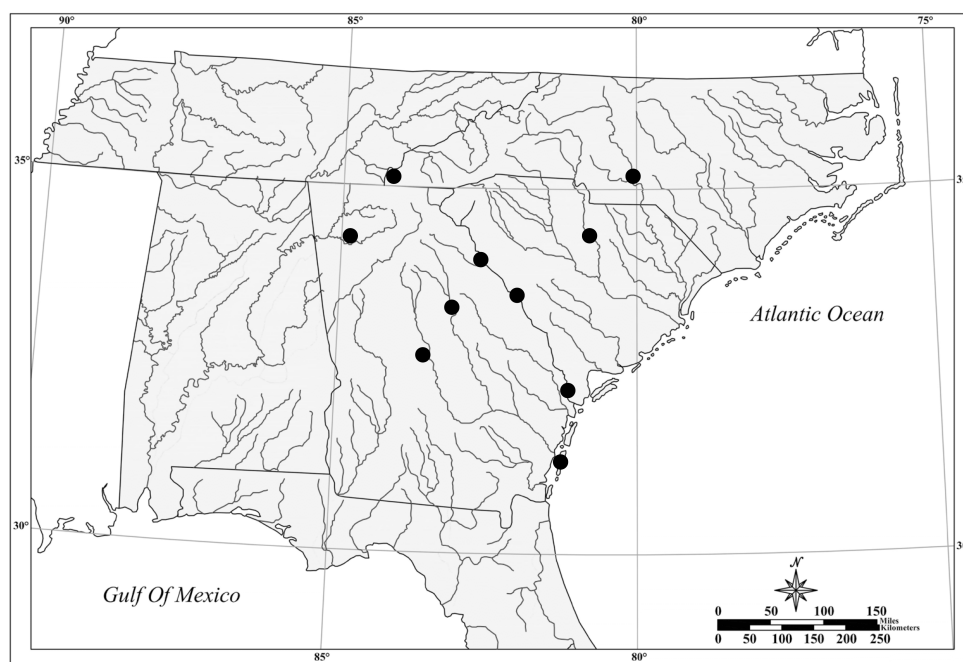


Figure 5.15 Distribution of Obtuse pipes.

The Weak Noded type shares a similar but more restricted northerly-oriented range (Figure 5.16). It is related stylistically to the Noded category that emanates from Etowah but appears to be a variant limited in distribution mainly to the Blue Ridge physiographic area and the portions of the upper Tennessee, Pee Dee, and Yadkin basins within it. In other words, the distribution of the type is confined to the area north of the Savannah River. It is my belief that this type is the result of efforts by distant groups to emulate the classic form. There are examples from North Carolina, for instance, that I consider to be rude copies of the ideal type.

I also place an uncommon Ringed category in the middle period, and it, too, might have a strong affiliation with the Etowah Site. A large portion of the known examples occur there, and most of the others occur on associated sites within a 50-mile radius, such as Long Swamp and Wilbanks.

The Direct type category, a simple elbow form with no embellishment, has a widespread occurrence (Figure 5.17). Its broad distribution inclines me to believe that it was a rather common and somewhat generic middle-period form. However neither is it ubiquitous across the study area. The tendency is for the category to occur most frequently from the Georgia coast inland, in a swath centered along the trunk of the Savannah River. It particularly does not seem to occur in the middle and lower Chattahoochee valley.

Depictions of a full human form are exclusive to pipes of the Middle Mississippian period. The most spectacular are so-called “idol pipes” that feature a seated or kneeling human rendered partially in the round. Pipes of this type are concentrated from the Upland Piedmont northward and westward into the Ridge and Valley province

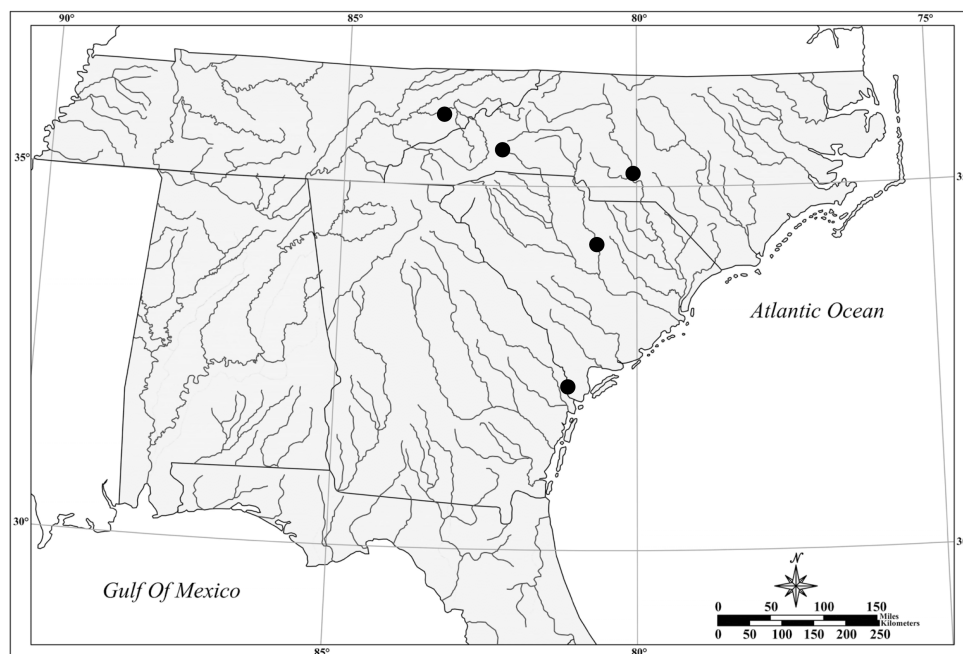


Figure 5.16 Distribution of Weak Noded pipes.

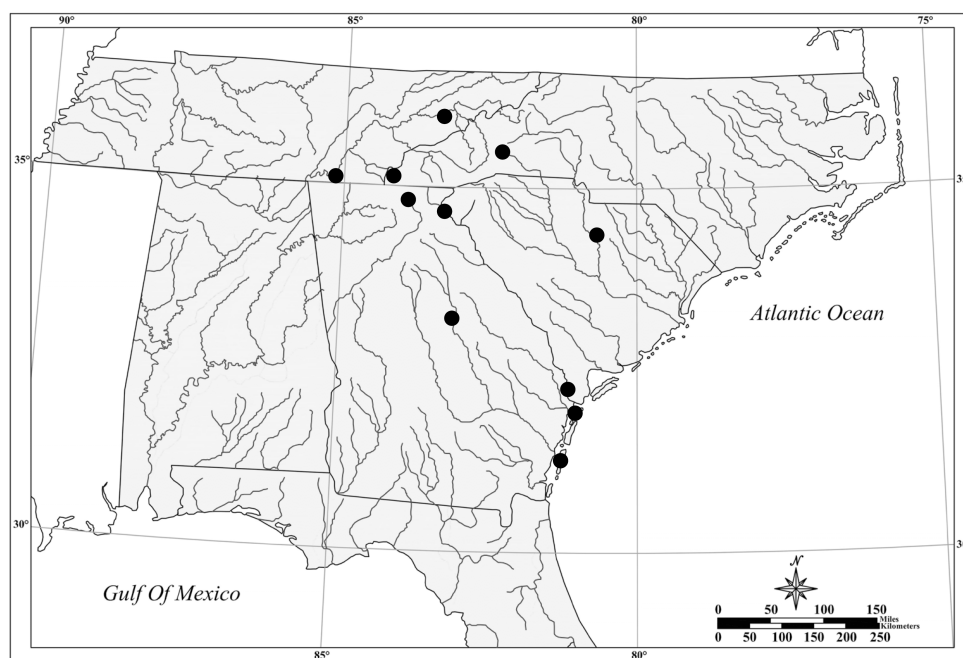


Figure 5.17 Distribution of Direct pipes.

(Figure 5.18). Three examples are known from as many sites in eastern Tennessee, and two are from Etowah. The presence of one such pipe at the Hollywood Site, near the Savannah River fall line, and another on the lower Ogeechee River speaks to limited extension of Middle Mississippian influences into parts of the Atlantic coastal plain. Single examples are also known more remotely, from Arkansas and Michigan.

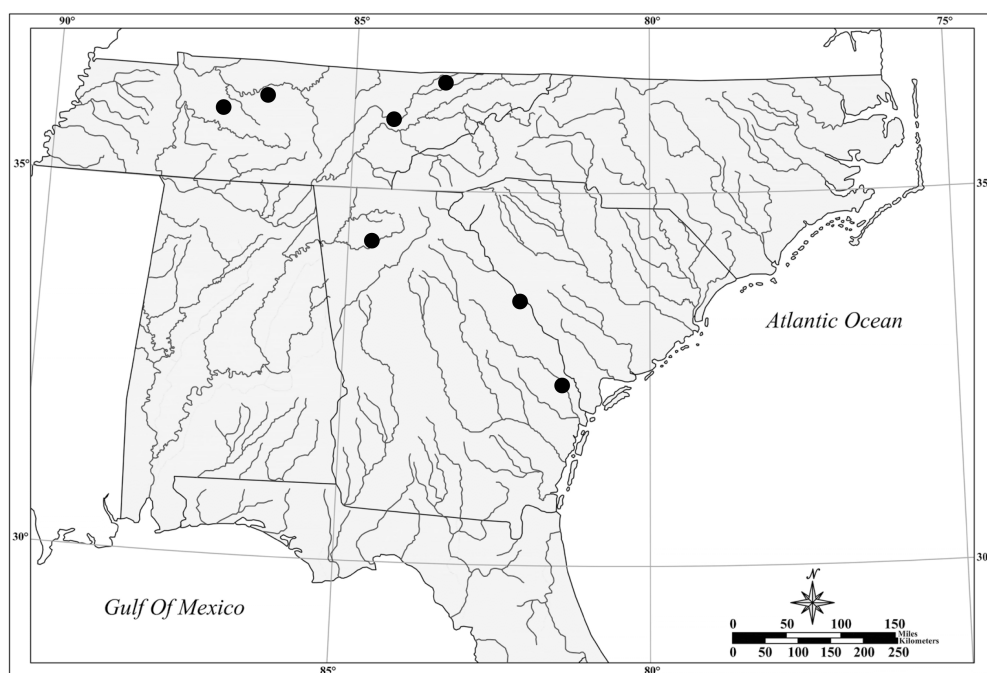


Figure 5.18 Distribution of Human Effigy, Seated pipes.

It is probably useful to note that types of middle-period stone Effigy pipes well known from Mississippian sub-areas farther west do not occur at all in the South Appalachian area. One such absent type is the so-called Piasa, sculpted into a feline form and believed to portray a mythical water cougar. Examples of Piasa pipes occur as close to the study area as Moundville in Alabama (Moore 1905; West 1934). Neither do examples of the celebrated bauxite figurine pipes linked with Cahokia and other far-



western sites occur in the study area (Emerson et al. 2003; Prentice 1986). Perhaps the closest pipe of the general kind is from a mound on the Shiloh battlefield site in Tennessee (Welch 2006).

Two varieties of bird effigy pipes occur on middle-period sites. On one of them, the bird effigy is limited to a depiction of only the head, created by modeling and incising the bowl. In most cases, the depiction is of a bird of prey. This variety occurs mainly in the Piedmont province at Etowah and at two sites on the upper Oconee River.

The second bird effigy type features the full form of a bird, with the head projecting above the level of the pipe bowl rim. The birds depicted on this variety are owls. The type is rare (n=3), and isolated finds extend from the upper Tennessee valley in the Ridge and Valley province to the Atlantic Coastal Plain on the lower Savannah River. The possibility that these few pipes were crafted by a single artisan will be discussed later.

*Late Mississippian Types (AD 1375-1600).* Late Mississippian pipe categories often have ranges equally as extensive as some of the Middle Mississippian types, although not over exactly the same areas. Several of the later types are obviously concentrated in the heart of the South Appalachian region, a broad zone that extends northwest to southeast from the lower part of the upper Tennessee River Valley to the fall lines of the Oconee and Ocmulgee rivers. Also, several have a highly localized distribution. Ultimately, the ranges of Late Mississippian styles inform on broad-scale population distributions and interactions between them.

One distinctive South Appalachian pipe category of the late period is the Monolithic Axe form. Variant styles of the type are known, but the primary area of occurrence is in the heart of the region, extending from the Ridge and Valley to the Upland Piedmont area (of Georgia); only rare examples appear at sites in the Atlantic Coastal Plain or elsewhere (Figure 5.19). Within the core area, the type is especially common to the Ridge and Valley drainages.

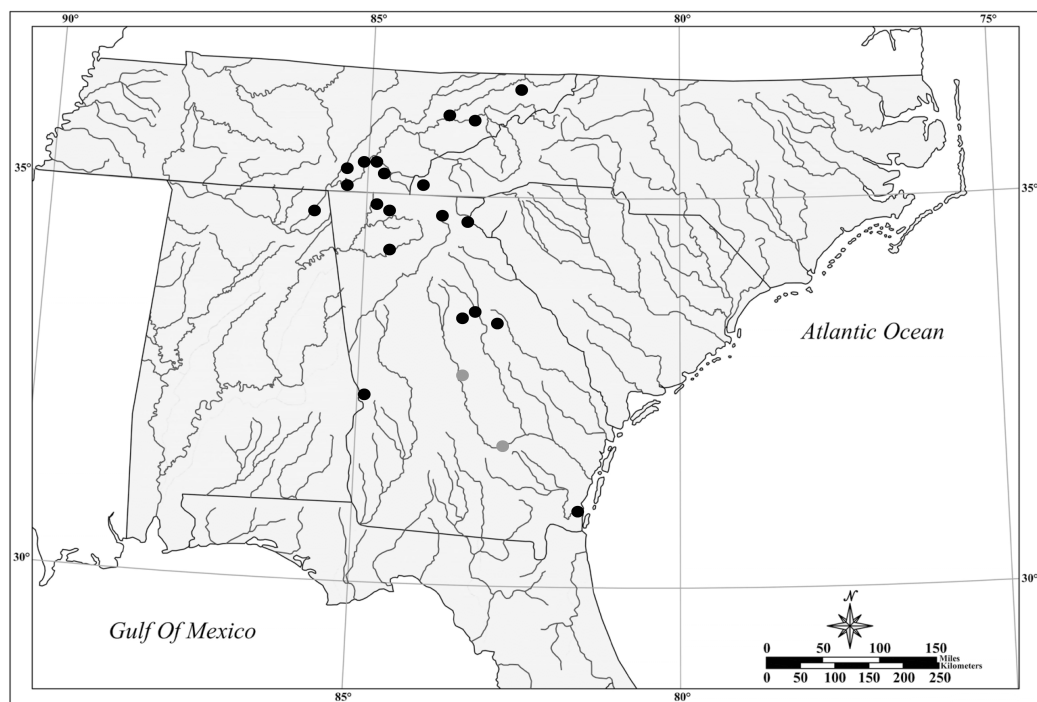


Figure 5.19 Distribution of Monolithic Axe pipes.

An uncommon and probably later-dating variant of the Monolithic Axe form that I refer to as the Monolithic Axe Trumpet has a range focused on the Piedmont and Atlantic Coastal Plain (Figure 5.20). Some examples are also known from the Ridge and Valley area.

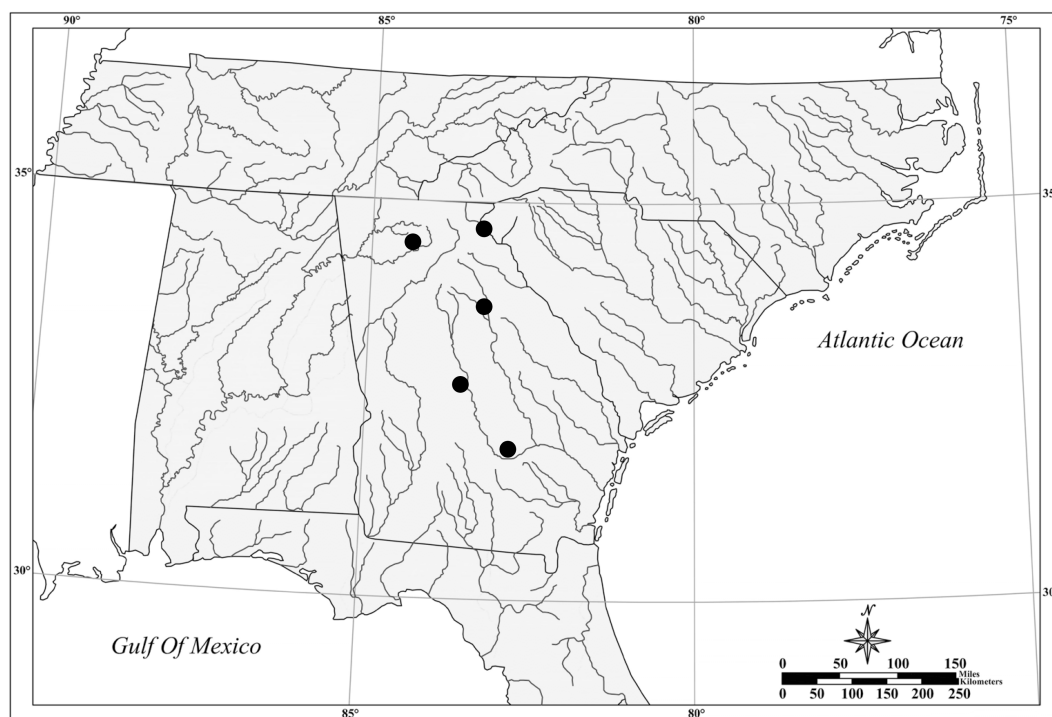


Figure 5.20 Distribution of Monolithic Axe, Trumpet pipes.

Another Late Mississippian type is the Hummingbird form. It occurs with some frequency on sites in the (lower) upper Tennessee, upper Chattahoochee, Coosa, Oconee, and Ocmulgee river valleys but rarely in the Coastal Plain (Figure 5.21). A variant of the type, known as the Hummingbird Panel, has a range that appears to be limited to the Coosa River basin.

The range of Trumpet pipes is somewhat broader, as they also occur with regularity at sites in the Atlantic Coastal Plain and in the Upper Tennessee valley (Figure 5.22). However they are either absent or extremely rare in the middle-lower

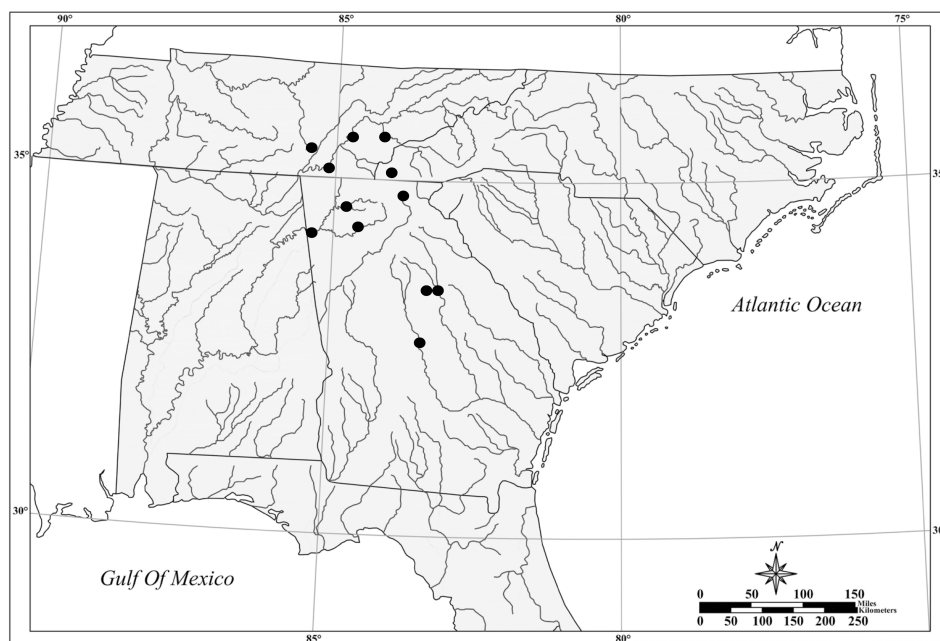


Figure 5.21 Distribution of Hummingbird pipes.

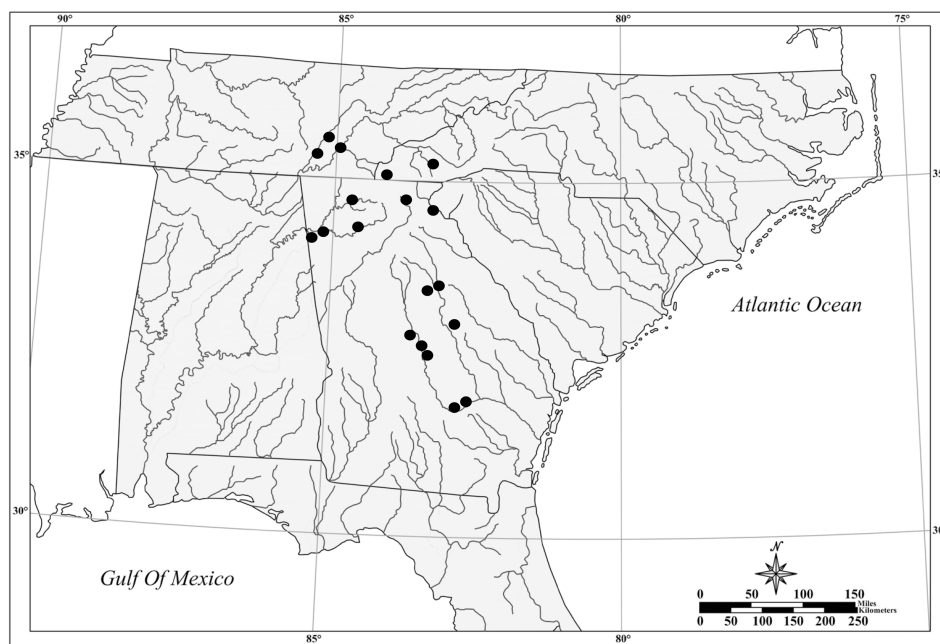


Figure 5.22 Distribution of Trumpet pipes.

Chattahoochee Valley, the Savannah valley and points north, and on the Coast. The fact of late prehistoric population declines in, if not outright abandonments of, those river valleys is an obvious factor that would create the observed spatial patterns (Anderson 1994; Blitz and Lorenz 2006).

Certain of the Trumpet type styles appear to have a more restricted range. A good example is the style with large, punctate nodes resembling discoidal, chunky stones; it is rare and occurs mainly in the Tennessee River Valley (see Figure 5.7-b). The same distribution is true of the style with extremely large loops. The undecorated, simple variant of Trumpet pipes is distributed fairly widely but only outside of the Coastal Plain. Styles with unusually long beak-like projections appear to be unique to the lower Ocmulgee River in the Coastal Plain. The observation, then, is that unique variants of the Trumpet type were circulated within limited portions of the overall range of the type.

In short, the range of the most common late category, the Trumpet type, exhibits a degree of contraction supportive of suggestions by others that entire sections of river basins were abandoned after the influence of particular chiefdoms waned (Hally 1994). This shift was one effect of the systemic cultural reorientation that followed about AD 1350, resulting in a concentration of Trumpet pipes around an axis that runs from the Tennessee River valley southeastward toward the south Atlantic coast. Archaeologically, the Trumpet variants, usually representative of Lamar components, are essentially absent in the Savannah and lower Chattahoochee valleys that flank the axis of distribution at a time these valleys are either depopulated or more weakly connected.

Other unique Late Mississippian types also have restricted ranges, usually outside the core South Appalachian area. One example is the Short Trumpet category that is

almost entirely limited in occurrence to sites in the Coosa-upper Tennessee basins of the Ridge and Valley and Upland Piedmont (Figure 5.23). This type's distribution appears to conform closely with that of the historically documented Native province of Coosa.

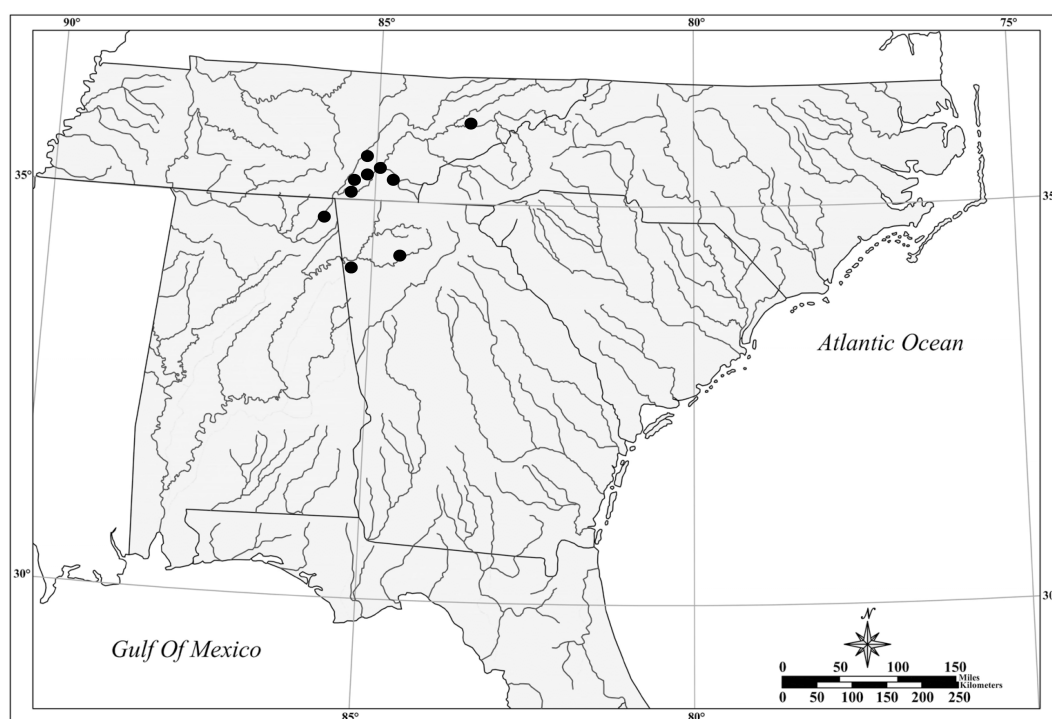


Figure 5.23 Distribution of Short Trumpet pipes.

The small Stemless category also appears to be unique to Late Mississippian sites in the Coosa-upper Tennessee drainages (Figure 5.24). Most examples are from eastern Tennessee, but they appear as far south as Etowah.

One of the most spatially-restricted of the late varieties is the Citico Human Head type (Figure 5.25). It is strongly centered on the Coastal zone of present-day Georgia, with only rare occurrences elsewhere in the Atlantic Coastal Plain. Another, probably

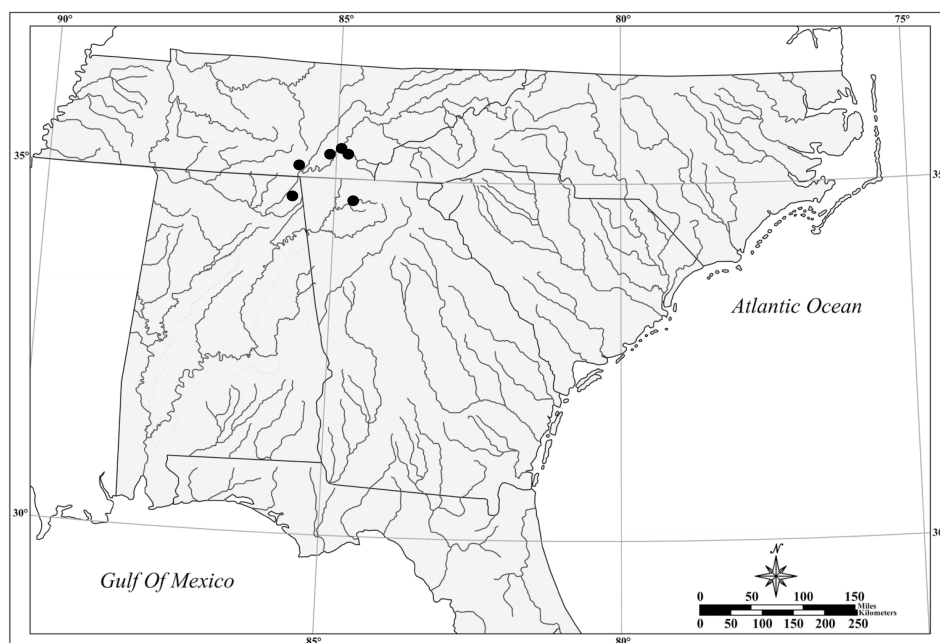


Figure 5.24 Distribution of Stemless pipes.

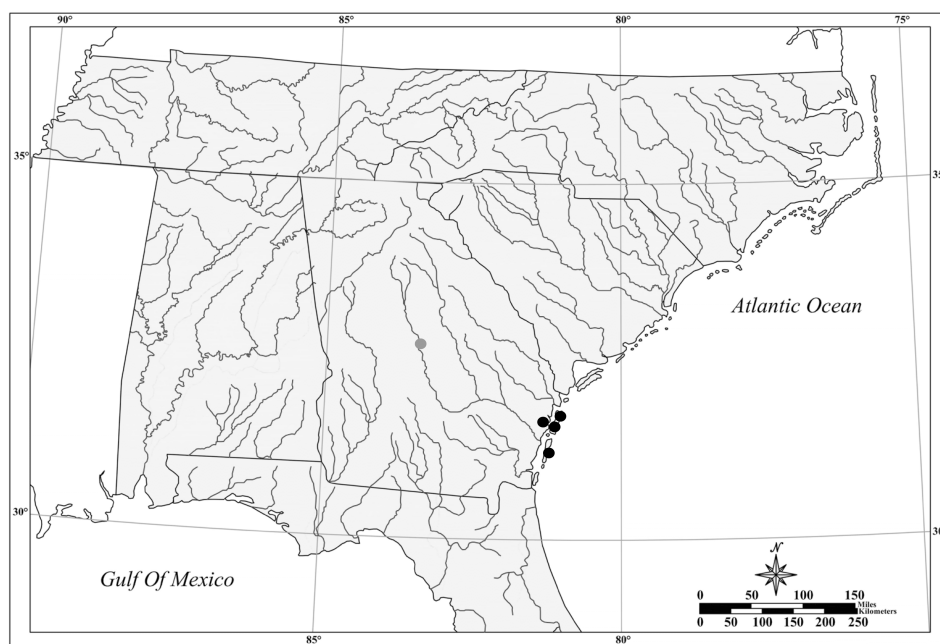


Figure 5.25 Distribution of Citico pipes.

related variety of the Human Head Effigy form occurs on Late Mississippian sites but seemingly exclusively at Coastal Plain and Coastal sites.

*Review of Distributional Patterns.* Through the foregoing discussion I have argued that specific pipe categories and styles have discernable temporal and spatial parameters. Ultimately those associations are a point of departure for exploring the manner by which tobacco ritual evolved and was practiced at both a regional and a local level. Such deeper implications are a topic for later discussion, but it is useful to foreshadow it here with a review of the more obvious patterns.

First, looking more broadly at the spatial distribution of pipe types irrespective of temporal limits, some shared drainage- and physiographic-specific patterns are noted (Table 5.1). The most widespread pipe categories in the region are Footed, Noded, and Monolithic Axe, representing the early, middle, and late periods, respectively. Categories tied most strongly to populations in the Ridge and Valley and Upland Piedmont areas are Simple Long, Monolithic Axe, and Short Trumpet. The Simple Long and Wrapped categories are confined mainly to the Gulf Coastal Plain, Ridge and Valley, and Upland Piedmont. Strong ties to the Coosa-upper Tennessee river basins are observed among the Simple Long, Short Trumpet, Stemless, and Hummingbird Panel types. Effigy Human Head types of any style are limited mainly to the Coastal Plain and Coast. The Jointed, Noded, Effigy, Square, Stemless, and Hummingbird Panel types are strongly tied to the Coosa River basin specifically. Categories with a northerly orientation are the Obtuse and Weak Noded forms; the Savannah River appears to mark the southerly range of those types.



Period	Category	Plateau	Ridge & Valley	Co Plain-Gulf	Blue Ridge	Piedmt - Upland	Piedmt - Middle	Co Plain-Atlantic	Coast
Undet	Effigy	0	7	4	2	8	0	0	1
Undet	Footed	0	0	1	0	0	0	0	0
Undet	Large	0	0	4	1	1	3	9	0
Undet	Platform	0	0	1	0	5	0	0	0
Undet	Simp Elbow	0	18	1	6	12	2	2	2
Undet	Simple	0	0	0	0	2	0	0	0
Early	Footed	1	14	9	2	7	2	2	0
Early	Simp, Long	0	11	3	0	33	1	0	0
Early	Trumpet-Early	0	0	0	2	0	0	0	0
Middle	Effigy-Mid	2	3	1	0	13	4	4	0
Middle	Footed-Mid	0	1	0	0	1	0	1	0
Middle	Jointed	1	3	0	3	20	7	14	0
Middle	Noded	0	2	6	8	16	4	8	1
Middle	Obtuse	0	1	0	3	9	5	6	1
Middle	Simp Elbow-Mid	0	7	1	7	3	2	3	11
Middle	Square	0	0	0	0	4	0	1	0
Middle	Tube	0	0	0	0	4	0	0	0
Middle	Wrapped	0	5	42	0	11	0	0	0
Late	Bird/Egg	0	6	0	2	8	2	0	0
Late	Effigy-Late	0	1	1	0	3	0	3	4
Late	Mono Axe	0	24	1	5	21	3	0	1
Late	Trump, Short	0	19	0	1	3	0	0	0
Late	Trumpet	0	17	1	21	20	16	113	1
Historic	Disc	0	0	0	1	0	0	0	0
Historic	Stemless	0	9	0	1	1	0	0	0

Table 5.1 Correlation of pipe categories with drainage basins and physiographic provinces.

Equally compelling linkages are observed between pipe types and archaeologically-defined phases. Referring to the regional context provided in Chapter 3, the concept of archaeological phases has traditionally been applied in the Southeast to define, with varying degrees of precision, socially discrete units. Sometimes explicitly and almost always implicitly, a phase will be equated with a relatively discrete social unit that viably functioned for a period usually ranging 50-100 years. More often than not,

each phase also corresponds with a particular section of a drainage basin, a fact that will tie into the previous section.

Appendix D shows correlations, as I am able to discern them, between particular phases and pipe categories or styles. The tabulated information effectively provides, on one hand, a kind of occurrence seriation that portrays the time-sensitive trend among types. Because the phases are also delimited geographically, the table connects types to places that, theoretically, had sociopolitical relevance. Here I will draw attention to some of the clearest connections.

Early Mississippian pipe categories are strongly associated with phases defined in the western sections of the region with one exception, Macon Plateau. Most Middle Mississippian categories exhibit a consistent tie with a series of phases representative of the Savannah archaeological culture (Hally and Rudolph 1995). Savannah-culture phases, which are rather widespread, are uniformly linked with the expansive emergence of the Etowah site (King 2003, 2007). The occasional occurrence of Savannah-associated pipe categories with non-Savannah phases is believed to attest to the regional reach of Etowah's influence. Other middle-period phases, particularly in the northern areas, are more strongly associated with other types. Late Mississippian pipe categories are more variable in their distributional patterns, with some having a relatively broad dispersal while others are highly localized. On one hand, the broader patterns are suggestive of persistent relationships that had their origins decades, if not centuries, before, but several categories that are unique to one or only a few phases seem to indicate that a more balkanized pattern that dominated at times. The later pattern also diverges from that of the middle period due to apparent abandonment of certain segments of drainage basins.

The latest-dating phases, those falling within the protohistoric era or the late prehistoric interval immediately preceding it (AD 1450-1600), have been increasingly and specifically identified with individual sociopolitical provinces encountered and described by early Europeans like Soto, Pardo, and Luna (Hudson 1997; Hudson et al. 1984, 1985; Smith 2000; Hally 2008). Each province is believed to have functioned as a chiefdom, some of them, like Coosa, as extensive paramount chiefdoms. In view of these phase-to-province arguments, I will describe the apparent correlations between them and different pipe categories or styles.

The summary provided in Table 5.2 serves to reinforce the comments made earlier about the phase associations during the latest periods. Pipe styles under the Trumpet category tend to be widespread and have common occurrence in many phase areas. Other categories, like Stemless, Short Trumpet, and Citico, all have more exclusive ties to specific phases.

For the purpose of further reinforcement of the spatial relations of pipes, the symmetric CA plot in Figure 5.26 is derived from Table 5.1, displaying the frequency of physiographic province variables against different pipe style categories. An obvious, relatively linear distribution of points on a diagonal trend indicates that particular style categories have stronger affiliations with some provinces than others. (The referenced diagonal trend generally represents a northwest-southeast oriented axis through the study area; as it happens, this puts the approximate location of Etowah near the intersection of the axes.) Along the diagonal, Short Trumpet, Stemless, and Monolithic Axe pipes are associated most strongly with the Ridge and Valley province, while at the other end of the array, Trumpet category pipes are linked most strongly with the Atlantic Coastal Plain. As might be predicted, categories like Noded and Jointed are concentrated in the

Phys. Prov.	Cult. Province	Mono Axe	Hum' bird	Stem- less	Trump, Short	Eff, Snake	Trump, Grid	Trump	Trump, Mono Axe	Trump, Noded	Trump, Incis	Trump, Dent	Eff, Hum Head	Eff, Cítico
Co Plain- Atl	Ichisi						2	3						
Co Plain- Atl	Utinahica						22	73		4		11		
Coast	Guale											1		7
Piedmont	Coosa- Itaba	19		1	3	1	12		2	2	2		1	
Piedmont	Ocute							4		2	1			
Piedmont	Talisi						1							
Ridg & Valley	Coosa		1	1	2		2	1						
Ridg & Valley	Coosa- Napochies			9	15		4	6		1		1	1	
Ridg & Valley	Coosa- Ulibahali		1		2			2						

Table 5.2 Correlation of pipe categories with archaeological provinces.

central area, where Etowah would be found. Isolation of Wrapped pipes in the lower right quadrant of the plot corroborates the sense that the Gulf Coastal Plain, and specifically the lower Chattahoochee Valley, is exceptional relative to the larger study area.

In the Figure 5.26 plot, the first CA dimension accounts for about 43 % of the inertia, and the second dimension accounts for about 26 %, which in sum explain 69 % of the inertia in the data. Relative isolation of the Atlantic Coastal Plain-Trumpet category pipes and the Gulf Coastal Plain-Wrapped pipes on the plot is explained by the fact that, respectively, these regions and categories are all ranked at 95 % or greater quality. With regard to row (pipe style category) contributions in the first dimension, the Wrapped

pipes explain most (48%) of the plotted spatial relationship, followed by the Trumpet pipes at 41 %. The second dimension pattern is also accounted for mainly by the

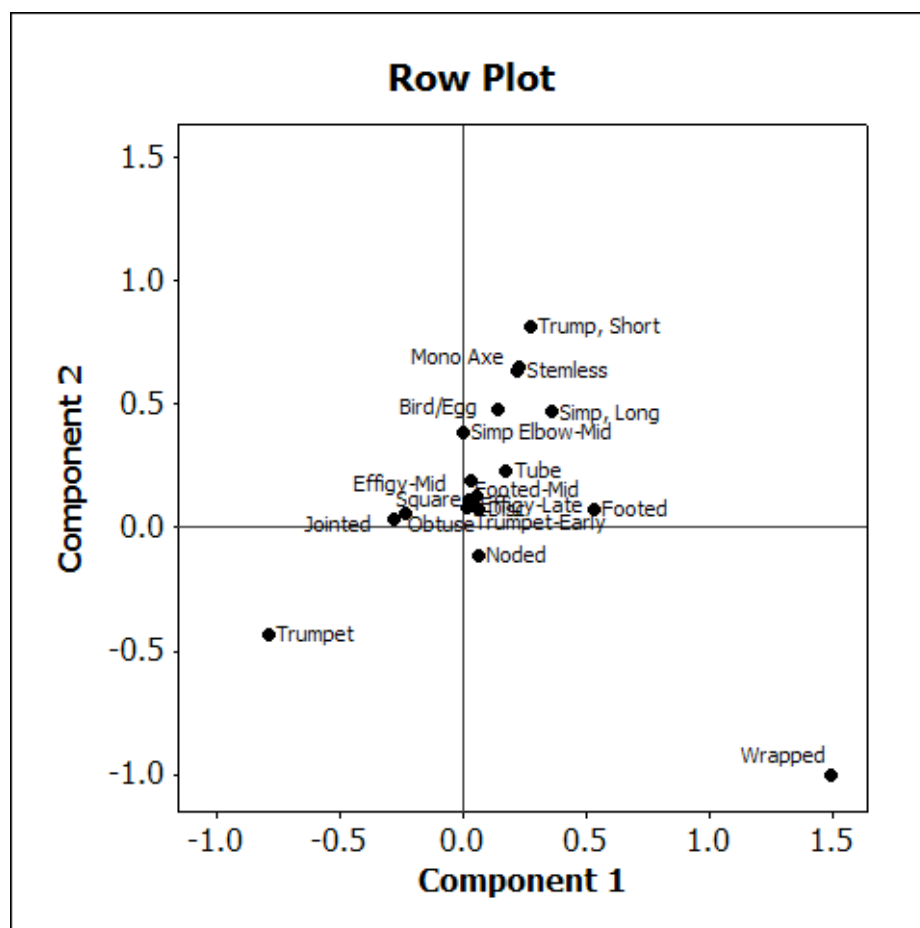


Figure 5.26. Correspondence analysis, row plot: pipe categories by physiographic provinces.

Wrapped (36 %) and Trumpet (20 %) categories. Looking at column (physiographic province) contributions, the first dimension is strongly influenced by the Atlantic Coastal Plain (71 %) and Gulf Coastal Plain (69 %). In the second dimension, the Ridge and Valley (48 %), Gulf Coastal Plain (31 %), and Atlantic Coastal Plain (26 %) are the prominent factors.

## Discussion of Specific, Temporally Sensitive Attributes

Certain attributes of South Appalachian smoking pipes display patterned change over time that reinforces my proposed scheme for relatively dating different style categories. The original process of defining categories and types treated the objects as integrated wholes with the goal of documenting regular co-occurrences of certain bowl and stem features. Over and over again, specific combinations of attributes recurred on individual artifacts to the point of predictability. My purpose here is to describe the nature of those patterned changes. One advantage of doing so is establishment of criteria that allow temporal and cultural assignments for fragmentary pipes.

*Combined Attribute Analysis.* The validity of the pipe style categories that have been described (see also Appendix C) was assessed by application of both correspondence (CA) and cluster analysis. Such analyses are a useful heuristic basis for exploring relationships between independent variables.

The CA analyses were applied to a matrix of six pipe attributes that I estimated to be most sensitive to change over time (Table 5.3). Only unbroken pipes (n=170) were utilized for the analysis, because only they retain all of the elements of interest. However intact Stemless pipes were omitted, because they lack formal elements (i.e., stem attributes) common to the more prevalent, stemmed categories. The outcome of the CA analysis is portrayed by the plots in Figures 5.27-5.31. The first two figures present results with reference to Components (axes) 1 and 2, while the second two figures refer to Components 1 and 3. Note that Figures 5.27 and 5.29 plot symbols for both row and column variables but that column variable points have been omitted in Figures 5.28, 5.30, and 5.31 in order to better expose the row variable patterns.

