STYLISTIC ANALYSIS OF THE WINGED SERPENT THEME AT MOUNDVILLE

by
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Abstract

Much of the art from Mississippian Period sites in eastern North America depicts anthropomorphic and zoomorphic figures in several different media. Three of the major sites which have traditionally been identified with what has been called the Southeastern Ceremonial Complex have been Spiro in Oklahoma, Etowah in Georgia, and Moundville in Alabama. Similarities in subject matter and manner of depiction of the art from these and other sites have been recognized for well over a century but the precise relationships between these systems of art are not well understood. This thesis focuses on the stylistic parameters of the winged serpent theme on Moundville Engraved, *variety* Hemphill pottery and is intended to contribute to an understanding of the styles of representational art on pottery at this site. The first specific objective of this research was to develop a stylistic seriation of the winged serpent theme. It has been determined that the elaborate, well executed, and naturalistic winged serpents comprise roughly the first half of the sequence and contain many stylistic similarities to much of the art from Spiro and Etowah. The simplistic and broken-down specimens which comprise the upper half of the sequence reflect little resemblance to the art from these sites. The second objective was to identify any specific trends in the style of execution of the winged serpent theme. Those elements of the designs whose forms seem to be most indicative chronologically are the antlers/plumes and rattles. Additionally, the early style groups seem to indicate a relationship between the winged serpent and raptor themes at the site.

Chapter 1
Introduction to Moundville and the Southeastern Ceremonial Complex

Few sites in eastern North America approach the magnitude of the Mississippian site of Moundville on the Black Warrior River 25 kilometers south of Tuscaloosa, Alabama (Figure 1). This enormous site contains some 29 recognized earthen mounds and was the political and religious center during the Mississippian Period for a 40 kilometer stretch of the Black Warrior Valley (Knight and Steponaitis 1996; Welch 1991). The Mississippian component of the ceramic sequence consists of three phases, each of which has been further subdivided into early and late subphases of 75-100 years in duration (Knight and Steponaitis 1996:11-12,30). The Moundville I phase was the time of initial centralization and the beginning of regional consolidation in the valley and dates to A.D. 1050-1250. Regional consolidation continued into the Moundville II phase, A.D. 1250-1400, during which time the elite paramountcy was formed at Moundville which exercised control of the surrounding Black Warrior Valley. During Moundville III, A.D. 1400-1550, the paramountcy crumbled and the social organization of the entire valley changed dramatically.

Scholarly interest in Moundville began as early as 1840 and came to be systematized with the work of Nathaniel T. Lupton in 1869 (Peebles 1987:21; Steponaitis 1983:6). However, it was not until the large-scale excavations of Clarence Bloomfield