**Bowl Form**

- |                        |  |
|------------------------|--|
| 1. Cylinder:           | Straight-sided; relatively uniform diameter top to bottom                |
| 2. Cone:               | Straight-sided; decreasing diameter top to bottom                        |
| 3. Urn:                | Excurvate sides; decreasing diameter top to bottom                       |
| 4. Square:             | Square form; flattened sides and sharp right-angled corners              |
| 5. Trumpet, Cone:      | Relatively large, straight-sided bowl; decreasing diameter top to bottom |
| 6. Trumpet, Elongated: | Relatively large bowl; length is greater than width                      |
| 7. Effigy, Human:      | Bowl modeled in form of human figure                                     |

**Bowl Rim**

- |                        |   |
|------------------------|---|
| 1. Direct, Rounded:    | Continuous with wall of bowl; finished with simple, rounded rim   |
| 2. Direct, Squared:    | Continuous with wall of bowl; finished with simple, flattened rim   |
| 3. Thickened, Ring:    | Rounded ring encircles bowl exterior at or close below rim  |
| 4. Flared, Bevel:      | Relatively narrow, ledge-like rim extending perpendicular and outward from rim; finished with beveled lip |
| 5. Thickened, Band:    | Band encircles bowl exterior just below rim   |
| 6. Flared, Wide Ledge: | Relatively wide, ledge-like rim extending perpendicular and outward from rim                              |

**Stem Length**

- |                  |                  |
|------------------|------------------|
| 1. > Bowl Height | 3. < Bowl Height |
| 2. = Bowl Height | 4. Stemless      |

**Stem Bit**

- |                         |   |
|-------------------------|---|
| 1. Direct, Tapered:     | Outer surface continuous with stem surface but diameter decreases toward bit end  |
| 2. Direct:              | Outer surface continuous with stem surface but relatively uniform diameter toward bit end   |
| 3. Direct, Expanded:    | Outer surface continuous with stem surface but diameter increases toward bit end  |
| 4. Thickened, Ring:     | Encircling ring applied to surface of stem at bit end   |
| 5. Thickened, Expanded: | Encircling band applied to or formed in surface of stem at bit end that also increases in diameter toward bit end                     |
| 6. Direct, Square:      | Outer surface continuous with stem surface and relatively uniform diameter toward bit end but with flat sides and right-angle corners |
| 7. Thickened, Band:     | Encircling band applied to surface of stem at bit end   |
| 8. Stemless             |   |

**Bowl-Stem Intersection**

- |                       |   |
|-----------------------|---|
| 1. Simple:            | Stem and bowl merge relatively seamlessly at base of bowl |
| 2. Pedestal/Platform: | Bowl located between distal and proximal ends of stem     |
| 3. Direct:            | Stem attached to side of bowl above the base of the bowl  |
| 4. Stemless           |   |

**Bowl-Stem Angle**

1. Obtuse
2. Acute (equal to or less than 90 degrees)
3. Stemless

Table 5.3 Definitions of pipe attribute states.

In Figures 5.27-5.28, the distribution of points follows a generalized temporal trend, in which the estimated age of style categories decreases as the points descend along the vertical axis (Component 2) toward the axis intersection and likewise as they shift toward higher values along the horizontal (Component 1) axis. Described another way, earlier pipe styles tend to correspond to higher positive values on the vertical axis and with lower positive values along the horizontal axis. Symbols for Middle

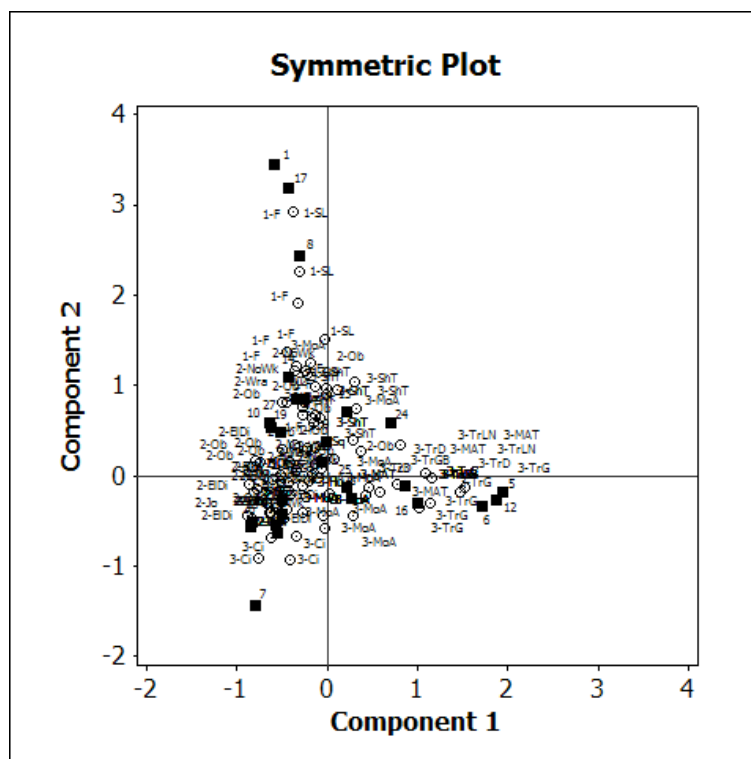


Figure 5.27. Correspondence analysis, symmetric plot, Components 1 and 2: pipe attributes.



Mississippian pipes congregate around the axis intersection, while the latest-dating pipes fall lowest on the vertical axis and higher on the horizontal axis. The plot effectively clusters pipes according to the categories that, based on other lines of evidence, I have estimated to be representative of the Middle and Late Mississippian periods and of the post-contact period.

Inertia values in an initial analysis indicated that the third component of the results was also a prominent factor accounting for some of their aspects. Examination of the quantified results indicates that it primarily distinguishes, or is influenced by, attributes of the unique Square form. Other patterns embedded in the same plots (Figures 5.29-5.30) are difficult to discern, because the scales of the axes compensate for isolation of the Square category pipes along the Component 3 dimension.

In another run of the CA analysis, the Square category was omitted, just as the equally anomalous Stemless form was also omitted in earlier analyses, in an attempt to better discern spatial relationships of more “typical” pipe forms in the plotted space. A plot of those results is provided by Figure 5.31, and in it, four observations bear specific mention. First, the earlier pipe styles (i.e., Simple Long and Footed) consistently occur at the upper end of the Component 2 axis. Also, Middle Mississippian pipes congregate around the same axis but closer to the axis intersection and within two clusters of points. The first of those clusters, nearer the midpoint of the axis, is comprised mainly of Obtuse and Weak Noded pipes dating from the middle period. Obtuse and Weak Noded forms are strongly associated with the northern-northeastern section of the study area. (An assortment of anomalous later-dating pipes also falls in this cluster.) The second cluster of middle-period pipes is centered just above the axis intersection. It contains pipe categories like Jointed and Noded that are more closely associated with Etowah and other Savannah culture sites. Finally, Late Mississippian pipes tend to be arrayed in a field of points that fairly closely follows the Component 1 axis. Along it, however, the Trumpet pipes are generally correlated with the higher values.

The CA results can also be described according to values for inertia and quality. In the case of Figures 5.27-5.30, the first component (axis) accounts for about 14 % of the inertia, the second component accounts for about 11 %, and the third for about 10 %. Together they explain 36 % of the total inertia in the data. Regarding row (pipe style category) data, particular specimens representative of certain categories contribute considerably to the observed trends. For Component 1, there are no inordinate contributions from particular pipes or categories, but for Component 2, one Footed and one Simple Long pipe each contribute 12 %. For Component 3, there are three Square pipes that each contribute 30 %. Looking at column (morphological attribute)

contributions, the first component is most influenced by the thickened band rim form (19 %), the second component by the direct, rounded rim form (17 %) and the direct, tapered stem bit form (14 %), and the third component by the square bowl form (41 %) and the direct, square bit form (41%).

In the case of Figure 5.31, which omits both the Square and the Stemless categories, the first component (axis) in the plot accounts for about 16 % of the inertia, and the second component accounts for about 13 %. Each of the other axes accounts for no more than 8 % of the inertia. Regarding row (pipe style category) data, particular specimens representative of certain categories contribute a considerable amount to the observed trends. For Component (axis) 1, there are no inordinate contributions from particular pipes or categories, although the effect of different varieties of Trumpet pipes

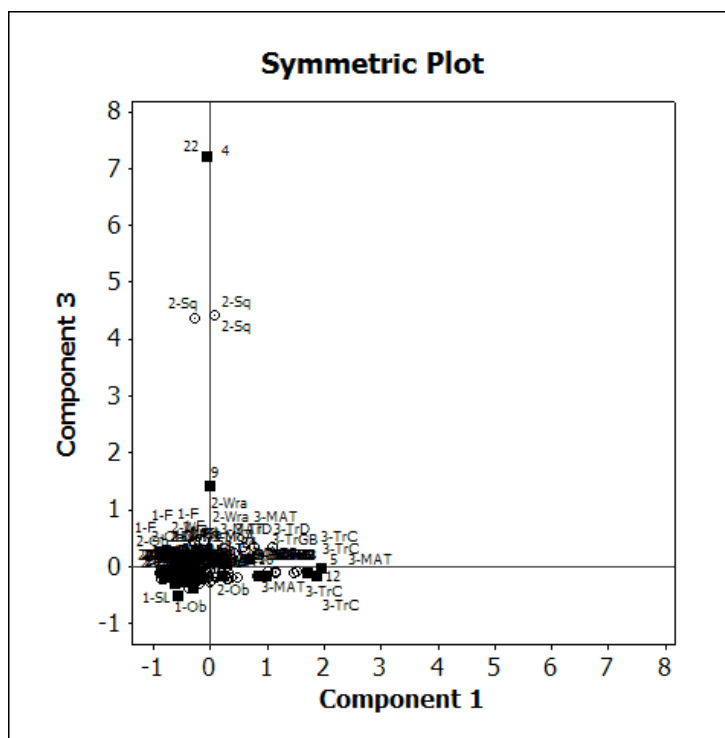


Figure 5.29. Correspondence analysis, symmetric plot, Components 1 and 3: pipe attributes.



is relatively strong (2 – 3 %). For Component 2, one Footed and one Simple Long pipe each contribute 12 %. Looking at column (morphological attribute) contributions, the first component is most influenced by the thickened band rim form (18 %) and the second component by the direct, rounded rim form (16 %) and the direct, tapered stem bit form (14 %).

*Stem Form.* One of the most obvious patterns is the sequence of changes in stem bit form, meaning the shape given to the terminal end of the pipe stem closest to the smoker. The general progression through the early, middle, and late periods is a change in the dominant bit form from simple to expanded to thickened, respectively (Table 5.4)(Figure 5.32). The simple form has two variations that are temporally sensitive. Dominant on the earliest category, the Long Simple type, is a tapered bit with no enhancement. Pipes with this bit form could not accommodate a separate stem and were obviously used as self pipes. The other simple form, which may also be described as direct, occurs on shortened stems with greatly enlarged bores at the terminal end. This

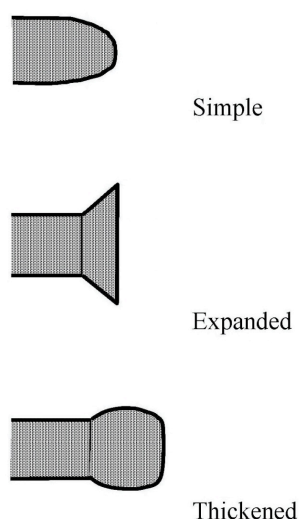


Figure 5.32 Pipe bit form categories (general temporal progression is from top to bottom).

<b>Period</b>	<b>Type</b>	<b>Simple</b>	<b>Ring</b>	<b>Expand</b>	<b>Thicken</b>	<b>Stemless</b>
Undet	Effigy	0	1	0	0	0
Undet	Large	6	1	0	0	0
Undet	Simp Elbow	3	4	8	10	0
Early	Footed	0	0	0	0	0
Early	Simp, Long	19	0	0	0	0
Middle	Effigy-Mid	1	0	3	0	0
Middle	Footed-Mid	0	1	2	0	0
Middle	Jointed	2	0	26	3	0
Middle	Noded	1	4	17	5	0
Middle	Obtuse	7	1	2	1	0
Middle	Simp Elbow-Mid	9	1	7	12	0
Middle	Square	3	0	0	0	0
Middle	Wrapped	1	0	19	1	0
Late	Bird/Egg	1	0	3	8	0
Late	Effigy-Late	4	0	0	4	0
Late	Mono Axe	1	3	2	26	0
Late	Trump, Short	0	0	2	16	0
Late	Trumpet	0	0	6	44	0
Historic	Stemless	0	0	0	0	12

Table 5.4 Summary of stem form attributes.

form marks the initial adaptation for insertion of a separate stem. The Footed pipes are the first category to feature such a compound design.

The expanded bit form is a common feature of Middle Mississippian types, such as Noded, Jointed, Wrapped, and some Effigy forms. It represents a functional refinement for compound pipes designed with a separate stempiece. The funnel-shaped expansion of the bit end probably served to reinforce it against stresses introduced by insertion of a separate stempiece. It also potentially provided a raised ring that could facilitate the binding together of the two pieces. Another type of reinforcing bit treatment on middle-period pipes is a simple, narrow ring, sometimes executed as a series of adjacent rings.

Bit end reinforcements persist on Late Mississippian pipes but instead take the form of thickened bands having varying degrees of definition. Thickened bits are especially characteristic of Trumpet, Monolithic Axe, and Hummingbird pipes. Toward the end of this period and extending into the protohistoric era, a series of Stemless pipes becomes common in one area. They, too, were designed to accommodate a separate stem.

Measurements of bit diameter reflect the sequence of formal changes just described (Appendix E)(Figure 5.33). The observed trend progresses from small-diameter bits on the early self pipes to much larger diameter bits for the heavier Footed styles, a reduction in diameters for the expanded, middle-period types, and finally to a decrease in the range of diameters on thickened bit forms that dominate the late period. I offer that

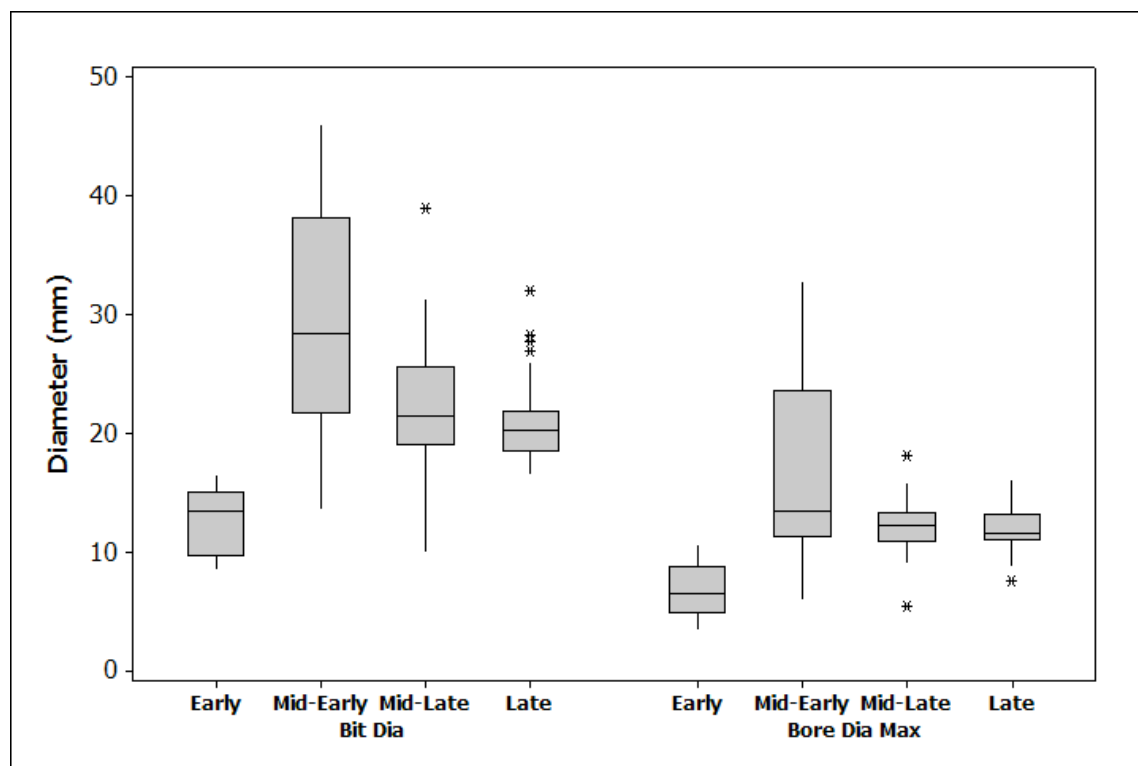


Figure 5.33. Boxplot: pipe stem bit and maximum bore diameters by period.

this trend represents an evolution of pipe design marked by the initial break with the Late Woodland tradition of self pipes followed with the initial introduction of the compound design and finally, after a period of experimentation, adoption of a proven compound pipe construction that rewarded bit designs within a fairly narrow range of tolerances.

Maximum and minimum stem bore sizes were measured for each sufficiently intact stem, and the averages for both measurements are provided in Appendix E. Stem bore diameters are not static, but the pattern of change they exhibit is different from that described for several qualitative attributes. Maximum (bit end) bore diameters sharply increase in size following the early period, which is dominated by the Long Simple form (see Figure 5.33). In the ensuing pattern, median bore sizes remain comparable but demonstrate a marked reduction in variability. Note in particular the very large interquartile range of the Footed pipes relative to the much narrower ranges for other middle-period pipes and for late-period pipes. For minimum (bowl end) bore diameters, the pattern is from larger bore diameters in the more massive early style pipes, like the Footed and large elbow forms, to consistently smaller bore diameters after a point early in the middle period, which occurs largely independently of pipe size or other factors. Bore diameter stability among middle- and late-period forms is likely indicative of functional parameters that enhance performance of the *calumet*-style pipes that prevailed from the middle period onward. To summarize, pipe bore diameters in the South Appalachian region progress from relatively small at the earliest period, for a brief time transition to much larger diameters, and eventually reach a consistent size after about AD 1250.

South Appalachian pipe-makers appear to have embraced and refined the modular *calumet*-style design, consisting of separate bowl and stem parts, more so than others in



the Mississippian realm and equally as thoroughly as any other group in North America. There is, as noted, a solid functional explanation for the forms of the pipe bits themselves, but it is also important to appreciate how the practical aspects of the design were creatively incorporated into the symbolic features of the pipes. This latter topic will be explored more fully in the following chapter.

In Figure 5.34, a symmetric CA plot is generated from tabulation of stem form variables relative to estimated time period (Table 5.4). In this case, plotted points tend to be arrayed with a diagonal trend, again conforming to a generalized temporal progression. What I estimated to be the stem form most characteristic of early pipes (simple) is squarely located within the upper right quadrant, while those most typical of the late prehistoric period (thickened) fall within the lower left quadrant. The expanded

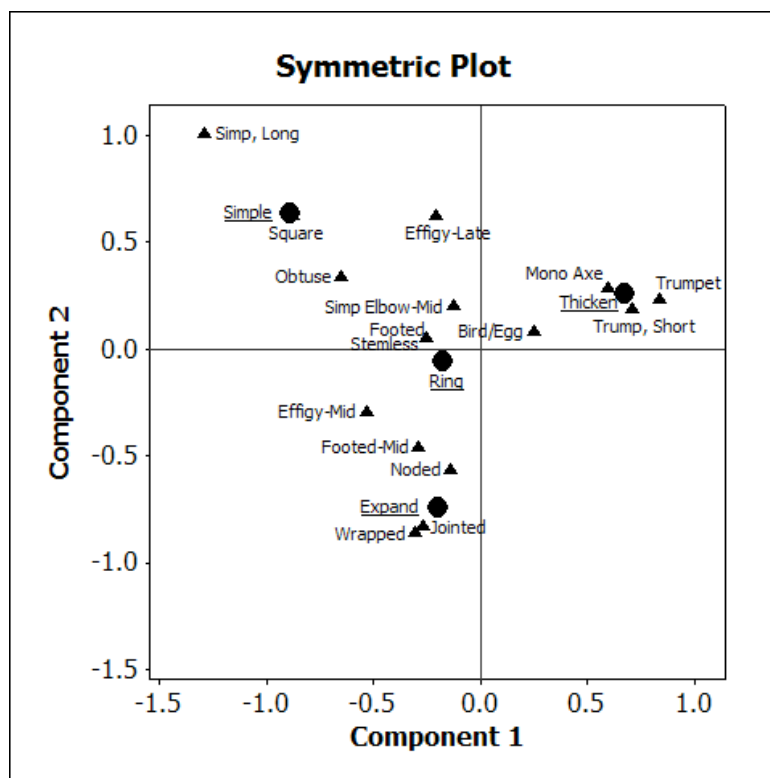


Figure 5.34. Correspondence analysis, symmetric plot: stem forms by pipe categories.

and ringed rim forms estimated to be most characteristic of the middle period cluster around the intersection of the two component axes. Isolated in the lower right quadrant are the Stemless pipes.

In the CA plot in Figure 5.34, the first dimension accounts for about 37 % of the inertia, and the second dimension accounts for about 31 %, summed to explain 68 % of the inertia in the data. Relative isolation on the plot of the Thickened stem form together with the Trumpet and Short Trumpet types and the Stemless form with pipes of the same name, is explained by the fact that, respectively, these stem forms and style categories are all ranked at 90 % or greater quality. Regarding row (pipe style category) contributions, in Dimension 1 the Stemless pipes explain most (57%) of the plotted spatial relationship, followed by the Trumpet pipes at 17 %. The second dimension pattern is also accounted for mainly by the Stemless (34 %), Simple Long (19 %), and Trumpet (15 %) categories. Looking at column (stem form) contributions, the first dimension is strongly influenced by the Stemless (59 %) and Thickened (30 %) forms. For Dimension 2, the Stemless (32 %) and Simple (31 %) forms are the prominent factors. (I am cognizant of the potential flaws in this CA presentation related to the question of whether the stem form attributes are sufficiently independent relative to pipe style categories. However the analysis, at very least, serves to amplify points that have emerged through the other analyses discussed in earlier sections. The same qualifications apply to the CA analysis of rim forms that follows.)

*Rim Form.* The form of pipe bowl rims also underwent a series of changes across the early, middle, and late periods. Respectively, the progression of change was from direct to ledge-shaped to thickened (Table 5.5). Beginning with adoption of the compound, *calumet*-style, an interesting kind of symmetry emerges between the rim and

Period	Type	Direct	Ring	Ledge	Thickened
Undet	Large	6	1	1	0
Undet	Simp Elbow	2	5	17	0
Early	Footed	21	0	0	0
Early	Simp, Long	5	0	4	0
Middle	Effigy-Mid	0	1	5	0
Middle	Footed-Mid	1	0	4	0
Middle	Jointed	0	4	37	0
Middle	Noded	4	3	46	0
Middle	Obtuse	8	9	7	2
Middle	Simp Elbow-Mid	0	0	69	0
Middle	Square	4	0	0	0
Middle	Wrapped	7	0	9	0
Late	Bird/Egg	0	0	24	0
Late	Effigy-Late	0	0	5	0
Late	Effigy-Late	0	0	14	0
Late	Mono Axe	1	2	39	0
Late	Trump, Short	0	0	58	0
Late	Trumpet	4	0	6	102
Historic	Stemless	8	0	3	0

Table 5.5 Summary of rim form attributes (frequencies).

bit forms of the newly proportional bowls and stems.

Earlier types, such as Simple Long and Footed pipes, were most often made with unelaborated, direct rims, variably oriented to be straight, slightly everted, or slightly inverted. A minority treatment features a simple ring, and in such cases, the bit end of the stem is matched with the same kind of reinforcement.

Middle Mississippian types characteristically have flared or expanded ledge-like rims that may be finished with beveled or squared lips. The ledge form conceivably offered some functional advantage, but it was also probably added to enhance the ceramic vessel-like appearance of the pipe bowls. I hasten to add that the vessel-form association of pipe bowls was not unique to the middle period. However jar-shaped vessels with well-defined shoulders, constricted necks, and everted rims became more prevalent in the

region after about AD 1200. In fact, small loop handles were sometimes added to Middle Mississippian pipes to further make the symbolic link between pipes and ceramic vessels, even occasionally on some Footed types. Incidentally, the direct rims of the earlier-style pipes might be reflective of the simpler vessel forms common to that period.

Some of the variation observed among middle-period pipe categories is attributed to cultural influences tied with sub-regional traditions. For example, on Obtuse and Weak Noded pipes of the period, the direct or ringed rim styles persist strongly. These pipe types have a strong northeastward geographical affinity, and I argue that this rim form tendency is the effect of a cultural tradition that extended southward from the Middle Atlantic, where direct rim forms were favored.

Some pipes diagnostic of the Late Mississippian period maintain the ledge-shaped rim form, namely the Monolithic Axe and Hummingbird categories. Because these types appear to be most prevalent during the first part of the period, the persistence of the form is believed to represent simple continuity of the earlier Middle Mississippian tradition, although their stem bit forms had changed from expanded to thickened.

The dominant pipe bowl rim form changed suddenly in the latter part of the late period to feature thickened rims. This form usually consists of a raised but otherwise simple band just below the lip and is strongly linked with the Trumpet-style pipes that become prevalent in large areas of the region. Short Trumpet pipes of the same age, which are unique to the northwestern section of the study region, maintain the ledge-shaped rim form. Indeed, the width of the ledges on many of these pipes is relatively extreme.

Figure 5.35 displays a symmetric plot of CA results based on Table 5.5 that tabulates the variables of rim form against pipe style categories. The plot sorts most of the points in a vertical linear array along Component 1. Closely following this dimensional axis, the direct, ringed, and ledge rim forms are arranged, respectively, from low to high. Very generally speaking, this order correlates with a temporal progression from earlier to later. All of the early style pipes fall below the intersection of the axes, and all of the late style pipes are plotted above it. Middle-period styles swarm around the intersection. As would be expected, the separation of points is not a perfect correlation of rim form with temporal period. The reappearance of direct rims on Stemless pipes of the post-contact era situates them well below the axis intersection. Also, the persistence of ledge rims into the early part of the late period explains the conflation of middle- and late- period types around the intersection. The horizontal axis (Component 2) separates the dominant late-period rim style, the thickened form, from those most characteristic of the early and middle periods.

In the CA plot in Figure 5.35, the first dimension accounts for about 59 % of the inertia and the second dimension accounts for about 34 %, summed to explain 93 % of the inertia in the data. Regarding row (pipe style category) contributions, the Trumpet pipes explain most (77 %) of the plotted spatial relationship in Dimension 1. In the second dimension, the Footed category accounts for 46 % of the pattern. In terms of quality, all but three of the 17 rows are measured at 85 % or higher. Looking at column (rim form) contributions, the first dimension is strongly influenced by the Thickened (76 %) and Ledge (23 %) rims. For Dimension 2, the Direct (80 %) and Ledge (15 %) forms are the prominent factors. Among rim form variables, only the Ringed variant is rated at less than 99 % quality.

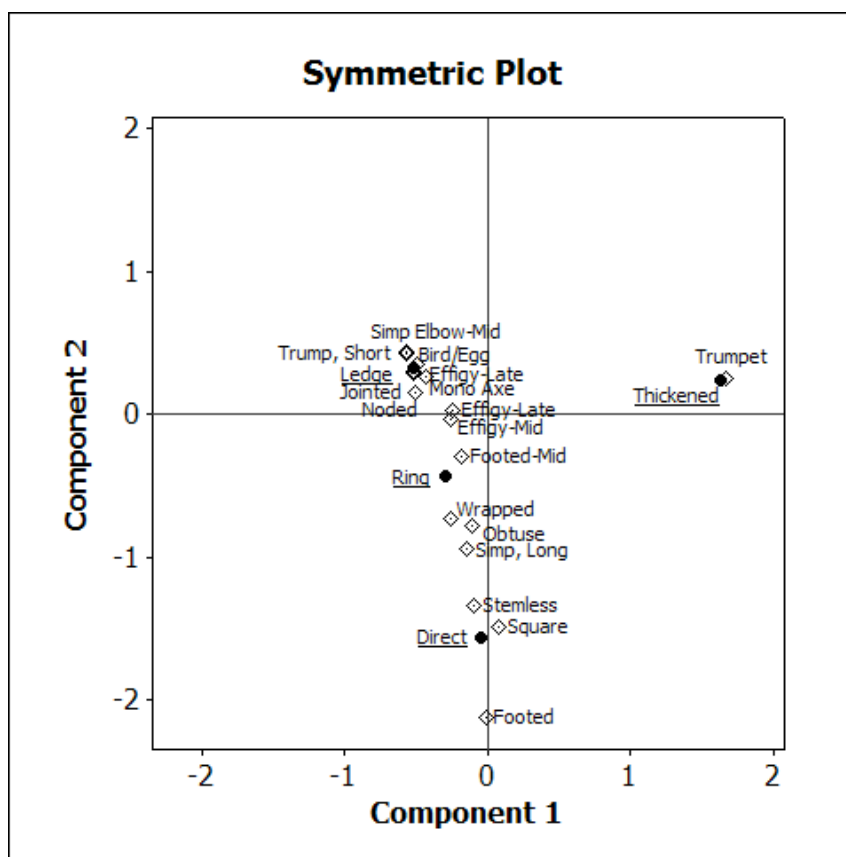


Figure 5.35. Correspondence analysis, symmetric plot: rim forms by pipe categories.

*Pipe Size.* Across periods, pipes of the region likewise exhibit patterned change in terms of overall size. The basic trend, from early to late, is for pipe sizes to shift from relatively large, to somewhat smaller, and finally to increased size again, sometimes dramatically (see Appendix E). As a simple measure, the changes are evident if maximum bowl diameters are tracked across time (Figure 5.36). In the boxplot, most obvious is the increase in size during the late period, but the relative reduction in size during the middle period is apparent as well.

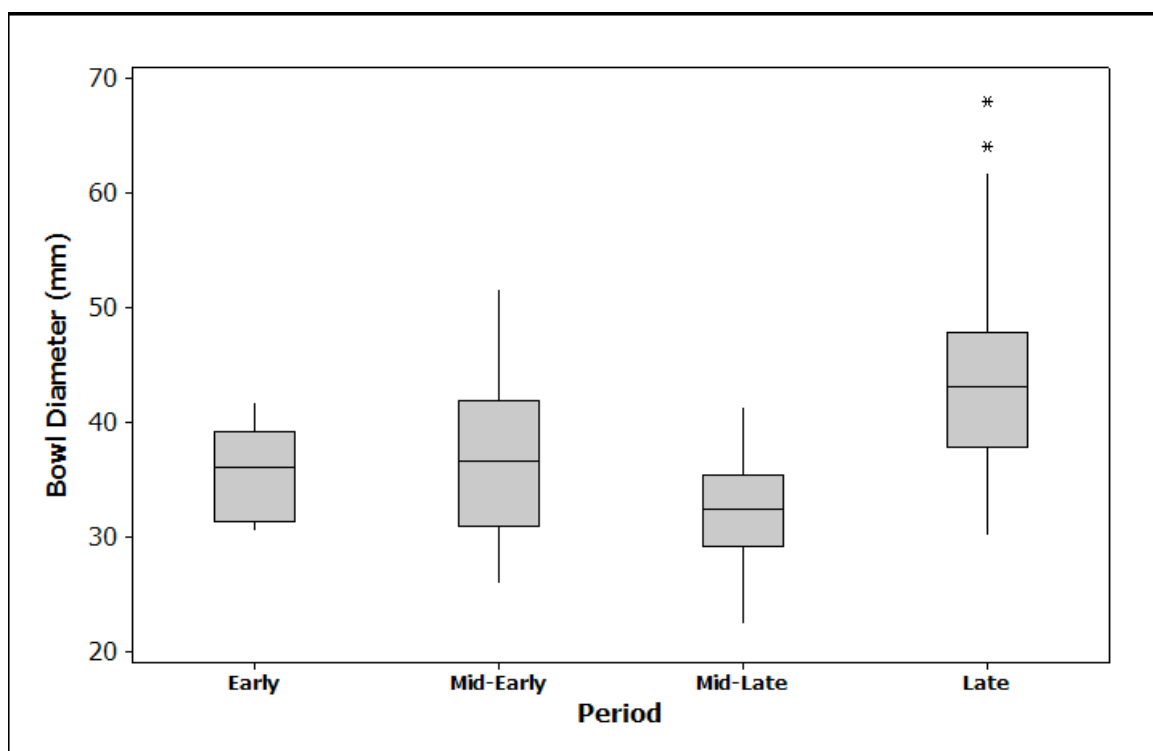


Figure 5.36. Boxplot: bowl diameter by period.

Included in Appendix E are two indices of size, one for overall mass (averaged maximum length + maximum height + maximum bowl diameter) and another for bowl mass (averaged maximum height + maximum bowl diameter). Early-period pipes have large measures of size, but the reasons vary across types. Simple Long pipes rank highly in terms of overall mass but less so in terms of bowl size. The difference, in their case, is the long stems diagnostic of the category. Footed types tend to be somewhat massive, having both large bowls and stems. As a result, they rank highly according to both indexes.

It is interesting to note that Middle Mississippian pipes, comparatively, are rather small in size according to any measure. Yet, as noted elsewhere, the reduction in size is accompanied by an increase in symbolic loading. On the whole, Late Mississippian pipes

become larger than those of the middle period. The most marked change in size is associated with the Trumpet category pipes that are as large as any known Mississippian type in the region. A point to be discussed at length in the next chapter is how the large Trumpet pipes were also heavily embellished with symbolic features.

Also, Figure 5.37 shows how the thickness of pipe bowls declines over time, even as the overall size of the bowls increases. Perhaps thinness, or in a sense fineness, became an alternative measure of a pipe bowl's special status during the Late Mississippian period, the time when stone material was largely abandoned for pipe production.

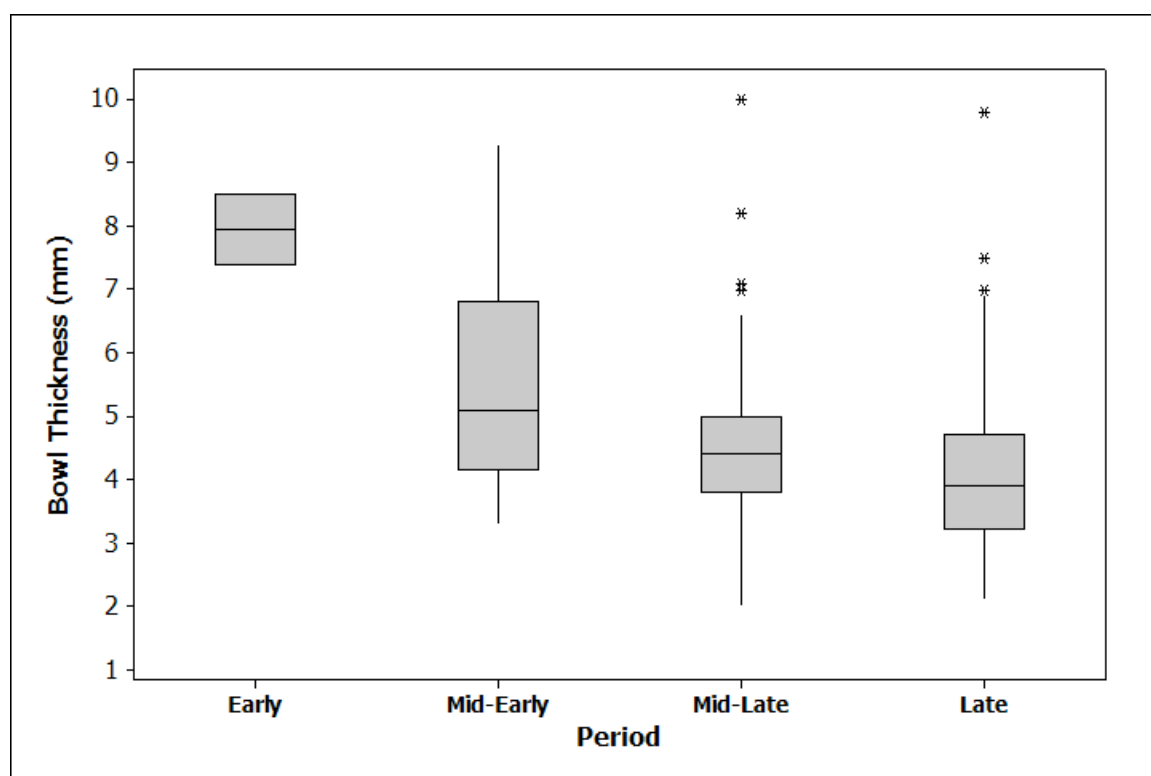


Figure 5.37. Boxplot: bowl thickness by period.

*Raw Material.* Most pipes made in the region throughout the Mississippian Stage are ceramic (83.5%) (Table 5.6). Among all pipes of identifiable form in my sample, 16.5



percent were crafted from stone. Stone pipes occur most often in Middle Mississippian contexts, representing 19.3 percent (n=46) of the datable examples. Stone pipes appear least often in Early Mississippian assemblages (3.8 %), and they are somewhat common during the Late Mississippian (10.4 %).

	Steat	Limest	Sandst	Other	Unk	Total
<b>Phys Province</b>						
Blue Ridge	10	1	1	1	12	25
Co Pl-Atl	3				1	4
Co Pl-Gulf	2				3	5
Pied-Mid	2					2
Pied-Upl	19	3	1	5	14	42
Plateau					2	2
Ridge & Valley	5	44	7	2	12	70
Coast						0
<b>Period</b>						
Undet	16	14	5	2	19	56
Early	1	2	1			4
Middle	24	3	1	5	20	53
Late	1	27	2		5	35
Historic		2	2	1	2	7

Table 5.6 Summary of raw materials used in pipe manufacture (frequencies).

Particular kinds of pipes were more frequently made of stone than others during the middle and late periods. In the Middle Mississippian period, the majority of stone pipes are Effigy forms (33.0 %). This pattern probably reflects a special status assigned to Effigy pipes, and it also potentially implies production in specialized workshops. Obtuse pipes also represent a large portion of those made from stone (26.0 %) in the middle period, as do Weak Noded pipes (17.4 %). In my view, the relatively strong representation of stone pipes among those two types is partially explained by their general geographical affinity, which is the northeastern quadrant of the study area,

generally north of the Savannah River and east of the Appalachian range. This is an area where steatite sources are relatively common. The raw material favored for Middle Mississippian pipes may also be telling of broader cultural relationships. The majority of stone pipes from this period are made of steatite (45.3 %), a material most often acquired from sources in the Piedmont section of the region. The Etowah site, dominant in the region at the time, is believed to have asserted its strongest control in the Piedmont (King 2003; Hally and Rudolph 1995).

While stone pipes are relatively uncommon during the Late Mississippian period, when they do occur, it is usually on sites located in the northwestern quadrant of the study area, mainly in the Tennessee River basin. Of all stone pipes dated to this time, 61 percent are of the Short Trumpet category that is, in fact, largely confined in occurrence to the Tennessee Valley. It is no surprise that the favored materials for stone pipes of this type are also common to that locale, especially limestone (83.3 %, n=19). Also, it is only in this area that Monolithic Axe pipes were made of stone (n=6), most often of limestone. Furthermore, several unfinished limestone pipe blanks have been recovered from sites in this area. Most of the other stone pipes dated to the late period are Effigy forms (n=5).

A related pattern applies to the Stemless category that is likewise largely confined to the northwestern or Ridge and Valley sector of the study area. This type is known, by association with European artifacts, to occur early in the post-contact era, but it was also potentially made very late in the prehistoric era. Ten (83.3 %) of the twelve known examples are made of stone. However the choice of stone material appears to have been far more varied than for Short Trumpet pipes.

## Refinement of Temporal and Spatial Patterns Using Discrete Contexts

Occurrences of smoking pipes in discrete contexts allow for independent corroboration of the temporal and spatial patterns described in the preceding sections. Because such contexts are crucial for establishing the temporal ranges of pipe types, they have already been referred to here from time to time. But in order to further support the arguments advanced in earlier sections and to establish additional kinds of relationships, it is valuable to discuss the associations between pipe types and particular contexts more thoroughly. Burial features in particular represent discrete events that reveal important associations. The same is true of pipe caches.

This presentation will begin by describing discoveries of pipes in specific burial or cache contexts representative of each period. Then associations of pipes according to age and gender categories identified from burials are reviewed. Finally, the assemblages of funerary objects included in specific graves with unique pipe types are described. Supporting data for these sections are provided in Tables 5.7 and 5.8.

*Early Mississippian Burial Associations.* A small number of pipes have been recovered in clear Early Mississippian burial context. A Simple Long Footed pipe was recovered in mound Burial 32 at Hiwassee Island that probably dates from the early period (Lewis and Kneberg 1946). Burial 2 at the Abercrombie Site on the lower Chattahoochee River in Alabama also produced a long-stemmed simple pipe fragment. While an Early Mississippian component is documented at this site, there is limited information with which to better date the interment.

The Footed category has been documented with a burial in the Funeral Mound at Macon Plateau (Fairbanks 1956), in stone slab graves at Greenwood in Tennessee (Brain and Phillips 1996), and in mounds in Alabama at Moundville and Charlotte Thompson (Moore 1900, 1907).

*Middle Mississippian Burial Associations.* Noded pipes have been recovered in association with at least eight Middle Mississippian burials. Five of them occur in association with three burials in Mound C at Etowah (Brain and Phillips 1996), four are from two burials in Mound 3 at Lake Jackson (Jones 1994; LeDoux 2009; Scarry 1996b, 2007a, 2007b), and one is from Burial 17 in Mound F at Moundville (Brain and Phillips 1996; Moore 1905, 1907). Each of the mounds from which the pipes were recovered was created and used during the Middle Mississippian period. Mound C at Etowah is dated to the Wilbanks Phase (AD 1250-1375), Mound 3 at Lake Jackson is dated to the Lake Jackson phase (AD 1100-1500), and Mound F at Moundville is believed to have been created AD 1250-1400.

Jointed pipes are also a relatively common occurrence in Middle Mississippian burial contexts. Four were found with three burials in Mound C at Etowah (Brain and Phillips 1996), two are in a pipe cache adjacent to Burial 2 in the mound at Hollywood (Anderson 1994; Brain and Phillips 1996; Thomas 1894), and one each was found in burials at the Beaverdam Mound Site in Georgia (Rudolph and Hally 1985), the Rudder Site in Alabama (Brain and Phillips 1996), and at a site near Greenwood, Tennessee (Brain and Phillips 1996). The latter two burials were of the stone box type. Like Mound C at Etowah, the other mounds producing Jointed pipes were constructed and used during the middle period. The Hollywood mound is attributed to the Hollywood Phase (AD

1250-1350) and the Beaverdam Mound to the Beaverdam (Savannah) Phase (AD 1200-1250).

A variety of Effigy pipes, all made of stone, have also been found with Middle Mississippian burials. Five of the seven Effigy pipes with such associations feature depictions of the full human form in three different poses. Two such pipes, both made of steatite, from Wilbanks Phase Burial 45 in Mound C at Etowah portray a prostrate figure. This pair forms an obvious set, one representing a male form and the other a female form, perhaps intended to portray ancestral figures.

Two other Human Effigy pipes feature a seated human grasping a large vessel with loop handles. One of these pipes is from the pipe cache near Burial 2 in Hollywood Mound A (Anderson 1994; Brain and Phillips 1996; Thomas 1894), and the other is from a stone box grave in a mound near Greenwood, Tennessee (Brain and Phillips 1996). The humans are further posed with their heads thrown back, as if the individuals are gazing skyward. Also, the forms appear to be male with the bun-like hairstyle.

A third Human Effigy style, depicting a kneeling human figure, is from Mound O at Moundville (Brain and Phillips 1996; Moore 1905, 1907). This pipe is made of stone as well, and the figure is shown with a hair bun and headgear. This pipe appears to have been deposited in the upper fill of the mound unassociated with a human interment or other artifacts.

Moundville is also known for large, stone zoomorphic Effigy pipes, but they are representative of the Mississippian pattern westward of the South Appalachian region. One from Burial 33 north of Mound R is of the Bellaire style, depicting a feline beast,

commonly referred to as the Piasa (Brain and Phillips 1996; Moore 1905, 1907). Another famous stone pipe from Moundville, found in Burial 58-59 south of Mound D, features an eagle.

Obtuse style pipes are known from two Middle Mississippian burials. One is in the pipe cache near Burial 2 at Hollywood that also contained Noded, Jointed, Square, and Human Effigy pipes (Anderson 1994; Brain and Phillips 1996; Thomas 1894). The other, made of steatite, is from Burial 110 in Mound C at Etowah. No other artifacts were reported in association with the latter pipe.

A single Square-form pipe was also in the Hollywood mound pipe cache (Anderson 1994; Brain and Phillips 1996; Thomas 1894).

One Wrapped pipe of the Footed variant was recovered from Moorehead's Burial 5 in Mound Cat Etowah (Brain and Phillips 1996; Moorehead 1932). In addition to a Noded pipe, artifacts in this burial include an engraved shell gorget in what appears to be the Hixon style, a ceramic vessel, copper objects, and stone celts. This burial is of the stone box type and appears to have been placed into the summit of one of the early stages of Mound C, likely dating it to the Early Wilbanks phase (King 2003, 2007).

It is also instructive to examine which of the Middle Mississippian pipe styles co-occur in burial contexts, as a basis for supporting their temporal assignment. One opportunity for such an examination is the cache of pipes in close proximity with Burial 2 in the mound at Hollywood. In this group of associated pipes, five different types co-occur: seated Human Effigy, Obtuse, Noded, Jointed, and Square. Based on other evidence, each of these pipe types had been assigned to the middle period, and their

presence together in the Hollywood mound, in association with SECC objects, gives good support to those assignments. More specifically, drawing on Anderson's (1994) estimated interval of mound construction at Hollywood, pipes of these styles are estimated to have been in use between at about AD 1250-1350.

In Mound C at Etowah, pipes of different styles co-occur in certain burials. Noded and Jointed pipes are both present with Burial 28, for example. A Wrapped category pipe also occurs with a Noded pipe in Moorehead's Burial 5.

King (2007), among others, argues that Mound C at Etowah is a Wilbanks Phase construction, thus bracketing all of its associated grave lots to the interval AD 1250-1375. Assuming this estimation of the mound's age is correct, it stands to reason that all of the pipes occurring in Mound C graves date from that span. Within the Wilbanks Phase graves at Etowah, pipes of the following styles were recovered during excavations by both Moorehead and Larson: Noded, Jointed, Obtuse, Human Effigy, Wrapped, and an elbow pipe of the Direct category. Furthermore, it is probably safe to conclude that almost all of these pipe types were mainly in use during the Late Wilbanks phase (AD 1325-1375). This is indicated by their presence almost exclusively in Final Mantle burials, often of the log tomb type. The single exception occurs in Moorehead's Burial 5, apparently discovered in a stone box at the summit of an early mound stage (Early Wilbanks, AD 1250-1325). The only firmly associated pipe of the Wrapped category was present in this grave, but it was found along with a pipe of the Noded category. In effect, these grave contexts affirm the proposed dating of the Noded, Jointed, Obtuse, Human Effigy, and Direct types mainly, if not exclusively, to the middle period and the dating of the Wrapped category mainly to the early part of the middle period.

The same kind of reasoning can be applied to the collective grave lots from other Middle Mississippian mounds. For instance, Mound 3 at Lake Jackson in Florida is believed to have been erected and used during the Lake Jackson phase dated to AD 1100-1500 (Scarry 1996b, 2007b). Two Noded pipes were present in Burial K4, along with an array of classic SECC objects, including engraved copper plates. In Burial 1, two additional Noded pipes were recovered, also with a similar range of SECC items. A third pipe with Burial 1 was a monitor-style platform pipe of stone, atypical of the South Appalachian region but common to the Middle Atlantic area during the same period.

The stone box-log tomb grave type distinction noted at Middle Mississippian sites is, again, a useful indicator of age. In the case of Etowah, Adam King (2003, 2007) argues persuasively that stone box graves were customary of the Early Wilbanks phase (AD 1250-1325), while log tomb interments were a later mode (AD 1325-1350). In Tennessee, where the stone box type is more prevalent in general, some have suggested that it is most typical of the period AD 1200-1400 (Smith and Miller 2009). With this in mind, it is interesting to note that the pipes known to occur in stone box graves are of the following categories: Footed, Human Effigy, and Jointed. The pipes in the only log tomb (Burial 15) in Etowah's Mound C to contain them were of the Noded category. Those associations suggest that Footed, Human Effigy, and Jointed categories are most representative of the first part of the Middle Mississippian period and that Noded pipes become more prevalent later in the period. It bears noting explicitly that the Footed category therefore appears to overlap the early period and the first part of the middle period.



*Late Mississippian Burial Associations.* Late Mississippian pipe types occur with a different pattern of burial association. Relatively few have been recovered in mound context, and none of them are associated with classic SECC material.

Monolithic Axe style pipes are strongly associated with Late Mississippian burials, perhaps first appearing at the close of the middle period, late in the thirteenth century. The best evidence of this late-period temporal affiliation comes from lower Tennessee River sites. Three village-area burials at Ledford Island (BY13) included Monolithic Axe pipes, as did the same number of village burials at the Cox Mound Site (18AN19). Burial 113 in the mound at Fains Island (JE1) included a pipe of this category, and at the Citico Site, two burials, possibly in mound context, also included Monolithic Axe pipes (Brain and Phillips 1996). The occurrence of two Monolithic Axe pipes in village burials at the Dallas Site (HA1) in Tennessee is suggestive of their initial appearance at the close of the middle period, given that the site was burned and abandoned soon after AD 1400 (Sullivan 2009).

At Late Mississippian sites in Georgia, several Monolithic Axe pipes are known from burial contexts. One each is known from a burial at the Bull Creek Site (Ledbetter 1997), the Etowah village area (Moorehead 1932), the mound at the Nacoochee Site (Heye et al. 1918), and a burial at the upland Piedmont farmstead known as the Lindsey Site (Hatch 1987).

Another category of pipe style associated with Late Mississippian burials is the large Trumpet form. Five plain Trumpet pipes are associated with four burials at the King Site, occupied in the mid- to late-sixteenth century (Hally 2008). Two similar pipes are from burials at the Dallas Site in Tennessee, possibly indicating an appearance of the type

early in the late period. More elaborate forms of the Trumpet style have been found in Lamar Period (AD 1350-1600) boulder cache burial sites (Ledbetter 2006). At the Tye Boulder Cache Site (9OC92), single examples of gridded Trumpet and large-noded Trumpet styles were found. Unpublished illustrations and margin notes in C.C. Jones' personal copy of *Antiquities of the Southern Indians* report several Trumpet pipes from mounds and rock piles along the upper Oconee River, at least some of which were probably associated with burials (Jones 1873).

The Short Trumpet form is also clearly associated with Late Mississippian burials. Two such pipes are from burials at the King Site (Hally 2008), and one each were found with burials at the Fains Island and Cox sites in Tennessee. The occurrence of two Short Trumpet pipes in Dallas Site burials and one at the Sale Creek Site (65HA10) may suggest a relatively early appearance of the type in the lower Tennessee River valley.

Stemless pipes of stone, generally most common in the lower Tennessee River valley and northern Georgia, are also associated with Late Mississippian burials. One example with such an association is from Burial 122 in the Ledford Island Site (BY13) village. The other is from Burial 84 associated with an elite household locus in the King Site village (Hally 2008).

One Human Head Effigy type is from a Late Mississippian burial (Burial 17) at the Bull Creek Site (Ledbetter 1997). No other artifacts were associated with this interment.

Late Mississippian pipes of different styles have been documented within single burials, thereby establishing some common interval of use. As noted, Trumpet types of

the large-noded and gridded styles occur together at the Tye Boulder Cache (Ledbetter 2006). At the Dallas Site, a Simple Elbow pipe and a Short Trumpet pipe were interred together in Burial 95.

*Post-Contact (Historic) Period Burial Associations.* Some types of pipes have been recovered in burials that also contain European material, a few of which cases have already been noted. One such example is the association of a Trumpet style pipe and glass beads at the Bowden Boulder Cache (Ledbetter 2006).

Historic period associations fall into two general temporal categories. There are those that are obviously very early, meaning of sixteenth century vintage, that may be termed “protohistoric.” The other category is comprised of those that date to later centuries, during the period of sustained contact and major reorganization of Native societies.

One of the earlier cases is reported from Site 11BT8 in the lower Tennessee River valley, where a Monolithic Axe pipe was recovered from Burial 16-1, described as having a protohistoric affiliation. No other artifacts are known to have been associated with this burial. Elsewhere I have noted the occurrence of Late Mississippian types with sixteenth-century Spanish material at the Glass Site and the King Site, among others.

Representative of the later interval are two burials in the Nacoochee Mound in northern Georgia, which held pipes in association with glass beads and other European trade material, most likely dating from late in the seventeenth century or the eighteenth century (Heye et al. 1918). One of the pipes from Burial 2 is a Disk type made of

catlinite. The other, from Burial 4, is not described well and is either of the Stemless category or the Short Trumpet category.

*Funerary Assemblage Associations.* The kinds of funerary objects associated with pipes in burial context are revealing of two aspects of pipe use. First, many objects intentionally interred in graves are unique enough to be datable to a specific interval of time. Such diagnostic objects can range from simple ceramic vessels to elaborate SECC paraphernalia. Second, patterns in the kinds of objects ordinarily associated with pipes of different periods are useful gauges of the general ritual mode that prevailed at a given time and place. The ritual connotations of pipes in common association with highly elaborated and exclusive prestige goods deposited as grave furniture may be assessed differently from those routinely associated with less costly goods.

A total of 141 pipes of datable form are known to have been recovered from burials that contained other kinds of objects (Table 5.7). All of them date from either the middle or the late period. As the following discussion will describe, the patterns associated with the two periods tend to be quite different.

Six categories of Middle Mississippian pipes have been recovered from burial contexts, but most commonly interred in graves were the Noded, Jointed, and Effigy types (see Table 5.7). Often, pipes in middle-period graves are accompanied by classical SECC-affiliated objects that experienced a period of use mainly during AD 1225-1350. On at least one occasion, each of the six middle-period categories was associated with a copper celt and a ceramic vessel. Elaborate sheet-copper artifacts have a narrower range of pipe associations, however. Only Noded, Jointed, and Effigy categories were interred with embossed plates, copper badges and pendants, and the like. The same pattern holds

true for large groundstone palettes and shaped bone objects. Other kinds of objects exclusively included with one or another of those three pipe types are marine-shell dippers and groundstone celts. Several of the categories of funerary objects, also interred with pipes, occur exclusively in Middle Mississippian graves: copper celts, copper plates, copper badges, groundstone palettes, shaped mica, and unique kinds of marine-shell objects. The same is true of certain kinds of ceramic vessels, such as negative painted, effigy, and engraved types. Only 13% of burials with middle-period pipes in them were without other funerary objects.

Five categories of Late Mississippian pipes have been documented in burial context (see Table 5.7). Most frequently represented in burials are the Monolithic Axe and Trumpet types, including the Short Trumpet form. Certain kinds of objects included in late-period graves are of the same types that occur with middle-period pipes, such as ceramic vessels, shell beads, shell gorgets, shell dippers, groundstone discoidals, groundstone celts, shaped bone, and mineral pigments. Another set of categories occur exclusively in Late Mississippian burials, however. They are large flaked stone bifaces, projectile points, lithic cores and flakes, and flintknapping tools, many times present together as “kits.” Also generally unique to late-period burials are marine-shell ear pins. Ceramic vessels documented with pipe-bearing Late Mississippian burials are usually described as being of common types, very unlike the specialized types included with middle-period burials. Twenty percent of late-period burials contained only pipes.

Four categories of pipes from graves are known to have been recovered in association with European trade material, including glass beads and iron tools. Trumpet and Stemless types are most often found with such material. The other types with European artifacts are Disk pipes of catlinite pipestone and an unusual Footed form. The

other kinds of funerary objects these pipe categories occur with are like those noted in Late Mississippian burials.

Relative dating of pipe style categories may be achieved by documenting occurrences of particular pipe types in contexts with date ranges established either by the occasional absolute date or, as is far more common, by association with other, better dated categories of Mississippian artifacts or feature types. For example, styles of pipes that occur in graves with objects representative of Middle Mississippian mortuary assemblages may be assumed, in most instances, to have been used at approximately the same interval; the same logic would apply, of course, to associations with material known to date primarily to earlier and later Mississippian periods. Here again, both CA and cluster analysis may be applied to evaluate the strength of such associations. The expectation would be for a result that indicates strong tendencies of particular pipe categories to occur most frequently with artifacts in mortuary contexts that are relatively typical of specific periods.

Various published sources catalog artifacts recovered from specific burial features that have also produced smoking pipes. Table 5.7 presents the frequency of occurrence of 21 particular funerary artifact categories within graves that also produced pipes of specific style categories. Twelve different pipe style categories, representing 141 individual pipes, have been documented in grave context with inventories of other funerary objects. The tendency of certain categories of pipes to occur in graves with certain kinds of other objects was observable in the simple frequency distribution, but I chose to evaluate the strength of those relationships using CA. The objective of this analysis is to independently gauge the temporal associations of pipe types with mortuary artifacts already better linked with particular Mississippian periods.

assigned to the Late Mississippian interval are often associated with another set of unique funerary objects.

Figure 5.38 is a symmetric CA plot of data in Table 5.7 that summarizes the variable of mortuary artifact categories with specific pipe type categories. Figure 5.39 presents the same results, but it omits the column variable points (funerary artifact categories) for the sake of graphical clarity. Both plots are indicative of strong linkages between particular pipe forms and temporally emblematic mortuary items, and especially with respect to “lots” of grave furniture that are typical of the middle versus the later periods.

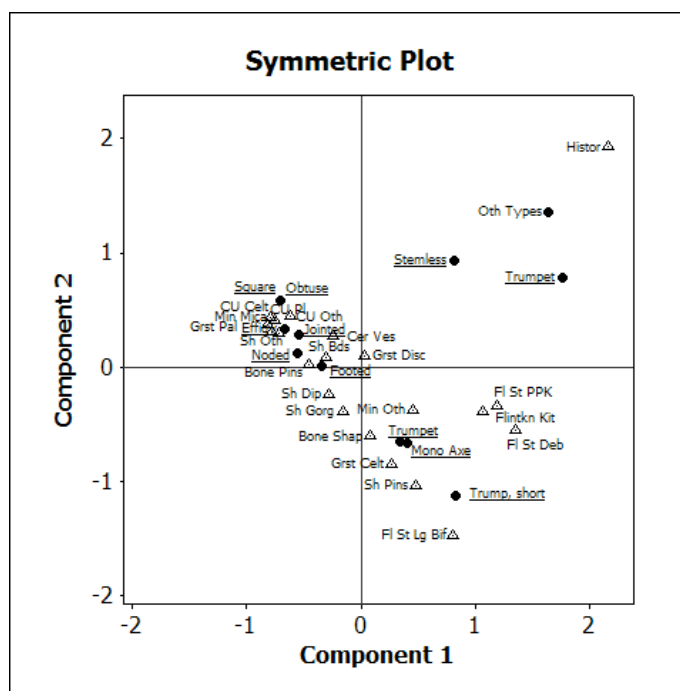


Figure 5.38. Correspondence analysis, symmetric plot, Components 1 and 2: pipe type categories by funerary artifact categories.

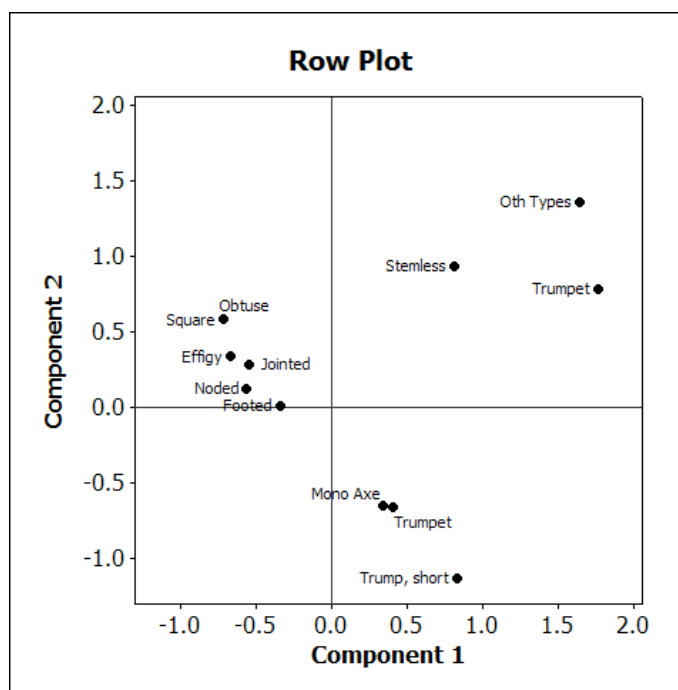


Figure 5.39. Correspondence analysis, row plot, Components 1 and 2: pipe type categories by funerary artifact categories (with funerary artifact points omitted).

Pipes estimated to have a middle-period affiliation are clustered in the upper left quadrant of the plot, relatively near the axis intersection. Pipes estimated to have a Late Mississippian affiliation are clustered in the lower right quadrant of the plot. In the upper right quadrant, and strongly separated from the other pipes, are those that are associated with post-contact European goods. (Early pipe categories are not represented, because there is a lack of documented grave lots that also include representative pipes.)

Looking at the CA results more closely, we discover that the first dimension in the plot accounts for about 33 % of the inertia, and the second dimension accounts for about 23 %, summed to explain 56 % of the total inertia in the data. With respect to row (pipe category) variables, in Component 1, one Other-category pipe dating from the post-contact period explains most (29 %) of the plotted spatial relationship, followed by a



Trumpet (19 %) and a Noded (16 %) pipe. The second component pattern is also accounted for mainly by a post-contact, Other category pipe (29 %), but other strong contributions are made by a Short Trumpet (20 %), a Trumpet (18 %), and a Monolithic Axe (13 %) pipe. Looking at column (funerary objects) contributions, the first component is most influenced by historic metal and beads (37 %) and by projectile points (14 %). For Component 2, the historic metal and beads (42 %) and groundstone celts (13 %) are the prominent factors.

The same data were further evaluated with cluster analysis, again to explore the strength of association between categories of pipes and the better-dated artifact types typical of mortuary assemblages. Multiple runs of exploratory cluster analysis were completed, each applying different combinations of linkage options and distance measures. Ultimately, I determined that the most satisfactory results, particularly vis-à-vis the CA analysis, were generated by cluster analysis of standardized variables making use of complete linkage and Euclidean distance.

Those results are presented in the Figure 5.40 dendrogram, and two principal clusters are distinguished that generally correspond to the temporally specific groupings in the Figures 5.38 and 5.39 CA plots. Quantitative measures of cluster centroids are provided in Table 5.8. The clusters also portray tendencies observed in the Table 5.7 data. More specifically, the two clusters tend to sort the pipe artifacts according to forms that I model whereunder certain pipe style categories are most likely to occur with grave lots of a certain composition. Comparatively, then, some distinctive patterns emerge in the funerary associations of certain pipe types. Notably, the patterned association of certain categories of funerary objects with pipes unique to particular periods, sometimes on an exclusive basis, reinforces the temporal assignments of those types. In other words, the

		Ceram.	Marine Shell					Copper			Grndstone.			Flaked Stone			Bone		Mineral		Kit	Euro.
Period	Category	Vessel	Gorget	Dipper	Beads	Pins	Other	Plate	Celt	Other	Discoidal	Palette	Celt	Large Bif	Proj Points	Debit/Chks	Pins/Awls	Shaped	Mica	Other	Flintkn. Kit	Metal & Beads
Early	Footed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Middle	Footed	2	1	0	1	1	1	0	1	0	1	0	0	0	0	0	1	0	1	1	0	0
Middle	Effigy	4	0	2	1	0	0	1	1	2	0	2	0	0	0	0	0	1	2	0	0	0
Middle	Jointed	5	0	0	3	0	3	2	2	2	4	1	1	0	0	0	2	1	1	0	0	0
Middle	Noded	6	4	2	8	0	3	6	4	6	0	3	3	0	0	0	1	3	0	1	0	0
Middle	Obtuse	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Middle	Square	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Late	Bird/Egg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Late	Mono Axe	2	2	0	2	1	0	0	0	0	2	0	4	1	2	1	1	1	0	2	0	0
Late	Stemless	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Late	Trump, short	0	0	1	0	1	0	0	0	0	0	0	3	1	2	1	0	1	0	0	1	0
Late	Trumpet	3	2	1	2	3	0	0	0	0	1	0	2	0	3	0	0	6	0	3	3	0
Historic	Trumpet	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	2
Historic	Oth Types	1	0	0	1	0	0	0	0	0	1	0	0	0	2	0	0	0	0	1	0	5

Table 5.7 Associations of pipe categories with funerary objects (frequencies)

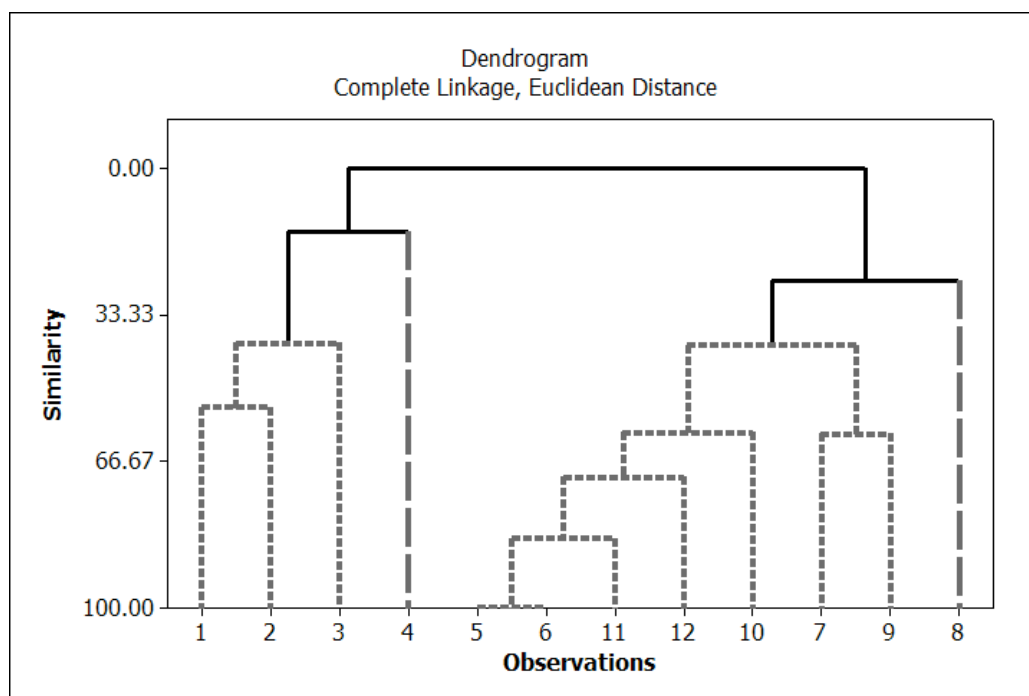


Figure 5.40. Cluster analysis, dendrogram: pipe type categories by funerary artifact categories.

Variable	Cluster1	Cluster2	Cluster3	Cluster4
Cer Vess	0.75971	2.01100	-0.67033	0.40220
Sh Gorget	-0.32348	2.52318	-0.36045	0.97045
Sh Dipper	0.20893	1.88035	-0.44770	0.62678
Sh Beads	0.07322	2.85543	-0.47068	0.21965
Sh Pins	-0.18426	-0.55277	-0.23690	2.76385
Sh Other	0.64405	2.07528	-0.50093	-0.50093
CU Plate	0.14168	2.97526	-0.42504	-0.42504
CU Celt	0.41897	2.65345	-0.45887	-0.69828
CU Other	0.23387	2.85318	-0.43432	-0.51451
Grst Discoidal	0.75419	-0.61707	-0.26446	0.20569
Grst Palette	0.50000	2.50000	-0.50000	-0.50000
Grst Celt	-0.49832	1.27350	-0.05537	0.60906
Fl St Large Bif	-0.42817	-0.42817	0.30584	-0.42817
Fl St Proj Points	-0.74762	-0.74762	0.14953	1.94382
Fl St Debit/Chks	-0.55277	-0.55277	0.39484	-0.55277
Bone: Pins/Awls	0.87252	0.87252	-0.40955	-0.62323
Bone: Shaped	-0.23387	1.07579	-0.44769	2.75963
Mineral: Mica	1.53530	-0.51177	-0.51177	-0.51177
Mineral: Other	-0.33850	0.33850	-0.24179	2.36951
Flintkn. Kit	-0.55277	-0.55277	-0.07897	2.76385
Hist: Metal/Beads	-0.44519	-0.44519	0.31800	-0.44519

Table 5.8 Cluster centroids for Figure 5.40 dendrogram.

pipes argued to have a specific Middle Mississippian date range are the only ones that occur in graves that contain classic SECC objects. Alternatively, a series of pipes assigned to the Late Mississippian interval are often associated with another set of unique funerary objects.

Also, funerary objects associated with pipes in the Middle Mississippian graves are far more often of a specialized nature than those of the following period. “Special” here refers to those objects that were not only made of non-local material, like marine shell, copper, or stone, but that were also non-functional, prestige items that, presumably, required particular skills to produce. In turn, these objects would have had more obvious signaling potential. By contrast, many objects associated with pipes in Late Mississippian graves are far more likely, outside of a burial context, to have had an ordinary functional value, such as typical kinds of ceramic vessels, stone celts, projectile points, and flintknapping tools.

Considered together, these tendencies are indicative of quite different ritual modes from one period to another, at least as they can be judged from a mortuary perspective. Early Mississippian pipes are uncommon, and when they do occur in burial context, they seldom are associated with other objects. The implication is that smoking ritual was, comparatively, subsumed under a broader ritual program to only a modest degree. The pattern changed radically during the middle period, when pipes were included in graves of high-status individuals lavishly outfitted with extraordinary kinds of prestige objects. Those associations are taken to indicate that smoking ritual was more formally embedded in an exclusive ritual program. During the next period, smoking pipes maintained a prominent place in burial assemblages, but the nature of the objects in

graves were often less unique in nature, indicative of a ritual program with a diminished level of exclusivity.

*Burial Associations According to Gender and Age.* The place of tobacco smoking ritual in Mississippian society can be revealed in part through discovery of more specific contextual associations of pipes. One such question concerns gender-related patterns.

Smoking pipes are strongly associated with adult males, but the relationship is not exclusive (see Table 5.9). Within the combined sample of all burials containing pipes that also have gender determinations, 88 percent (n=44) are associated with males and the remainder (n=6) with females. Broken down according to age categories, burials with pipes are most often those of adults (88 %), although a few are found with adolescents, juveniles, and infants.

Gender and age associations are available only for burials with pipes dating from the Middle and Late Mississippian periods (see Table 5.9). Eighteen of 19 middle-period burials are associated with males, whether they occur in mound or non-mound context. During the Late Mississippian period, the pattern of association is less strict, but pipes

	Adult			Sub-Adult			Infant			Undet Age		
Period	M	F	Undet	M	F	Undet	M	F	Undet	M	F	Undet
Early	0	0	0	0	0	0	0	0	0	0	0	2
Middle	16	0	5	1	0	4	0	0	0	0	0	21
Late	26	3	16	1	0	1	0	0	2	0	0	23
Historic	0	0	4	0	0	0	0	0	0	0	0	4

Table 5.9 Associations of pipe categories with age and sex categories in burials (frequencies).

still occur mainly with males. Within mound contexts of this period, eight (88 %) of nine burials with pipes are male. Village (non-mound) burials with pipes, including Lamar “boulder cache” burials, include a higher representation of females. Specifically, in non-mound burials about one-third are those of females.

*Pipe Cache Contexts.* Caches of multiple pipes are rare, but their occasional occurrence is suggestive of particular kinds of activity. The most obvious revelation is simply that the associated types were in common circulation contemporaneously, as has been noted. But caching is also indicative of special handling. The best known of such caches is from Middle Mississippian mound context at the Hollywood Site, which has been referred to earlier. Five different pipe types were present in the cache that also included classic SECC objects. These associations have been noted before, but here they serve to support an argument that each type may have been part of a ritual “kit.” The question can be asked whether each pipe type was reserved for a particular ritual program.

Sometimes individual pipes appear to have been cached in isolated, non-burial contexts. Good examples are reported from Moundville, where large, stone Effigy pipes were interred in or adjacent to mounds but with no other apparent association, including with human remains (Moore 1905, 1907). Exactly what the special burial of important pipes meant is unclear, but again, it demonstrates that pipes commanded unique kinds of handling and disposal.

*Comparing Incidence within Domestic and Non-domestic Contexts.* Pipe types confined to mound or burial contexts would be indicative of one set of patterns, while those pipes tending to occur in general domestic deposits would indicate another. In

practice, however, not all pipes are supported by information that links them to a specific context.

My sense is that Early and Middle Mississippian pipes were far less likely to have been deposited in domestic deposits than Late Mississippian pipes, but at this point, evidence sufficient to draw concrete conclusions is sparse. Many of the excavations at Middle Mississippian sites, for example, are heavily skewed toward mound and mortuary contexts. But, to the extent it can be judged from the literature, smoking pipes simply were not a regular occurrence in non-specialized settings prior to about AD 1350.

The pattern appears to change during the later period. Certainly pipes continue to appear in mound and mortuary settings, but reports of pipes in obvious secular contexts are far more common. If nothing else, it is a pattern true of Lamar settlements in the Piedmont and Coastal Plain (Williams 2002, 2004, 2005). However there appears to remain a degree of unevenness in the pattern, which indicates an ongoing tendency to handle pipes differently from ordinary domestic items. There is, specifically, an indication that pipes will not only be more prevalent on Lamar sites that are prominent in the local settlement system, but that on those sites, they will occur in greater frequency in special contexts, such as in association with council house structures and the like. (Blanton 2011; Blanton and Snow 2010).

## Chapter 6.

## Addressing Questions of Pipe Style and Symbolism

Certain classes of Mississippian material culture were embellished with features that carried symbolic meaning. This is especially true of “non-utilitarian” objects reserved largely for public display, including in ritual performances. The range of such things includes shell gorgets, copper plates, stone pallets, and specialized ceramic vessels, all bearing iconic SECC symbolism. Most have been the subject of intense study, a great deal of which has explicitly been devoted to stylistic analysis, including for the purpose of exploring the meaning of the rich corpus of symbols that are portrayed on them. This work began in earnest with the classic “Southern Cult” studies first of Waring and Holder (1945), then Waring (1968), and they continued in the more intensive analyses of Muller (1966, 1989, 2007), Phillips and Brown (1978, 1984), and then Brain and Phillips (1996). A new phase of study over the last decade has led to innovative treatments that seek to connect Native American Indian mythology more thoroughly with archaeologically recorded symbolism (King 2004; Power 2004; Lankford et al. 2011; Reilly and Garber 2007; Townsend and Sharp 2004). The specific questions under consideration and the methods applied to their evaluation have varied, but regardless, the efforts have been rewarded with important insights into the social and religious world of late prehistoric Southeastern societies. If nothing else, there is consensus that Mississippian societies, irrespective of time or place, functioned in a highly charged symbolic context.

Mississippian smoking pipes are among the classes of “non-utilitarian” objects that were frequently embellished with symbols. However they have categorically been neglected by most scholars delving into questions surrounding the SECC, or even into



Mississippian material culture in general. In previous chapters, I have addressed the crucial questions of time, space, and site-specific contexts, and here I seek to bring pipe-related symbolism into the wider conversation of Mississippian symbolism. My goal is to begin an evaluation of symbolic elements applied to smoking pipes and how they are or are not expressive of SECC themes. In the discussion that follows, I provide a brief review of the current thinking regarding Mississippian symbolism and then outline a methodological approach for addressing similar questions using pipes. The balance of the chapter presents details of pipe-related symbolism and a consideration of its function from the costly signaling standpoint.

Before proceeding, it is important to reintroduce ideas that connect the topic of symbolism with the concept of costly signaling, referring back to discussions in Chapters 2 and 4. The most obvious of these surrounds the question of cost itself, working from the fact that ritual activity and, in particular, the production of specialized paraphernalia used to enhance ritual experiences are costly endeavors ultimately tied to more prosaic pursuits of subsistence and the like, albeit in ways that are sometimes obscure. This is to say that the level of investment given to matters of ritual at a given time and place have something to say about the nature of a particular society, ranging from the competitive environment to the riskiness of sanctioned pursuits and the influence of particular individuals or groups of individuals (Alcorta and Sosis 2005, 2007). Theoretically, depictions of symbolized meaning, applied to objects like pipes, are purposeful and calculated enhancements designed to excite emotions, reinforce inalienable beliefs, and, as a result, heighten the effect of associated rites. In effect, symbolism is the currency of ritual. Even the most basic rite is a symbolic act, and those rites enhanced by use and display of symbolically charged paraphernalia potentially stand a greater chance of achieving the desired effects of idea retention and inspired action. Furthermore, unique

stylistic renderings may become identifying “markers” that signify affiliations with certain social groups and statuses within them (Richerson and Boyd 2006).

### The Current State of Mississippian Symbolic Analyses

In Chapter 3, the Southeastern Ceremonial Complex (SECC) was introduced as a hallmark of Mississippian culture. The elaborate symbolism unique to that religious complex, artfully rendered on a range of specialized objects, has been the subject of numerous studies that, when combined with analyses of Southeastern and Midwestern Indian myths, form the basis for formulations of Mississippian religious concepts and activities. Thus, those understandings are the necessary point of departure for my exploration of smoking pipe symbolism. I will first outline the fundamental features of Mississippian religion around which consensus has been formed.

*Fundamental Features of Mississippian Religion and Cosmology.* Framing all aspects of Mississippian religion is a tripartite cosmological model consisting of Earth situated between an Upper World and an Under World (Hudson 1976; Reilly 2004). The virtuous aspects of the Upper World operate in constant tension with the deviant features of the Under World, and humankind, residing in the intermediate world, is challenged with maintaining a balance between the competing forces. Further orienting the cosmological model is the notion of a quartered universe, applicable most clearly to Earth, through which particular directional orientations are assigned specific attributes and meanings (Lankford 2007a; Waring 1968). Finally, scholars have argued for the existence of an axis mundi that accommodates interplay and movement between the three realms (Lankford 2007a).

The cosmological model populates the universe with a range of deities and supernatural creatures in addition to humankind. Resident in the Upper World is the Sun, regarded as the central life-giving deity, together with benevolent hero figures, to which many positive forces are attributed. The more chaotic and dangerous Under World is said to be inhabited by water-dwelling serpents and the like.

Mississippian worldview was certainly subject to vary over time and space, but there is general agreement about the organizing concepts that, many would argue, seem to have been persistent preoccupations. Among the most basic of these are the related structural concepts of dualism and symmetry. In classic form, this concept betrays ongoing concern with reconciling the tensions between competing forces as varied as order and chaos, good and evil, war and peace, sacred and secular, male and female, and natural and cultural. In addition, there are good arguments to be made for a standing preoccupation with matters of war, death, fertility, and ancestors.

Variation over time and space in the expression of Mississippian religious concepts and practices has been very clearly established in recent decades. It is now apparent that neither the SECC nor any other aspect of Mississippian religion or worldview can be treated under a single model (King 2007b). Patterned regional variation is recognized, and it tends to be aligned with major Mississippian centers like Cahokia, Moundville, and Etowah. One variant area is the South Appalachian region, in which the chiefly complex of Etowah is located (King 2007a). The implication, then, is that each such sub-area witnessed a unique history of Mississippian emergence, florescence, and decline that acted to influence the character of religious activity.

The evolutionary history of Etowah and sites affiliated with it appears to account for a series of unique religious developments in the South Appalachian region. I discussed this history in Chapters 3 and 4, but a review of defining religious and symbolic attributes will be useful again here. King (2004), Cobb and King (2005), and others (Brown 1997, 2004; Pauketat 2007) trace the origin of Etowah's religious concepts to the influence of archetypical developments at Cahokia, including the spread of the Braden school of SECC art. Under this scenario, new ideas were introduced to the area, probably early in the thirteenth century, that were facilitated by one or more charter myths. A cult of ancestors emerged that established fictive kinship with foreign sources of power and, in turn, inspired unique cosmological and ideological concepts and attendant symbolism.

The SECC artistic style specific to Etowah's domain is generally referred to as Hightower. Its defining characteristics are Hightower turkey cock and Big Toco birdman symbolism on shell gorgets and Braden-style birdmen on copper plates. Generally, this kind of symbolism, especially the anthropomorphized figural art, is interpreted as referring to concerns with heroic ancestors, war, and the authority of specific individuals (King 2007). Reverence for divine ancestors is most obviously manifest by the occurrence of male:female statuary pairs, like the famous marble figures from Mound C at Etowah. Such pairs are known from other sites in the Etowah orbit, and as noted, their occurrence is confined almost exclusively to the South Appalachian area (Power 2004). The figures also almost certainly reveal ongoing concern with issues of fertility.

Referring again to the Cobb and King (2005) model for Etowah, the general symbolic progression of South Appalachian Mississippian is from a period of devotion to world renewal and community welfare before AD 1200, expressed by only minimal

symbolic elaboration, to considerable symbolic elaboration around concepts of founding myths and individual exploits after AD 1250, and finally to a return, in the fifteenth century, to collective themes. More specific trends can also be recognized within the area. Hally (2007) notes, as do others, that corresponding to these tendencies are general shifts on shell gorgets, mainly between the middle and the late periods, from naturalistic to more surreal portrayals and from depictions of turkeys and spiders to woodpeckers and rattlesnakes.

It is also useful to touch on some of the broader temporal tendencies observed about Mississippian symbolism. Jon Muller (1989) recognizes patterned changes in SECC art through five different periods. During the Developmental Cult period (AD 900-1150) specialized objects featured square cross and long-nosed god figures. He calls the climax of the tradition the Southern Cult period (AD 1250-1350), during which the flow of non-local prestige materials increased markedly for the specific purpose of SECC craft production. Represented on those objects were the classic figural art styles, the bi-lobed arrow, and other defining symbols. That high style was altered markedly in the following Attenuated Cult period (AD 1350-1450). The flow of non-local materials was sharply reduced, such that the primary medium of representation became clay. In addition, the artistic trend was toward greater stylization. This inclination led to development of numerous localized traditions during the Post-Southern Cult period (AD 1450-1550), exemplified by a number of new engraved shell gorget styles. By his Historic Times interval (post-dating AD 1550), the SECC-derived tradition was largely dissolved. Although Muller's scheme is designed to capture broad Southeastern patterns, it is widely recognized now that generalized periodization of the trends over such a vast area masks interesting variability born of local cultural histories. The South Appalachian region has, as noted, its own unique expression of the larger tradition on its own timetable.

I conclude this section by noting again that smoking pipes have not, with only rare exception, been examined as part of treatments of Mississippian symbolism. When they have been studied, the work has tended to involve only the stone figurines unique to Cahokia, Spiro, and other places in or near the Mississippi Valley (Emerson 1989, 1997; Prentice 1986). I have argued that smoking was developed more fully as a ritual activity in the South Appalachian area, and consequently, the area is home to larger numbers and more styles of pipes than elsewhere. Most likely, the pattern of scholarly neglect stems from the fact that the region's pipes do not usually feature obvious SECC linkages. As we shall see, smoking pipe styles follow a similar pattern to the one documented for shell gorgets.

#### Methodological Considerations in the Evaluation of Symbolism

A category of non-utilitarian Mississippian objects that has been a perennial focus of stylistic and symbolic analysis is marine shell gorgets (Brain and Phillips 1996; Hally 2007; Muller 1966). Most gorgets are etched with symbolic depictions, and because they occur relatively commonly and widely in the Mississippian world and with a range of styles, they lend themselves to close study. Here, I take advantage of gorget studies in two ways. For one, they provide a useful basis of comparison for this pipe study in that the patterns of distribution and symbolism among gorgets can help to frame similar questions for pipes. Additionally, the methodological approaches applied to the study of shell gorgets, and the debates that they have spurred, establish a backdrop against which other stylistic analyses, such as of pipes, must be considered.

As Hally (2007) and others (Brown 2007) have noted, the two leading approaches to gorget-style analysis are either the typological/taxonomical approach that is most

familiar to archaeologists or the structural stylistic analysis that is more familiar to art historians. Both approaches have their strengths and limitations and, ultimately, decisions about which to follow should be determined by the nature of the questions under consideration. Because I have adopted a more traditional taxonomic approach in Chapter 5 to examine patterns of distribution and chronology, I will favor the structural mode of analysis here to evaluate questions of pipe-related symbolism.

Jon Muller (1966, 1989, 2007) is a leading proponent of the art historical approach that seeks to discover the underlying structure or grammar of style (see also Brown 1989; Marceaux and Dye 2007; Phillips and Brown 1978:105). The approach he advocates assigns very specific meanings to operational terms like element, motif, and style. Disciplined application of these concepts allows analysts to parse the constituent features of an artistic rendering in a way that is conducive to charting evolutionary change. *Element* refers to the atomistic, lowest-level aspects of style that are combined to create designs. *Motifs* are created by combining elements into distinctive icons, usually assigned a specific name like “bilobed arrow.” *Themes* are larger presentations, much like artistic compositions or tableaux, which usually link motifs in consistent ways. And, finally, *style* refers to the structured manner in which elements, motifs, and themes are presented. The strength of this approach lies in its quest to recognize the rules that governed execution of a particular style. Style, in this sense, reflects learned behavior specific to a cultural system and, ultimately, the meanings of elements, motifs, and themes that define it can be observed undergoing transformations over time. Muller (2007:21) argues that the SECC was a “series of regional styles linked through movement of goods and sharing of motifs.” He (Muller 2007:37) also argues that, “Each class of SECC artifacts requires its own analysis and arguments for social significance.”

Alternatively, the typological approach exemplified by the shell gorget study of Brain and Phillips (1996) is concerned mainly with the characteristics of the “designs” on the artifacts (Hally 2007:186). Most often, it is the visually patterned combination of the design attributes, as opposed to the specific characteristics of separate elements and motifs, that are the basis of classification. In other words, the resulting taxonomic schemes are often built around the thematic patterns of the representations perceived by the analyst, rather than on the systematic structural relationships of the individual elements and motifs. These kinds of analyses have long been undertaken in the Southeast to build relative chronologies and to explore stylistic relationships, culturally speaking.

I find it useful, as have others, to introduce additional concepts that reward an analysis of symbolism, all of which are well known from studies of visual and literary arts. *Metaphor* is widely applied in the interpretation of Mississippian symbolism as well as Southeastern Indian mythology. Colors, aspects of animal behavior, and even mundane objects were frequently employed to represent or convey specific concepts. Also valuable is application of the metaphorical concept of *allegory*, the purposeful representation of ideas beyond those that are obvious or, in effect, the expression of additional meanings. Thinking about Southeastern Indian art, Knight (cited in Power 2004) describes how animal symbolism was used allegorically to represent homologous differences among social segments. *Synecdoche* is an additional concept of value referring to the practice of representing a whole with one of its parts. For example, concerns with war might be represented by only a raptor’s talon instead of the entire bird. Sometimes “iconographic packages” were formed through combination of multiple symbols and meanings (elements and motifs) into a single object capable of conveying ultimate power (theme) (Power 2004). This is exemplified well by the portrayals of composite, mythical creatures, such as the *Uktena*, comprised of select attributes of indigenous animals. All of



these representational ploys were ultimately valuable for economy of expression, allowing materialized communication of complex messages by a process of conceptual condensation.

My intention is to first parse the structure, or grammar, of the symbolic corpus associated with smoking pipes and then to explore the meanings of the symbolism. Disentangling the structure requires pulling apart the basic elements and motifs that comprise various symbolic themes. As useful as the process is for understanding basic relationships, it also has the disorienting effect of fragmenting what was originally and very intentionally created as an integrated thematic unit. Like most any work of art, ritual paraphernalia is symbolically loaded in order to convey powerful messages and excite powerful emotions. Thus, each object, more often than not, constitutes a bundle of meanings, representing an iconographic package as it were, that must ultimately be evaluated as such (Beane and Doty 1975:91; Power 2004:189). Still, the thematic packages will seldom, if ever, be reduced to a single connotation. Each element, motif, and combination thereof must be expected to have carried a multiplicity of meanings. Necessarily, then, the symbolic constellations unique to different pipe categories must be assumed to have had the capacity to convey a host of notions.

My treatment of pipe-related symbolism will progress in three steps. First I attempt to isolate and define the elements, motifs, and themes represented on smoking pipes. This step follows the leads of Muller (1966, 1989, 2007), Phillips and Brown (1978), and Knight (2007), among others, who have explored the structure of SECC symbolism on other kinds of objects. The culmination of this step will be categorization of specific symbolic styles, type styles as it were, among South Appalachian smoking pipes. The next step involves an examination of the major symbolic themes represented

on smoking pipes. It is in this section that the question of meanings is addressed along with a consideration of how the themes prominent on smoking pipes are or are not linked with classic SECC symbolism. Finally, I explore the matter of costly signaling as it can be measured from smoking pipe symbolism.

### Structural Analysis of Smoking Pipe Symbolism

Here I seek to define the structure of a symbolic grammar represented on South Appalachian smoking pipes. The approach begins with a kind of deconstruction of the symbolic packages depicted on specific pipe categories by separating them into their most fundamental parts, or *elements*. The next process involves examination of how the elemental parts of symbolic representations were combined by pipe-makers to produce a series of relatively standardized *motifs* and *themes*. Just as has been demonstrated on shell gorgets, ceramic vessels, and other categories of Mississippian objects, symbolic depictions on smoking pipes adhere to patterns, implying that the process was guided by a set of structural rules.