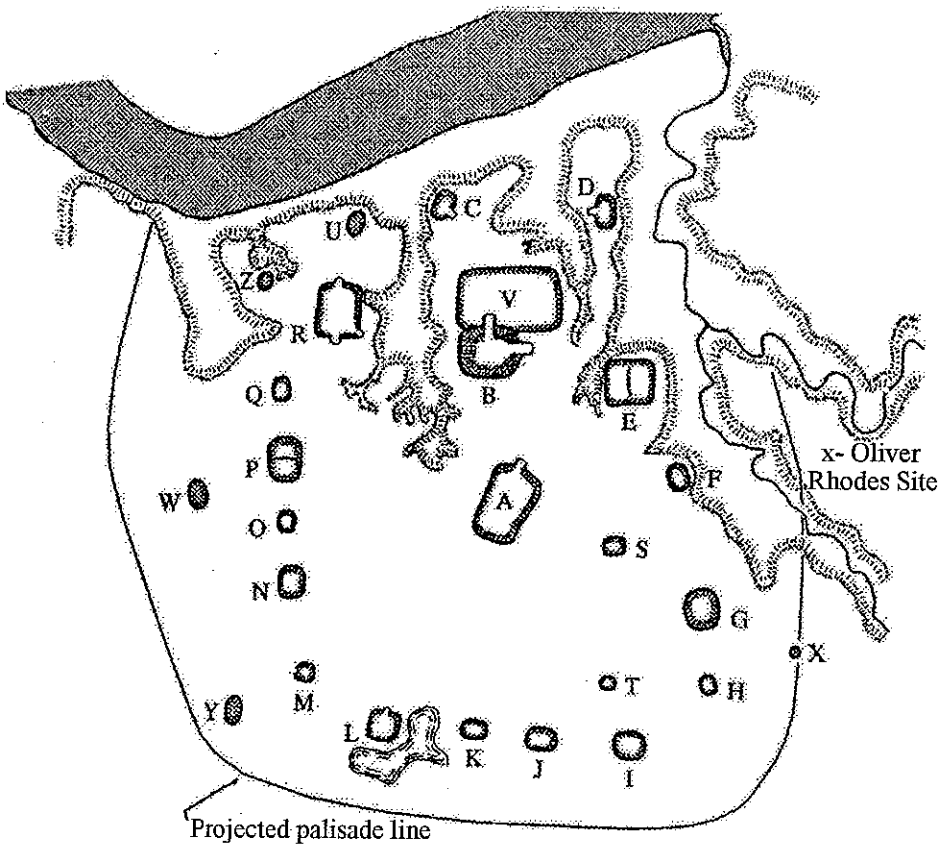


Figure 1. Map of the Moundville site.

Moore in 1905 and 1906 that the achievements of the prehistoric occupants of the settlement began to be recognized fully. Moore placed trial excavations into most of the mounds and collected many hundreds of artifacts, the more artistic of which were illustrated in the two volumes which documented his two seasons of research (Moore 1905, 1907). These exceptional works have proven indispensable to subsequent researchers of the site, its people, and their art.

The present study deals with the stylistic parameters of one of the most dominant themes in Moundville art, the winged serpents. *Style* is defined here as fixity of form and structure. These images combine the characteristics of at least three types of animals:

reptiles, birds, and mammals, and are therefore termed *zoomorphic supernaturals*. There are two immediate objectives involved in this research. The first goal is to develop a seriation based on the similarities and differences in style of depiction between specimens in this theme. The second objective is to attempt to identify any specific trends in the ways in which individual elements are executed and thereby to test the hypothesis that conventionalized elements can be linked stylistically to their earlier, more realistic counterparts. It is hoped that this study will contribute to a firm description and understanding of the Moundville tradition of engraving on pottery with a solid basis in the complexities of style. Additionally, I believe that analyses such as this one are fundamental to the process of iconography, interpreting meanings of the subject matter of the art in all of its forms, as indicated by the second objective above. In effect, the less speculative study of style variation should support the more speculative study of iconographic meaning. The methods used in this research combine quantitative and qualitative techniques which have proven successful in these types of analyses in the past. Before I discuss some of the applications of this type of analysis in Chapter 2, I will present a brief introduction to the art of eastern North America, how paradigms have shifted in the study of eastern North American art systems, and the specific characteristics of the art at Moundville.

The Concept of the Southeastern Ceremonial Complex

As a whole, the subject matter of the representational art of Moundville is widespread throughout eastern North America. This agglomeration of art has been variously referred to as the Southeastern Ceremonial Complex (SECC) or "Southern Cult"

and has been used to help define those cultures referred to as Mississippian. Traditionally, three of the major sites associated with the SECC have been Spiro in Oklahoma, Etowah in Georgia, and Moundville in Alabama. The SECC consists of representational art that, while being fairly realistic in depictions of animal and human features, often combines these elements into various types of anthropomorphic or zoomorphic supernaturals. This subject matter expresses ideological concepts of Mississippian societies and serves varying social functions within this cultural expression. Another relevant feature of the SECC is that it developed in distinct styles in several regions of eastern North America (Brown 1985; Muller 1979; Phillips and Brown 1978, 1984). There does not seem to be one specific origin of this art system but current research suggests that significant portions of it might have begun in the Midwest during the Late Woodland Period (Brown and Kelly 1996). The question of origins will be discussed further below.

As early as the late nineteenth and early twentieth centuries researchers have commented on perceived similarities in the art from different regions of eastern and southwestern North America, and even Mexico (e.g., Holmes 1903; Moore 1905, 1907). These comparisons came as a result of studies of "pottery-style provinces" and "distribution" studies (Brown 1985:101; Knight 1996:17). Later in the twentieth century, scholars began to suggest the idea of a "cult" when discussing these materials (Spinden 1931). Philip Phillips, in 1940, discussed the possibility that SECC art was the result of a rapid infusion of a small number of people from Mexico. In 1941 Ford and Willey examined the possibility that the SECC materials were part of a revivalist movement with little or no developmental antecedents; although, they also recognized the possibility of

Mexican influence. It should be noted that the idea of a revivalist movement implies that the art would not date to the classic Mississippian expression of the material culture in eastern North America (ca. 1000-1550), but to the period of its decline and disappearance (ca. post 1550).

In 1945, a paper was published by Antonio Waring and Preston Holder that was more comprehensive than others up to that date. Indeed, it was this word which proposed the appellation Southeastern Ceremonial Complex. Waring and Holder (1945) felt that a core group of motifs and ceremonial objects reflected a specialized type of system in the Southeast that was somewhat differentiated from earlier ceremonial cultures in the areas where the "Cult" flourished. It was their hypothesis that the "Cult", which they felt was dependent upon a horticultural base, was synthesized within a restricted area of the Middle Mississippi Basin from the introduction of "Middle American" traits at a fairly late date.