Appendix F provides a hierarchical summation of the deconstruction, moving from themes to motifs to elements. This format reverses the usual hierarchical ordering of symbolic parts, but it facilitates a later discussion of meanings. Creation of the table first involved pulling apart the symbolic compositions on individual pipes in order to isolate their elemental components. Judgments were made about which of the constituent parts were actually integral to a specific pipe type's compositional package. I sought to isolate virtually any unique feature of a thematic set to avoid presumptions about which were important and which were not, but in general, the guiding rule was that isolated elements must recur with some regularity. I ultimately show that the kit of symbolic elements was

not unlimited and that specific elemental combinations were not random. The creation of thematic packages involved a process of selectively arranging a finite set of symbolic elements into a series of standardized tableaux. Moreover, specific elemental combinations tend to have particular temporal and spatial parameters.

Returning to Appendix F, it is possible to discern at least the rudiments of the symbolic grammar applied to smoking pipes. The validity of the reasoning, if nothing else, is established by the fact that many elements are unique to particular periods. For example, a host of symbolic elements was introduced around AD 1200, during the Middle Mississippian period, that had no earlier precedent, neither in general nor on pipes specifically. Likewise, most of the elements diagnostic of Late Mississippian pipes were completely unknown during the earlier period. In addition, individual elements tend to be unique to a particular pipe category or thematic composition. During the middle period, for instance, the elements that were combined to create the Noded type are exclusive to it.

I have attempted to identify sets of symbolic themes that were represented on the pipes of different time periods. In the process, I assigned descriptive terms to each theme that reflect my sense of their symbolic content or principal meaning, such as their associations with fertility, war, etc. These assignments are admittedly speculative to varying degrees, but specific meanings aside, they do represent genuine thematic categories purposely configured to convey specific meaning. I return to the question of meaning in a following section, and here want only to outline basic patterns in the symbolic representations. At the very least, these patterns reveal how sharp the differences in pipe-related symbolism could be from period to period, while at the same

time, they show how certain themes seemed to persist but under different representational guises.

*Early Mississippian Symbolism.* The range of symbolic elements portrayed on Early Mississippian pipes is extremely limited. The Long Simple and early Footed categories are stark in their plainness compared to the pipes of later periods. I see in this pattern a general continuation of the earlier Late Woodland mode and, in turn, indication of stronger devotion to ritual practices familiar to that local tradition, as opposed to alternative ones inspired by Mississippian developments. In other words, smoking ritual remained a relatively rudimentary and unchanged practice through about the end of the twelfth century.

My sense is that when pipes were made during this period, the aim was to fashion an instrument suited simply for smoking, or consummating the act of a tobacco sacrifice. Pipe bowls are typically undecorated and simple in form. Pipe stems, when they were made with a flattened cross section, sometimes had fine notches along the sides. And several red-filmed stems are also known, implying that color was applied overall. Occasionally, Long Simple pipes were made with a simple foot on the lower part of the bowl, perhaps as a first sign of Mississippian influence. Otherwise, Early Mississippian pipes were not made in Effigy form, nor was their appearance enhanced with simpler symbolic elements.

*Middle Mississippian Symbolism.* The profusion of standardized pipe forms that appear with the onset of the Middle Mississippian period, many of them richly adorned with symbolic elements, together with the adoption of *calumet*-style design, signifies that smoking ritual experienced a radical transformation sometime rather early in the

thirteenth century. Production of pipes over this interval, bearing largely invariant symbolic elements in unique combinations, is powerful evidence that smoking rites had attained a prominent role in the sanctification of myriad actions. Also, the uniqueness of the associated symbolism generally sets smoking pipes apart from standard SECC paraphernalia.

One unique aspect of middle-period pipes was the use of anthropomorphic imagery, a characteristic of this period that also extended to other specialized artifacts like shell gorgets, copper plates, and stone statuary. Ordinarily, these pipes were made of stone, and always the human figure faces away from the smoker (see Figure 5.4-c-e). The typical pipe depicts a seated or kneeling male grasping a ceramic vessel, but one set of pipes from Etowah consists of a male-female pair.

Bird imagery is uncommon on Middle Mississippian pipes. However it is best known on three similar pipes, modeled with representations of owl-like birds always oriented to face the smoker (see Figure 5.4-f). Here again, owls are generally absent from SECC-related artifacts.

Otherwise, categories of middle-period pipes are distinguished by highly abstracted symbolic packages. Good examples include the Noded, Jointed, and Wrapped categories. I explore possible interpretations of some of their symbolism in the next section and here choose to emphasize their uniqueness. By and large, not only are the symbolic elements and motifs on these pipes peculiar to this period, but so, too, are the specific combinations of them. Furthermore, the relatively common use of stone for these pipes is a practice largely confined to this period.

Elements and motifs unique to Noded pipes are the cross-in-circle, the rayed circle, and raised solid nodes further defined by incised rings (Figure 6.1; see Figure 5.3-d-e). (Solid nodes are used on some pipes of the subsequent period.) Jointed pipes are defined by exclusive use of a “joint” at the stem-bowl intersection and occasional addition of a pattern of nested, incised lines on the joint. Wrapped pipes are so named because of the unique, raised bands of simulated lashing applied to them, but they were also sometimes decorated with geometric stippling (see Figure 5.4-b). I also observe that ceramic Middle Mississippian pipes were fired in a manner that imparted a dark color, and as noted elsewhere, they tend to be rather small in size.



Figure 6.1 Sun-fire symbolism on Noded pipes (permission Robert S. Peabody Museum of Archaeology, Phillips Academy).

*Late Mississippian Symbolism.* Late Mississippian societies maintained the prominent status of smoking ritual, but judging by the transformation of symbolic depictions, its meaning was significantly altered. The variety of unique, symbolically charged pipe categories remained large, but much about their character changed. Also, stone was largely abandoned for production of pipes, their size generally increased, and the choice of clay and firing environment typically resulted in lighter-colored pipes.

Anthropomorphic representations are infrequent on Late Mississippian pipes, but bird imagery abounds. Early in the period, the Hummingbird category appeared, as did pipe bowls clearly modeled in the form of raptorial bird heads. Later, a host of avian symbolic elements were applied to Trumpet category pipes. Bird effigies were often added to pipe bowls in the form of appendages, and application of discrete bird-related elements was also a common practice. Avian effigy figures invariably face away from direction of the smoker.

When human motifs do appear on late-period pipes, they are usually in the form of disembodied heads modeled onto pipe bowls, facing away from the smoker (see Figures 5.8-a). Most common are simplified representations of facial features, but their puffy eyes and partly open mouths are suggestive of deceased individuals, somewhat like the famous head pots from the lower Mississippi Valley. Less common are more elaborate heads (see Figure 5.8-b). My sense is that these pipe forms were more prevalent during the early part of the Late Mississippian.

Monolithic Axe pipes are also unique to the early part of this period (see Figure 5.6-a). The widespread occurrence of this style most likely says something about the sociopolitical environment early during the post-Middle Mississippian era.

As noted, a number of locally unique pipe categories are also recognized, apparently emblematic of particular sociopolitical provinces. Among them is the Citico-style bearing serpent-related imagery and largely isolated to the Atlantic coastal zone (see Figure 5.7-d). Presumably this type is linked with the more widespread shell gorgets having a similar symbolic theme.

Trumpet category pipes are emblematic of the latter part of this period, and they present complex symbolic combinations. Their form alone is believed to be symbolically motivated, and the addition of various elements also obviously belies different intentions. The choice of particular elements, virtually all of which are unique to this period, serves to distinguish several variants within the Trumpet category. Some of them are discrete avian elements applied to the bowls in a consistent fashion, but others, like the different forms of gridding and loop handles, are difficult to understand. However, ultimately, it is clear that the basic Trumpet form, probably itself representative of a foundational concept, was modified with different combinations of elements, under standardized rules, in order to convey additional messages.

To summarize, pipes of the Early Mississippian period tend not to signify obvious symbolic themes. Later, certain symbolic themes become largely exclusive to particular periods, while others appear to run through both the middle and late intervals. Prominent among the shared thematic concerns are the fire-sun association and fertility, although they are expressed in quite different manners. Specific to Middle Mississippian pipes are the themes of ancestor/founder-figure associations and celestial concerns. During the following period, themes concerned with war and the supernatural appear to take precedence.

#### Interpretation of Symbolic Themes Represented on Mississippian Smoking Pipes

The extent to which the meaning of symbolism detectable on ancient smoking pipes is knowable to us today is an appropriate subject of debate. There are those who are confident that some of the meaning can be made comprehensible, but those same researchers will also usually acknowledge that full understanding will always elude us.



The same view applies to an analysis of smoking pipe symbolism. Valid insights will emerge most readily by following the kind of exercise just described, one that involves a systematic deconstruction of symbolic elements and subsequent evaluation of them within a multidimensional context derived from archaeological, ethnographical, and ethnohistorical sources. One aspect critical to a successful analysis, given the nature of the evidence, is comparative study. Another is a dose of creativity and resourcefulness.

The latter point bears elaboration. Southeastern Indian myths provide a rich body of potentially relevant analytical way stations. Tobacco origin myths have been recorded from several Southeastern groups that, theoretically, will have obvious relevance (Grantham 2002; Mooney 1900; Swanton 1929). Their value must be weighed, however, with the knowledge both that they were all collected no earlier than the eighteenth century, many centuries after the Middle Mississippian florescence, and also that considerable variation exists in myths from one group to the next, due to their different histories, territorial ranges, and so forth.

There is also the matter of complexity of meaning. That Southeastern Indian beliefs and their attendant symbolism were derived from a rich, complex, and sophisticated body of knowledge is well understood. It is also understood that plural meanings could be attached to any single symbolic element or any collection of such elements. Symbolic meaning was cleverly nuanced by use of double entendre or, as Jon Muller (2007) describes it, symbolic “punning.” This is all to say that a literal interpretation of symbols will not suffice; meanings are not always what they seem. Yet merely arming oneself with this knowledge is not an antidote to errors of interpretation. Ultimately, some judgment must be exercised regarding a point of diminishing return, recognized when the interpretive footing becomes especially miry.

Finally, I must note once more that the artifacts forming the basis for this study do not represent the entirety of the smoking pipes that were used, with rare exceptions. Instead, the objects that have survived are the pipe bowls (that usually include a short section of stem); the much longer, detachable stem portion has not. I tend to assume that the separate, perishable Mississippian pipe stems were often, if not always, elaborately decorated, as were the similar stems of *calumet*-style pipes, and very purposely so with rich symbolism (Figure 6.2). Therefore any effort to reveal the symbolic meaning of Mississippian smoking pipes is handicapped from the outset.

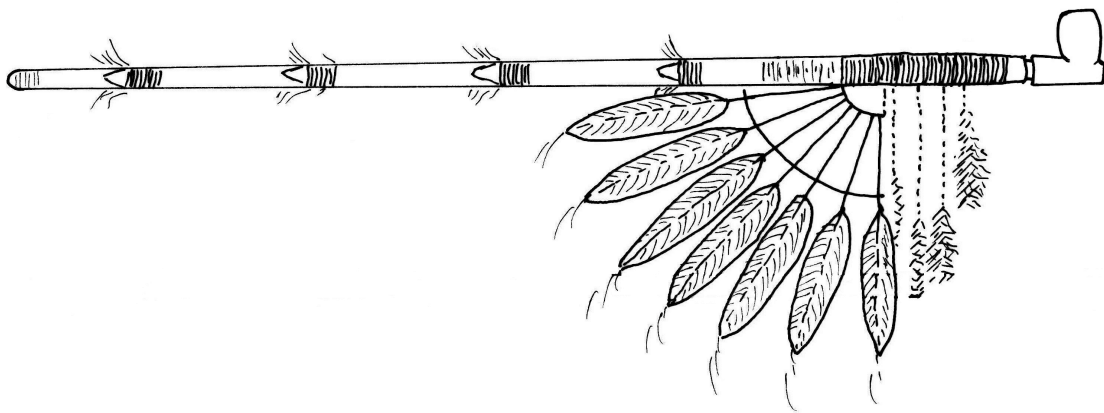


Figure 6.2 Drawing of calumet-style pipe (after Kickingwolf Gallery 2012).

Bearing these caveats in mind, I proceed to offer an initial interpretation of the meaning attached to South Appalachian Mississippian smoking pipe symbolism. Undoubtedly the work will be ongoing and the interpretations subject to change, but my perspective will provide a starting point.

## Interpreting Meaning in South Appalachian Pipes

*Cosmogonic Meanings.* Southeastern Indian myth and ritual very strongly tie tobacco with cosmogonic concerns. Origin myths cite tobacco as one of the original “medicines” given to humankind by divine messengers (Grantham 2002). It, along with other plants, was hierophanously transformed from an ordinary thing to a sacred substance. Consequently, tobacco and other medicines became integral elements of annual renewal ceremonies, like Green Corn. The acts of original transformation and gifting, all during primordial time, secured an exalted status for tobacco, making it literally indispensable to rites that sought to represent or validate original creation or other origins, as well as to those addressing fundamental transformations, including life and death.

Tobacco’s powers were invoked on multiple occasions during the multi-day Green Corn, or busk, ceremonial (see Chapter 3). Before the busk was initiated, the ceremonial leader fasted, but in the process, ingested quantities of tobacco and button snakeroot. Later, leaves of it were incorporated into a white clay plaster applied to the central hearth both after it was cleaned and before a new fire was lit in it. Also, a quantity of tobacco was placed outside the ritual space known as the square ground for consumption by members of the community deemed unworthy of direct participation. At different stages, then, the powers of tobacco were enjoined for the purposes of ritual purification, sacrifice, and community cohesion.

*Fertility Symbolism.* This is not the first place an argument for the fertility symbolism of Native North American Indian smoking pipes has been made. For example, Hall (1977, 1989, 1997) made the case for Midwestern-Plains *calumet* pipes after

considering their form and attendant rituals and myths. Paper (1988) made similar but more general arguments by drawing on varied lines of evidence. Here, an analogous case will be formulated for South Appalachian smoking pipes based on the symbolic features of pipes, mythology, and ritual.

The most obvious linkage is drawn from the tobacco origin myths of Muskogean-speaking tribes in the Southeast, like the Creek and Yuchi. The myths were described in detail in Chapter 3, but for making the case here, they merit a brief summary. All of them attribute the origin of tobacco to an act of sexual relations between a man and woman. One version of the Creek myth is as follows: A man found a pretty plant near a log, which marked the place where that man and a woman had lain. The plant was the result of their meeting. On advice of elders, the man nurtured the plant [tobacco] and eventually tried and liked it. He taught others about the plant. The first name given to the plant was “coeuns” (haisa), which means intercourse, and later, the plant was made a warrior with the name “hitci.”

An imperative of the actual act of pipe smoking, and more specifically of smoking tobacco in a pipe, was also at times to assure fecundity and abundance, or, more broadly, fertility. That symbolic status, or function, of tobacco ritual is revealed by multiple lines of evidence. Mythologically, tobacco is portrayed under two basic scenarios. The first, as noted earlier, pertains to matters of cosmogony, the primordial events that account for the origin of Southeastern Indian groups. Tobacco, more so than the act of smoking, is a fundamental element of all origin myths, because it was one of the essential medicines gifted to humankind by mythical founding figures. Those myths effectively confer special meaning and power to a select few plants for the purpose of sustaining humankind. Thus, a reciprocal kind of relationship is established under which humans benefit but only by

committing to a series of ritual injunctions that depend upon those plants. By extension, in the context of specific rituals, tobacco becomes a symbolic referent of creation time.

The second mythical scenario not only reinforces the tobacco-fertility connection, but it also attributes tobacco, in part, to human action. The tobacco origin myths of the Creek associate the plant with an act of human intercourse and describe it more specifically as having been generated from spilled seminal fluid. Here, we are to understand that male semen achieved conception with the Earth, and the progeny was tobacco. By this understanding, the unique and divine status of tobacco is, again, secured. To wit, tobacco, a powerful medicine, was not only generated by human bodily fluids that activated the Earth itself, but the spilling of those fluids represented an act of human sacrifice. Consequently, reciprocal sacrifice of tobacco became necessary to sustain the gods. (I also believe the Yuchi tobacco origin myth that has tobacco growing from the spilled blood of the Sun derives from and supports similar concepts (Grantham 2002:16).)

I find the masculine role in these myths intriguing, if for no other reason than the contrast they present to fertility concepts elsewhere in the Mississippian world. Female fecundity is obviously a universal concern of human societies, and it appears to have been no less prominent a concern among Mississippian groups in the Mississippi River valley, particularly those associated with Cahokia. A number of stone figurines from that region portray female personages together with symbolic elements that strongly suggest concerns with fertility. Archaeologists working in the Cahokia area have generally settled in consensus that a primary message conveyed by the figures (some of which were eventually modified for use as pipes, incidentally) is a form of the Earth Mother concept

(Emerson et al. 2003; Prentice 1986). In fact, Emerson (1997) has argued that these objects functioned in rites associated with a Cult of Fertility.

No direct analogs for a female-centered fertility cult are known from the South Appalachian Mississippian region, however. Instead, the somewhat later-dating Middle Mississippian groups in the area appear to have formulated a different set of fertility concepts. One of them, it seems, was more masculine in its orientation and was actually expressed most distinctly by tobacco ritual, including pipe smoking. The male role in acts of creation is featured in myths, and male symbolism is prominently featured on pipes. Indeed, I suspect further that the prominence of this region-specific concern accounts for the degree to which smoking ritual was developed in the South Appalachian area.

Another unique dimension of fertility symbolism in the South Appalachian area is the dramatic occurrence of paired male-female statuary, exemplified best by the famous marble figures from Mound C at Etowah. Thus, we discover a situation in which male symbolism seems to be on a more equal footing with female symbolism. Undoubtedly this symbolic portrayal of gender symmetry carried varied meanings, but one can argue, as Power (2004:84) does, that there was an apparent concern with the complementarity of gender roles. The same symbolic balance is apparent to me on smoking pipes, generally in the symbolic depictions on pipe bowls versus pipe stems.

With respect to the symbolic, physical features of smoking pipes, the fertility theme can be as implied as it is explicit. In general, however, the representation of both male and female elements on the same pipe is common, and I take the merging of the two as a metaphor for concerns with fertility. In fact, an argument can be made for the pairing of male and female elements on most smoking pipes that have an obvious bowl and stem,

as Paper (1988) notes. He argues that, fundamentally, pipe stems are a phallic, and thus male, representation, while pipe bowls are metaphorical vaginas and, thus, female representations. He and Hall (1989, 1997) describe how meaningful the act of joining a separate (male) stem to the pipe bowl (female) is during ritual performance.

Among South Appalachian pipes, there are a few examples where male genitalia are explicitly portrayed on the stem portion. Waring (1968) made note of at least three examples from Georgia, one each from the Lamar and the Mossy Oak sites and one from an unidentified site. I have examined the one of those he mentioned from Mossy Oak and have identified another in a private collection, one of which is illustrated here in Figure 6.3. Yet another example from Piedmont Georgia was sketched by C.C. Jones (Jones 1873)(see Figure 6.3).

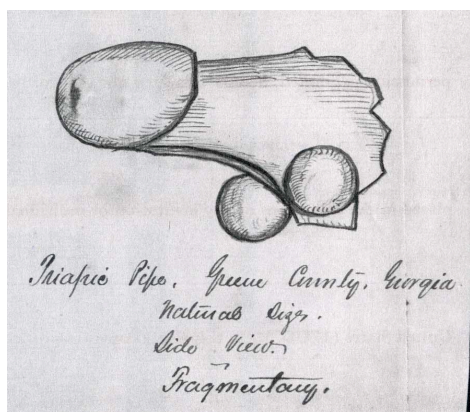


Figure 6.3 Examples of phallic symbolism on Late Mississippian pipes (left-permission University of Georgia Libraries; right-permission Ocmulgee National Monument, NPS).

The phallic symbolism of pipe stems is also readily understood, even without realistic embellishment, based on the mere fact of their form. That symbolism came to be enhanced when the *calumet*-style elbow pipe design was adopted, perhaps incidentally,

by the reinforcement of the bit end of the stem. Specifically, the bit ends of the stems were routinely thickened with different types of bands, presumably as a means of strengthening them before inserting a separate stem, but with the added effect of enhancing the stem's overall phallic appearance.

The symbolic meaning of the Jointed pipe form is not altogether clear, but I propose that it may also represent male genitalia, in addition to the female-signaling ceramic vessel (bowl). Here, again, the stem is the portion with masculine features. The bit end is always thickened with a band, usually expanded, that enhances the phallic representation. The distinguishing "joint" of this type, at the bowl-stem junction, might represent a scrotum. In most examples, it is fashioned as an obvious bulbous feature, but on others, a series of nested incised lines (and, very rarely, punctations) are added.

On some types of pipes, like the Monolithic Axe type, the male symbolism of the stem is made by transforming it into a male-related object, a symbol of war. The representational segue is easily made, given the obvious phallic representations built into other pipe stems. But, to emphasize the point of metaphorical complexity, there are a rare few Monolithic pipe stems that were given features of bird's heads, apparently those of raptors.

Female symbolism is less explicit as a rule, most often appearing by way of associative representations, like a ceramic vessel. Pipe bowls in the region are routinely depicted in the form of ceramic vessels, and based on the association of their production and use by women, they serve as a useful metaphor.



Understanding that stylistic elements will often, if not always, convey multiple meanings, I offer that one reference of the large Trumpet-shaped bowls of many Late Mississippian pipes is a female one. Specifically, I propose that this bowl type is vulviform. The representation is enhanced on the majority of such pipes by an elongation of the bowl on one axis to create an oval-shaped plan. Indeed, the identically shaped “ogee” motif prominent in SECC ritual art is also commonly taken to be a feminine reference (Power 2004:130).

The union of male and female symbolism is sometimes more explicit. One type of “idol” pipe portrays a seated or kneeling male figure embracing a ceramic vessel (see Figure 5.4-c-e). The position in which the vessel is held, always between the legs and usually against the torso, is very possibly a depiction of a sexual act. In this case, it depicts copulation between a male actor and a female representation, the ceramic vessel. At the very least, as in the case of so many pipes, it involves the union of male and female elements. (This particular pipe type is also rich with other symbolism that will be discussed elsewhere.)

*Linkages with Tobacco Ecology.* The obscurity of symbolic meanings, at least to us today, is exemplified by the unique features of the pipes I call Hummingbird. I argue that one of the fundamental messages of the symbolism is fertility, but it is a wholly metaphorical representation.

The Hummingbird type depicts what appears to be an animal grasping a ceramic vessel (the pipe bowl) in its mouth from below (see Figure 5.6-c). Popularly, the animal is commonly described as a snake that is swallowing an egg. While this interpretation might sometimes have plausibility, I offer that the animal is more likely a hummingbird.

The depiction of long, narrow beak-like elements is one visual basis of the argument, and another is the raised and incised panel that often replaces the lower beak half. I suggest that the raised panel signifies the brightly colored throat patch of many hummingbirds, including the ruby throated species common to the Southeast. Also, a realistically depicted hummingbird on a pipe from the Stubbs Site further sustains the argument (see Figure 5.6-d). This bird is, in fact, clinging upside down beneath the pipe bowl, surely capturing the unique ability of hummingbirds to perch and even fly in that manner.

Additional support comes independently from Cherokee mythology (Mooney 1900). The Cherokee tobacco origin myth describes a struggle to recover tobacco, a life-giving substance, after it was stolen away. A host of animals made unsuccessful attempts to recover it, and finally, the unlikely hummingbird retrieved it. In classic fashion, the myth celebrates special characteristics of hummingbirds, describing how their small size and quick, darting flight pattern became assets for the retrieval of tobacco.

I offer that the ultimate origin of this Cherokee myth, in which a hummingbird is heroically linked with tobacco, is observations about an ecological relationship between the two. Recent research, reviewed in Chapter 3, establishes a close symbiotic relationship between tobacco plants and hummingbirds and certain kinds of moths, noting that the latter are the principal pollinators of the plants (Kessler and Baldwin 2006; Kessler et al. 2008) (Figure 6.4). I would contend that native people, like the Cherokee, not only observed this relationship but found fertility symbolism in it. It is difficult (and unnecessary) to argue that the Cherokee understood the process of pollination in a biological, scientific way, but the actions required of hummingbirds as they feed could have readily been equated with sexual intercourse. This I suggest by the fact that tobacco flower pollination by hummingbirds requires insertion of a long, narrow beak into the

trumpet-shaped tube, or orifice, of the flower. That representative act could have readily and metaphorically been transferred to smoking pipes.

Knight and Franke (2007) have identified a similar association in SECC symbolism from multiple sites in the Southeast. They note apparent depictions of



Figure 6.4 Hummingbird pollinating tobacco plant (Royal Society of Chemistry 2008).

moth/butterfly symbolism on shell gorgets and other artifacts, very often in the form of an exaggerated proboscis. The relevance here is the same; certain moths, like hummingbirds, are principal pollinators of tobacco plants.

*Celestial Symbolism.* Standard elements of SECC symbolism are not common features of South Appalachian smoking pipes, but they are not completely absent either.

Well-known and widespread sun-fire symbols, such as the rayed circle and cross-in-circle motifs, are a case in point, but they are isolated to a single pipe category, the Middle Mississippian Noded type. Yet they are combined on pipes of this type with elements unfamiliar to the SECC corpus that, I believe, also represent celestial concerns.

Noded pipes, also known as “bubble” pipes, feature numerous dome-like nodes on the bowl, each sometimes enhanced with an incised encircling line (see Figure 5.3-d). The nodes are present in varying numbers and seldom were applied in an obvious pattern. Their symbolic meaning is not understood well, and the most common interpretation is that they portray the bowl as a maize cob, the nodes representing individual kernels (Moorehead 1932). I have not been persuaded by that interpretation and offer that the nodes are better understood in their association with the sun-fire symbolism and from a celestial perspective.

When sun-fire symbols occur on Noded pipes, they may be present in two different places and in the form of two different motifs. The locations in which they have been recorded are on the base of the pipe bowl and on the flat end of the stem’s expanded bit (see Figure 6.1). The typical motifs are an incised cross-in-circle at the base of the bowl and a rayed circle on the bit end. Related symbolism may also be present in simpler, more abstract form. For example, this type frequently has incised rings around the upper lip of the bowl and on the end of the bit, or a simple round disk may be formed at the base of the bowl.

Given the exclusive association of the sun-fire motifs with raised nodes, I argue that the latter elements have a related meaning. Specifically, I propose that the raised nodes represent celestial bodies other than the sun, such as stars and/or planets. Celestial

observations run through Southeastern Indian mythology, and it is to be expected that they would be represented in durable media as well. Outside of concerns with the sun and moon, the Milky Way and constellations of stars also held important places. For example, the Milky Way is believed to have been the “Path of Souls” referenced in Midwestern Indian myths (Lankford 2007b). I also note the depiction of a pattern of circles around the margin of a spider’s thorax on a walnut tablet from Moundville (Alabama)(Walthall 1990)(Figure 6.5), relevant here because a heroic spider is celebrated in some Southeastern Indian myths as the bringer of sacred fire (Hudson 1976; Mooney 1900).

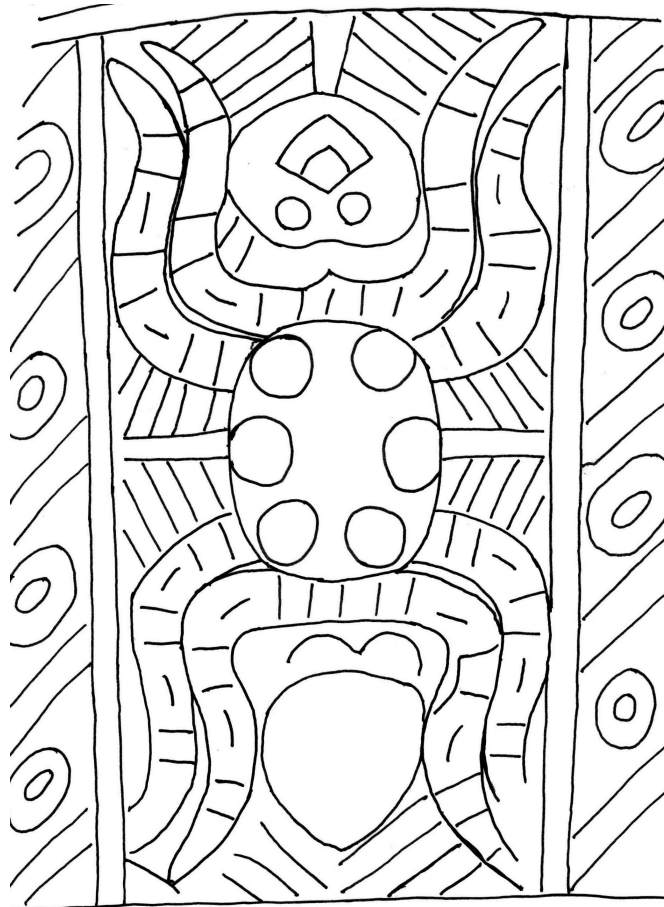


Figure 6.5 Drawing of depiction of spider with ring of circles on thorax (walnut plaque from Moundville, Alabama, illustrated by Walthall 1990).

The iconographic package represented on Noded pipes can be interpreted as a celestial tableau. Literally central among the elements is a “solar disk” uniformly present on the base of the pipes as a relatively large disk, sometimes accentuated in relief and/or enhanced by a cross-in-circle motif. That motif, widely associated with sun-fire symbolism, would also serve to portray a quartered universe and a host of other direction-related concepts. In circuit around the central disk, visible on the sides of the pipe bowl, are the raised nodes that I have suggested represent other celestial bodies. I speculate further that the nodes are a highly stylized zodiac-style representation of the night sky. Reinforcement of the sun-fire concept was sometimes applied by incising a rayed circle on the end of the pipe stem bit, and always, the literal fire ignited in the bowl would likely have lent extra emphasis to that connection. Also, the coupling of fire with tobacco, by consuming it in an act of sacrifice, entails another instance in which fundamental elements of the belief system, linked with the act of creation or origin, are inextricably joined. And, ultimately, we must contemplate the possibility that the nested circular elements are symbolic portrayals of social or other relationships that Levi-Strauss referred to as those of “concentric dualism” (Levi-Strauss 1963:132-162.) Because Noded pipes are the most widespread of the iconic Middle Mississippian pipes that appear to emanate from Etowah, their symbolism must have had a powerful, far-reaching effect.

*Fire-Sun Symbolism More Generally.* The symbolic significance of smoking ritual was not derived entirely from the paraphernalia used to conduct it. In addition to the symbolism of pipe bowls, aspects of related ritual actions were also infused with important meaning, some of which we may be able to unravel.

The act of containing and maintaining fire within a pipe bowl surely carried its own symbolic meanings. It has been suggested in this regard that the pipe bowl served as a portable altar in which a sacred medicine was sacrificed (Paper 1988:13-14). On one important level, fire contained in a pipe bowl could be taken to represent the sun. Fire, properly contextualized, was a powerful and often central feature of Southeastern Indian ceremonialism, almost always linked with the sun, if nothing else (Waring 1968; Waselkov and Braund 1995). Examples of the metaphorical connection include ritually maintained fires within temples and council houses and fires at the center of Creek square grounds. On another level, the ascending smoke from burning tobacco established a visible path of communication with the Upper World. Ritualized gestures, like raising or pointing a lit pipe in particular directions, combined with invocations that addressed deities, serve to confirm this notion (Du Pratz 1972; Waselkov and Braund 1995). And because, in some cases, tobacco was viewed as a vital food of the gods, the smoke was a means of delivering sustenance.

Among Southeastern and other groups, one particular ritual action involving pipes appears to have had celestial connotations. Fundamental to several smoking rituals was the specific act of offering a pipe and smoke to the four cardinal directions before sending it skyward toward the sun or Upper World (Du Pratz 1972; Waselkov and Braund 1995). Presentations of pipes and smoke in this way also adhered to specific conventions about a necessary starting point and direction of movement, a prescription believed, for among other reasons, to emulate the apparent movements of heavenly bodies.

A final, Late Mississippian example of fire symbolism is that expressed by certain, if not all, of the Trumpet style pipes. As it happens, the bowls of these pipes are

representations of a distinctive ceramic vessel type (or vice versa), commonly referred to as “gravy boats” or noded vessels (Brain and Phillips 1996; Hally 2008)(Figure 6.6). This symbolic association has also been noted by Brett Riggs (1992). The noded, gravy boat vessel form, some have suggested, served as a ritual container of burning embers. Certainly the same function is true of pipe bowls. Protection and sustenance of fire in special containers is also represented in Southeastern Indian myths. Well known among



Figure 6.6 Example of “gravy boat” vessel with peaked ends and raised nodes (from Moore 1915).

them is the story of the spider that recaptured embers from sacred fire and spun a special silk container to for carrying it (Hudson 1976; Mooney 1900). And, anecdotally, I have seen graphical depictions of this myth that show a ceramic vessel perched atop the spider’s back (see Figure 6.7). Less obvious is the symbolic meaning of the raised nodes and the raised grid pattern on homologous pipes, but I tentatively offer that they extend the celestial reference suggested for Noded pipes of the middle period.





Figure 6.7 Modern Cherokee depiction of spider retrieving sacred fire; note ceramic vessel imagery (photo by author).

*War Symbolism.* War symbolism on pipes appears to occur most frequently during the Late Mississippian period. Two categories more apparently convey those concerns, and both seem to date primarily from the earlier part of the late period. One of them is the Monolithic Axe category (see Figure 5.6-a). The connotation of war is readily recognized by the nature of the weapon modeled onto the stem of these pipes, but as noted, the motif may also symbolize male-related themes.

Human head effigies modeled onto pipe bowls are also suggestive of the theme. I draw this connection because the disembodied heads, with their deathly facial features, are analogous to the trophy heads depicted on shell gorgets and other artifacts, usually associated with SECC assemblages.

*Bird Symbolism.* In general, middle-period effigies are prone to be anthropomorphic, and those that follow tend to be zoomorphic. It is no surprise, then, that bird symbolism is less common on Middle Mississippian pipes than it is during the later period, beginning after AD 1350; bird motifs are exceedingly rare on Early Mississippian pipes. Regardless, the most common type of bird modeled onto pipe bowls or added in

the form of prominent appendages is a raptorial one. Rarely, owl-like birds are represented as well. Also, symbolic avian elements on pipes of a synechdotal nature include beaks, eyes, and crests.

Owl-like birds are the only avian type securely tied to Middle Mississippian contexts. They are known on only three examples from three different sites, two from the Savannah River valley and another from the Tennessee River valley. The birds on these pipes are reasonably realistic depictions of owls, presumably great horned owls, because of the ear-like tufts added to the heads. The bird bodies, wings, and heads are formed by modeling the bowl, the legs and feet are shown clutching the stem, and the tail protrudes from the lower part of the bowl. The bird is always oriented to face the smoker (see Figure 5.4-f). Owls have most often been viewed by Southeastern Indians with suspicion and tend to be harbingers of danger, evil, witchcraft, or even death (Hudson 1976). In fact, they are not included in the repertoire of SECC symbols, and their depiction on these pipes indicates that they were probably used under very specific conditions. The owl pipes are similarly made, perhaps suggestive of a single artist, but they are not identical.

Raptorial heads are modeled onto the bowls of what I interpret to be a later-dating, transitional type, perhaps made toward the end of the middle period or the beginning of the late period. Again, pipes of this type are uncommon and known from only three sites, Etowah and two mound sites in the upper Oconee River valley. The raptorial features are an exaggerated hooked beak, a flared crest of feathers down the back of the head, and sometimes a forked eye-surround. On one Trumpet pipe of the gridded band variety, only the distinctive flared crest is present. The bird heads on these pipes are oriented to face away from the smoker.

Strongly associated with the Late Mississippian period and appearing in greater numbers are avian effigies of a less realistic nature. Creative uses of isolated bird elements are also emblematic of the period. With few exceptions, these representations are on Trumpet-category pipes, and always, the birds are oriented to face away from the smoker.

The most common style features a crested bird head with large eyes and a beak that is large but usually proportional in scale to the head, sometimes hooked and sometimes straight. Invariably, these birds are added as prominent appendages to Trumpet pipes, usually extending from the side nearest the smoker but, as noted, facing away. Generally speaking, every element of these avian adornos is stylized, indicating that there seems to have been no concern with accurately representing a particular bird species, only the head and neck of a generic, large, predatory one.

Another Late Mississippian style features more fantastical bird-like effigies. Best known among them, because of their bizarre form, yet still very rare, are Trumpet pipes with a prominent owl-like bird perched on the end nearest the smoker (but, again, facing away). An interpretation of the effigy as owl-like is based mainly on the prominent ear-like protrusions added to the head (Figure 6.8-a). However, relative to the body, features of the head, like the eyes, beak, and “ears,” are disproportionately large. The visual effect of these symbols is further enhanced with a coating of bright, red pigment. The effect creates a rather grotesque visage. The extremely close resemblance of the two known examples of this type indicates they were made by a single artist. At least one different example exists of the generic crested bird that is made to be disproportionately large and fully bridge the pipe bowl (Figure 6.8-b).

Trumpet pipes of the late period were commonly embellished with motifs that appear to signify separate features of bird anatomy. For example, large hollowed nodes placed around the side of pipe bowls are probably representations of eyes, especially considering their similarity to the eye nodes of more anatomically correct effigies. They almost always occur in numbers greater than two, sometimes as only a few spaced evenly and, in other cases, arranged in a densely packed field (see Figure 5.7-b). It is also common for the hollow of the node to be accented with red pigment, presumably to

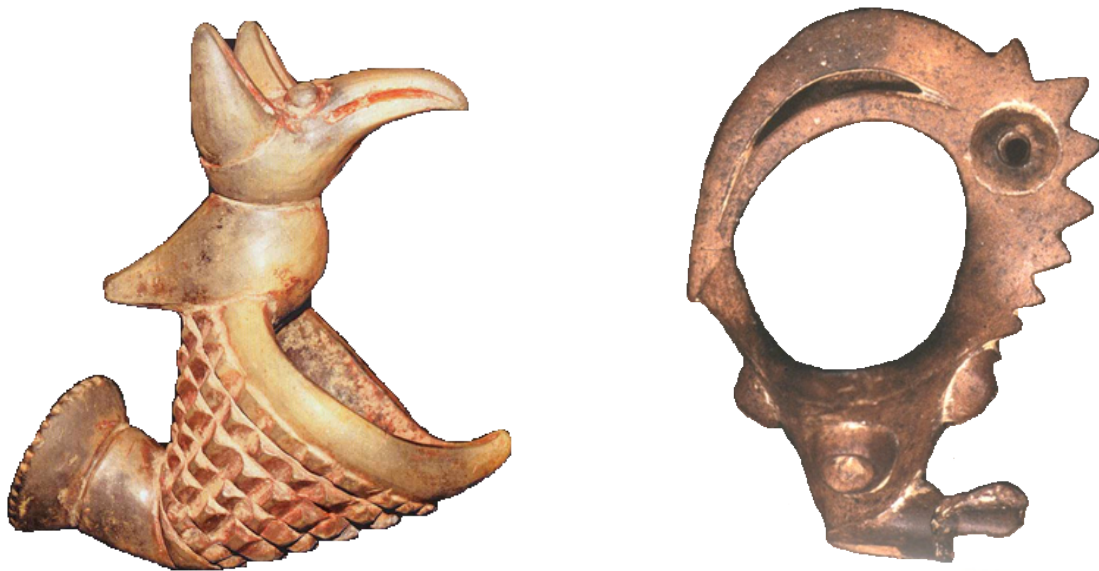


Figure 6.8 Representative elaborate Late Mississippian bird Effigy pipes (left-from *Central States Archaeological Journal* 56(2), 2009; right-permission Frankie Snow).

mimic the red coloration in the eyes of certain hawks (e.g., Cooper's and Sharp-shinned hawks).

Other discrete avian features on Trumpet pipes include a notched crest and beak-like projections. The notched crests in these cases are more stylized and subtle than those

of the flared sort on raptorial head pipes described earlier. Generally the crest is a notched, low-relief, keel-like ridge running down opposing ends of the oblong bowl. Similar crests sometimes run down the dorsal spine of bird appendages applied to pipes.

The beak-like projections extend from opposing ends of some oblong Trumpet pipes, sometimes subtly and other times very prominently (Figure 6.9). The prominent sort tends to be a well-formed representation of one half of a beak, with obvious inner and outer sides. All of them transition into the open bowl, as if it were the wide-open mouth of a bird.



Figure 6.9 Examples of beaked appendages from Trumpet category pipes, Glass Site (9TF145), Georgia (permission Fernbank Museum of Natural History).

Thematically, I propose that the bird-related symbolism on pipes expresses at least two aspects of beliefs and one aspect of ritual practice. Generally, most birds were associated with positive forces of the Upper World. Falcons, eagles, and hawks were universal symbols of power, especially in matters of war (Hudson 1976; Power 2004).

Furthermore, the obvious inclination to link birds with the Upper World extends to them a special status, that of envoys between the Upper and Middle worlds. Thus, by invoking the qualities of certain birds, particularly in conjunction with ritual smoking, humans also were capable of uniting those realms.

Also, it is very possible, if not likely, that the bird figures sometimes represent tutelary visages perceived by hallucinating shamans that were “in flight” during the course of trances (see VanPool 2007). Indeed, late-style pipe symbolism emphasizes supernatural and perhaps war themes at the expense of those human or ancestor and fertility themes more common in the middle period. And apropos of the Late Mississippian milieu of the South Appalachian region, evidence of amplified shamanic practice accords well with suggestions that the prevailing social and religious arrangement had become more “communalized.”

*Unique Symbolism.* Certain categories of pipe bowls express different messages. Most such unique types have a localized distribution, a fact that implies a set of specific cultural influences based on particular beliefs.

One unique type, the Citico type, occurs more or less exclusively on the Atlantic coast of Georgia (see Figure 5.7-d). The name I have applied to it acknowledges the symbolic composition that it appears to represent, that of a coiled, mythical serpent-like creature. This theme is more often depicted on marine shell gorgets and sometimes on ceramic vessels (Figure 6.10). The representations on gorgets take a range of styles depending on their age, and I suggest that the coastal pipes are most like the Citico style most popular during AD 1525-1600 (Hally 2007).

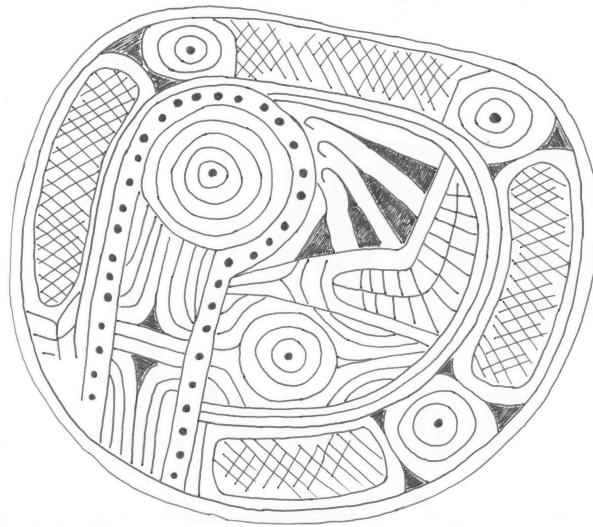


Figure 6.10 Drawing of Citico-style shell gorget (after The Metropolitan Museum of Art 2012).

As described in Chapter 5, the portion of the serpent-like creature represented by the pipe bowl is the head, and presumably, the detachable stem would have included a representation of the creature's body. The features of the bowl closely duplicate those observed on many gorgets of the same style, including an enlarged eye, bared teeth, and a feathered plume extending behind. The general consensus is that the coiled serpent creature represents a mythical, dragon-like beast prominent in Southeastern Indian mythology, named *Uktena* by the Cherokee (Mooney 1900; Hudson 1976).

The localized occurrence of this pipe type, and its unique means of representing the mythical serpent creature, inspires questions of why it was specifically made and used in this area. Hally (2007) examines the distributions of classic marine shell gorget styles and illustrates how the Citico type is heavily concentrated in the Tennessee-Coosa river drainages, with only rare occurrences elsewhere, including on the Atlantic coast, where the pipes are found. Larson (1955) documents the motif's presence on ceramic vessels in the same coastal area. Perhaps the Atlantic coastal groups, who were purveyors of marine

shell to interior groups, were introduced to the symbolism by exchange contacts yet sought to express the concept in a medium less common to them than marine shell.

Another supernatural motif exclusive to the late period is an owl-like effigy on two known pipes described earlier from the northwestern reaches of the South Appalachian region, one from the Nacoochee Site (Heye et al. 1918) and the other reported from northwestern Alabama. The two pipes are very similar in form and execution, so much so that they may have been made by the same artist. The bird effigy perched on one side of the bowl of these pipes is rather bizarre in appearance, mainly because the beak, eyes, and horn-like appendages on the head are greatly enlarged (see Figure 6.8-a). While it seems likely the inspiration for the effigy was a great horned owl, the nature of the overall composition suggests that the comparison stops there and that it portrays a fantastical creature.

Also among the unique, relatively localized types is the Wrapped category concentrated in the middle Chattahoochee and lower Flint river drainages and extending outward in a narrow north-south corridor. Aspects of its age and distribution were discussed in Chapter 5. As do many types, the Wrapped type appears to express multiple concepts. The meaning of the apparent bands of a wrapping or lashing remains elusive, although series of rings are not unknown on the stems and bowls of other types of pipes (see Figure 5.4-b). Otherwise, the type appears to make symbolic reference to concerns with fertility and the celestial realm. Fertility symbolism is expressed by the mere form of the pipe, as argued earlier, but such concepts are enhanced in familiar ways. The bit end of the stem is enlarged with an expanded band, and the pipe bowl is sometimes represented, in part, as a ceramic vessel, complete with loop handles and other kinds of associated embellishment.



Celestial concerns are represented on Wrapped pipes somewhat similarly to the way they are on the Noded type, which is a contemporary style. In rare cases, the upper surface of the bowl lip is incised with a cruciform pattern centered on the bowl cavity itself. I suggest that this is a sun-fire representation. Also, four-part symmetry, reflective of a quartered-world concept, is present in the form of four loop handles or decorative castellations on the rims of the ceramic vessel depictions. Very frequently the bowls, and often the stems as well, are decorated with a geometric pattern made by fine zoned punctation. This I suggest is a representation of other celestial bodies, like stars or possibly even the Milky Way. It also bears noting that vessels bearing similar decoration are known from Moundville, west of the study area (Steponaitis 1983).

Embedded in the complex symbolism of the Middle Mississippian anthropomorphic pipes are probable representations of entranced individuals, perhaps shamans or priests experiencing visions (see Figures 5.4-c-e). Elsewhere in the Mississippian realm and throughout parts of the Americas, depictions of humans in peculiar postures have been interpreted similarly. There is ample ethnohistorical documentation of “conjurers” who assume awkward kneeling, squatting, or seated poses during the course of visions, perhaps for the purpose of achieving the altered state through the added effects of discomfort or for the purpose of taking on characteristics of otherworldly beings (Figure 6.11). In addition, tobacco was among the substances that were ingested in order to induce hallucinations for the purpose of experiencing and signaling existential metamorphosis. Thus, the anthropomorphic figures shown kneeling or seated on certain pipes, with their heads thrown back, are very possibly intended to signal such activity.



Figure 6.11 “Conjurer” illustrated by Le Moyne (1564).

*Summary of SECC Symbolic Representation on Pipes.* The symbolic themes, motifs, and elements represented on South Appalachian smoking pipes are seldom consistent with those documented on SECC objects. Appendix F summarizes the occurrence of classic SECC symbols on pipes according to pipe types as I have defined them. SECC motifs do not occur at all on early-period pipes, and interestingly, they occur with greater frequency on Late Mississippian types than on Middle Mississippian types. I hasten to add that, while the visual representations listed in the table are analogous to SECC symbols, it is not necessarily certain that their meaning on pipes was the same.

Middle Mississippian Human Effigy pipes of the South Appalachian region are distinct from those so well known from the Mississippi Valley. Nor do the South Appalachian pipes depict the human form in poses or costume directly analogous to the similar imagery on copper plates, shell gorgets, and the like from the same period. Instead, the occurrence of SECC symbolism is sparse and typically appears as isolated

elements, as opposed to a classical integrated theme. For example, South Appalachian Human Effigy pipes only rarely portray such symbols as a mace-like baton. However features of human figures present on other SECC objects, such as an occipital hair bun and a close-fitting headdress, are often present. As they are elsewhere, the human figures exhibit abnormal features, such as awkward poses and humpbacks, in contrast to the upright, dancer-like poses of human figures on gorgets and copper plates.

Likewise, SECC symbolism present on other Middle Mississippian pipe types is limited in variety and frequency. It is clearest but infrequent on the Noded and Wrapped types. Rayed circles and cross-in-circle motifs occur on some specimens of the former, and a cruciform motif is sometimes present on the latter type.

Raptorial bird imagery is a common feature of Middle Mississippian symbolic representations, usually presented in combination with other elements of the SECC symbolic corpus on shell gorgets and dippers, copper plates, ceramic vessels, and the like (Phillips and Brown 1978, 1984; Power 2004). The common forked eye element has led many to identify the principal bird as a peregrine falcon, but regardless, obvious bird-of-prey features are prominently displayed, including heads, eyes, beaks, wings, and talons, as parts of ceremonial regalia, features of mythical creatures, or even as naturalistic representations.

Raptorial bird imagery occasionally appears on smoking pipes, but it is not a prominent feature of pipe symbolism. When it does appear, the depiction is usually a raptorial bird's head modeled onto the pipe bowl. Good examples are known from the Scull Shoals and Dyar mounds in the Oconee River valley. Admittedly, dating of these rare pipes is not well-established, but I offer that they are most representative of the latter

part of the middle period and perhaps extend into the early part of the next period as well. As discussed elsewhere, Middle Mississippian bird imagery on smoking pipes includes representations of owls, a bird that is not an SECC icon.

As something of an aside to this discussion, it is useful to consider the meaning of the “bellows-shaped apron” element so frequently included with anthropomorphized representations of “eagle dancers” that, usually, is taken to represent a human scalp (Figure 6.12). Ethnohistorically, we discover mention of pipe bags and tobacco pouches together with many comments about smoking pipes. In other words, the pipes and the substances that were smoked in them were carefully secured in special containers. While it is true that smoking pipes are almost never explicitly shown as elements of SECC religious art, it may be that the bellows-shaped pouches or aprons suspended from the waist of stylized dancers could be pipe and/or tobacco bags, fashioned in part from scalps.

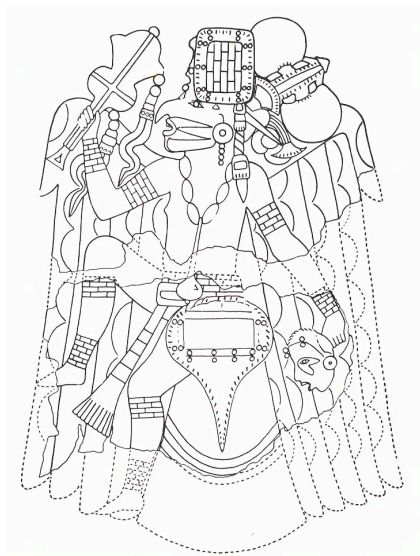


Figure 6.12 Example of bellows-style apron on copper plate from Etowah (from Fundaburk and Foreman 1957).

A wider spectrum of SECC symbolism is present on pipe types unique to the Late Mississippian period, but still, it is not common. I suggest that the appearance of SECC symbols on pipes in this era represents at least a low level of continuity with the preceding period, though their meanings may have been altered.

Bird symbolism is much more prevalent among Late Mississippian pipes, and representations of raptor-like birds appear to perpetuate middle-period concerns. Almost always, it is the head of a raptor-like bird that is represented on the pipe bowls, sometimes in the round on a fully transformed bowl or as a projecting adornment on an otherwise plain bowl. As is always the case, it is likely that associated symbolism extended to the separate stem. Regardless, classical features of raptors that are frequently represented on ceramic bowls are a prominent hooked beak that is partially opened, prominent eyes, a feathered crest, and sometimes a forked eye-surround. Presumably, pipes embellished with raptor symbolism invoked concepts closely associated with male activities, such as war.

Other kinds of birds are also commonly represented on late-period pipes, but exactly what kinds they represent are difficult to know. Indeed, it is possible that they represent supernatural concepts, as opposed to a particular revered endemic species. At the same time, it is possible that they are also intended, in some instances, to represent woodpeckers, turkey cocks, or raptors, all of which appear on other SECC-related objects.

Ordinarily, these bird representations are in the form of appendages to ceramic pipe bowls. Most all of them are executed very artfully with close attention to detail. The most common form is a crested, large-eyed bird head that projects from one side of a

trumpet-shaped bowl. Sometimes the bird beak is partly opened. In other, less common examples the bird appendages are much larger and elaborate. Taking many known examples into consideration, it is most likely that the birds represented are raptors or woodpeckers, given the prominent feathered crests.

Representations of owls are carried over from the middle period as well, but in a different style. Just as in the middle period, Late Mississippian owl depictions are confined to a relatively rare but highly standardized form. Specifically, the owl appears to be a great horned or screech owl perched on one side of a trumpet-shaped bowl. The consistency in details strongly suggests a single craftsperson.

Another type bearing SECC symbolic derivations is the Citico type depicting the head of a serpent-like creature. Although the serpent motif is less representative of South Appalachian symbolism than it is of other Mississippian sub-areas, it does also have Middle Mississippian antecedents. Almost always, the composite, dragon-like beings with serpent bodies are associated with the Underworld and the Water Serpent.

### The Act of Smoking in Ritual Practice

I have thus far had little to say about the *act* of smoking itself in the context of ritualized activity, or of related acts. A consideration of those acts, which together represent much of what constitutes a ritual, is important, if for no other reason than to be reminded that rituals fundamentally amount to the performance of a series of prescribed acts that may be augmented, sometimes lavishly, by chanting and other kinds of recitation, music, dance, and carefully prepared settings. Smoking, whether of pipes or by other means, would in most cases represent one of the active elements that comprised a

ritual. In short, it would potentially represent one of many active parts indispensable to effective ritual performance.

Rituals, including smoking rituals, can prescribe a nearly infinite range of individual acts. For example, a rite that involved smoking could be a very private, personal, and routine one limited to simple consumption of tobacco, or it could be one that occurred infrequently and publicly, involving numerous stages, numerous people, and lavish paraphernalia. Regardless, all such rites would be performed according to culturally prescribed rules and for relatively specific purposes. The complexity and frequency of ritual performances can theoretically say much about the culture to which they belong. With respect to costly signaling, there is the obvious question of how the variable costs of ritual performance were justified by the perceived payoffs to individuals and the group.

Finding a way to evaluate such questions on the basis of archaeological evidence is obviously challenging. In the case of smoking ritual, the usual surviving clues are the relatively durable pipe bowls or fragments of them, artifacts that they are associated with, and the contexts in which they are found. In the South Appalachian region, there is also some insight to be gained from indigenous mythic narratives and ethnohistorical observations regarding ritual performances. Together these sources allow one to at least contemplate the fuller ritual context in which pipe artifacts were used, including additional symbolic dimensions of the performances. And ultimately this knowledge will be useful for evaluating costs and payoffs of the performances.

Smoking rituals performed by individuals in private are virtually unknown. This is not to say that they were not part of the smoking ritual repertoire, only that, because

they were private acts, they were seldom if ever observed by those that might have been inclined to record them.

What we do have some record of are occasions where two individuals exchanged tobacco, or shared a pipe, but without the pretense of a public display. Instead, there are reasons to believe that these acts were part of a ritualized greeting (Jones 1999:397). Good examples are provided by Bartram that describe the activity that transpired upon the chance encounter of two travelers on a trail, for instance (Waselkov and Braund 1995:115). The important point is that the essence of the ritual was a gesture of gift-giving involving a precious substance – tobacco, whether in raw form or in a pipe that was smoked together. Presumably, this kind of exchange served to defuse tension and establish a basis for at least temporary respect. Also, one gains the sense that not all tobacco was equally sacrosanct and that more casual usages of it, as in the greetings just described, involved a variety that had not been blessed. The Cherokee, for example, are known to have had a tobacco “remaking” ritual that (Hall 1977:514; Kilpatrick and Kilpatrick 1967).

More public greeting rituals that involved tobacco consumption are better documented. Numerous ethnohistorical accounts describe lengthy and highly orchestrated welcoming ceremonies that included the visitor or visitors and many individuals from the host community. Again, especially thorough descriptions are given by Bartram (Waselkov and Braund 1995). Once more, a vital element of the ritualized activity was intimate sharing of a single pipe passed among the participants. In these cases, it was always the host who provided the pipe and the tobacco to fill it, again comprising an act of gift-giving and sacrifice. Paper (1988), among others, argues that these acts were



conceived of as virtual adoption ceremonies that, again, established a bond out of which subsequent relations could flow.

Some smoking rituals have been described that were public but also far more exclusive. Specifically, privileged individuals were observed each day to solemnly present a burning pipe to the sun and to the cardinal directions alone from atop the summit of a mound (see du Pratz 1972). Obviously, these acts were meant to be observed, but they were not otherwise participatory, public rites.

Other public rituals involving consumption of tobacco, such as those associated with Green Corn ceremonialism, were also exclusive but more participatory and intentionally public. With these events of several days, tobacco figured into multiple ritual acts scheduled as part of a strict sequence of events. I have described the role of tobacco in such ceremonies already.

### Evaluation of Symbolism in Terms of Costly Signaling Theory

Evaluation of smoking ritual under the concept of costly signaling may be accomplished through consideration of three aspects of it: the complexity of pipe production, the production of substances to be smoked, and the transmission and control of specialized knowledge. In this section, I address each aspect but mainly the first and third, as the design and manufacture of pipes, particularly those that are heavily loaded with symbolic content, would obviously require specialized skill and sanctions.

A summary of observed trends in the South Appalachian region will be useful before moving forward. However I submit first that, regardless of the degree of symbolic

elaboration of paraphernalia, smoking rituals, like most rituals, are costly activities. At minimum, most of them interrupt the secular routine, require production of paraphernalia and substances, and require command of special knowledge. My objective, then, is more one of evaluating variation in costly signaling behavior than one of arguing that it was or was not a relevant factor. And again, in this section, my focus is mainly on certain aspects of costly signaling behavior specific to smoking ritual.

Early Mississippian smoking ritual, by comparison to what followed, was a low-cost endeavor. Smoking pipes of the period were simply designed and simply elaborated, if at all. The most common form, the Long Simple category, was made to function as a self-contained smoking device, without need to fabricate a separate stem. Apparent introduction of the Footed varieties toward the end of this period raised costs somewhat, but they were still relatively low. More than any other feature of Footed pipes, the requirement of a separate stem would have introduced the added costs of new skills and production time. Otherwise, the Footed pipes are typically without overt symbolic embellishment.

Middle Mississippian pipe production, from stylistic standpoint, assumed a distinctly baroque character, and with it came all of the attendant new costs. The simple portable altars of the preceding period were, by this time, more commonly lavished with diverse symbolic elements and refinement of the separate, *calumet*-style stems. It was also during this period that elaborate stone pipes were most common, and certainly both the acquisition of materials required and their production carried new costs. Together, the use of stone and a strong degree of standardization of styles are suggestive of craft specialization. The matter of the separate stems bears some comment, although they are not part of the archaeological evidence in the region. Smaller stem bore diameters at the

bit end of Middle Mississippian pipes signals refinement over the relatively large, clumsy ones fitted to Footed pipes. In addition, and regardless of diameters, the matter of fashioning a long, custom-fitted hollow tube to a separate bowl and then decorating it, was no mean feat. Because I see little indication that smoking ritual was affiliated with SECC activity, its more formalized development at this time provides yet further evidence of heightened elaboration of costly ritual activities. Finally, I intuit a set of unique costs associated with the dispersal of individual pipes to distant locations. In other words, it is only during the middle period that isolated occurrences of distinctive pipe types occur across the region, and presumably, they represent the long-distance transport of special gifts.

Obvious changes to smoking ritual occurred with the onset of the Late Mississippian period, but from a costly signaling standpoint, they were far less dramatic than those that transpired between the early and middle periods. The highly ornate character of many late-period pipes and the ongoing use of separate stems are indicative of ongoing, high costs to sustain the practice, including the work of craft specialists. My sense, however, is that certain costs were reduced by the abandonment of harder stone in favor of elaborate pipe production and less centralized, far-reaching controls over production. In other words, the cost of controlling the ritual activity may have declined as the sociopolitical landscape became more balkanized.

I devote the next chapter to a thorough discussion of costly signaling and other dimensions of South Appalachian smoking ritual but will introduce in this summary some of the deeper implications of my initial observations. Specifically, I briefly explore the meaning of some of the observed patterns in the record of smoking ritual against

expectations of costly signaling theory and the larger understanding of South Appalachian Mississippian cultural history.

One theoretical expectation is that costly rituals are designed to signal the underlying qualities of their individual and group sponsors. The relative simplicity of Early Mississippian smoking ritual is indicative of less concern with signaling of this nature, but after a point early in the thirteenth century, the practice appears to have been developed to the extreme for that purpose. Surely it is no coincidence that the observed ritual change is aligned with the institution of rigid social structures, initiation of massive public works projects, and intensive inter-group competition, all of which was possible only under a strong centralized authority.

An anticipated payoff of costly signaling is enhanced cohesion of groups, ultimately because participation in activity, like ritual, projects a willingness to absorb costs for the greater good. Here, again, Middle Mississippian elaboration of ritualized smoking and perpetuation of it through the late period are rather predictable outcomes, as a cooperative populace is necessary for the success of public works projects, defense, and the like. Moreover the stresses of such endeavors, not least among them being warfare, may be modulated with rituals that not only bind participants together but do so by exciting positive emotions. Ritual displays and participation in them may also serve to strengthen cohesion as group diversity increases. In the case of Mississippian polities, which by the middle period and at times in the late period expanded to absorb other groups, efficacious rituals could have served to build a sense of collective identity. By the same token, aspects of smoking ritual may also have been aimed at justifying the separate, privileged statuses of the elite.

Finally, when ritual practices no longer succeed in demonstrating the positive qualities of their sponsors, maintaining group cohesion, or making any other of the anticipated payoffs, changes became inevitable. I believe that fundamental adjustments in the nature of smoking ritual were made on at least two occasions in the South Appalachian area, marked by the rather abrupt symbolic transitions from the early to middle and then from the middle to late periods.

## Chapter 7.

### Summary and Conclusions

In this concluding discussion, I first seek to situate observed aspects of smoking ritual within the broader context of Mississippian cultural patterns. With respect to the South Appalachian Mississippian culture area, my work represents the first comprehensive study of smoking pipes and the rituals in which they were utilized. The results gain added significance in light of realization that smoking ritual was uniquely elaborated within the region. The work also addresses the question of ritual variation and change, making use of a solid framework of regional culture history that charts basic tendencies. These topics are also considered relative to the tenets of costly signaling developed by evolutionary theorists and to the model I presented in Chapter 4. Finally, I consider the implications of the study for more general treatments of ritual behavior and especially the question of ritual change.

### General Reflections on the South Appalachian Region's Inalienable Rite

Had the first perspective on South Appalachian Mississippian societies been gained only through a study of smoking pipes, I believe the changeable nature of those societies, as well a sense of their religiosity, would have become immediately apparent. This is a way of making the point that smoking pipes must now be appreciated as another class of artifacts sensitive to fundamental aspects of Mississippian culture. My study of them is rewarded with valuable reinforcement of trends revealed by other lines of research and with a series of wholly unique insights. Continued study of pipes will undoubtedly achieve further success.

These statements raise numerous questions, not least of which are how and why pipe smoking persisted as long as it did, specifically as a ritualized activity. Certainly over the course of the Mississippian Stage, and almost undoubtedly for far longer, smoking was what I have come to call an inalienable rite. By this I mean that it had become, by some uncertain point in time, a practice that was firmly ingrained in Southeastern Indian cultures, so much so that it was perpetuated, albeit under different guises, as an essential activity. Other practices of both a secular and sacred nature and even many of the trappings of smoking ritual would come and go, but the act of smoking was never abandoned.

I believe we will comprehend the sanctity of smoking rituals only when we extend the consideration of pipe artifacts to include other dimensions of the rites. Certainly as important as any other aspect of smoking ritual, and perhaps more so, were the substances consumed by smoking. Tobacco (*Nicotiana rustica*) was obviously prominent among them, but a host of other plants are reported to have been used in pipes, whether alone or as ingredients of blends. I would argue, as have others, that the primacy of the substances is attributable to two qualities: real or perceived psychotropic effects and sacred associations. Apparently, by such devices, tobacco ritual played a vital mediative role that extended into multiple domains, drawing together elements of a complex perceptual framework.

The psychotropic effects of tobacco probably account for its enduring appeal, and the same was probably true of other indigenous plants capable of producing mind-altering effects, such as various members of the Solanaceae family. Their effects can aid individuals seeking to achieve an entranced and potentially hallucinogenic state. The other perceived benefit of smoking certain plants would have been medicinal or

purifying. A thorough examination of Southeastern ethnobotany runs well beyond the scope of this project, but it is sufficient to note that medicinal and purifying qualities were attributed to numerous indigenous plants that also figured prominently, if not exclusively, in ritual practices.

Southeastern Indian mythology is also a vast subject, extending beyond the targets of my research, but the fact that dozens of plants are mentioned in myths is inescapable and relevant. My sense is that, while specific pharmacological or other physical effects often account for their place in a mythic narrative, other features of the plants, ranging from their physical form to their ecology, also gave them significance. In the case of tobacco, there are clues that suggest such attributes were used to account for its special status, and the same must have been true of other smokable plants.

More directly pertinent to my project are matters of context, since the settings in which smoking pipes were used and ultimately deposited may be documented archaeologically. As I have shown and will discuss further, the contexts of pipe use exhibit patterned variabilities that were sometimes exclusive. The observed patterns are indicative of conscious manipulation of the context of smoking rituals, undoubtedly with the aim of enhancing their effects. There is also clear indication that the symbolism uniquely associated with smoking pipes, including that displayed upon them, was carefully manipulated for the same purposes. When considered together, all of these ancillary factors were deliberately and systematically orchestrated in order to influence the existing Mississippian cultural order. Especially by AD 1250, smoking had evolved into an elaborate - and costly - religious activity replete with its own sets of prescriptions and practitioners.



On one hand, it appears to me that Mississippian smoking rituals existed and had meaning somewhat apart from other realms of Mississippian ritual, but I have observed no evidence to suggest that smoking ritual was necessarily narrowly defined or practiced. At once, the rituals could be independent and integrated aspects of religious life. An analogy perhaps useful for arguing this view is one with prayer. Many, if not most, religions include a practice that involves invocations, fundamentally amounting to a form of communication with the divine. Yet prayerful acts occur with great variation, from highly personal, silent meditations to very public verbal statements. And, in either case, the invocations may have a generic purpose or a very specific and exclusive purpose.

Regardless of context, smoking in the Mississippian setting was, much of the time, simultaneously an act of sacrifice and one of communication. Special and valuable substances were consumed with fire, often using pipes, in an act of sacrifice. The by-product of the act, smoke, was dispersed upward to establish a line of visible communication with the divine. Usually uttered in conjunction with those actions, as we are led to believe by ethnohistorical accounts, was an invocation. Thus, in these respects, smoking was an essential element of sanctification and effectively, in many cases, a signal of imprimatur.

Imprimatur would have been an especial concern of the privileged ritualists, under whose purview Mississippian smoking rituals were ordinarily conducted. The prayer analogy, then, must apply to the actions of authority figures that attained their positions through special training and potentially by an ascribed status. For example, during the Middle Mississippian period, evidence indicates most strongly that smoking rites fell mainly in the domain of a priestly class, the members of which could be summoned to apply their unique knowledge and influence to myriad situations. It is in this sense that

smoking rituals were actions somewhat distinct from other aspects of the religious realm. As a distinctive set of actions, every feature of the rituals would have been controlled by the relevant specialists, from training of new initiates to propagation and processing of plants, production of relevant ritual paraphernalia, and conduct of the rituals themselves. Ultimately, the exclusive right to perform smoking rituals, or at least certain forms of smoking ritual, was a critical aspect of priestly or shamanic status, one from which it gained an important level of legitimacy.

The situations under which smoking rituals could be performed by specialists appear to have varied, and what constituted an appropriate occasion or context almost certainly differed over time. There is archaeological evidence that suggests smoking was typically religious in nature, at times an infrequent and highly exclusive act while at others a more frequent and highly public one. As we shall see, there are indications that smoking ritual was also a means of consummating other kinds of relationships, and its meaning and intent shifted with time and circumstance. The key inference here is that smoking was a malleable behavior whose meaning and format were adjustable, even under the general rubric of Mississippian.

A major portion of this chapter is devoted to a narrative that conveys my understanding of smoking ritual among South Appalachian Mississippian societies. I present it in the format of an historical narrative, charting the evolution of the activity between about AD 1000-1600. Smoking pipe artifacts lie at the heart of the presentation, since they are the basis from which most of my inferences are drawn, but it is the implications of the pipe-related patterns for understanding the history and operation of Mississippian societies in the South Appalachian region that receive emphasis. Another

part of the chapter addresses the contribution of the study to more theoretical matters, particularly the value of costly signaling theory as an avenue to explore ritual behavior.

### Review of Smoking Ritual Patterns in the South Appalachian Region

*The Ancient Precedent.* The practice of pipe smoking in the Eastern Woodlands of today's United States has a history that extends back to at least 1000 BC. By any measure it remained a low-frequency activity over most of that time. The first clear elaboration of smoking ritual occurred during the middle period of the Woodland Stage, mainly between 200 BC-AD 600. It is best known from archeological evidence associated with Hopewell and related cultures (Jefferies 2004:119-124). Zoomorphic Effigy pipes in a range of forms, ordinarily fashioned from stone, signal a major and unprecedented investment in elaborate ritual paraphernalia specifically designed for smoking. That activity accompanied an array of other socio-religious endeavors that had no rival in the region prior to the Middle Woodland period. Although smoking-related ritual declined markedly with the close of the Hopewell-related traditions, almost to a level of archaeological invisibility, it is clear that it did not go away. Instead, it was perpetuated at a low ebb throughout the Late Woodland period, presumably as a still-essential religious practice. South Appalachian Mississippian smoking rituals evolved out of those much less elaborate Late Woodland antecedents and that process is part of my focus (Table 7.1).

*Early Mississippian (AD 1000-1200) Practices.* Material evidence of smoking ritual from the Early Mississippian period exhibits considerable continuity with local Late Woodland activity. In essence, Early Mississippian smoking ritual had more in common with preceding Late Woodland practices than it did with subsequent Middle

Mississippian practices. The Late Woodland-Early Mississippian bridge is immediately apparent from the perspective of pipe form. In both cases the predominant forms are “self pipes” made with an integrated stem. However, different kinds of embellishment on pipes used after about AD 1000 are an indication of an emerging, new view of smoking ritual. Specifically, it is common to encounter self-pipes in Early Mississippian contexts that have a burnished and red filmed surface finish. Also, several examples of pipes with a plano-convex stem cross-section are recorded, often with fine notching along the margins, both marking a departure from the traditional round, undecorated kind.

Although there are indications that pipes occur more frequently in certain Early Mississippian contexts than they did at any time during the preceding period, they still have not been found in great numbers. A key distinction is contextual. At sites like Etowah, Early Mississippian pipes appear to occur most often in feasting-related features, including in the sub-mound deposits at Mound C.

I speculate that Early Mississippian smoking rituals were valued in the traditional and ancient sense as acts of communication, and perhaps also as acts of sacrifice. As I have described, smoking is almost universally treated as a medium for engaging and even sustaining the divine (Winter 2000f:315). The consumption of a sacred substance and the ascent of the resulting smoke could readily provoke a sense of temporary linkage between This World and the Upper World. In view of the small numbers of pipes and the specialized contexts in which they occur, such rites must have been the purview of religious specialists who functioned as intermediaries. In the emergent chiefly societies of this period such specialists might well have functioned in the sense of shamans as opposed to full-time religious authorities.

All told, the evidence is indicative of a renewed interest in, but a still low-level emphasis on, ritual activity that involved smoking. The factors of somewhat exclusive context and new production standards point to a level of control exerted by ritual specialists who served relatively autonomous chiefdoms. Whether this change signals the growing exclusivity of social standing linked to an increasingly hierarchical social order, and to certain activities associated with it, is not certain but seems a logical conclusion. However, the best and perhaps only evidence of the initial shift in ritual format is documented at sites in the northwestern portion of the study area where Etowah was soon to emerge as the preeminent community. This initial set of changes appears to have been of a gradual nature, catalyzed by internal forces more so than external ones.

*Middle Mississippian (AD 1200-1350) Practices.* It was during the Middle Mississippian period that smoking rites assumed a completely unique character within the South Appalachian Mississippian region, unlike any ritual tradition known elsewhere, including in other parts of the Mississippian world (see Table 7.1). This point bears emphasis. After about AD 1250, if not slightly earlier, smoking ritual was elaborated to a higher degree among South Appalachian societies than in any other area of the Mississippian Southeast and perhaps anywhere else in North America at the same time. By almost any measure, whether numbers of pipes, diversity of pipe types, or level of elaboration, the South Appalachian smoking tradition had become exceptional. The essential elements of the new pattern were exclusivity and elaboration, both of which brought radically altered if not wholly new meanings to the rites.

At least nine categories of pipes were under routine production during the middle period, as opposed to only one major category during the preceding period. Manufacture of the relative profusion of new types was not a free form, unconstrained process.

Instead, they were fashioned in accordance with a set of precepts. Their production was controlled sufficiently to insure that the highly charged objects conformed to a strict set of formal and stylistic criteria. In essence, pipe production was a sanctioned, goal-oriented activity probably involving skilled craftspeople.

The several types of pipes produced during the generally defined middle period were not routinely produced at the same time and place. The contexts in which each type has been discovered reveal how certain of the types were more prevalent early in the period and others later. Thus, my reference to patterned change under the framework of early, middle, and late Mississippian masks aspects of the evolutionary process that was operating. For example, we discover the variable effects of foreign concepts and a kind of incubation process behind the unique expressions of the practice.

Also, the spatial distribution of the various types diagnostic of the period are often different, reflecting varied sociopolitical and economic relationships. In the Middle Mississippian period, during Etowah's heyday, there is very much a core-periphery pattern at work with different patterns of smoking ritual evident at the fringes of the paramount chiefdom's area of influence. It is obvious that after AD 1250 the South Appalachian Mississippian area witnessed elaboration of smoking ritual to a unique degree. And while conformance to a prominent regional style is observable, probably to an unprecedented level, variation still persisted. This is to say, even during the Middle Mississippian period when the cultural pattern was in its classical mode, driven by the strength of powerful chiefly centers, the influence of the tradition was not universal. Ultimately, these observations both reinforce and challenge our application of anthropological constructs such as "culture areas."

Naturally one must ask why a wholly new ritual tradition emerged during the middle period. I believe one important factor is foreign influence. Working mainly from evidence at Etowah, more than one scholar has proposed that classical Mississippian influence was introduced to the South Appalachian area from points westward, and very likely from the Mississippi River Valley itself. Reacting to the work of Pauketat (2007, 2010), the influence has been further linked by some scholars to the effect of the Cahokian “big bang” dated to about AD 1050. Under this scenario, sometime after AD 1100, emissaries or perhaps refugees from the Mississippian heartland migrated to other locales and began to assert influence.

At roughly the same time, and perhaps in conjunction with the Cahokian diaspora, I must wonder if tobacco or new strains of it were introduced to the South Appalachian region (cf. Yarnell quoted in Wagner 2000:201). If this were the case, and if it happened at the hands of proselytizing immigrants, it stands to reason that a host of new and different ritual prescriptions would have been introduced as well. There is evidence of agricultural intensification during the same interval mainly involving maize. Could it not be possible that what was adopted was a broader-based set of horticultural practices involving a complex of cultigens that included inedible “medicines” like tobacco? And there again, it stands to reason that relevant knowledge, both practical and esoteric, was introduced as well.

Tangible evidence of foreign influence specifically related to smoking ritual is found in the occurrences on several sites of a pipe type traditionally associated with the area lying west of the South Appalachian region. This is the type I refer to as Footed, although there are several varieties of the form. Regardless, the most parsimonious explanation of the occurrences is foreign influence from the direction of the Mississippi

Valley. In addition to presumed introduction of new ritual formats in conjunction with the spread of Footed pipes, their design was to have lasting influence as well. The Footed forms were not self-pipes with a fully integrated stem, but instead had a modular design requiring insertion of a separate extension of the stem to make them smokable. Based on my observations, it was the eastward expansion of the Footed pipe form that ushered in the *calumet*-type design that was to be universally adopted and maintained in the region until after the time of contact.

In this light it is easy to imagine the westernmost portion of the study area as a crucible of change when the transition from the early to the middle Mississippian pattern was underway. Indeed, forms of pipes most prevalent in the western sector are the probable products of foreign influence. For a long time archaeologists have recognized the effects of a literal Mississippian intrusion into these areas, manifest by new forms of architecture and classic types of Mississippian ceramics (Blitz and Lorenz 2006; Pauketat 2007; Schnell et al. 1981), and it is precisely where those traces occur that certain unique pipe types are most numerous.

Telling in this regard is the distribution of Footed pipes already mentioned. Varieties of this type are comparatively common in the Chattahoochee and Tennessee river valleys and points west. They also show up on and near the few anomalous, isolated sites that represent “site unit intrusions”, like Macon Plateau, where migrating Mississippian groups appear to have relocated before AD 1200. While on one hand they are not common occurrences in the region, Footed pipes do exhibit some stylistic variation. However, my sense is that the observed varieties in the South Appalachian area evolved elsewhere and not locally. I propose, specifically, that the varieties of larger



Footed varieties in the study area represent introduced forms and that little *in situ* evolution of them occurred.

It is difficult to pin down the timing of the “big bang”-generated intrusions into the South Appalachian region. Precious few of the Footed pipes can be precisely dated but there are indirect clues that point strongly to the interval AD 1150-1250. First of all, Footed pipes do not occur together with Early Mississippian self-pipes typical of the pre-AD 1100 period, and neither do they occur in obvious association with classical Middle Mississippian material postdating AD 1250. They are known in Tennessee from stone box graves, from Moundville, and from Macon Plateau, all sites generally falling in the noted range. This estimation squares well with Pauketat’s proposed AD 1050 date for the big bang and subsequent radiation into the deeper Southeast after AD 1100 (Pauketat 2007:114). It also lends credence to the aspects of Southeastern Indian origin myths that describe immigration from points west (Grantham 2002:8-9, 56-57; Waring 1977:65).

The influence of the new pipe style on smoking ritual did not entail rapid and radical transformation of the practice. Footed pipes are not common and at least a century seems to have elapsed before the effect was more or less total. This is to say that in most quarters traditional ritual practice remained conservative enough to resist rapid change. At the same time, the influence of the newly introduced ideas was clearly strong enough to not only persist but eventually steer events in a new direction. True to form, however, the ultimate effects were uneven such as we see in the comparative conservatism of the Chattahoochee chiefdoms versus the more innovative developments of those in the Etowah orbit.

The Wrapped pipe type is another product of the cultural transformation process that played out most intensively in the western reach of the study area. By this I mean that it represents a unique type developed at one of the points of intrusive Mississippian contact and acculturation. Unlike the Footed varieties, the Wrapped category does not have a specific western analog. However, features of the pipes evince obvious transfer of purer Mississippian ceramic traits to the area, such as handled vessel forms and certain decorative treatments. On the latter point, decorative elements on the vessel-form bowls of some Wrapped pipes are directly analogous to vessel treatments at Moundville-related sites farther west (Steponaitis 1983). Numerous scholars have noted the uniqueness of the Mississippian cultural traditions in this stretch of the Chattahoochee River valley and often attribute them to the same process, the ultimate effect of which was a degree of cultural isolation (Blitz and Lorenz 2006:119). From the standpoint of smoking ritual, the obvious concentration of Wrapped pipes in this area suggests that pipe-related ceremonialism developed somewhat independently of the larger region. This is not to say that the isolation was total, however, since the occasional occurrence of Wrapped pipes at distant sites attests to some sort of strategic dispersal of the objects. Still, the core distribution of the type is confined rather strictly to a narrow north-south corridor extending from panhandle Florida to the Tennessee River valley. This corridor, as noted before, connects the major Middle Mississippian polities centered around Lake Jackson, Cemochechobee, Etowah, and Hiwassee Island, and it is likely the conduit for an exchange system involving Gulf Coast marine shell (Blitz and Lorenz 2006:137-138; Scarry 1996b:218, 2007a).

The nature of ritual change embodied by these cases is important to address and one useful heuristic for doing so is the formulation of “revitalization movements” developed by Wallace (1956). He defines the rather uniform process associated with such

movements, cross-culturally speaking, “as a deliberate, organized, conscious effort by members of a society to construct a more satisfying culture” (Ibid:265). Still, variant forms of the process are documented and those that involve the importation of alien elements, known as “vitalistic movements”, seem especially relevant models to the Middle Mississippian case. Wallace’s comparative study established that cultural transformations rooted in revitalization movements were usually completed within the span of a single generation. Thus, there is value in asking whether the radical changes that created the new Middle Mississippian ritual pattern were not, at least initially, compelled by such a process.

I also believe the Middle Mississippian elaboration is, in part, a function of the institutional transition accompanying maturation of a ranked society. Within such societies the hierarchy is maintained by adherence to exclusionary practices and by control and display of status-linked goods. The elaborate and costly rituals that emerged, like those that involved smoking, could have been an effective means of reinforcing the new structure.

In the wake of the “big bang” the site of Etowah emerged as the new South Appalachian center of gravity during the Middle Mississippian period (Cobb and King 2005; King 2003, 2007b). The site quickly rose to prominence as the seat of a paramount chiefdom rivaling the contemporary sites of Moundville and Spiro. Leadership residing at the site exerted influence over the entire South Appalachian region during the period AD 1250-1375, after which time it fell into sharp decline. Undoubtedly there were competing chiefdoms elsewhere in the region, especially toward the margins of the region, but the influence of Etowah must be taken into account first.

With respect to smoking ritual, the developments at Etowah set into motion a distinctly different trajectory. The rites, as judged by the smoking pipes, evolved rapidly and, in time, gained new prominence under influences generated mainly from within the region rather than outside of it. Very quickly smoking ritual was embraced as a fundamental and intrinsic aspect of socio-religious activity, and to a degree unlike anywhere else at the same time. Materially this set of events is visible in the highly predictable and unprecedented set of smoking pipe forms that was produced during the middle period, and whose attributes represent a sharp break from those that characterized the earlier pipe categories.

Regional cohesion, to the extent it is reflected by smoking ritual practice, is attributable in significant degree to the influence achieved by Etowah during this period. Archaeological evidence for this assertion is not only the geographical centrality of the site within the South Appalachian smoking pipe area, but also the prominence of the iconic pipe types that appear to emanate from that chiefly center. I believe that the majority of those pipes were produced and used at Etowah, and that some of them were strategically distributed to other polities, potentially for varied purposes including diplomatic and economic ones.

This process played out under the close control of privileged classes and in the case of smoking pipes I offer that it was the purview of religious specialists comprising a priestly class (see Figure 3.4). There are strong indications drawn from the context of the pipes, their standardization of form, and their frequency of occurrence that point to a high level of exclusivity. In short, the conduct of smoking ritual was restricted to sanctioned specialists and for the general populace it was an activity to be observed only on

particular occasions. Smoking rituals, in this regard, were carefully managed not unlike the mortuary and other rituals involving display of SECC regalia.

Elite individuals at Etowah who officiated over all aspects of smoking ritual were, as implied, commissioning production of several types of pipes. Two of them, the Noded and Jointed types, were produced in the greatest numbers and were distributed relatively widely. They were, in effect, the standard smoking pipe of the era within the core South Appalachian area. A host of contextual and associative clues indicate that the Jointed category appeared earliest, during the thirteenth century, and while both may have been in use for a time, the Noded form eventually replaced it. In fact, the extensive distribution of Noded pipes is viewed as a measure of the reach of Etowah's ties if not influence during the fourteenth century. The likelihood of specialized production of at least Noded pipes is also indicated by their relatively common production in stone.

The behavior that accounts for the widespread distribution of these two pipe categories is interesting and important to contemplate. Although it is true that they seem almost always to have been recovered in exclusive contexts, like elite mound burials, the fact that they were among the possessions of non-Etowah elite, residing considerable distances away, says something about the function of smoking ritual within the paramount chiefdom. Mere possession of them probably signaled some level of acknowledgement of Etowah's influence, if not allegiance to the leadership there. More specifically still, it is likely that use of them under a set of ritual prescriptions served to demonstrate some intent to either submit to Etowah or to keep open relations of exchange or other kinds of alliance. Stated another way, ownership and use of the pipes may have symbolized agreement to terms of a pact. It also seems reasonable to suggest that

Etowahan ambassadors were deployed to other chiefly centers in expectation that, with the smoking rite, they would bind an agreement.

My findings indicate that there were a few other types of pipes produced at or near Etowah but in much lower numbers and with more restricted patterns of distribution. Yet they, too, were emblematic of the regional authority. One of them was the seated or kneeling Human Effigy form. Pipes of this category are confined to the immediate Etowah site locale and toward points northwest into the Tennessee and Cumberland river valleys (Smith and Miller 2009). Why this spatial pattern prevails is not entirely clear but until new evidence comes available I will suggest that it has to do with timing. This is to say that these Human Effigy forms may well be among the very earliest middle-period pipes and that they are linked with the early, west-to-east Mississippian expansion into the area, perhaps in tandem with the spread of the Footed category or its immediate aftermath. Support for this suggestion lies in the fact of their anthropomorphic style, meaning that they may represent ancestral figures to which connections were sought as a means of elite legitimation. (It is interesting and perhaps no coincidence that these unique Effigy pipes were preceded in the central Mississippi Valley by similar pipe forms, although of different styles (Emerson et al. 2003; Pauketat 2010).) Perhaps, too, they persisted for an extended time, even as virtual “antiques”, by virtue of an enduring stylistic appeal and also of their manufacture from durable stone. Less prominent Etowah-centric pipe categories are the Square and Tube types. Their highly restricted ranges and low numbers may indicate that they are less successful styles.

Focusing still on the Middle Mississippian pattern, the pipe evidence informs on Etowah’s spheres of influence and how that influence was managed with ritual practices. From the Etowah perspective, smoking pipes of particular types were distributed

throughout the desired or actual area of political and economic reach. By and large the distribution of Etowah-related pipes like the Jointed and Noded types conforms to the extent of the Savannah (Wilbanks) Phase culture area, extending generally eastward of the principal site to and along the Savannah River and surrounding it across the entirety of the northern Piedmont (Hally and Rudolph 19995; King 2003). Presumably that pattern corresponds to what must have been Etowah's core territory, the one over which it exerted the most direct and enduring dominion as a paramount chiefly center. Farther afield the distribution of pipes probably reflects the extent of more strategic relationships.

The less direct reach of Etowah's influence, or at least of its less frequent interactions, is indicated by the occurrence of outlier pipes, individual or small numbers of Etowah-related pipe styles that turn up well beyond the Savannah phase universe. These, more specifically, are pipes that in all probability were made at or close to Etowah, or at least with its sanction, and then distributed to far-flung locations. The argument I have made is that their deployment was a highly strategic process aimed at securing trade or other relationships, undertaken as official acts by Etowahan representatives. Outreach by authorities at Etowah are indicated by the occurrence of classic Noded pipes at Lake Jackson (Florida), Hiwassee Island (Tennessee), and Moundville (Alabama). These sites and their associated polities are located from more than 200 to more than 400 km away from Etowah. Their occurrence at those regional centers is extremely limited, often by a single example, and the contexts of recovery are universally privileged.

The same pattern is signified by the occurrence of stone Effigy pipes at prominent sites like Etowah and Hollywood. These general types, as do Footed pipes, occur most frequently farther west in Tennessee and perhaps Alabama. Further indication of their

western ties is the depiction of loop-handled ceramic vessels with the human figures. Incidentally, the Wrapped category of pipes, also most prominent in the western areas, often features loop handles and noded rims more typical of classic-style Mississippian vessels.

At the same time, Etowah was not the only polity to apply smoking ritual for the purpose of gaining favor. Analogous and perhaps sometimes reciprocal diplomacy by the same sites is indicated by the occurrence at Etowah of non-local types. The Wrapped category of pipes, linked strongly to the relatively “isolated” polities of the lower Chattahoochee valley, seems clearly to have been distributed with similar purpose. A case in point is the occurrence at Etowah of several examples of the Wrapped type affiliated with the middle and lower Chattahoochee River basin, and at least a few of the same at Hiwassee Island and related sites. As noted in this latter case of reciprocal occurrence it has been suggested that the “exchange” of emblematic pipes served to secure economic and other relations, including movement of marine shell.

A second measure of Etowah influence, and presumably some level of interaction, is emulation of the Etowah-centric pipe styles. Probably the clearest case of this kind of influence is the production of Weak Noded pipes in the Pisgah area of North Carolina. I believe the decorative treatment on this variety of Noded pipe, specifically the symbolic representations, was inspired by the classic style with an Etowah affiliation. However, the execution of the decoration, as very low profile or even simply incised “nodes”, is quite distinct from the prominently raised nodes on the iconic type. Also, the Pisgah-centric variety is often made as a self pipe composed of a fully integrated bowl and stem, as opposed to the classic form designed to accommodate a separate, *calumet*-style stem. By



inference it would appear that exposure by some means to the classic Noded type inspired production of a localized variety, a case of “borrowing” as it were.

The competing forms of smoking ritual practiced at the fringes of Etowah’s domain, especially toward the north and east, likely signify a somewhat contested landscape. In the Carolinas, for example, the strength of a more northerly smoking tradition persisted at the same time the actual Etowah-derived pipes, as well as crude copies of them, were in use for at least a brief period. There are also occurrences at Etowah of pipe styles representative of the peripheral territories. The best example of this kind of relationship is the incidence of Obtuse pipes, typical of the areas north and east of Etowah’s domain. Several Obtuse pipes were recovered through the several explorations of Mound C, for example. The degree to which this reflects the aggressive tactics of the Etowah elite, or the calculations of a less powerful polity or polities, remains to be determined. Still, the tobacco ritual landscape was more homogeneous in its nature during the Middle Mississippian period than it was later, and largely by virtue of Etowah’s influence.

The symbolic content depicted on Middle Mississippian pipes was broad and varied, but adoption of a limited range of sanctioned styles indicates that an important intention was regular communication of specific messages. Two concerns of those messages seem particularly prominent: fertility and the celestial realm. As discussed in Chapter 6, the fertility theme is manifest by consistent pairing of male-female references on a single pipe. Usually the representations are abstracted, say in the form of a ceramic vessel as the female signifier, but in a few examples it is explicit. One such case is the male-female pair of soapstone effigies from Etowah’s Mound C. Thus, another apparent dimension of this kind of symbolism is gender symmetry.

Also as described in the preceding chapter, celestial concerns are expressed on the iconic, Noded pipe type. Most obvious is sun-fire symbolism but I have also argued that other celestial bodies are represented by the nodes. Further, linkages to spider imagery very probably draw connections to sacred fire.

Another symbolic theme is ancestor worship. This is the least common of the subjects encountered on pipes and the best example is the already-mentioned pair from Etowah. These two pipes were found together in a Mound C burial, just as the famous pair of large marble statues was. I am comfortable suggesting that there is a degree of parallel symbolism, specifically the representation of an ancestor couple. Depiction of a human couple had in all likelihood a fertility-related meaning as well. I would explain the rarity of anthropomorphic pipe forms as a function of their special status among institutional sacra. Perhaps they were included with the singular objects that chartered elite statuses and, thus, were purposely produced in small numbers and rarely circulated.

Because so much of Mississippian ritual and symbolism is associated with SECC objects, it is interesting to discover that smoking ritual seems to have had weak ties at best. Instead, it appears that smoking ritual generally served different religious aims and, at least during this period, the interests of an exclusive sector of elite society. I propose that the disparity in SECC and pipe-related symbolism reflects the activities and interests of the competing “cults” inferred by Knight (1981, 1986). Specifically, among the cult categories he defines, smoking ritual was most likely associated with the priestly/shamanic class that mediated between the competing chiefly and warrior classes (see Figure 3.4). More than likely these same individuals were responsible for collecting and processing the substances that were smoked in pipes. In the case of tobacco, there is reason to believe it was grown in small, secluded patches by the appropriate authorities,

almost certainly men. Caches of pipes composed of multiple pipe types are one indication that qualified priests maintained “kits” of paraphernalia capable of addressing a range of ritual concerns.

Close, centralized control of religious activity during the middle period appears to have had two leading objectives. Foremost was to signal the deification of at least certain members of the elite class who gained their status by claims of divine descent. Assertion that they were the literal embodiment of sacred figures, the earthly representatives of ancestors, was the primary source of their authenticity. Consequently, a great investment in costly signals was aimed at materializing those concepts in the form of lavish regalia and other symbolic paraphernalia of the SECC. Through them it was possible to assume the identity of otherworldly beings.

Communication with the divine was the second objective and smoking ritual was the principal basis for doing so, just as it was during earlier periods. Rites of this type served to represent members of the elite as the appropriate and sole intermediaries between humans in This World and the powers of the Upper World. In this sense they became the senders and the receivers of communications with the divine. The relatively modest embellishment of most of the iconic smoking pipes of this period, compared to those of the following period, is supportive of this view, especially if the pipes were used in seclusion.

Evaluation of these patterns against the model presented in Chapter 4 reveals considerable conformance with expectations. Middle Mississippian tobacco ritual, as it was largely driven by events at Etowah, represents a response to both external and internal influences. The result was development of a wholly unique set of ritual practices

surrounding smoking. For several centuries prior, smoking ritual had been practiced in a minimally elaborated fashion, most likely by part-time religious specialists like shamans. The middle-period practice of smoking became an exclusive act under the purview of full-time and powerful religious specialists like priests. Contextual clues and closely associated objects link smoking pipes with a select few individuals, and symbolic associations connect smoking ritual mainly to a few central cosmological concerns. The authority figures responsible for smoking ritual were probably members of a priestly class (although this is not meant to completely exclude the likelihood of shamanic practice.) Those priests functioned at the apex of Mississippian society, in a complementary but separate role from those of chiefly and warrior classes. Perhaps foremost, rituals involving pipe smoking addressed concerns with the celestial realm, fertility, and heroic ancestors, and in the process they reinforced charter myths establishing the social order. Payoffs of formalization and elaboration were derived from the control of a rare substance (tobacco) and the esoteric knowledge associated with its production and use. Users were also able to experience altered states conducive to vision quest-type inspiration and their experiences, if public, could have enhanced their privileged status.

Assuming that this portrayal is accurate, it stands to reason that smoking ritual might have been conducted out of public view and within the confines of exclusive precincts as often as it was on a more visible stage. In private the activity would have served the direct interests of peer groups rather than the larger populace. This kind of activity would not have excluded priests from periodically conducting rituals for gatherings of the general populace, and the frequency and timing of both kinds of acts could still have been routine. However, the more lavish public rituals, such as those

featuring elaborate SECC objects and costume, would have been presided over by individuals of chiefly or warrior status.

A related expectation is that the priests qualified to conduct smoking rituals were highly possessive and protective of the sacred proscriptions and activities associated with them. This, by definition, constituted esoteric knowledge that made the ritual what it was. In turn, exclusive control of the knowledge by the priestly cult served to secure their own special status, including their access and service to chiefly and warrior counterparts.

Contextual and associative evidence also indicates that tobacco ritual was not always the exclusive domain of ritual specialists. There is every reason to maintain that tobacco ritual was a *primary* concern of a priestly class, but it is also abundantly clear that members of the chiefly class were partaking of the rites and displaying their knowledge of them when it was strategically advantageous to do so. The dynamic might be imagined as follows: Only members of the priestly class were fully indoctrinated tobacco ritualists and, thus, were the responsible custodians of the relevant knowledge, including that of both an esoteric sort and of a practical (i.e., horticultural and crafting) sort, and of the full range of paraphernalia. Yet, because of the significance attached to tobacco ritual and its efficacy, members of the chiefly class appropriated elements of it for their own purposes. Exactly what those purposes were is difficult to say, but the presence of pipes in elite burials, also containing SECC material, indicates that smoking was a part of chiefly display. But, to reiterate, smoking was a practice with a set of meanings largely distinct from but perhaps complementary to those associated with the SECC. If nothing else, members of the chiefly class could simply not afford to ignore the potency of tobacco ritual. Nonetheless, the relative exclusivity of smoking ritual and

other practices appears to have become a source of tension that set off deep social changes.

*Late Mississippian (AD 1350-1600) Practices.* From the perspective of smoking ritual, I am inclined to argue that Mississippian societies of the region suffered an acute rupture of cultural norms with the waning of the Middle Mississippian period. Based solely on the stylistic attributes of Late Mississippian smoking pipes and the way the styles are distributed, it can be difficult to find continuity with the middle period. By documenting a fundamental reorientation of ritual practice during the late period, my work is supportive of long-standing views, reached via other lines of evidence, about emergence of a different cultural status quo. However, I would maintain that the perspective of smoking ritual provides a superior gauge of the depth of the transformation those societies experienced. In other words, ritual change signals important shifts in the way Mississippian societies engaged with the world, corporeal and otherwise, beyond the level of basic subsistence and social concerns. Linkages across the periods existed, but the impression gained is that they survived only in spite of efforts to erase them. Certainly compared with the nature of smoking ritual during the Early Mississippian period two centuries prior, it had become, for all practical purposes, a very different kind of religious activity.

One major cause of deviation from the Middle Mississippian pattern was Etowah's demise as the preeminent administrative center. Consequently, a by-word of Late Mississippian existence was fragmentation. The level of sociopolitical integration was weakened, in large measure due to new forms of religious authority. In the shadow of those changes to the South Appalachian cultural landscape, certain of the newer pipe distributions are better understood. In particular, the major pipe styles tend not to occur

with any frequency, if at all, in either the Savannah or the Chattahoochee river drainages. Archaeological surveys find that those areas, which had been the core territories of independent, influential centers, were largely abandoned by the fifteenth century (Anderson 1994; Blitz and Lorenz 2006). By then, major areas of settlement had shifted to the Oconee, upper Chattahoochee, upper Savannah, Coosa, and Tennessee river basins, exactly where dominant new pipe types are distributed.

The closest exemplar of anything approaching a pan-regional pipe style during this period is the Trumpet pipe style, dated toward the end of the period, just prior to and immediately following the time of initial Spanish contact. Trumpet pipes are peculiar, however, in that they cannot be easily tied to a specific chiefly polity as some middle-period types could be linked with Etowah's domain. If they do have such an association, it would probably be with the proposed province of Ocute (Smith and Kowalewski 1980). But the fact remains that Trumpet pipes, even of the same variety, very obviously crosscut the estimated extent of several provinces that, as it happens, are often portrayed as competitive rivals. There were, then, different mechanisms at work that account for their relatively widespread occurrence under fairly standardized styles.

The Trumpet pipe picture presents the same dilemma that the region's latest prehistoric, Lamar cultures do. "Lamar," from a material-culture standpoint is, on one level, remarkably similar in its expression over a very large area – nearly the entirety of the South Appalachian Mississippian realm. But as David Hally (1994:173-174) reminds us, it encompassed enormous cultural variability, extending from both political to linguistic dimensions. Potentially, the widespread occurrence of Trumpet pipes was driven by the factors that account for the same pattern observed for Lamar-like ceramics. However, if it was, it was not as thoroughly a disseminated feature as the ceramic vessel

pattern, nor does it seem to have persisted as long. At any rate, these observations raise the possibility that Trumpet pipes were dispersed and used in association with a religious movement, perhaps one propelled by an influential cult that infiltrated lines of political tension.

The predominant pattern during the period, however, was localized production and distribution of most other pipe styles. This new tendency connotes a return to a pattern of relative isolation by numerous South Appalachian groups. Ultimately, many of the unique types are connectable to archaeologically defined phase areas, if not actual sociopolitical entities referred to as provinces. The best examples of such correspondence between localized smoking practices and sociopolitical territories are in the Tennessee-Coosa drainages and in coastal areas. For instance, Short Trumpet and Stemless types map onto the proposed extent of the vast Coosa province known from early sixteenth-century chronicles (Smith 2000). On the Georgia coast, the Citico Human Effigy type is confined to the same area controlled by the Guale chiefdom (Worth 2004).

In addition, several of the late types with highly restricted ranges are stylistically unique, a pattern representing yet another aspect of transformation. Again, examples are the coastal Citico style, Short Trumpet, and Stemless types. Presumably, this pattern is symptomatic of a cultural landscape featuring smaller, competing polities, including some that were rather isolated. In essence, it is a pattern that marks a major reconfiguration of Mississippian sociopolitical relations following the fourteenth century, when paramount centers had last exerted wider regional influence. I would argue that, in these cases, the emergence of localized styles supports either assertion of local authority, perhaps by religious elites, or local identity politics, if not both. Thus, smoking ritual was more readily and regularly altered at a local scale to galvanize the growing autonomy and



identities of individual polities. This accords with evidence that the cultural landscape became more fractured after the fourteenth century and that political autonomy was facilitated by distinctive rituals.

Late Mississippian pipes, as noted, also appear to be designed to impart a different set of messages or to make reference to old messages in new ways. In either case, a new symbolic tone was attached to the meaning of smoking rituals. In fact, virtually every one of the stylistic conventions characterizing the middle-period pipes was replaced. One of the new themes channeled by smoking ritual pertained to war. This concern is indicated by the prevalence of the Monolithic Axe pipe types in some areas, especially during the first part of the period. It is tempting to associate this new style with other lines of archaeological evidence that are indicative of heightened tensions (Anderson 1994). While the symbolism of its stem form seems to be a rather direct reference to war or conflict, it was also, as suggested earlier, a different kind of expression of virility. Human faces and heads modeled on other types of pipe bowls are probable representations of trophy heads and are another kind of war-related symbol.

Another shift in content was a stronger, or at least more explicit, concern with the supernatural. Bird motifs, serpent motifs, and composite motifs clearly convey such subject matter. Although not dominant, the range of this symbolism appears to signify stronger concern with matters of the Underworld. What are not common are the explicit anthropomorphic motifs of the preceding period that signaled affiliation with an ancestral lineage.

At the same time, concerns with fertility were perpetuated. Although the late-period pipes are stylistically unique, the pairing of male and female symbolism persists.

The Monolithic Axe type is, in fact, a case in point. The type has two variants, and regardless of the details, both pair the Monolithic Axe stem (maleness) with an obvious portrayal of a ceramic vessel (femaleness) in the form of the bowl. Also, the most graphic depictions of male genitalia occur on certain pipes of this period.

The changed conditions of the Late Mississippian period entailed a reversal of ritual priorities. At this time, acts of communication with the divine became the principal barometers of authenticity and credibility. This shift occurred because the deification of worldly elite had, relatively speaking, apparently been dampened, if not rejected. In its place was a more openly competitive structure that included religious specialists who earned their status as often as they inherited it. Overall, this change is materially evinced by the steep decline in production and use of elaborate regalia and SECC paraphernalia. However, that change was balanced at least by elaboration of smoking pipes and probably also by ritual performances that entailed psychophysical displays by entranced, charismatic specialists.

As true as it is that the late period assumed a far more provincial pattern, it did so in the context of an historical process. What seems apparent first is the wholesale abandonment of the Middle Mississippian smoking ritual pattern sometime toward the end of the fourteenth century. In its place there emerged forms of tobacco ritual using quite different but still fairly broadly dispersed pipe types. The two that are most widespread and readily recognized are those in the Monolithic Axe and Hummingbird categories, estimated to date between about AD 1375-1450. Their distribution suggests that, even in the vacuum left in the aftermath of the middle-period collapse, tobacco ritual continued not only as a robust religious practice but also one functioning under a set of rather uniform precepts. Here again, the precise mechanism at work is not clear, and

neither is the locus of principal influence behind it. However, judging simply by the numbers and distribution of those pipe types, it would appear that the new trend was flowing out of the northwestern sector of the South Appalachian region and, more specifically, out of the Tennessee River valley. Nonetheless, that new take on the ritual form was to dissolve under the pressure of local interests and presumably an atmosphere of intense competition.

Emplacement of new smoking ritual protocols during the Late Mississippian period is further indicated by the contexts of pipe discovery and their general frequency of occurrence. With respect to context, late-period pipes are less exclusively associated with mounds or elite burials and, instead, more routinely appear in village-area burials and in non-burial contexts, such as domestic structures. The fundamental distinction of contexts of deposition is, then, one of diversity, with the pipes of the later period occurring within a wider range of settings, including secular ones, than those of the preceding period. Also, gender associations became less exclusive. Late Mississippian burials containing pipes, while still primarily those of males, increasingly included females. The higher frequency of pipe occurrence during this period also indicates that the sheer number of pipes in circulation was increased to an unprecedented level. At some late Lamar sites, for example, literally hundreds of pipe fragments are recovered, representing dozens, if not hundreds, of individual pipes (Blanton and Snow 2010; Smith 1994; Williams 1999, 2002, 2004).

In the aggregate, Late Mississippian patterns speak to an environment in which smoking ritual was conducted under less stringent institutional constraints, at least in the sense that its practice was not exclusively controlled by elite specialists resident at a paramount center. In a word, the ritual appears to have become more secularized. The

ongoing level of standardization in pipe styles, in addition to the widespread distribution of certain types, does not suggest that the ritual was partaken of completely freely, only that religious affairs and their practitioners were community- and province-oriented more than they were status- and peer-oriented.

Ultimately, however, it is important to avoid overgeneralization. Late Mississippian smoking ritual appears to have been practiced with variable aims that were largely context-dependent. The widespread types, like the Trumpet or Monolithic Axe forms, are indicative of regional-scale inter-polity relationships, whether for exchange or mutual protection, or both. In this respect, widespread ritual practices were useful for building and maintaining alliances, just as they appear to have been during the middle period. They might also testify to the activities of influential cult-like formations during this volatile period.

Although diverse lines of evidence have prompted researchers to characterize the Late Mississippian pattern as more secularized (Anderson 1994; Cobb 2003; Cobb and King 2005), localized pipe production, presumably aimed at accommodating local ritual strictures, did not occur in a vacuum of control. It is very clear that even the unique local types were produced according to a strict set of criteria and, I believe, often by skilled local craftspeople. In my view, the localized styles were expressing disparate sets of core values. This pattern calls for some stronger explanation, and I offer that the power void was filled by a series of strong local religious cults that employed smoking rituals to legitimize their standing.

The inferred cult organizations would have been more socially inclusive, at least relative to the ultra-closed priesthoods at the pinnacle of middle-period society. There is

little evidence that smoking was continued as an exclusive, secretive activity principally conducted within the confines of closed sacred spaces. Features of the late-dating Trumpet pipes, in particular, would have accommodated such a new pattern. The larger size of the pipes would, first, have increased their symbolic signaling potential, an advantage before a sizable and more diverse audience. Also, the large capacity of the pipe bowls would have served the smoking interests of a larger number of ritual participants, such as those participating in rites that involved sharing a pipe among numerous people. The larger volume might have also enhanced the the opportunity for shamans to experience intense visions.

I am also inclined to say that the relatively lavish embellishment of many late-period pipes, including their sometimes hypertrophic size, betrays a prevailing socio-religious atmosphere that was highly competitive. Such an atmosphere certainly would have followed the erosion of strong, centralized authority and its replacement by multiple, competing religious cults. Elevated levels of competition might also have increased the frequency at which smoking and other rituals were performed, and it would be just such an upturn in the tempo of ritual activity that accounts for the larger numbers of pipes on many Late Mississippian sites. Likewise, broader participation in cult-inspired activity is indicated by less exclusive association of pipes with adult males and a newer pattern that included both females and sometimes sub-adults.

The most important aspects to explore here are the new meanings attached to tobacco ritual. Perhaps most revealing is the general abandonment of anthropomorphic themes in favor of supernatural ones, as it is the kind of shift predicted by the model outlined in Chapter 4. With the close of the middle period, a time when authority was heavily reliant upon legitimation through claims of a divine, ancestral lineage,

anthropomorphized hero figures, affiliated with a foreign source of power, would be expected to have declined in prominence. This is not to say that a structure in which ascribed status defined the positions of authority was abandoned altogether, only that it came to be expressed differently and was possibly conveyed with less certainty.

By the fifteenth century, the hierarchical structure foundational to Mississippian societies remained fully institutionalized and continued to be accepted without the old style of ritual reinforcement. What became more important was maintenance of authority under the new order, and it appears to have been accomplished, at least in part, by a professed connection with supernatural powers, as opposed to divine personages. In other words, priests and shamans used tobacco ritual as a basis for communing with those powers. Furthermore, those powers were of the more universal sort (*sensu* Cobb and King 2005), as opposed to more exclusive lineage-based ones. And because they were more neutral in nature and the influence of a strong centralized authority had waned, they could accommodate localized interpretations more readily.

Continuing these lines of reasoning, many aspects of the Late Mississippian world would have been openly contested, among them religion. The comparatively monotonous nature of institutionalized Middle Mississippian religion was replaced by diverse and energetic challenges. Archaeological patterns indicate that the rote predictability of the Middle Mississippian mode was enlivened by charismatic alternatives at the local level. Perhaps more than ever, competition was intensified over access to the divine, even more so than over the practical matters of agricultural productivity, labor, and the like. But instead of demonstrating privilege on the basis of fictive kinship, religious practitioners sought to signal their ability to telegraph the supernatural. Prestige and influence were far

more dependent upon dynamic displays of enlightened and ecstatic visions, such as those attained through altered mental states.

An outcome of the so-called secularization of ritual was its accessibility by formerly excluded segments, including women. Once dispossessed of that of the old lineage-based central authority, a host of new meanings, or at least more locally pertinent ones, were assigned to tobacco ritual. However standardization of pipe form even at a local level and continued occurrence mainly in non-secular contexts, indicates that the rites were not completely diluted and uncontrolled. The new control may have been at the hands of specialists more of a shamanic nature, as opposed to those of the privileged and generally inaccessible priests typical of the middle period.

A parting comment concerns characterization of the Late Mississippian condition in the South Appalachian region. There seems, at times, a tendency to portray it as a regressive response to the classic middle-period collapse. Again, viewed strictly from the perspective of smoking pipes, it represented less a retreat to some “simpler” prior pattern than it did an adaptive response with its own unique character. In short, the later pattern represents, for all practical purposes, a very different way of engaging the world.

Finally, this, too, begs questions regarding the process of change that created the conditions of the late period. Initially there are indications of distinct but still rather gradual changes following the decline of Etowah, but after a century or less, the fundamental alterations to smoking ritual are probably better explained by a different process. A useful model may be the revivalistic movements described by Wallace (1956:267), which are driven by a desire to return a society to one that is defined by customs, values, and practices that were formerly dominant, in this case, perhaps closer

to the those that prevailed or were perceived to have prevailed prior to the ascent of Etowah. Regardless, I offer again that there is value in evaluating the rapidly progressing changes to South Appalachian Mississippian societies as the consequence of movements of some nature.

### Smoking Ritual as a Costly Signaling Behavior

Religious rituals are classic examples of “wasteful” behaviors (Neiman 1997; Sosis 2004). Because they carry high costs and yield seemingly inconsequential payoffs, they defy usual, pragmatic logic. But such behaviors, with varying forms and degrees of intensity, are a pervasive feature of human societies, and we must intuitively believe they offered some kind of adaptive advantage. The nature of those apparent advantages warrants evaluation and explanation.

Smoking ritual is a prime example of a seemingly superfluous and costly behavior, and in the South Appalachian area, it was developed and practiced in the extreme, albeit under changeable formats. I have explained in a previous chapter how I intend to evaluate South Appalachian Mississippian smoking ritual with reference to costly signaling theory (CST). Here, I assess the variant rites as a form of costly signaling with perceived, if not real, payoffs for both signalers and receivers, presumably on both an individual and a group basis. My examination of South Appalachian Mississippian smoking ritual offers a case study for revealing the kinds of selective pressures that contribute to emergence of ritual under variant forms.

Before developing the South Appalachian case, I will review the pertinent aspects of CST explained in Chapters 2 and 4. The basic premise of the theory is that costly



signals, such as religious ritual, expose otherwise undetectable qualities of a signaler (see Figure 4.3). Receivers of the signals are provided a basis for making judgments about the relative advantages of associating with the signaler based on his or her capacity to dispense benefits, while signalers gain some fitness advantage, such as a broader base of supporters or freer access to goods. Also, in the case of religious affiliations, the willingness of adherents (i.e., receivers) to bear certain costs of participation signals their own honest commitment. Thus, costly signals may serve to establish and maintain mutually beneficial, coalitional relationships, including under non-egalitarian systems.

CST carries with it a series of corollary expectations. In other words, the theory predicts certain situation-dependent outcomes. Here I present them as a series of propositional statements and refer the reader to Chapters 2 and 4 for further discussion. In brief, CST holds that:

- signaling will escalate in conjunction with increasing levels of competition among signalers, resulting in a virtual “arms race” (Smith and Bliege Bird 2005:123);
- similarly, costly signaling will become more common when many groups are operating in close proximity (Sosis 2003:111);
- the amount of signaling will increase as the levels of the underlying quality that is being advertised, such as social power, increases (Boone 2000:105);
- the total amount of signaling is a direct function of the compositional diversity of the group, with respect to the total range of social statuses and ethnicities within the group (Boone 2000:105; Sosis 2003:111);
- the total amount of signaling is a direct function of the average total productivity of the social group (Boone 2000:108);
- costly signaling will become more common when the potential benefits of group membership are high (Sosis 2003:111);

- the degree of elaboration in costly displays is a function of the average frequency and severity of demographic bottlenecks (i.e., population declines)(Boone 2000:108);
- costly signaling will become more common when the risk of “free riders” is high (Sosis 2003: 111); and
- costly signaling will become more common when the risk of apostasy increases (Sosis 2003:113).

Since costly signaling behavior is arguably present in all human societies, the objective of archaeology is not so much a matter of determining the presence or absence of it but instead of accounting for its nature, including its different modes and its payoff, at any given place or time. The prehistoric archaeological record of the Southeast, displays evidence of an enormous range of signaling strategies, but the pinnacle of their deployment coincides with developments of the Mississippian Stage. Just some of the material evidence for it are mound construction, long-distance exchange, elaborate regalia, and an institutionalized iconographic tradition.

As a general matter, it is perhaps useful to begin by asking why costly signaling became such a vital and prominent strategy in Mississippian societies. The leading reason surely has everything to do with the structure of those societies. Hierarchical social organizations under which individual status is ascribed, such as in chiefly orders, require special mechanisms to sustain them. These are necessary, foremost, to manage the inherent inequities of the system. One strategy for management is for the smallest but most privileged social classes to rationalize their status by conveyance of carefully contrived costly signals. In short, the rigidly hierarchical structure of Mississippian societies was a feasible organizational option only by virtue of such signaling strategies.

Effectively, hierarchical societies interfere with the natural inclinations of individuals and even small groups. This is to say that most people are disinclined to sacrifice individual autonomy to a small and privileged sub-group. As Richerson and Boyd (1999, 2006) argue it, hierarchical structures run counter to the cooperative “tribal instincts” of most individuals and groups. In order for rigid, non-egalitarian systems to work, certain “work-arounds” must be devised that constitute strategies for encouraging cooperation within and between otherwise unequal social segments. And, importantly, they must be designed to do so without the need for “raw coercion” (Richerson and Boyd 2005:265).

The argument finds its strength in the assumption that segmented social orders yield payoffs for all of the group members, not just those with an elite status. Fundamentally, the advantage could be characterized as a strength-in-numbers scenario, whereunder coalition quality is enhanced sufficiently to impart a competitive advantage at the group level. Naturally, individuals in the uppermost class accrue additional benefits, but the perceived payoffs for subordinate members are assumed to outweigh their costs.

Another reason for elaboration of costly signals in Mississippian societies was probably related to the inherent riskiness of certain of their activities. By nature, chiefly and other kinds of hierarchical, agricultural societies engage in economic, sociopolitical, and religious practices with relatively high stakes. Among them are intensified tributary relationships, institutionalized warfare, organization of ambitious public works projects, maintenance of exchange networks and craft specialists, and production of non-native cultigens,. All of those endeavors depend upon investments of time and resources, not to mention coordination of a subjugated populace, often over an extensive territory. CST

predicts that signaling investments will increase as the level of commitment required for any or all of those kinds of activities climbs. The principal reason for this increase is the simple fact that persuasive leadership, of the kind that would routinely motivate group members to act unselfishly on behalf of the collective, can be facilitated by displays that convey the advantages of commitment.

Costly signals, one can argue, find ready efficacy in a coherent ideological system (Alcorta and Sosis 2005:331-332; Wilson 2002:227-228). In other words, the signals will be less comprehensible and effectual if they do not derive their authority from a set of institutionalized, canonical beliefs. Under hierarchical orders, such belief systems may become increasingly codified and controlled by religious specialists who, invariably, also enjoy privileged status. The prevailing ideological order consequently provides a strategic rationalization for what could otherwise be construed as the self-serving and aggrandizing behavior of the elite (Richerson and Boyd 2005).

The dominant belief system, and activities sanctioned by it, will serve its purpose if it succeeds on two fronts. First, it must reinforce the status and authority of the elite class. A common strategy for doing so is for authorities to claim exclusive access to divine power. Often this is accomplished through a fictive kinship structure that establishes direct descent from mythical ancestors. Religious traditions of this nature function, in effect, under a metaphorical familial model. The claim of exclusive, lineal descent automatically establishes a hierarchical order and a compelling motivation for other members of the group to submit to elite authority (Steadman and Palmer 2008).

Second, the prevailing belief system must also promote cooperative behavior among members of the group. The cohesive bonds that propel cooperative action are born

of a sense of collective competitive advantage. Individuals will evaluate the strategic benefits of group membership based on, among other things, what they discern from the signaling displays of both the elite and other group members. Ultimately, individuals are most inclined to submit to the collective will of a group when they perceive that the group is successful, its leadership is effective, and its members experience net benefits from that success.

Maintenance of in-group cohesion is achieved, in part, by the existence of a symboling system that gives visible expression to the prevailing belief system. On one level, the symbols reinforce the authority of the elite and, by extension, the validity of the overriding social order. On another level, a unique corpus of symbols can excite positive emotions that build a sense of identity and solidarity (Alcorta and Sosis 2005). Thus, through ritual and other kinds of displays, iconic symbols motivate group members, as well as potential recruits, to embrace the prevalent beliefs. Such symbols then become “marker traits” that promote preferential interaction and conformist imitation to a level that effectively defines a group’s identity. Externally, they serve to maintain inter-group variation that, again, establishes viable group identities (Boyd and Richerson 2005:267-269).

Based on the theoretical advantages that have been cited, it would be predicted that Mississippian societies would elaborate costly signaling behavior to a very high, if not unprecedented, level. Mississippian social orders, functioning as what traditionally are defined as chiefdom-level systems, operated under institutionalized hierarchical structures with inherent levels of inequality between social statuses. It is also understood that chiefly societies ordinarily functioned in a competitive environment. Furthermore, the stresses extending from each of those aspects of the systems would have only been

heightened when such a society was operating as a paramount chiefdom. And because Mississippian developments mark the first, sustained occurrences of such societies in eastern North America, there should be no expectation of an equivalent or more highly elaborated precursor.

Still, costly signaling behaviors were not employed under a single strategy during the Mississippian Stage. This was so although at every point South Appalachian Mississippian societies were functioning according to what technically was a chiefly organizational model. In this case, we are presented with a multi-century archaeological record in which variable signaling strategies can be discerned, and presumably, each was adopted in response to the changeable circumstances of what we generically refer to as Mississippian cultures. I acknowledge that the phase-based periodization of Mississippian Stage developments in the South Appalachian area oversimplifies and even obscures aspects of the region's cultural history, but it still provides a useful framework for chronicling the conditions under which alternative costly signaling strategies were implemented.

My concern here is limited to the activities that involved pipe smoking. They are just one among many South Appalachian Mississippian actions that qualify as costly signaling displays. It is, admittedly, rather difficult to evaluate smoking as a discrete activity divorced from the larger context of Mississippian behavior, especially that of a religious nature. However smoking ritual has proven to be a viable perspective from which to explore costly signaling behavior in general, but I believe, it is instructive of broader Mississippian engagements in such behavior.

I document how smoking ritual in the South Appalachian area was practiced over a half-millennium span, under three basic modes (see Table 7.1). Each mode differs from the others by the degree to which certain behaviors were expressed. Thus, the distinctions I observe are better viewed as variations along a continuum, rather than as discrete behavioral or cultural “types.” We discover in the behaviors of the Early, Middle, and Late Mississippian periods how a single ritual practice can be manipulated to accommodate variant social conditions. I seek to evaluate whether these variant modes afforded competitive advantages, or fitness gains, within the larger cultural contexts.

Modality of this kind has recently been recognized by the research of Atkinson and Whitehouse (2011), who evaluated a theory of modes of religiosity through comparative ethnographic analysis (Table 7.2). The basic theory anticipates that ritual behaviors will gravitate toward one of two modes, defined by the relationship between the frequency and emotionality of performances. In the *doctrinal mode* rites tend to be high-frequency, low-arousal events that convey religious knowledge that is “codified in language and transmitted primarily via recognized leaders,” who are likely to be drawn from a centralized hierarchy (Ibid: 51). In contrast, rites derived from an *imagistic mode* will ordinarily consist of low-frequency, high-arousal events that involve a greater level of collective participation, more stressful, ordeal-like acts, and oversight by less centralized and hierarchical orders such as cults.

Their comparative analysis discovered significant correlations between those modes and certain kinds of socio-cultural patterns. First, cultures whose rites involve stressful ordeals (i.e., dysphoric arousal) tend to be organized into smaller communities, have less formally organized religions, and have lower reliance on agriculture (Ibid:58).

	Late Woodland		Early Mississippian		Middle Mississippian		Late Mississippian
	Cultural Pattern	State Change	Cultural Pattern	State Change	Cultural Pattern	State Change	Cultural Pattern
Socioecon. Structure:	Semi-sedent.; Tribes; Ascribed status; Non-agricult.		Sedentary; Auton. chiefdoms; Hierarchical; Emergent agricult.		Sedentary; Param. chiefdoms; Hierarchical; Agricultural		Sedentary; Chiefdoms; Hierarchical; Agricultural
Religious Pattern:	Imagistic; Shamans		Imagistic?; Shaman-Healers		Doctrinal; Priests		Doctrinal?; Healer-shamans
Ritual Pattern:	Communal; Low freq.; Regional variability		Moder. centralized; Low frequency; Regional variability		Highly centralized; High frequency; Regional uniformity		Moder. centralized; High frequency; Regional variability
Initial Catalyst:		Within-group; Between-group drift?; Migration		Between-group; Migration; Coercion?		Within-group; Disequilibrium; Defection; Coercion?	
Behavioral Derivation:		Imitate norm; Follow tradition; Imitate prestige (& success?); Borrow		Imitate prestige (& success?); Borrow		Imitate prestige (& success?); Perpetuate tradition	
Rate of Change:		Gradual		Rapid		Rapid	
Conformity to Precedent:	Continuity		Continuity		Discontinuity: Technol. innov.; Ideological innov.		Discontinuity: Ideological innov.
Pattern of Transmission:	Many-to-one		Many-to-one		One-to-many; Horizontal		One-to-many; Horizontal
Mode of Reinforcement:	Conformist; Bottom-up		Conformist; Bottom-up		Moralistic; Top-down; Costly signaling: <ul style="list-style-type: none"> <li>• Rapid learning</li> <li>• Broad learning</li> <li>• Avoid coercion</li> </ul>		Moralistic; Top-down; Costly signaling: <ul style="list-style-type: none"> <li>• Rapid learning</li> <li>• Broad learning</li> <li>• Avoid coercion</li> </ul>

Table 7.1 Summary of aspects of evolution of smoking ritual in the South Appalachian Mississippian region.



Reference	Social-Political-Economic Pattern	Ritual Expression
Mary Douglas	<ul style="list-style-type: none"> <li>• “Group”: Relatively egalitarian</li> <li>• “Grid”: Relatively low stress</li> </ul>	<ul style="list-style-type: none"> <li>• Strong expression of ecstasy</li> <li>• Benign organization</li> <li>• Minimally ritualistic</li> </ul>
	<ul style="list-style-type: none"> <li>• “Group”: Relatively complex/hierarchical</li> <li>• “Grid”: Relatively high stress</li> </ul>	<ul style="list-style-type: none"> <li>• Suppressed expression of ecstasy</li> <li>• Authoritative, highly regulated</li> <li>• Highly ritualized</li> </ul>
Atkinson & Whitehouse (2011)	<ul style="list-style-type: none"> <li>• Relatively egalitarian</li> <li>• Small community size</li> <li>• Non-agricultural</li> </ul>	<b>Imagistic Mode:</b> <ul style="list-style-type: none"> <li>• Non-centralized authority</li> <li>• Communal participation</li> <li>• Low frequency ritual</li> <li>• High arousal</li> <li>• Stressful ordeals</li> </ul>
	<ul style="list-style-type: none"> <li>• Hierarchical, complex</li> <li>• Large community size</li> <li>• Agricultural</li> </ul>	<b>Doctrinal Mode:</b> <ul style="list-style-type: none"> <li>• Centralized authority</li> <li>• Controlled activity</li> <li>• Codified doctrine</li> <li>• High frequency ritual</li> <li>• Low arousal</li> </ul>
Winkelman (1990)	<ul style="list-style-type: none"> <li>• High mobility</li> <li>• Egalitarian</li> <li>• Non-agricultural</li> </ul>	<ul style="list-style-type: none"> <li>• Shamans</li> <li>• Part-time</li> </ul>
	<ul style="list-style-type: none"> <li>• Sedentary</li> <li>• Relatively hierarchical structure</li> <li>• Agricultural orientation</li> </ul>	<ul style="list-style-type: none"> <li>• Healers</li> <li>• Informal political power</li> </ul>
	<ul style="list-style-type: none"> <li>• Sedentary</li> <li>• Centralized, rigidly hierarchical</li> <li>• Agricultural</li> </ul>	<ul style="list-style-type: none"> <li>• Priests</li> <li>• Full-time</li> <li>• Official political authority</li> </ul>

Table 7.2 Summary of models addressing relationships between cultural patterns and ritual formats.

Atkinson and Whitehouse propose that ritual systems of this sort are effective at facilitating group cooperation and resource controls. Second, the doctrinal mode is highly correlated with intensification of agriculture and “would seem to presage the first appearance of large-scale, hierarchical political systems” (Ibid:59). This mode also appears to be tied to the homogenization of regional traditions and the emergence of priesthoods. Given these linkages, they contemplate the possibility that “new rituals,

rather than other technological factors, may most convincingly account for the changes in the scale and structure of human societies that presage state formation and the emergence of large-scale civilizations” (Ibid:60).

A cross-cultural study by Winkelman (1990) discovered intriguing, parallel correlations between different forms of social organization and different kinds of religious practitioners (see Table 7.2). The primary practitioner categories he recognized were shamans, healers, and priests. Each type, in that respective order, was differentiated by increasing levels of integration into the prevailing social order and by incrementally greater reference to codified knowledge. Winkelman did not discover distinctive differences between the categories according to kinds of ritual acts and other functionary activities. However he found strong correlations between practitioner categories and the socioeconomic variables of a) fixity of residence, b) level of commitment to agriculture, c) level of political integration beyond the local community, and d) degree of social stratification.

Shamans were part-time practitioners prevalent in less sedentary societies without a formalized class structure, most of which did not have an agricultural subsistence base. Healers were more likely to have received formalized training, and they applied their skills and knowledge more routinely and, occasionally, on a full-time basis. They were likely to exist in more sedentary and agriculturally oriented societies and to exercise an informal level of political power. Priests were typically full-time specialists in centralized, hierarchical societies supported by institutionalized religion. They enjoyed high socioeconomic status, often inherited or were appointed to their positions, and exerted significant influence. Here again, however, the idealized categories will, in

practice, be manifest along a continuum that is scaled according to the expression of myriad socioeconomic variables.

In the following sections, the variant forms of South Appalachian smoking ritual will be evaluated against those and other patterns. Although the tendencies discovered by the cross-cultural studies are largely correlational in nature, rather than explanatory, they, at very least, establish basic expectations about forms, or modes, of ritual practice within different social systems. With respect to signaling behavior, they also frame the contexts and the kinds of selective pressures under which different strategies will have the greatest payoff.

*Early Mississippian Signaling (AD 1000-1225).* The level of costly signaling activity was raised during the Early Mississippian period relative to the preceding Late Woodland period. Among varied strategies came a new level of investment in public architecture, consisting of both “earthlodges” and earthen platforms (Hally 1996) , and displays of status-linked sumptuary goods obtained through increasingly extensive exchange networks. All of those activities, because of the associated costs, were also inherently risky. Furthermore, an increase in the scale and frequency of violent conflicts is implied by some lines of evidence, but documentation of it is poor for this period (Milner 1999)(Figure 7.1). Warfare is, of course, the ultimate high-risk endeavor. Adoption of those strategies was undoubtedly a process undertaken in accordance with some sort of risk management calculus aimed at evaluating ultimate payoff. And it is equally clear that there were perceived benefits to pursuing them, since, in one form or another, they were to persist as hallmarks of what it meant to be Mississippian. Yet their adoption was not a risk-free proposition, as we shall see.

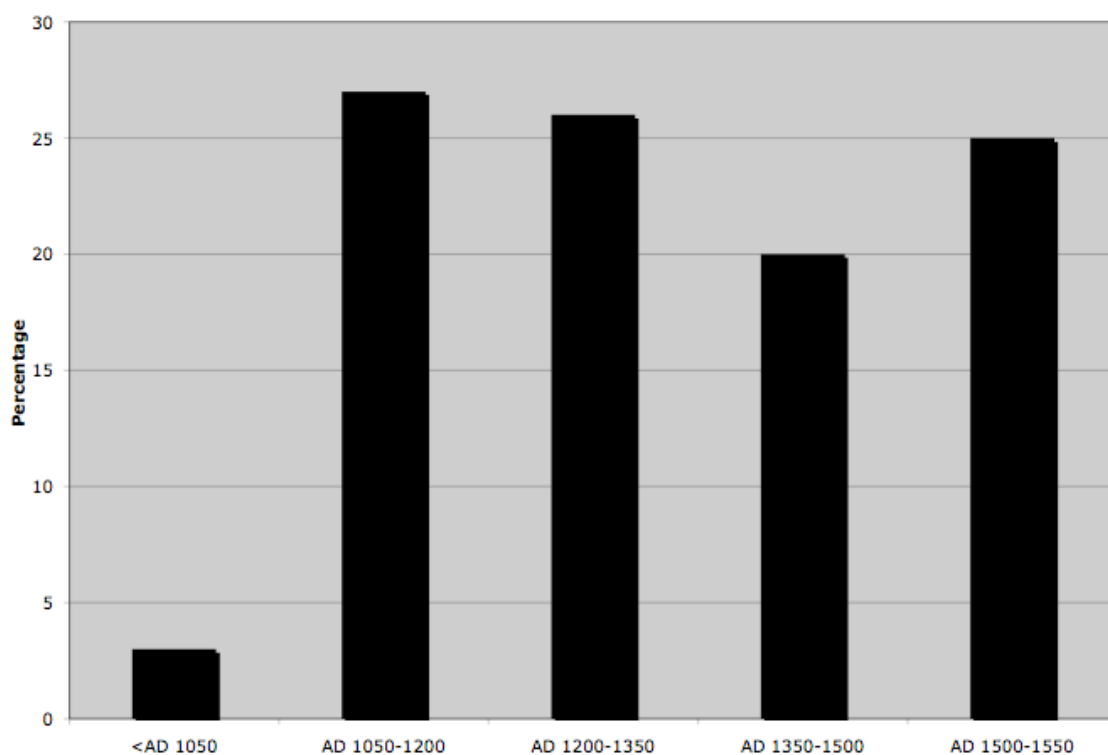


Figure 7.1 Projected frequency trend of Mississippian warfare (after Milner 1999)

Comparatively, it seems that investments in institutionalized rituals were rather modest and confined to low-frequency events associated with mortuary practices and mound construction. Signaling via more routinized ritual display, such as in smoking rituals, seems to have gained only marginal value. It was apparently sufficient to reinforce structural relationships by advertising the prowess of elites in acquiring and managing exotic goods and in coordinating public works without investing in ritualized reference to divine descent. Thus, the early stratagem of South Appalachian Mississippian societies, operating mainly at the level of small, autonomous chiefdoms, involved periodic costly displays of an emblematic, status-oriented nature, rather than of the mechanical, religious sort expected of institutionalized belief systems.

Smoking ritual of the Early Mississippian period, specifically, was a relatively low-cost endeavor, certainly so when compared with that which followed. The self-pipe form perpetuated from the tradition of Late Woodland societies was very simple in its design, representing the most basic elbow pattern known, amounting to little more than a bent tube. While there were some refinements to the antecedent types, including a modestly expanded repertoire of decoration, they remained among the simplest pipes to produce. Undoubtedly, the simplicity and size of the form would have had little visual impact. Those attributes, including the small capacity of the bowls, indicate that such pipes probably functioned as part of relatively simple and small-scale ritual displays. Seemingly, the ritual's effect was largely derived from the act of smoking – and its effects on the smoker, perhaps in a public arena, thus obviating any need to further reinforce ideas through symbolic embellishments. Ritual change, to the extent that it occurred during this period, was largely a group-level process that involved perpetuation of a normative, “traditional” pattern. I also suggest that it was propelled by a many-to-one form of information exchange characteristic of less hierarchical societies (Shennan 2002:49-50).

Archaeological evidence supports a characterization of Early Mississippian smoking ritual behavior as a form intermediate between the archetypal imagistic and doctrinal modes defined by Atkinson and Whitehouse (2011). Relatively small numbers of minimally embellished pipes were sufficient to support infrequently scheduled ritual events. Specialized contexts of recovery are indicative of their supervision by ritual specialists, but the exclusiveness of the practices appears to have been minimal. Its practitioners likely corresponded to Winkelman's (1990) category of healer, or perhaps shaman-healer. Thus, the costs associated with smoking ritual at this interval remained

low and commensurate with an emergent chiefly system functioning with a modest level of religiosity and ritual density.

*Middle Mississippian Signaling (AD 1225-1375).* Middle Mississippian elites in the South Appalachian area embraced costly signaling strategies to an unprecedented extent. The legitimacy of their status and their skill in privileged roles were advertised in myriad ways. Many of them constituted escalation of extant strategies, such as in the cases of coordination of ever-ambitious public works projects and expansion and intensification of exchange relations. Nowhere is this more evident in the region than at the site of Etowah. Investments were also made in new forms of costly signaling that found their value in an increasingly rigid, codified ideological system managed exclusively from elite positions. Reference to institutionalized beliefs in the context of regularly scheduled public rituals served to justify the primacy of the upper rank, as well as to reinforce social relations at large. Thus, the religiosity of South Appalachian Middle Mississippian societies was extreme, and it was manifest in highly ritualized and thoroughly controlled behavior, one element of which was smoking rites. For a time the strategy was a successful one, but it eventually proved to be unsustainable.

At the root of the changes that defined this period were the effects of between-group interaction and immigration. In light of the introduction of foreign pipe styles and even antique prestige goods (King 2007b), another dimension of the process may have involved prestige imitation. The ultimate effects on smoking ritual were significant levels of both technological and ideological innovation. Emplacement of this pattern was facilitated by a shift to information transfer of a one-to-many, or horizontal, model. Described another way, institutionalization of religious beliefs and uniformity in aspects of smoking ritual reflect a much stronger pattern of top-down communication and

influence. The success of the fundamental transformations during this period, at least temporarily, can be attributed to the effectiveness of costly signaling. Especially relevant advantages of the strategy were rapid rates of learning and broad audience impact.

The events that created the distinctive nature of Middle Mississippian in the South Appalachian region are largely attributable to the machinations of an immigrant, founding group (see, for example, Pauketat 2007, 2010). This group inserted itself into regional affairs, probably operating from the site of Etowah, under the assertion that it represented the interests of a divine authority. Moreover, the group claimed descent from divine personages and thereby claimed to be in possession of a charter of leadership and authority.

Having dispossessed the indigenous leadership of its standing and having partitioned social statuses more stringently, it was incumbent upon the new founding group to signal its legitimacy. Indeed, the burden of justification must have intensified vis-à-vis expectations of the regional populace. A means of establishing authority, and clearly one the new order employed was introduction of a ritual program that only it was qualified to implement by virtue of its lineage-based status. Also, under whatever incentive and path, the new authority embarked upon an expansionist program, bolstered in large measure by compelling religious rites, and for a time held paramount dominion over most of the region.

Under this scenario, many of the conditions that would justify extraordinary investment in costly signals were in place. Competition for power and control would have been intense both internally and externally. Also, the social hierarchy was expanded with additional categories that required even more stringent enforcement. Furthermore, the

diversity of the group increased as control or influence over far-flung locales was achieved. Because the new regime was successful in its bid for power, there is every likelihood that the benefits of group membership and affiliation attracted new recruits, including from rival polities. In conjunction, the risk of free riders would have risen. All told, administrative investments required and the element of risk were elevated considerably.

Stresses to the Mississippian system were further compounded by increasing levels of costly and risky behavior, namely as public works projects gained in scale and warfare in the region became a largely institutionalized behavior (Milner 1999)(see Figure 7.1). Starting in the Middle Mississippian period, defensive works were a regular feature of the larger communities, and in the case of the Etowah site, an enormous encircling ditch was created to complement a massive palisade. Depictions of warriors and war trophies were also common elements and motifs of SECC iconography. Impressive pools of labor would have been marshaled for more ambitious mound constructions, just as they were for construction of defensive works. During this period, the tendency was to build earthen platforms that were imposing both in size and in number (Hally 1996). And as has been described, other costs and stresses, such as those related to accumulation of ever-more elaborate stores of prestige goods, must have ballooned.

Among the religious programs that were elaborated in this new cultural environment was smoking ritual. Under the claim of divine authority, the traditional form of the ritual was challenged and ultimately replaced with a new form. Also, control of vital ritual knowledge would have helped secure the position of the descent group. Potentially, arguments were made that the sanctity and efficacy of tobacco rituals were



contingent upon actions of the presiding members of the preeminent lineage. It was their ongoing obligation, in fact, to honor a pact with the gods, and the presumption was that failure to do so would have been catastrophic; the new order depended upon it. Other kinds of costly signaling practices were also introduced, most clearly manifest in the SECC and the lavish cosmological and mortuary rituals that were its focus.

As I have argued, introduction of Footed pipes probably initiated the process of change that so radically altered the nature of smoking ritual for centuries to come. The signaling potential of this type of pipe was considerably greater than that of the earlier, indigenous type. Everything about it was scaled up in size to achieve, purposely, a significant gain in visibility. Not only were the pipe bowls larger, but the design of the pipe required insertion of a separate, longer stem. In addition, the capacity of the Footed bowls exceeded that of the traditional bowls, a fact that could translate into added signaling value by virtue of the larger volume of smoke they could produce. The increase in capacity also implies a temporary shift away from rites that were somewhat exclusive to others that were more public and participatory.

Spurred by those developments, the signaling potential of Middle Mississippian pipes was markedly enhanced in four important ways. The first was wholesale adoption of the *calumet*-style design, which consisted of a durable bowl and a separate stem. Assuming that the Middle Mississippian pipes were similar to those known historically as *calumet* pipes, the stems could be more than two feet long and embellished with a range of highly visible decorations. The second was incorporation of a consistent set of symbolic patterns on the pipe bowls. The standardization of designs, in itself, would serve to reinforce canonical beliefs, and the symbols would have presumably excited particular emotions. A third enhancement of signaling potential was regular use of exotic

materials, especially stone. A fourth strategy was rigid control over the contexts in which pipes were displayed and used. Archaeological contexts for pipes of this period are very strongly sacred, as opposed to secular, in nature, indicating that their care and use were the exclusive purview of specific individuals, most of whom were males, holding specific status.

The dominant smoking ritual format associated with the Middle Mississippian pattern is consistent with the features of Atkinson and Whitehouse's (2011) doctrinal mode. Significant investment was made in sophisticated and exclusive ritual signaling behaviors that appear to have been exhibited frequently. That pattern was underwritten by a strongly institutionalized belief system promoted and administered by a privileged descent group, including priests, at the pinnacle of the rigid social hierarchy. All of those behaviors facilitated management of the risks inherent to paramount chiefdoms with an elevated commitment to an agricultural economy. The associated archaeological evidence exposes the high level of religiosity that is predicted under such circumstances.

The success of the new strategies cannot be denied based simply on their multi-generational persistence for well over a century. We must believe that the "work-arounds," including costly signaling devices, improved the general fitness of most groups and individuals during the middle period. However the strategic formulation, in its unprecedented complexity and scale, was also an inherently fragile one. In time, the inherent risks of the pattern overwhelmed the system, and a correction became imminent.

To summarize, the Middle Mississippian pattern was built around the exclusive authority of a preeminent lineage. Maintenance of that authority required investment in costly signaling at a level that was not before or after matched. Ultimately, the middle-

period system collapsed under circumstances that are not altogether clear. However it was a precarious, high-risk set of relations that was never going to be maintained indefinitely. It is safe to assume that, over time, expectations of the populace were not met, and support for the ruling lineage dissolved. The result was a rather abrupt social rupture, or correction, that rewarded a new set of structures and attendant rituals.

*Late Mississippian Signaling (AD 1375-1600).* The highly elaborated strategy of the Middle Mississippian period broke down after about a century and a half. The systemic adjustments that led to a distinctly different Late Mississippian ritual pattern appear to have occurred in concert with some turmoil. In fact, the depth of change that is detectable archaeologically, particularly in the nature of smoking ritual, is strongly suggestive of a radical rejection of the dominant Middle Mississippian ideology and social order. The outcome of the transformation was less centralized authority and a concomitant upturn in inter-polity competition. Under those circumstances, the formerly prevalent belief system and the ritual programs that supported it were adapted to function in support of the interests of disparate polities, rather than those of a paramount power. While ritualistic activity, including smoking ritual, was perpetuated among the repertoire of costly signaling behaviors, it was designed to serve the interests of less authoritative and perhaps even secular orders.

In brief, the qualities that define smoking ritual in the late period emerged in an atmosphere of disequilibrium. The changes occurred rapidly but apparently as a result of internal rather than external forces. The behaviors that may have been imitated in this environment are less clear and could have been both those of success and prestige. As was true of the preceding period, relevant information was probably transmitted according to a one-to-many model but from individuals holding different kinds of office

and status. One obvious effect of these new orientations was a significant level of ideological innovation, at least with regard to smoking rites.

It is apparent that the reorientation that defines this period was not wholesale, meaning it did not affect all aspects of the general cultural pattern equally. Indeed, evidence exists to indicate that violent conflicts and mound constructions increased in frequency (Hally 1996; Milner 1999), if not in scale. However the conflicts seem to have been relatively localized, and mound-building was typically less ambitious. Thus, the process of change that began late in the fourteenth century involved an effective recalibration of the costs and benefits of different signaling strategies and alterations to the way they were instituted, ranging from differences in kind to differences in degree. The implication of these observations is that the uniquely Mississippian signaling behaviors continued to have fitness benefits but on an adjusted, possibly more sustainable level.

I surmise that the Late Mississippian adjustment was a reactive change as opposed to a proactive one, such as that which occurred at the outset of the previous period. The former occurred, perhaps, in a spirit of revitalization intended to relieve stresses inherent to a more rigid, hierarchical system. The fundamental shift was from an authoritarian, descent group, ultimately traceable to foreign origins, to one that was more locally representative. The transition appears to have achieved, for a time, a general leveling of the sociopolitical landscape. The effect throughout the region was a new climate of relative autonomy for chiefly polities. Over time, there is ample evidence of the formation of new paramount chiefdoms, but none of them grew to rival the former power and scope of Etowah (King 2003; Smith 2000).

The late-period reorientation introduced at least two important changes. Access to resources was less constrained, as was access to the divine. However, because these outcomes were in large part achieved in the vacuum of power left by the discredited descent group, competition could still have been quite keen between both aspiring individuals and newly independent chiefdoms. Because autonomous groups would have become smaller on average and perhaps less diverse, the risk of free riders is likely to have declined. However, in a newly competitive environment, there could very well have remained a threat of apostasy, as individuals evaluated the benefits of membership in competing polities. In effect, this transformation created a climate that still rewarded costly signaling strategies, but the strategies were of a different nature.

For the successor authorities and specialists operating at a provincial level, the crux of the alternative strategies was demonstration of access to divine powers on new terms. Their entitlements seem to have been signaled by command of exclusive knowledge and ritual processes absent any claims of fictive kinship. In short, opportunities were created for charismatic individuals and special interest groups to fill the power vacuum. Still, smoking ritual remained an intrinsic, indispensable religious practice. It was perpetuated under new guises to satisfy the need for both individuals and a plethora of competing institutions, including religious cults or “societies,” to assert themselves. Those competitive conditions freed religious practitioners to reinterpret the meanings of the rituals. The identity of the ritualists in these instances is unclear, but powerful shamans or cult leaders could have been among the main custodians and functionaries.

One of the obvious changes associated with the Late Mississippian patterns was heightened visibility of smoking ritual. There is less evidence that it was practiced in

seclusion. Instead, evidence points to considerably higher visibility, whether in the context of more accessible charismatic performances, inclusive public rituals, or as part of inter-group councils that involved sharing pipes.

The question of cost associated with pipe production requires comment as well. On one hand, the fact that pipes of the Late Mississippian period were seldom, if ever, made from stone, as they frequently were in the middle period, indicates a lowered interest in sustaining, if not ability to sustain, the costs of specialized pipe production. This would be one outcome of weakened regional exchange systems. However, raw material notwithstanding, the skill required to create some of the large and elaborate ceramic pipes of the later period still implies a significant degree of specialized, skilled production. Thus, there were surely ongoing costs associated with support of craftspeople to produce them. This is all to say, again, that the increased secularization of smoking ritual did not entail complete diminishment of its sacredness or intolerance for absorbing the costs of specialized paraphernalia.

In terms of costly signaling, then, the changes that smoking ritual practice underwent between the Middle and Late Mississippian periods may have been more a matter of kind, rather than one of degree. And, in fact, the question must be considered of whether investment in the ritual didn't actually rise. Evidence suggesting as much would be the apparent increase in numbers of pipes produced and a new, higher level of elaboration. And, in the absence of stone materials, there is strong indication that particular clay types were favored, if not required, for pipes.

These tendencies reveal perpetuation of a doctrinal religious mode but in a variant form. The risks and stresses inherent to segmentary societies were experienced by the

more provincial Late Mississippian populations to varying degrees. Non-elite members of the groups were still expected to submit to the expectations of a privileged class, and the latter remained challenged by the need to coordinate labor for public works and to rationalize their own status. There is also evidence that the tension and conflict associated with new levels of inter-polity competition may have increased. Thus, the principal structural difference relative to the Middle Mississippian condition was one of scale. Smoking ritual remained a viable signaling strategy, but it was practiced with less standardization at the regional level and incorporated appeals to supernatural authority rather than that of a divine lineage. Furthermore, the principal ritual custodians may have been drawn from both privileged and more secular ranks and may have functioned as both healers and shamans.

### Concluding Comments

South Appalachian Mississippian smoking practices are an especially useful case for examining ritual behavior and its pattern of change. On one level, we can be impressed by the tenacious persistence of an entrenched and ancient ritual practice – the act of smoking. On another, we discover an historical trajectory arcing from unelaborated practice of a long-standing tradition, to accelerated elaboration of it under a wholly new pattern, and then to an abrupt alteration of the newer practices, all before the eventual decline in overall ritual complexity. More importantly, we see in this case how the nature of smoking ritual, as an aspect of religiosity, was altered in conjunction with broader patterns of cultural change, including variable social, political, and economic orientations. Aspects of the evidence also raise the question of the degree to which smoking ritual itself became a catalyst of change. The longer evolutionary process was, then, one by which a fundamental feature - perhaps *the* fundamental feature - of the

indigenous religious tradition was manipulated, even co-opted, to accommodate shifting circumstances. Those manipulations entailed major change to associated ritual trappings and to the meanings attached to them, and because in most instances the pace of change was rapid, the history of the process is punctuated by sharp, radical shifts in orientation.

Although we are long past a view of ritual behavior as something epiphenomenal, abandonment of that perspective is not always apparent in archaeological practice. Certainly signs of improvement abound (Knight 1986; VanPool 2003; VanPool and VanPool 2007), but Insoll (2004), for example, was compelled in a recent review of the topic to note that archaeologists are still more prone to privilege economic explanations over religious ones. Ritual behavior is unquestionably a dimension of culture that can be challenging to isolate in the material record, but I suspect that as great an impediment has been the absence of a persuasive, workable model applicable to the archaeological situation.

Perspectives derived from evolutionary theory have begun to meet this need, and they supply this study with a valuable framework. The theoretical formulations of Alcorta and Sosis (2005, 2007) have been especially influential. Those authors argue unambiguously that the evolutionary function of religion is to promote cooperation, especially over wider expanses of time and space. By successfully doing so, religion solved an ecological problem, that of idiocentric inclinations – or selfishness, and thereby allowed human societies to exploit new niches. Furthermore, they identify ritual as the principal mechanism for achieving cooperative action and political change (Wade 2009:68-70; Wilson 2002:175). Therefore, the nature of rituals, including their costs, is expected to relate directly to the kinds of collective action problems confronted by a society. Religion, in this sense, emerges as a “critical adaptive complex” that improves



individual fitness by enhanced cooperation (Alcorta and Sosis 2005), and it is capable of doing so under a range of cultural systems. Thus, it is not beliefs that are at the core of religious behavior but, rather, commitments to socially constructive behavior.

The historical dimension of ritual practice has traditionally been overshadowed by research of a synchronic nature focusing on the contemporary practices of a particular culture. So it is that the question of change still looms large in general treatments of ritual. However a number of cross-cultural analyses (Atkinson and Whitehouse 2011; Benedict 1934; Wallace 1956; Winkelman 1990) have isolated what appear to be leading factors in shifts from one ritual mode to another. A root cause, described very generally, is the element of “stress.” This refers mainly to the strained conditions associated with deepening inequities, particularly of an economic nature, within a society. More often than not, such conditions occur in conjunction with so-called transitional states associated with shifts to new economic modes and/or social structures. Thus, as this study demonstrates, religious ritual emerges as a highly plastic behavior subject to alteration that may occur either gradually or abruptly and due to either external or internal forces. It consequently becomes clear that religious rites must change in order to maintain their relevance, and through that process, the meanings applied to them may prove more malleable than their structure. In short, religious behaviors, including rituals, are indispensable elements of human societies, but their effective articulation within a given cultural system depends upon deliberate and strategic actions. Ultimately, it is those kinds of ongoing actions that account for the historical dynamism I have described within an otherwise intransigent practice.

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## Appendix A

## Summary of Collections Examined

<b>Site/Collection</b>	<b>Site No.</b>	<b>Repository</b>	<b>Location</b>
Jones Coll.-Misc Sites		American Mus of Nat Hist	New York, NY
Peabody Coll.-Misc Sites		American Mus of Nat Hist	New York, NY
Douglass Coll.-Misc Sites		American Mus of Nat Hist	New York, NY
Abercrombie	1RU61	Columbus Museum	Columbus, GA
Bull Creek	9ME1	Columbus Museum	Columbus, GA
Cannon		Columbus Museum	Columbus, GA
Cemochechobee	9CY62	Columbus Museum	Columbus, GA
Ft. Mitchell	1RU102	Columbus Museum	Columbus, GA
Roods Landing	9SW1	Columbus Museum	Columbus, GA
Singer-Moye	9SW2	Columbus Museum	Columbus, GA
Coffee Bluff	9TF115	Fernbank Mus of Nat Hist	Atlanta, GA
Glass	9TF145	Fernbank Mus of Nat Hist	Atlanta, GA
Santa Catalina de Guale		Fernbank Mus of Nat Hist	Atlanta, GA
Cox Mound	18AN19	McClung Museum	U of Tennessee, Knoxville
Dallas	HA1	McClung Museum	U of Tennessee, Knoxville
Dearmond	2RE12	McClung Museum	U of Tennessee, Knoxville
Fains Island	JE1	McClung Museum	U of Tennessee, Knoxville
Hampton	40HA146	McClung Museum	U of Tennessee, Knoxville
Hiwassee Island	38MG31	McClung Museum	U of Tennessee, Knoxville
Hixon	HA3	McClung Museum	U of Tennessee, Knoxville
Lea Farm	4AN17	McClung Museum	U of Tennessee, Knoxville
Ledford Island	40BY13	McClung Museum	U of Tennessee, Knoxville
Mouse Creek	40MN3	McClung Museum	U of Tennessee, Knoxville
Rymer	40BY11	McClung Museum	U of Tennessee, Knoxville
Sale Creek	64HA10	McClung Museum	U of Tennessee, Knoxville
Tallassee	11BT8	McClung Museum	U of Tennessee, Knoxville
Tomotley	40MR5	McClung Museum	U of Tennessee, Knoxville
Toqua	40MR6	McClung Museum	U of Tennessee, Knoxville
	40CE10	McClung Museum	U of Tennessee, Knoxville
Lamar	9BI2	Ocmulgee National Mnmt	Macon, GA
Macon Plateau	9BI1	Ocmulgee National Mnmt	Macon, GA
Mossy Oak	9BI17	Ocmulgee National Mnmt	Macon, GA
Stubbs	9BI12	Ocmulgee National Mnmt	Macon, GA
Etowah	9BR1	Peabody Museum-Andover	Andover, MA
Bullard Bottom	9PM169	Riverbend Laboratory	U of Georgia, Athens
Carroll	9PM85	Riverbend Laboratory	U of Georgia, Athens
Dyar	9GE5	Riverbend Laboratory	U of Georgia, Athens
Irene	9CH1	Riverbend Laboratory	U of Georgia, Athens
Scull Shoals	9GE4	Riverbend Laboratory	U of Georgia, Athens
Tugalo	9ST1	Riverbend Laboratory	U of Georgia, Athens
	9GN51	Riverbend Laboratory	U of Georgia, Athens

Sixtoe Field	9MU100	Riverbend Laboratory	U of Georgia, Athens
	9MG28	Riverbend Laboratory	U of Georgia, Athens
Grove Creek		Skidaway Institute	Skidaway Island, GA
Etowah	9BR1	Smithsonian Institution	Suitland, MD
Hollywood	9RI1	Smithsonian Institution	Suitland, MD
Irene	9CH1	Smithsonian Institution	Suitland, MD
Lenoir		Smithsonian Institution	Suitland, MD
Peachtree	31CE1	Smithsonian Institution	Suitland, MD
Shoulderbone	9HK1	Smithsonian Institution	Suitland, MD
Wilbanks	9CK5	Smithsonian Institution	Suitland, MD
Coffee Bluff	9TF115	South Georgia College	Douglas, GA
Etowah	9BR1	Waring Laboratory	West Georgia U, Carrollton



## Appendix B

## Summary of Referenced Archaeological Sites

<b>Site Name</b>	<b>Site No.</b>	<b>State</b>	<b>Published Sources Consulted</b>
Abercrombie	1RU61	AL	
Baugh's Landing	1LU72?	AL	Moore 1915
Charlotte Thompson		AL	Moore 1900; Brain and Phillips 1996
Fr. Mitchell	1RU102	AL	
Mason Island	1LI36	AL	Moore 1915
Moundville	1TU500	AL	Moore 1905, 1907; Brain and Phillips 1996
Penney Place		AL	Moore 1915
Rudder	1JA180	AL	Brain and Phillips 1996
Rudder	1JA180	AL	Brain and Phillips 1996
Thirty Acre Field		AL	Moore 1900
Lake Jackson	8LE1	FL	Griffin 1950; LeDoux 2009; Scarry 2007a, 2007b
Beaverdam	9EB85	GA	Rudolph and Hally 1985
Bell Field	9MU101	GA	Kelly 1970
Big Kiokee Creek		GA	
Bourbon's Field	9MC20-21	GA	Moore 1897; West 1934
Bowdon's	9OC319	GA	Ledbetter 2010
Bull Creek	9ME1	GA	Ledbetter 1997
Bullard Bottom	9PM169	GA	Williams 2005
Carroll	9PM85	GA	
Cemocheechee	9CY62	GA	Schnell et al. 1981
Coffee Bluff	9TF115	GA	Blanton et al. 2008
Creighton's Island	9MC12	GA	Moore 1897; McGuire 1899; West 1934
Dumoussay's Field	9MC22	GA	Moore 1897
Dyar	9GE5	GA	M. Smith 1994
Eastwood	9WH2	GA	Wauchope 1966
Estatoe	9ST3	GA	
Etowah	9BR1	GA	Thruston 1897; McGuire 1899; Moorehead 1932; West 1934; Brain and Phillips 1996
Glass	9TF145	GA	Blanton 2011
Grove Creek		GA	
Hollywood	9RI1	GA	Thomas 1894; McGuire 1899; Wauchope 1966; Anderson 1994; Reid 1965; Brain and Phillips 1996
Hudson's Ferry		GA	Moore 1898; McGuire 1899; West 1934; Anderson 1994
Irene	9CH1	GA	Caldwell and McCann 1941
Johnstone Farm	9FL49	GA	
Kent Mound		GA	Cook 1976; Cook and Snow 1983

King	9FL5	GA	Hally 2008
Kissing Rock	9CA19	GA	Ledbetter 2010
Lake Bluff		GA	Moore 1898
Lamar	9BI2	GA	Williams 1999
Lawton Field	9MC2	GA	Moore 1897; Larson 1998; West 1934
Little Egypt	9MU102	GA	Hally 1979
Little River	9MG46	GA	Williams 2002, 2004
Long Swamp	9CK1	GA	Wauchope 1966
Macon Plateau	9BI1	GA	Fairbanks 1954, 1956
Mossy Oak	9BI17	GA	Stoutamire et al. n.d. Heye et al. 1918; West 1934; Brain and Phillips 1996
Nacoochee	9WH3	GA	
Norman		GA	Larson 1957
Pine Harbor	9MC164	GA	Cook and Snow 1983
Poarch Farm	9GO1	GA	
Potts' Tract	9MU103	GA	Hally 1970
Raccoon Ridge		GA	Worth 1996
Rembert	9EB1	GA	Caldwell 1953; Anderson 1994
Roods Landing	9SW1	GA	
Ruckers Bottom	9EB91	GA	Anderson and Schuldenrein 1985
Sandtown	9FU1	GA	Wauchope 1966
Sandy Hammock		GA	
Sapelo Island		GA	Moore 1897
Scull Shoals	9GE4	GA	Williams 1984, 1992
Shinholser	9BL1	GA	Williams 1990b
Shoulderbone	9HK1	GA	Williams 1990a
Singer-Moye	9SW2	GA	
Sixtoe Field	9MU100	GA	
Stubbs	9BI12	GA	Williams 1992
Thompson	9GO4	GA	
Tugalo	9ST1	GA	Anderson 1994
Tye	9OC93	GA	Ledbetter 2010
Various		GA	Jones 1999
Wilbanks	9CK5	GA	Sears 1958; Wauchope 1966
	9GN51	GA	
	9MG28	GA	
Coweta Creek	31MA24	NC	Ward and Davis 1993
Culowhee		NC	Ward and Davis 1993
Lenoir		NC	Thomas 1894
Nelson	31CW1	NC	
Peachtree	31CE1	NC	Seltzer and Jenkins 1941
Town Creek	31MG2-3	NC	Coe 1995; Boudreaux 2007
Warren Wilson	31BN29	NC	Dickens 1976; Keel 1976
Chauga	38OC1	SC	Kelly and Neitzel 1961
Mulberry	38KE12	SC	

	40CE10	TN	
Bennett Place	40MI7	TN	Moore 1915; Brain and Phillips 1996
Citico	40HA65	TN	Moore 1915; West 1934; Brain and Phillips 1996
Cox Mound	40AN19	TN	
Dallas	40HA1	TN	
Dearmond	40RE12	TN	
Fain's Island	40JE1	TN	
Greenwood		TN	Brain and Phillips 1996
Hampton Place	40HA146	TN	Moore 1915; West 1934
Hiwassee Island	40MG31	TN	Lewis and Kneberg 1946
Hixon	40HA3	TN	
Lea Farm	4AN17	TN	
Ledford Island	40BY13	TN	
Loy		TN	
Mouse Creek	40MN3	TN	
Rymer	40BY11	TN	
Sale Creek	40HA10	TN	
Tallassee	11BT8	TN	
Tomotley	40MR5	TN	
Toqua	40MR6	TN	
Frazier Mound		TN?	

## Appendix C.

### Description of Smoking Pipe Categories and Types

This appendix provides detailed descriptions of the categories and types of pipes that I have defined as representative of the Mississippian Stage in the South Appalachian Mississippian region. Most of them are formally described here for the first time.

Category: Simple, Long (stem)

Type: Simple, Long (stem)

Number Documented: n=56

#### Temporal Association

General: Late Woodland-Early Mississippian  
Estimated Date Range: AD 800-1100

#### Geographical Distribution

Regional: South Appalachian Mississippian: basic form widespread in eastern North America  
Physiographic: Mainly Ridge & Valley and Piedmont Upland, but also present in Gulf Coastal Plain  
Drainages: Concentration in Tennessee-Coosa river basins, also present in Chattahoochee and upper Savannah  
Provinces: Coosa  
Representative Sites: Etowah, Hiwassee Island, Abercrombie

#### Description

General: Simple form with long integrated stem; "self-pipe" form  
Variants: 1) round stem without footed bowl, 2) round stem with footed bowl, 3) plano-convex stem (bowl forms unknown)  
Bowl: Simple, relatively short, small cone; rim usually direct and sometimes slightly incurvate; usually unadorned  
Stem: Long and usually tapering with round or flattened (plano-convex) cross-section; orifice at bit end relatively small and not designed for a separate stem insert; stem perforation usually consistent diameter from end to end; decoration when present usually either red film or lateral notches on flattened types  
Appendages: Occasionally simple foot at lower front of bowl  
Materials: Almost always ceramic

Representative Contexts: Sub-mound middens; Conical mounds

Category:	Footed
Type:	Simple, Large Footed
Number Documented:	n=25
Temporal Association	
General:	Early Mississippian-early Middle Mississippian
Specific Dates:	AD 1100-1250
Geographical Distribution	
Regional:	Widely occurring in Mississippian Southeast from Arkansas, Louisiana, Alabama, Tennessee, to Georgia but much less prevalent in Atlantic seaboard states
Physiographic:	Ridge & Valley, Piedmont, Coastal Plain-Gulf
Drainages:	Mississippi, Tennessee, Coosa, Chattahoochee, Ocmulgee, Savannah
Provinces:	n/a
Representative Sites:	Macon Plateau, Stubbs, Nacoochee, Etowah, Hixon, Moundville, Greenwood
Description	
General:	Relatively large and heavy; bowl-stem angle usually obtuse but often only slightly; distinguishing feature is a foot-like appendage protruding forward and slightly downward from the bottom of the bowl
Variants:	1) Cone-on-cone form usually with rounded, pointed "foot", 2) spade-like foot, 3) large, heavy elbow form with attenuated/vestigial foot and flat base
Bowl:	Usually simple thick-walled cone or cylinder, rarely trumpet-shaped; almost always unadorned; rarely includes loop handles at rim
Stem:	Length usually equal to or greater than height of bowl; typically round cross-section but sometimes sub-rectangular or flattened ovate (with flattened surface at base); bit end often expanded; orifice at bit usually large; almost always unadorned
Appendages:	Always distinguished by foot-like appendage extending forward of bottom of bowl; foot is commonly wide and spade-like but can also be knob-like, pointed, or very slight and vestigial, and also may be bifurcated; foot is possibly a highly stylized human hand supporting the bowl (see Louisiana example)
Materials:	Typically ceramic; rarely stone
Representative Contexts:	Mounds; relatively common in stone box graves; also general contexts

Category:	Footed
Type:	Wrapped
Number Documented:	n=57
Temporal Association	
General:	Middle Mississippian
Specific Dates:	AD 1200-1300
Geographical Distribution	
Regional:	South Appalachian Mississippian
Physiographic:	Mainly Coastal Plain-Gulf; Occasionally Piedmont Upland and Ridge & Valley
Drainages:	Mainly lower Chattahoochee; also Apalachicola and Flint; Occasionally Coosa and Tennessee
Provinces:	n/a
Representative Sites:	Cemocheechee, Etowah, Hiwassee Island, Lake Jackson
Description	
General:	Distinctive type with wrapped/lashed adornment and somewhat segmented appearance; frequently an attenuated spade-like foot extends forward from the bottom of the bowl; Bowl-stem angle is either obtuse or right-angled
Bowl:	Somewhat cylindrical vessel-like form, sometimes with a slightly expanded midsection, and a rim that is usually direct and squared and less commonly a flared ledge; Rim portion sometimes features four loop handles or “peaks”; The expanded midsection usually created by a raised band of simulated lashing created by finely incised lines; Geometric decoration is common and created with fine punctuations and occasional incised lines;
Stem:	Length usually equal to bowl height but sometimes shorter; Somewhat segmented appearance often created by raised band of simulated lashing created by finely incised lines; Bit end is sharply expanded but not always thickened; Orifice is enlarged; Other adornment may be incised rings or a geometric fine punctate pattern
Appendages:	Small spade-like foot; Loop handles or peaked nodes at rim
Materials:	Ceramic; sometimes shell tempered
Representative Contexts:	Mounds; Strongly associated with Chattahoochee-Coosa-Tennessee river corridor

Category: Large, Heavy

Type: Large curved elbow

Number Documented: n=7

#### Temporal Association

General: Usually Early Mississippian  
Specific Dates: AD 100-1225

#### Geographical Distribution

Regional: Southeastern US but more common in western locales of South Appalachian Mississippian region  
Drainages: Coosa, Savannah  
Provinces: n/a  
Representative Sites: Etowah, Irene, Moundville

#### Description

General: Simple elbow; relatively large and massive; variably round to square forms  
Bowl: Usually simple cylinder with thick walls; Rim usually direct and unenhanced; Typically unadorned but one variant decorated with spiraling incised lines  
Stem: Simple; Length equal to or shorter than bowl height; Bit orifice usually enlarged  
Appendages: None  
Materials: Ceramic

Representative Contexts: Usually generalized as opposed to specialized contexts



Category: Large, Heavy

Type: Large, heavy

#### Temporal Association

General: Early-Late Mississippian  
Specific Dates: AD 1100-1600

#### Geographical Distribution

Regional: Southeast-Midwest US  
Drainages: Widespread  
Provinces: Widespread

#### Description

General: Simple elbow; relatively large and massive; Bowl-stem angle usually right angle or slightly obtuse  
Bowl: Usually simple cylinder with thick walls, sometimes with ledge or slightly flaring rim; Rim usually unenhanced; Rarely adorned  
Stem: Usually simple; Length equal to or shorter than bowl height; Bit orifice usually enlarged  
Appendages: None  
Materials: Ceramic or stone

Representative Contexts: Usually generalized as opposed to specialized contexts

Category:	Obtuse
Type:	Obtuse, Short stem with simple bit
Number Documented:	n=13
Temporal Association	
General:	early Middle Mississippian
Specific Dates:	AD 1200-1300
Geographical Distribution	
Regional:	South Appalachian Mississippian, but most prevalent in northern-northeastern sections
Physiographic:	Blue Ridge, Piedmont, Coastal Plain-Atlantic
Drainages:	Mainly Coosa, Tennessee, and Savannah; occasionally upper Oconee and upper Ocmulgee
Provinces:	n/a
Representative Sites:	Beaverdam, Etowah, Irene, Town Creek
Description	
General:	Bowl-stem angle obtuse; bit end of stem unelaborated
Bowl:	Usually elongated cone or pod with slightly expanded mid-section; sometimes a simple cylinder; simple ring-like lip band common but otherwise seldom adorned; Rarely flaring lip
Stem:	Length usually equal to or shorter than bowl height; Simple form with round cross-section, either slightly expanded mid-section or straight tube; Rare form with triangular cross-section; Bit end orifice usually larger diameter than full-length perforation
Appendages:	None
Materials:	Typically ceramic; occasionally stone
Representative Contexts:	Mound burials and other specialized contexts; General affinity with sites north of the Savannah River

Category: Obtuse

Type: Obtuse, Short stem with thickened bit

Number Documented: n=10

Temporal Association

General: early Middle Mississippian

Specific Dates: AD 1200-1300

Geographical Distribution

Regional: South Appalachian Mississippian, but most prevalent in northern-northeastern sections

Physiographic: Blue Ridge, Piedmont, Coastal Plain-Atlantic

Drainages: Mainly Coosa, Tennessee, and Savannah, occasionally upper Oconee and upper Ocmulgee

Provinces: n/a

Representative Sites: Peachtree, Hollywood, Etowah, Irene

Description

General: Bowl-stem angle obtuse; bit end of stem is thickened, sometimes with distinct band

Bowl: Usually elongated pod with slightly expanded mid-section or simple cylinder; Lip can be a simple ring-like band, a wider band with incised rings, or rarely flaring; Otherwise usually unadorned; Rarely segmented bowl

Stem: Length usually equal to or slightly greater than bowl height; Round cross-section; Bit end thickened, sometimes with distinct band; Bit end orifice usually larger diameter than full-length perforation

Appendages: Rare nodes at bowl lip

Materials: Typically stone

Representative Contexts: Mound burials and other specialized contexts

Category:	Jointed
Type:	Jointed, Undecorated
Number Documented:	n=29
Temporal Association	
General:	Middle Mississippian
Specific Dates:	AD 1200-1350
Geographical Distribution	
Regional:	South Appalachian Mississippian
Physiographic:	Mainly Piedmont, Coastal Plain-Atlantic; Occasionally Blue Ridge
Drainages:	Mainly Coosa and Savannah; occasionally Chattahoochee-Upper, Ocmulgee, Tennessee, Pee Dee, and Yadkin
Provinces:	n/a
Representative Sites:	Etowah, Hollywood, Irene, Town Creek
Description	
General:	Segmented appearance featuring a distinctive “joint” at the bowl-stem intersection resembling an elbow pipe fixture; Bowl-stem angle slightly obtuse or right angled
Bowl:	Vessel-like form that is pod-shaped with a slightly expanded midsection; Rim is usually a sharply flared ledge, often with beveled edges; Lip is occasionally unflaring and finished with a simple ring-like band; typically unadorned but rarely incised rings
Stem:	Length equal to or less than bowl height; Often slightly expanded at midsection; Bit is usually distinctly expanded, at times it features a thickened band, and rarely is unelaborated; Orifice diameter at bit is greater than that of general stem perforation; Stem is otherwise unadorned
Appendages:	None
Materials:	Usually ceramic; rarely stone
Representative Contexts:	Often associated with classic SECC paraphernalia in mound burials

Category: Jointed

Type: Jointed, Incised

Number Documented: n=7

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1200-1350

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Piedmont and Coastal Plain-Atlantic

Drainages: Mainly Coosa and Savannah, occasionally Tennessee

Provinces: n/a

Representative Sites: Etowah, Beaverdam, Irene

Description

General: Segmented appearance featuring a distinctive “joint” at the bowl-stem intersection resembling an elbow pipe fixture; The jointed segment of this type features incised line decoration; Bowl-stem angle slightly obtuse or right angled

Bowl: Vessel-like form that is pod-shaped with a slightly expanded midsection; Rim is a sharply flared ledge, often with beveled edges; Jointed segment at bowl-stem intersection is adorned with closely-spaced incised lines, and one example features a pattern of raised rings on opposing sides

Stem: Length equal to or less than bowl height; Often slightly expanded at midsection; Bit is distinctly expanded; Orifice diameter at bit is greater than that of general stem perforation; Stem is otherwise unadorned

Appendages: None

Materials: Ceramic

Representative Contexts: Mound burials

Category:	Noded
Type:	Noded, Raised Nodes
Number Documented:	n=36
Temporal Association	
General:	Middle Mississippian
Specific Dates:	AD 1325-1375
Geographical Distribution	
Regional:	South Appalachian Mississippian
Physiographic:	Concentrated in Piedmont-Upland but present in all SAM provinces
Drainages:	Mainly Coosa but also Tennessee, Apalachicola, Chattahoochee-Upper, Savannah, Oconee, Ocmulgee, and Coastal Zone
Provinces:	n/a
Representative Sites:	Etowah, Hollywood, Lake Jackson, Nacoochee, Fains Island, Warren Wilson
Description	
General:	Distinguished by raised nodes on bowl; Bowl-stem angle usually right-angled but sometimes slightly obtuse
Bowl:	Vessel-like form that is pod-shaped with a slightly expanded midsection; Rim is a sharply flared ledge, often with beveled edges; Rim often adorned with incised rings; Bowl features closely spaced, rounded raised nodes sometimes outlined by incised lines; Some examples also feature a raised disk at the base of the bowl that usually bears incised line decoration
Stem:	Length equal to or less than bowl height; Often slightly expanded at midsection; Bit is almost always distinctly expanded, but will rarely feature a thickened band; Flattened end of expanded bit often bears incised line decoration; Commonly features either incised or raised rings at midsection; Orifice diameter at bit is greater than that of general stem perforation
Appendages:	Raised nodes
Materials:	Usually ceramic but stone examples not uncommon
Representative Contexts:	Often associated with classic SECC paraphernalia in mound burials

Category: Noded

Type: Weak Noded (low-relief nodes)

Number Documented: n=7

#### Temporal Association

General: Middle Mississippian, but possibly persists later in some places

Specific Dates: AD 1200-1350

#### Geographical Distribution

Regional: South Appalachian Mississippian (mainly North Carolina)

Physiographic: Mainly Blue Ridge but also Piedmont-Midland and Ridge & Valley

Drainages: Mainly Tennessee but also Pee Dee and Yadkin

Provinces: n/a

Representative Sites: Town Creek, Warren Wilson, Lenoir, Irene

#### Description

General: Bowl features low-relief nodes; Bowl-stem angle slightly obtuse or right angled

Bowl: Typically a simple trumpet or conical form; Lips often marked by a raised ring but are often unembellished (one example has flared rim); Occasionally incised rings are present just below lip; Nodes are either very slightly raised, sometimes with an incised outline, or they are simply represented by incised rings; Nodes are often present in small numbers

Stem: Length is usually somewhat greater than bowl height on stone examples, which also usually feature a ring-like band at the bit; Stem length is roughly equal to bowl height on ceramic examples, the bit ends of which are slightly expanded or feature a thickened band; Otherwise stems are unadorned

Appendages: None

Materials: Usually stone but sometime ceramic

Representative Contexts: Burials; Strongly associated with drainages north of Savannah River and upper Piedmont and Appalachian settings

Category:	Square
Type:	Square
Number Documented:	n=5
Temporal Association	
General:	Middle Mississippian
Specific Dates:	AD 1325-1375
Geographical Distribution	
Regional:	South Appalachian Mississippian
Physiographic:	Mainly Piedmont-Upland but also Coastal Plain-Atlantic
Drainages:	Coosa and Savannah
Provinces:	n/a
Representative Sites:	Etowah and Hollywood (only)
Description	
General:	Small, blocky, squared form with sharp right-angled corners
Bowl:	Simple square form (both exterior and interior of bowl) with sharp right-angled corners; Always unadorned
Stem:	Length approximately equal to bowl height; Like bowl, square blocky form with sharp right-angled corners; Always unadorned; Orifice at bit end enlarged
Appendages:	None
Materials:	Ceramic
Representative Contexts:	Mound contexts; Limited distribution within Savannah Phase area



Category: Tube

Type: Tube

Number Documented: n=4

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1250-1375

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Coosa and Chattahoochee-Upper

Provinces: Piedmont-Upland

Representative Sites: Etowah

Description

General: Tube-like form but with distinct bowl and stem parts; Bowl-stem junction on continuous line (unangled)

Bowl: Simple vessel-like form or cup-like; Rim either direct or finished with ring-like band; Otherwise unadorned

Stem: Simple tube, either straight or slightly expanding; Stem length equal to or up to twice height of bowl; Bit end unenhanced

Appendages: None

Materials: Stone or ceramic

Representative Contexts: Uncertain

Category: Effigy

Type: Owl

Number Documented: n=3

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1250-1375

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Savannah, Tennessee

Provinces: n/a

Representative Sites: Hollywood, Lawton, Sale Creek

Description

General: Owl effigy modeled onto bowl and stem

Bowl: Ledge form rim; Owl body in raised relief, head partially raised above rim

Stem: Expanded; Owl legs/feet in raised relief

Appendages: Details of bird head elevated above level of rim

Materials: Ceramic; possibly stone

Representative Contexts: Mounds

Category: Effigy

Type: Effigy, Bird (fully formed on bowl)

Number Documented: n=12

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1200-1350

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Ridge & Valley, Piedmont, Coastal Plain-Atlantic

Drainages: Coosa, Tennessee, Savannah, Oconee, Ocmulgee

Provinces: n/a

Representative Sites: Dyar, Scull Shoals, Etowah

Description

General: Full bird effigy depicted on bowl; Bowl-stem angle variable

Bowl: Two main variations: a) Raptor head with hooked beak and feather crest; b) Full bird depiction with head and wings, either raptor, owl, or hummingbird;

Stem: Raptor head variant undetermined; Full bird, raptor or owl, expanding or thickened band; Hummingbird has longer simple stem

Appendages: Various bird features like beaks, eyes, crests, etc.

Materials: Ceramic

Representative Contexts: Mounds

Category: Effigy

Type: Effigy, Full Human, Embracing vessel

Number Documented: n=11

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1200-1350

Geographical Distribution

Regional: Southeast; rarely in upper Midwest

Drainages: Mainly Tennessee, Coosa

Provinces: n/a

Representative Sites: Etowah, Hollywood, Greenwood (TN)

Description

General: Human figure embracing ceramic vessel; Separate stem often absent

Bowl: Ceramic vessel effigy, usually with distinct rim, rarely with loop handles; Human figure embraces or holds bowl

Stem: Variable, a) short with bit either expanded or thickened band, usually with modeled human features covering part of stem; b) stemless with large perforation incorporated into mass of human figure

Appendages: Full human figure (male), kneeling or seated, embracing bowl, usually with upward gaze and specific hairdo or headgear; One example is crouching male with club

Materials: Usually stone, rarely ceramic

Representative Contexts: Mounds and burials

Category: Effigy

Type: Effigy, Full Human, No vessel

#### Temporal Association

General: Middle Mississippian  
Specific Dates: Uncertain

#### Geographical Distribution

Regional: Southeast-Midwest  
Drainages: Mississippi, Tennessee, Black Warrior  
Provinces: n/a  
Representative Sites: Moundville

#### Description

General: Human figure seated or kneeling; Separate stem sometimes absent  
Bowl: Commonly a simple elbow pipe bowl, either held by human figure or modeled into backside of figure; Sometimes no separate bowl but simple large cavity cut into mass of human figure  
Stem: Variable, a) short, simple form depicted as part of simple elbow pipe; b) stemless with large perforation incorporated into mass of human figure  
Appendages: Full human figure, kneeling or seated (shamanic trance position?), sometimes clutching simple elbow pipe (bowl/stem), often with upward gaze  
Materials: Usually stone, occasionally ceramic

Representative Contexts: Mounds and burials

Category: Direct

Type: Direct

Number Documented: n=19

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1250-1400

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Savannah, Atlantic Coastal Zone

Provinces: n/a

Representative Sites: Etowah, Nacoochee, Irene, Bourbon Field

Description

General: Unadorned, "elbow" form with stem joined to side of bowl

Bowl: Undecorated, usually with ledge-form rim

Stem: Undecorated; thickened band at bit common but sometimes expanded

Appendages: None

Materials: Ceramic

Representative Contexts: Mound burials

Category: Ringed

Type: Ringed

Number Documented: n=11

Temporal Association

General: early Middle Mississippian

Specific Dates: AD 1200-1275

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Etowah, Chattahoochee-Upper, Tennessee

Provinces: n/a

Representative Sites: Etowah, Long Swamp, Hollywood, Hiwassee Island

Description

General: Short stem, elbow form with raised ring decoration; bowl-stem intersection may be obtuse

Bowl: Usually simple cylinder; one to three raised, narrow rings at lip/rim

Stem: Generally, approximately equal in length to height of bowl; one to three raised, narrow rings at lip/rim

Appendages: None

Materials: Stone common, also ceramic

Representative Contexts: Mound contexts

Category:	Monolithic Axe
Type:	Monolithic Axe, Typical
Number Documented:	n=50
Temporal Association	
General:	Late Mississippian, but often early Late Mississippian
Specific Dates:	AD 1350-1600
Geographical Distribution	
Regional:	South Appalachian Mississippian
Variants:	1) Simple, usually urn-shaped bowl, 2) Segmented, urn-shaped bowl
Physiographic:	Mainly Ridge & Valley and Piedmont-Upland, but also Coastal Plain-Gulf, Blue Ridge, Piedmont-Midland, and Coastal zone
Drainages:	Mainly Coosa and Tennessee, but also Savannah, Oconee, Chattahoochee-Lower
Provinces:	Widespread
Sites:	Widespread
Description	
General:	Distinctive monolithic axe effigy stem with slightly variable bowl form; Stem-bowl junction forms a right-angle
Bowl:	Unadorned vessel-like form of two main types: relatively tall bowl with sharply flaring ledge rim that is usually beveled, or a shorter simple bowl with a direct rim
Stem:	Length less than or equal to bowl height; Monolithic axe effigy; Often with square cross section; Bit end almost always a thickened band but rarely simply thickened; Bit end orifice is enlarged relative to general stem perforation
Appendages:	None
Materials:	Ceramic
Contexts:	Non-burial and burial contexts



Category: Monolithic Axe

Type: Monolithic Axe, Simple Bowl

Number Documented: n=>30

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1350-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Tennessee, Chattahoochee-Upper, Savannah

Provinces: Coosa

Representative Sites: Citico, Nacoochee, Estatoe, Irene

Description

General: Distinctive monolithic axe effigy stem and simple bowl form;

Stem-bowl junction forms a right-angle

Bowl: Unadorned vessel-like form of two main types: relatively tall bowl with sharply flaring ledge rim that is usually beveled, or a shorter simple bowl with a direct rim

Stem: Length less than or equal to bowl height; Monolithic axe effigy; Often with square cross section; Bit end almost always a thickened band but rarely simply thickened; Bit end orifice is enlarged relative to general stem perforation

Appendages: None

Materials: Ceramic

Representative Contexts: Common in burials but also occurs in general contexts

Category: Monolithic Axe

Type: Monolithic Axe, Segmented Bowl

Number Documented: n=<20

Temporal Association

General: Middle Mississippian

Specific Dates: AD 1350-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Tennessee, Coosa, Oconee

Provinces: Coosa, Ocute

Representative Sites: Citico, Etowah, Bull Creek, Dyar

Description

General: Distinctive monolithic axe effigy stem and segmented bowl form; Stem-bowl junction forms a right-angle

Bowl: Vessel-like form composed of two segments: lower segment is pod-like with expanded midsection and upper segment is gently flaring "neck" extending to lip; Rims usually simple with squared lip but one example features sharply flared ledge; Bowl otherwise unadorned

Stem: Length less than bowl height; Monolithic axe effigy; Often with square cross section; Bit end almost always a thickened band but rarely simply thickened; Bit end orifice is enlarged relative to general stem perforation

Appendages: None

Materials: Ceramic

Representative Contexts: Occurs in burials but also in general contexts

Category: Monolithic Axe

Type: Monolithic Axe, Trumpet (“Canoe Pipe”)

Number Documented: n=7

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Piedmont and Coastal Plain-Atlantic

Drainages: Ocmulgee, Oconee, Savannah, and Coosa

Provinces: Ichisi, Ocute

Representative Sites: Lamar, Estatoe, Dyar

Description

General: Distinctive monolithic axe effigy stem with larger, trough-shaped bowl featuring gridded decoration; Stem-bowl junction forms a right-angle

Bowl: Trough-shaped with loop handles at opposing ends; Rim usually thickened but form varies from rounded band to direct; Decorative treatment usually a grid-like band below rim but less commonly entire bowl is covered with grid pattern; One example is decorated with incised lines; Bowl form mimics that of “gravy boat” vessels common to Ridge & Valley area

Stem: Length equal to or slightly longer than bowl height; Monolithic axe effigy; Often square in cross section; Bit end almost always a thickened band; Bit end orifice is enlarged relative to general stem perforation

Appendages: None

Materials: Ceramic

Contexts: General contexts and burials

Category: Hummingbird

Type: Hummingbird effigy

Number Documented: n=13

Temporal Association

General: Late Mississippian

Specific Dates: AD 1350-1500

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Ridge & Valley, Blue Ridge, Piedmont, Coastal Plain-Atlantic

Drainages: Coosa, Tennessee, Chattahoochee-Upper, Ocmulgee, Oconee

Provinces: Coosa

Representative Sites: Etowah, King, Lamar

Description

General: Simple form with depiction of hummingbird grasping the pipe bowl in its beak; Bowl-stem junction usually right angle

Bowl: Vessel-like, usually with sharply flaring ledge rim; Unadorned with exception of narrow columns extending up opposing sides of the bowl intended to represent halves of a hummingbird beak; An eye is represented on the bottom sides of one column, usually with a simple punctate or incised ring

Stem: Length equal to or slightly longer than height of bowl; Round cross section; Bit end usually finished by thickening but less common is thickened band

Appendages: None

Materials: Ceramic

Representative Contexts: Burials but also general contexts

Category: Hummingbird

Type: Hummingbird effigy with panel

Number Documented: n=5

Temporal Association

General: Late Mississippian

Specific Dates: AD 1350-1500

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Ridge & Valley and Piedmont-Upland

Drainages: Potentially limited to Coosa drainage

Provinces: Coosa

Representative Sites: Etowah, King

Description

General: Simple form with depiction of hummingbird grasping the pipe bowl in its beak; Bowl-stem junction usually right angle

Bowl: Vessel-like, usually with sharply flaring ledge rim; Unadorned with exception of narrow columns extending up opposing sides of the bowl intended to represent halves of a hummingbird beak; On this type the "beak" above the stem is formed into a squared panel with a simple incised pattern; An eye is represented on the bottom sides of one column, usually with a simple punctate or incised ring

Stem: Length equal to or slightly longer than height of bowl; Round cross section; Bit end usually finished by thickening but less common is thickened band

Appendages: None

Materials: Ceramic

Representative Contexts: Burials but also general contexts

Category:	Trumpet
Type:	Short (bowl) Trumpet
Number Documented:	n=21
Temporal Association	
General:	Late Mississippian
Specific Dates:	AD 1450-1600
Geographical Distribution	
Regional:	South Appalachian Mississippian
Physiographic:	Mainly Ridge & Valley but occasionally Blue Ridge and Piedmont-Upland
Drainages:	Tennessee and Chattahoochee-Upper
Provinces:	Coosa
Representative Sites:	Etowah, King, Dallas, Citico
Description	
General:	Relatively simple form consisting of short, trumpet-shaped bowl; Bowl-stem angle often slightly obtuse but can also be right angle; Some resemblance to catlinite “disk pipes”
Bowl:	Relatively short, trumpet-shaped bowl; Rim is a wide sharply flaring ledge; No adornment
Stem:	Often up to twice as long as height of bowl but sometimes roughly equivalent to bowl height; Bit end usually finished with thickened band; Unadorned
Appendages:	None
Materials:	Usually limestone but also can be ceramic
Representative Contexts:	Burials; Often occurs on early sixteenth-century, post-contact sites

Category: Trumpet

Type: Trumpet (General)

Number Documented: n=68

Temporal Association

General: Late Mississippian

Specific Dates: AD 1350-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Ridge & Valley, Piedmont, Coastal Plain-Atlantic

Drainages: Coosa, Tennessee, Chattahoochee-Upper, Oconee, Ocmulgee

Provinces: Coosa, Ocute, Ichisi

Representative Sites: Widespread in area of occurrence

Description

General: Simple trumpet-shaped bowl with short stem; Bowl-stem angle is right angle

Bowl: Tall trumpet shape; Rim is thickened band, sometimes slightly flaring; Unadorned

Stem: Short with length never more than half the bowl height; Bit end finished as thickened band; Bit orifice is enlarged

Appendages: None

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts

Category: Trumpet

Type: Trumpet, Simple Cone, Unadorned

Number Documented: n=>50

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Confined mainly to Piedmont and uplands

Provinces: Coosa, Ocute

Representative Sites: HA1 (TN), King, Nacoochee, Tugalo, Dyar

Description

General: Simple round trumpet-shaped (tall cone-shaped) bowl with short stem; Bowl-stem angle is right angle

Bowl: Tall round trumpet shape with no embellishment; Rim is thickened band, sometimes slightly flaring; Unadorned

Stem: Short with length never more than half the bowl height; Bit end finished as thickened band; Bit orifice is enlarged

Appendages: None

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts



Category: Trumpet

Type: Trumpet, Simple, Dentilated Band(s)

Number Documented: n=12

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Blue Ridge, Coastal Plain-Atlantic, Coastal zone

Drainages: Chattahoochee-Upper, Tennessee-Hiwassee, Ocmulgee

Provinces: Coosa, Ichisi

Representative Sites: Hampton, Peachtree, Nacoochee, Glass

Description

General: Simple round trumpet-shaped (tall cone-shaped) bowl with short stem; Dentilated bands encircle bowl; Bowl-stem angle is right angle

Bowl: Tall round trumpet shape; Rim is either direct or thickened band; One or more raised, dentilated bands encircle bowl

Stem: Short with length never more than half the bowl height; Bit end usually finished as thickened band but one example has expanded bit; Bit orifice is enlarged

Appendages: None

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts

Category: Trumpet

Type: Trumpet, Peaked, Unadorned

Number Documented: n=>7

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Coosa, Tennessee, Chattahoochee-Upper, Oconee

Provinces: Coosa

Representative Sites: King, Dallas, Nacoochee, Dyar

Description

General: Elongated, trumpet-shaped bowl with beak-like extensions, and short stem; Otherwise unadorned; Bowl-stem angle is right angle

Bowl: Tall elongated trumpet shape with beak-like extensions on opposing sides of bowl rim, varying in orientation from near vertical to slightly angled; Rim is thickened band sometimes enhanced by fine etching; Otherwise unadorned

Stem: Short with length never more than half the bowl height; Bit end finished as thickened band; Bit orifice is enlarged

Appendages: None

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts

Category: Trumpet

Type: Trumpet, Peaked with keel, Unadorned

Number Documented: n=>6

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Chattahoochee-Upper, Hiwassee, Oconee

Provinces: Ocute

Representative Sites: Nacoochee, Peachtree, Dyar

Description

General: Elongated trumpet-shaped bowl with beak-like extensions, and short stem; Unadorned with exception of notched keels on bowl; Bowl-stem angle is right angle

Bowl: Tall elongated trumpet shape with beak-like extensions on opposing sides of bowl rim, varying in orientation from near vertical to slightly angled; The beaks are extended down the full height of the bowl as a raised, notched ridge; Rim is thickened band sometimes enhanced by fine etching; Otherwise unadorned

Stem: Short with length never more than half the bowl height; Bit end finished as thickened band; Bit orifice is enlarged

Appendages: None

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts

Category: Trumpet

Type: Trumpet, Gridded band

Number Documented: n=11

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Ridge & Valley, Piedmont-Upland, Coastal Plain-Atlantic

Drainages: Coosa, Tennessee, Ocmulgee

Provinces: Coosa, Ichisi

Representative Sites: Etowah, Glass

Description

General: Elongated trumpet-shaped bowl, usually with beak-like extensions, and short stem; Gridded band present below rim; Bowl-stem angle is right angle

Bowl: Tall elongated trumpet shape with beak-like extensions on of bowl rim, varying in orientation from near vertical to slightly angled, and sometimes terminating in loops; Sometimes beaks are extended down the full height of the bowl as a raised, notched ridge; Rim is thickened band sometimes enhanced by fine etching; Band bearing raised grid pattern is present just below undecorated rim band

Stem: Short with length never more than half the bowl height; Bit end finished as thickened band; Bit orifice is enlarged

Appendages: Loops at beak termination

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts

Category:	Trumpet
Type:	Trumpet, Fully gridded
Number Documented:	n=>29
Temporal Association	
General:	Late Mississippian
Specific Dates:	AD 1450-1600
Geographical Distribution	
Regional:	South Appalachian Mississippian
Physiographic:	Piedmont-Upland, Ridge & Valley, Coastal Plain-Atlantic
Drainages:	Chattahoochee-Upper, Coosa, Tennessee, Ocmulgee
Provinces:	Coosa, Ichisi
Representative Sites:	Etowah, Peachtree, Hiwassee Island, Glass
Description	
General:	Elongated trumpet-shaped bowl with beak-like extensions, and short stem; Gridded pattern covers bowl; Bowl-stem angle is right angle
Bowl:	Tall elongated trumpet shape with beak-like extensions on opposing sides of bowl rim, varying in orientation from near vertical to slightly angled, and sometimes terminating in loops; Sometimes beaks are extended down the full height of the bowl as a raised, notched ridge; Rim is thickened band sometimes enhanced by fine etching; Raised grid pattern covers entire bowl below undecorated rim band; One example features bird effigy in position of one peak
Stem:	Short with length never more than half the bowl height; Bit end finished as thickened band; Bit orifice is enlarged
Appendages:	Loops at beak termination; Bird effigy (rare)
Materials:	Ceramic
Representative Contexts:	Non-burial and burial contexts

Category: Trumpet

Type: Trumpet, Noded

Number Documented: n=14

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Ridge & Valley, Blue Ridge, Piedmont, Coastal Plain-Atlantic

Drainages: Coosa, Tennessee, Ocmulgee, Oconee

Provinces: Coosa, Ichisi

Representative Sites: Peachtree, Etowah, Glass

Description

General: Trumpet-shaped bowl with beak-like extensions, and short stem; Large nodes cover bowl; Bowl-stem angle is right angle

Bowl: Tall trumpet shape with beak-like extensions on opposing sides of bowl rim, varying in orientation from near vertical to slightly angled, and sometimes terminating in loops; Rim is usually a thickened band; Large rounded nodes cover entire bowl below undecorated rim band

Stem: Short with length never more than half the bowl height; Bit end is expanded; Bit orifice is enlarged

Appendages: Loops at beak termination; None

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts

Category: Trumpet

Type: Trumpet, Peaked, Punctate Nodes

Number Documented: n=9

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Coosa, Hiwassee, Tennessee, Ocmulgee

Provinces: Coosa, Ichisi

Representative Sites: Etowah, Peachtree, RH41 (TN), Glass

Description

General: Trumpet-shaped bowl with beak-like extensions, and short stem; Large nodes with central punctation cover bowl; Bowl-stem angle is right angle

Bowl: Tall trumpet shape with beak-like extensions on opposing sides of bowl rim, varying in orientation from near vertical to slightly angled, and sometimes terminating in loops; Rim is a thickened band; Large rounded nodes with a central punctation cover entire bowl below undecorated rim band; Some nodes bear traces of red paint; Other variations: a) large round indentions as opposed to raised nodes; b) addition of large bird effigy on bowl rim

Stem: Short with length never more than half the bowl height; Bit end finished as thickened band; Bit orifice is enlarged

Appendages: Loops at beak termination; Bird effigy (rare)

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts

Category: Trumpet

Type: Trumpet, Incised

Number Documented: n=3

Temporal Association

General: Late Mississippian

Specific Dates: AD 1450-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Piedmont

Drainages: Coosa and Oconee

Provinces: Coosa, Ocute, Ichisi

Representative Sites: Etowah, Raccoon Ridge, Glass

Description

General: Trumpet-shaped bowl with beak-like extensions, and short stem; Incised decoration on bowl; Bowl-stem angle is right angle

Bowl: Tall trumpet shape with beak-like extensions on opposing sides of bowl rim, varying in orientation from near vertical to slightly angled; Rim is usually a thickened band but may also be direct; Various incised patterns applied to bowl below rim band ranging from loops, grid, chevrons

Stem: Undetermined

Appendages: None

Materials: Ceramic

Representative Contexts: Non-burial and burial contexts



Category: Effigy

Type: Effigy, Human head, full bowl

Number Documented: n=5

#### Temporal Association

General: Late Mississippian (some possibly late Middle Mississippian)

Specific Dates: AD 1400-1550

#### Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Coastal Plain and Piedmont-Upland

Drainages: Chattahoochee-Lower, Coosa, Ocmulgee

Provinces: Coosa

Representative Sites: Etowah, Bull Creek, Lamar?

#### Description

General: Human head effigy formed from entire bowl; Short stem; Bowl-stem angle is right angle

Bowl: Full human head depicted on entire bowl, using modeled relief and incising; Features portrayed mainly in modeled relief, rim is thickened band, sometimes flaring, and stem is somewhat longer sometimes with thickened bit

Stem: (see above)

Appendages: None?

Materials: Ceramic

Representative Contexts: Burials

Category: Effigy

Type: Citico Human Head style

Number Documented: n=8

Temporal Association

General: Late Mississippian

Specific Dates: AD 1350-1600

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Coastal zone, Coastal Plain-Atlantic

Drainages: Coastal zone, Ogeechee, Ocmulgee

Provinces: Guale

Representative Sites: Pine Harbor, Kent Mound

Description

General: Human head effigy formed from entire bowl; Short stem; Bowl-stem angle is right angle

Bowl: Full human head depicted on entire bowl, using modeled relief and incising; Features mainly portrayed with incised lines, rim is flaring ledge and stem is very short with simple bit, feather plume extends back from head above stem

Stem: (see above)

Appendages: Plume and unidentified appendages to stem

Materials: Ceramic

Representative Contexts: Burials; Very strongly associated with sites in coastal zone of Georgia Bight, especially in late Late Mississippian contexts

Category: Effigy

Type: Effigy, Human head, small (partial bowl)

Number Documented: n=6

Temporal Association

General: Late Mississippian

Specific Dates: AD 1350-1550

Geographical Distribution

Regional: South Appalachian Mississippian

Physiographic: Ridge & Valley, Piedmont-Upland, Coastal Plain-Gulf

Drainages: Chattahoochee-Lower, Coosa, Tennessee, Savannah

Provinces: Ichisi

Representative Sites: Lamar, Tugalo, Singer-Moye

Description

General: Human head effigy applied to front side of bowl

Bowl: Relatively small human face applied mainly to front side of bowl, created with modeled facial features; Rim is rounded band, sometimes slightly ledge-shaped

Stem: Undetermined

Appendages: None

Materials: Ceramic

Representative Contexts: Mound and non-burial contexts

Category: Effigy

Type: Rattlesnake

Number Documented: n=3

#### Temporal Association

General: Late Mississippian

Specific Dates: AD 1350-1550

#### Geographical Distribution

Regional: South Appalachian Mississippian

Drainages: Etowah, Tennessee

Provinces: Coosa

Representative Sites: Etowah, Dallas

#### Description

General: Citico-like rattlesnake effigy modeled in raised relief across both bowl and stem portions

Bowl: Rim form uncertain; Effigy in raised relief covers entire bowl, mainly depiction of head features

Stem: Simple, direct form bit (but may be variable); Serpent elements in raised relief also on stem

Appendages: Arch-like appendage, possibly representing snake body or tail, bridges space between bowl rim and stem bit

Materials: Ceramic

Representative Contexts: Uncertain

## Appendix D

### Correlation of Pipe Categories with Archaeological Phases

	Sub-Per	Phase	Simp, Long	Footed	Lge Heavy	Obtuse	Jointed	Noded	Wrap	Square	Ringed	Eff, Bird	Eff, Human	Foot, Late	Noded, Weak	Trump, Tube	Tube	Simp, Elbow	Simp, Direct	Hum' bird	Mono Axe	Eff, Hum Hd	Trump	Trump, Mono	Trump, Shrt	Eff, Platf	Eff, Snake	Citico	Stemless	Disk
Period																														
Early	1a	Averett	2																											
Early	1a	Etowah		5																										
Early	1a	Etowah?	34	3	2																									
Early	1a	Hiwassee Isl?	15	5																										
Early	1a	Macon Plat	1	2																										
Early	1a	Martin Farm	4	4																										
Early	1b	E. Ft Walton		2				4																						
Early	1b	Rood I/Aver.	1	5																										
Middle	2	Hixon?				4	2	2	4				1	4	1			4	3											
Middle	2	Mid Ft Walton							2																					
Middle	2	Moundville																												
Middle	2	Pisgah?						1	1						5	2		2												
Middle	2	Rood II					1	1	39		1																			
Middle	2	Savannah		1		2	7	2							1				1											
Middle	2	Savannah?				2	1	3	1					1	1			5	7											
Middle	2	Sav-Beadam				3	5	1										1												
Middle	2	Sav-H'wood				1	5	2		1		1	1																	
Middle	2	Sav-H'wood?		1		2	2					1																		
Middle	2	Sav-Scull Sh?				1		2				3							2											
Middle	2	Sav-Wilbanks				7	15	16	12	4			4					1												
Middle	2	Sav-Wilbanks?				2	5	1				1	5	1			3	1	1											
Middle	2	Town Creek?				1	1								1															
Late	3a	Dallas																		1	8				1					
Late	3a	Dallas?																	2	5	15	2	1	1	3					
Late	3a	Irene?																		1										
Late	3a	Iron Horse?																		1	3									
Late	3a	Little Egypt?																		1										
Late	3a	Qualla?																2		1	1		15		1					
Late	3a	Stamp Cr?																	8	19	2									
Late	3a	Stubbs																	3											
Late	3a	Tugalo																		2	1	1	1							
Late	3a	Tugalo?																		1	4		8							
Late	3b	Altamaha																									1	8		
Late	3b	Barnett																		2			5		4	1		1		
Late	3b	Brewster																				16	1	3		2		1		
Late	3b	Bull Creek																			1	2								
Late	3b	Cowarts																				1	5	1						
Late	3b	Dyar?																		1		9	1							
Late	3b	Mouse Cr																				1		3				1		
Late	3b	Mouse Cr?																				10	8			1		8		
Late	3b	Square Grnd																				##								
Historic	4	Galt																											1	

## Appendix E

### Summary of Metric Attributes (Averages)

				Length		Height		Bowl Dia		Bit Dia		Stem Dia - Min		Stem Dia - Max		Mass Index	
Period	Category	Variety	Mater	N	Ave Max	N	Ave Max	N	Ave	N	Ave	N	Ave	N	Ave	O'all	Bowl
Early	Footed	Footed	Ceram	3	71.8	4	56.5	4	41.8	4	31.1	8	5.6	4	15.5	162.7	87.5
Early	Footed	Footed	Stone	1	50.0	1	48.3	1	26.8	1	25.0	1	11.9	1	11.9		
Early	Footed	Footed, Double	Ceram	2	75.2	3	62.4	3	38.7	2	39.8	3	7.0	2	28.6		
Early	Footed	Simp Long, Footed	Ceram	1	103.8	2	42.7	2	32.7	1	13.6	3	4.1	1	6.0		
Early	Large	Large, Curved	Ceram	1	113.6	1	97.9	1	53.9	2	32.0	3	8.3	2	18.8	265.4	151.8
Early	Simp Long	Simp Long	Ceram	2	153.3	3	52.0	4	34.9	6	10.3	9	5.0	6	6.1	236.8	97.5
Early	Simp Long	Simp Long	Stone	1	125.4	1	72.4	1	35.6	1	15.6			1	5.1		
Early	Trump, Early	Trump, Tube	Ceram	2	105.1	2	38.0	2	35.0	2	12.1	2	6.0	2	7.4	178.1	73.0
Middle	Effigy	Eff, Bird- Owl	All	2	58.2	2	56.1	2	34.9	2	24.2	2	7.0	1	9.6	149.2	91.0
Middle	Elbow	Simp Elbow	Ceram	10	55.4	16	45.5	13	33.9	11	23.3	17	5.9	11	12.6	135.5	76.7
Middle	Elbow	Simp Elbow	Stone	14	58.1	16	43.9	14	29.3	14	18.1	17	4.8	15	12.0		
Middle	Elbow	Simp Elbow, Direct	Ceram	3	57.2	4	42.5	5	35.0	4	20.8	5	6.2	4	12.1		
Middle	Elbow	Simp Elbow, Direct	Stone	1	65.2	1	46.9	1	35.0	1	22.8	1	5.0	1	12.4		
Middle	Elbow	Simp Elbow, Ledge	Ceram	4	57.8	5	38.8	5	34.2	4	19.3	6	5.1	4	10.8		
Middle	Elbow	Simp Elbow, Ledge	Stone	2	59.0	2	38.1	2	37.1	2	19.2	2	4.4	2	12.1		
Middle	Jointed	Jointed	Ceram	4	55.8	4	50.6	5	32.2	8	21.7	9	6.6	7	11.2	125.2	75.2
Middle	Jointed	Jointed, Incised	Ceram	3	53.9	4	41.5	3	38.4	3	25.2	5	5.7	3	11.4		

Middle	Jointed	Jointed, Nodes	Ceram	2	40.3	2	32.9	2	30.0	3	20.5	3	6.5	3	10.7		
Middle	Noded	Noded	Ceram	2	51.5	4	40.6	2	37.0	2	20.8	6	7.3	4	12.4	134.8	78.8
Middle	Noded	Noded, Disk	Ceram	2	42.7	3	41.9	3	32.9	5	23.7	5	7.6	4	12.1		
Middle	Noded	Noded, Weak	Stone	4	73.7	5	51.6	4	32.4	4	19.3	4	5.2	5	13.1		
Middle	Obtuse	Obtuse	Ceram	2	88.5	2	39.7	2	29.0	2	19.0	2	5.1	2	12.9	158.7	70.4
Middle	Obtuse	Obtuse	Stone	6	88.2	6	45.6	5	26.4	6	17.1	6	4.5	6	11.5		
Middle	Square	Square	Ceram	3	48.5	3	36.3	4	31.6	3	28.0	4	6.6	3	14.7	116.4	67.9
Middle	Tube	Tube	All	4	56.3	3	29.0	4	30.7	4	20.3	2	5.8	4	11.0	116.0	59.7
Middle	Wrapped	Wrapped	Ceram	1	63.9	1	69.7	2	32.2	5	27.2	3	6.5	4	13.4	154.6	93.9
Middle	Wrapped	Wrapped, Footed	Ceram	1	57.5	2	52.5	3	33.3	3	26.5	5	5.8	3	13.1		
Late	Hum'bird	Hum'bird, Panel	Ceram	2	76.0	3	42.1	3	44.5	2	19.3	4	5.5	2	11.4	149.0	84.5
Late	Hum'bird	Hum'bird, Panel	Stone	1	66.2	1	47.4	1	37.7	1	26.0	1	7.2	1	13.8		
Late	Hum'bird	Hum'bird?	Stone	2	51.3	2	45.8	2	36.1	2	23.3	2	5.0	2	12.6		
Late	Effigy, Late	Eff, Hum Head-Coast	Ceram	1	55.9	1	37.0	1	34.0	1	18.5						
Late	Mono Axe	Mono Axe	Ceram	10	59.3	11	49.9	11	38.0	15	19.4	24	5.4	15	10.9	145.7	85.1
Late	Mono Axe	Mono Axe	Stone	6	61.9	6	44.2	6	38.1	6	20.1	5	5.0	6	11.4		
Late	Trump	Trump, Grid	Ceram							2	21.4	2	7.0	1	12.3	236.0	130.1
Late	Trump	Trump, Grid Band	Ceram	1	84.1	1	76.4	1	48.9	1	20.8	3	6.3	1	13.2		
Late	Trump	Trump, Noded	Ceram	1	163.7	3	86.6	4	55.2	4	25.9	4	5.5	4	13.4		
Late	Trump	Trumpet	Ceram	3	69.8	3	71.3	4	52.0	5	21.6	3	5.9	4	13.2		
Late	Trump, Short	Trump, Short	All	11	73.9	11	40.7	11	46.1	11	20.4	12	5.4	11	12.0	160.7	86.8
Historic	Stemless	Stemless	All	2	34.7	4	46.0	5	32.9			5	5.2	4	12.0	113.6	78.9
		AVERAGES		149	65.2	183	46.4	201	35.9	320	21.4	373	5.8	323	12.1	161.1	87.6

## Appendix F

### Summary of Observed Symbolic Themes and Motifs

Period	Pipe Category	Theme	Motif	Element
Early	Footed	Femaleness	Vessel/Altar	Urn-shaped bowl
	Simple, Long	Femaleness	Vessel/Altar	Urn-shaped bowl
	Footed	Fertility	Scrotum	Foot, spade
	Footed	Fertility	Scrotum	Foot, knob
	Footed	Fertility	Scrotum	Foot, cone
	Footed	Fertility	Scrotum	Foot, square
	Footed	Fertility	Scrotum	Foot, vestigial
	Simple, Long	Fertility	Phallus	Tapered stem
	Footed	Maleness	Phallus	Stem
	Simple, Long	Maleness	Phallus	Tapered stem
	Footed	Undetermined	Human Hand/Foot	Incis digits
Middle	Effigy, Owl	Avian	Bird, owl	Bird effigy, owl
	Effigy, Raptor	Avian	Bird beak, raptor	Beak, hooked
	Effigy, Raptor	Avian	Eye accent	Incised surround
	Effigy, Raptor	Avian	Eyes, large	Raised ring
	Effigy, Raptor	Avian	Feathered crest	Ridge, notched/incised
	Noded	Celestial	Nodes	Raised node, prominent
	Noded	Celestial	Nodes	Raised node, promin/inc ring
	Noded	Celestial	Nodes	Raised node, flattened disc
	Noded	Celestial	Nodes	Raised node, low relief/inc ring
	Wrapped	Celestial?	Punctuation	Punctuation, fine (foot)
	Wrapped	Celestial?	Punctuation, triang zone	Punctuation, fine (bowl)
	Wrapped	Celestial?	Punctuation, triang zone	Punctuation, fine (stem bit)
	Effigy, Human w/ vessel	Femaleness	Vessel/Altar	Urn-shaped bowl
	Effigy, Human w/ vessel	Femaleness	Vessel/Altar	Loop handles
	Effigy, Human w/ vessel	Femaleness	Vessel/Altar	Vertical incised lines
	Effigy, Human w/ vessel	Femaleness	Vessel/Altar	Rings, concentric (bowl lip)



Jointed	Femaleness	Vessel/Altar	Urn-shaped bowl
Jointed	Femaleness	Vessel/Altar	Punct band (below rim)
Jointed w/ raised node	Femaleness	Vessel/Altar	Urn-shaped bowl
Jointed w/ raised node	Femaleness	Vessel/Altar	Notched rim
Noded	Femaleness	Vessel/Altar	Loop handles
Wrapped	Femaleness	Vessel/Altar	Urn-shaped bowl
Wrapped	Femaleness	Vessel/Altar	Loop handles
Wrapped	Femaleness	Vessel/Altar	Impressed arches
Effigy, Human w/ vessel	Fertility	Copulation	Joined male figure/ceramic vessel
Jointed	Fertility	Scrotum	Joint, plain
Jointed	Fertility	Scrotum	Joint, incised ovals
Jointed	Fertility	Scrotum	Joint, punctation
Jointed	Fertility	Scrotum	Foot
Jointed	Fertility	Phallus	Stem w/ expanded bit
Jointed w/ raised node	Fertility	Scrotum	Joint, raised rings
Jointed w/ raised node	Fertility	Phallus	Stem w/ expanded bit
Noded	Fertility	Phallus	Stem w/ expanded bit
Wrapped	Fertility	Scrotum	Joint
Wrapped	Fertility	Scrotum	Foot, spade
Wrapped	Fertility	Scrotum	Foot, squared
Wrapped	Fertility	Scrotum	Foot, vestigial
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, kneeling	Gaze-forward human head
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, kneeling	Headgear
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, kneeling	Male genitalia
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, kneeling	Mace-like club
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, seated forward	Gaze-upward human head
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, seated forward	Hair braid?
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, seated upright	Gaze-upward human head
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, seated upright	Headgear w/ bun
Effigy, Human w/ vessel	Anthropo./Ancest.	Human, seated upright	Humpback
Effigy, Human, Unique	Anthropo./Ancest.	Ear discs	Decorated
Effigy, Human, Unique	Anthropo./Ancest.	Human, kneeling	Gaze-upward human head

Effigy, Human w/ vessel	Maleness	Mace-like club	Club, raised relief
Effigy, Human w/ vessel	Maleness	Male figure	Sculpted human figure
Effigy, Human, Unique	Maleness	Male figure	Sculpted human figure
Jointed	Maleness	Phallus	Stem w/ expanded bit
Jointed w/ raised node	Maleness	Phallus	Stem w/ expanded bit
Noded	Maleness	Phallus	Stem w/ expanded bit
Wrapped	Maleness	Phallus	Stem w/ expanded bit
Noded	Sun/Fire	Circle & Cross	Incised cross in circle (basal disk)
Noded	Sun/Fire	Rayed circle	Incised rayed circle (bit end)
Wrapped	Sun/Fire	Cross motif	Incised cross (bowl lip)
Effigy, Eagle Dancer	Supernatural	Human-Raptor figure	Raptor wings
Effigy, Eagle Dancer	Supernatural	Human-Raptor figure	Raptor feet
Effigy, Eagle Dancer	Supernatural	Human-Raptor figure	Raptor tail
Effigy, Eagle Dancer	Supernatural	Human-Raptor figure	Beaded hair
Effigy, Eagle Dancer	Supernatural	Human-Raptor figure	Hairdo
Effigy, Eagle Dancer	Supernatural	Human-Raptor figure	Petaloid on wings?
Effigy, Human, Unique	Supernatural	Weeping eye	
Effigy, Human, Unique	Undetermined	Elaborate hair-do/headgear	
Effigy, Human, Unique	Undetermined	Objects in hands	
Effigy, Human, Unique	Undetermined	Shell armbands	
Effigy, Human, Unique	Undetermined	Shell gorget?	
Jointed w/ raised node	Undetermined	Nodes	Raised nodes (joint)
Effigy, Eagle Dancer	Undetermined	Rings, raised	Band (stem)
Jointed	Undetermined	Band	Fine incis rings (stem)
Jointed	Undetermined	Rings	Concentric (bowl lip)
Jointed	Undetermined	Rings	Incised (bowl rim)
Jointed	Undetermined	Rings	Incised (stem)
Jointed w/ raised node	Undetermined	Rings	Concentric (bowl lip)
Jointed w/ raised node	Undetermined	Rings	Incised (bowl rim)
Jointed w/ raised node	Undetermined	Rings	Incised (stem)
Noded	Undetermined	Rings	Concentric (bit end)
Noded	Undetermined	Rings	Concentric (basal disk/node)

<b>Middle?</b>	Noded	Undetermined	Rings	Concentric (bowl lip)
	Noded	Undetermined	Rings	Concentric (bowl rim)
	Noded	Undetermined	Rings	Incised (stem)
	Wrapped	Undetermined	Band, "Wrapped"	Fine incis rings (bowl)
	Wrapped	Undetermined	Band, "Wrapped"	Fine incis rings (stem)
	Wrapped	Undetermined	Band	Band w/ fine incis rings (stem)
	Effigy, Raptor	War	Raptor	Raptor head effigy
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Ear	Vertical scroll
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Eye	Raised oval
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Eye	Eye w/ eyebrow (relief)
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Eye	Slit
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Mouth	Bared teeth (incis)
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Mouth	Lips, no teeth? (relief)
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Mouth	Bared teeth, sharp (relief)
	Effigy, Hum Head, Mask?	Anthropo./Ancest.	Human Nose	Prominent nose
	Effigy, Human face	Anthropo./Ancest.	Human Eyes	Raised oval (relief)
	Effigy, Human face	Anthropo./Ancest.	Human Mouth	Raised oval (relief)
	Effigy, Human face	Anthropo./Ancest.	Human Nose	Flattened, prominent nose
	Effigy, Human face	Anthropo./Ancest.	Human Nose	Prominent nose
	Effigy, Human, Unique	Anthropo./Ancest.	Human Mouth	Bared teeth
	Effigy, Hum Head, Mask?	Undetermined	Ear disk?	
	Effigy, Hum Head, Mask?	Undetermined	Forelock, beaded?	
	Effigy, Hum Head, Mask?	Undetermined	Headband	Hollow punctate w/ dot
	Effigy, Hum Head, Mask?	Undetermined	Headband	Rattles? Or beads?
	Effigy, Human face	Undetermined	Mask edge/border	
	Effigy, Human face	Undetermined	Tattoo?, chin	
<b>Late</b>	Effigy, Hummingbird	Avian	Bird beak, raptor	Beak, hooked
	Effigy, Hummingbird	Avian	Bird effigy	Bird, realistic hummingbird
	Effigy, Hummingbird	Avian	Bird head/beak	Keel, plain
	Effigy, Hummingbird	Avian	Bird head/beak	Beak, incised
	Effigy, Hummingbird	Avian	Bird head/beak	Eye, sgl incis circle
	Effigy, Hummingbird	Avian	Bird head/beak	Eye, sgl inc cir w/ dot

Effigy, Hummingbird	Avian	Bird head/beak	Eye, dbl inc cir w/ dot
Effigy, Hummingbird	Avian	Bird head/beak	Eye, single dot
Trumpet, Peaked	Avian	Beaklike projection	Beak, short
Trumpet, Peaked	Avian	Beaklike projection	Beak, long
Trumpet, Peaked	Avian	Bird effigy	Bird, crested
Trumpet, Peaked	Avian	Bird effigy	Bird, owl
Trumpet, Peaked	Avian	Keel, notched	
Trumpet, Peaked	Avian?	Eye?, Nodes	Eye, lg. nodes, punctate ("discoidal")
Trumpet, Peaked	Avian?	Eye?, Nodes	Eye, lg. nodes, solid
Trumpet, Peaked	Celestial	Gridded pattern, incised	Gridded surface, overall
Trumpet, Peaked	Celestial	Gridded pattern, sculpted	Gridded band(s)
Trumpet, Peaked	Celestial	Gridded pattern, sculpted	Gridded surface, overall
Effigy, Hummingbird	Femaleness	Vessel/Altar	Urn-shaped bowl
Effigy, Hummingbird	Femaleness	Vessel/Altar	Incis rings (rim)
Effigy, Hummingbird	Femaleness	Vessel/Altar	Simple punctuation
Effigy, Hummingbird	Femaleness	Vessel/Altar	Eye?, Lge solid nodes (2)
Effigy, Hummingbird	Femaleness	Vessel/Altar	Eye?, Raised node w/ rings
Monolithic Axe	Femaleness	Vessel/Altar	Urn-shaped bowl
Monolithic Axe	Femaleness	Vessel/Altar	Urn-shaped bowl, segmented
Monolithic Axe	Femaleness	Vessel/Altar	Noded/gridded, loop handles
Monolithic Axe	Femaleness	Vessel/Altar	Incised lines; loop handles
Trumpet, Peaked	Femaleness	Vessel/Altar	Vulviform bowl
Trumpet, Peaked	Femaleness	Vessel/Altar	Loops, large
Trumpet, Peaked	Femaleness	Vessel/Altar	Loops, perforated beak
Trumpet, Peaked	Femaleness	Vessel/Altar	Loop handles
Effigy, Hummingbird	Fertility	Phallus	Stem w/ thickened bit
Monolithic Axe	Fertility	Phallus/Scrotum	Monolithic axe stem
Trumpet, Peaked	Fertility	Male genitalia	Stem shaped as male genitalia
Monolithic Axe	Maleness	Monolithic axe	Monolithic axe stem
Trumpet, Peaked	Sun/Fire	"Gravy boat" style bowl	Noded surface
Trumpet, Peaked	Sun/Fire	"Gravy boat" style bowl	Peaked appendages
Effigy, Citico	Supernatural	Ear	Vertical scroll

<b>Mult.</b>	Effigy, Citico	Supernatural	Ear	Half circle scroll
	Effigy, Citico	Supernatural	Eye accent	Forked eye
	Effigy, Citico	Supernatural	Eye accent	Feathered?
	Effigy, Citico	Supernatural	Eye accent	Arrow & linked circles
	Effigy, Citico	Supernatural	Eye accent	Feathered w/ ovals
	Effigy, Citico	Supernatural	Eyes, large	Round eye
	Effigy, Citico	Supernatural	Eyes, large	Oval eye
	Effigy, Citico	Supernatural	Headband, plain	Headband, raised relief
	Effigy, Citico	Supernatural	Mask edge/border	Mouth, in relief
	Effigy, Citico	Supernatural	Mouth	Bared teeth, sharp (incis)
	Effigy, Citico	Supernatural	Mouth	Bared teeth, sharp (relief)
	Effigy, Citico	Supernatural	Mouth	Bared teeth, squared (relief)
	Effigy, Citico	Supernatural	Nose	Prominent nose
	Effigy, Citico	Supernatural	Plume behind head	Incised crest
	Effigy, Rattlesnake	Supernatural	Serpent	Serpent w/ rattles
	Effigy, Rattlesnake	Supernatural	Eye Accent	Forked eye
	Effigy, Rattlesnake	Supernatural	Mouth	Bared teeth, squared (relief)
	Trumpet, Peaked	Undet: Nodes	Dimples, large	
	Effigy, Hummingbird	Undetermined	Raised panel	Incis pattern on panel
	Monolithic Axe	War	Monolithic axe	Monolithic axe stem
	Trumpet, Unpeaked	Undetermined	Bands, dental	
	Trumpet, Unpeaked	Undetermined	Plain	Thickened rim
	Elbow	Femaleness	Vessel/Altar	Urn-shaped bowl
	Elbow	Fertility	Phallus	Stem w/ thickened bit
	Elbow	Maleness	Phallus	Stem w/ thickened bit