Three decades later, James A. Brown (1976) examined the problems associated with this type of trait list approach to the "Cult" and determined that this model did not lend itself to a better understanding of artifactual, contextual, thematic, and stylistic variation of the materials. He suggested that a style systems approach which took into account all of the aforementioned variables would lead to a more complete picture of the interrelatedness of all of the thematic material rather than just a core set of motifs and objects. This, he felt, would eventually allow for the elucidation of pan-regional interaction spheres through which questions of origins and distributions of SECC materials could be addressed thoroughly (Brown 1976:131-132). In subsequent works, Brown has applied the style systems approach and has demonstrated the usefulness of the recognition

of themes in the SECC corpus (Phillips and Brown 1978, 1984; Brown 1985, 1989, 1996). These studies have led him to proposed the existence of several simultaneously operating "cults", including warrior, ancestor, cosmological, and fertility cults (Brown 1985:102-128). These systems were believed to be part of a single system of underlying beliefs that was rather conservative and dominated the Mississippian Period. This system evolved through time and was modified through space to accommodate and foster "new social, economic, and political conditions" (Brown and Kelly 1996:14).

Knight (1986) suggested an approach similar to Brown by arguing that the SECC corpus should be viewed as apart of a larger cultural system. Specifically, the SECC "sacra" constituted what he called the warfare/cosmogony complex (Knight 1986:677). However, he proposed the existence of two other "cult" institutions, one centered on platform mound ceremonialism and the other on temple statuary. These three institutions were termed iconic families and should be studied collectively "as a guide to distinctions in religious organization" involving chiefly authority, communal fertility ritual, and veneration of ancestors (1986:684). In this way, Knight hoped to address questions of social organization on an institutional level, while at the same time he acknowledged the usefulness of stylistic studies in order to answer other, more specific questions dealing with the art and its connections. The thematic and institutional divisions called for by both Knight and Brown signaled the end of the trait list approach of Waring and Holder.

In his article, "The Southern Cult," Jon Muller described five horizons of Mississippian materials which extended from a "developmental cult" through a continuum to historic occurrences of similar artifacts and imagery (1989:14-18). Each of these

horizons were characterized by specific motifs and artifacts. In this description, he argued that what most writers refer to as the "Southern Cult" were actually a small set of images which were involved in widespread exchange for only 100 years or so around A.D. 1250. Muller (1989:25) believed that similarities between regions are explainable through restricted trade of finished materials. While his model did acknowledge the probable presence of ideological commonalties at one time or another, Muller discounted the presence of a wide-spread static belief system in eastern North America in general or the Southeast in particular, as suggested by Knight and Brown.

Such conflicting models as those presented above have prompted the formation of a working group devoted to the understanding of the stylistic and thematic variation of the SECC. It should be noted that similarities to Mesoamerican art and symbolism are still being addressed, but the nature of this relationship remains obscure. Since 1993 this group has been meeting yearly to compare research and formulate new models intended to determine the nature and function of the SECC. Among the most prominent of the recently developed models is one which proposes that the art of the SECC represents the existence of simultaneously operating "cults" that served specific functions in the Mississippian societies (Brown et al. 1997). In this view, which is very much in the vein of that of Knight and Brown discussed above, the art expressed concepts capable of traversing linguistic boundaries indicating a somewhat homogenous set of beliefs. The "cultic" art is seen as representing subsets of this larger system.

I have been fortunate to have attended these meetings for the past four years both in the capacity of student assistant and participant. This exposure has benefited my

research in that it has allowed me to understand the pros and cons of the applications of the various theoretical models concerning the SECC. Although this particular study is much more technical than theoretical, it is from the theoretical viewpoint discussed above that I proceed and with which I am in general agreement. I should like to point out however, that I feel that we have not yet isolated the nature and existence of all of the "cultic" subsets which might be represented in the art; nor do we understand the complex functional relationships between these specific institutions. It is hoped that this research will add to these types of understandings.

Characteristics of Moundville Art

The beginning of the Mississippian Period at Moundville is marked by the emergence of shell tempered pottery around A.D. 1050 (Steponaitis 1983). This is the primary medium on which art characteristic of the SECC is found at Moundville, specifically engraved pottery. Of the twelve varieties of the type Moundville Engraved, *variety Hemphill* is the only one on which the true SECC subject matter is found (Knight 1995). Most of the *var. Hemphill* vessels have been found with burials. According to Wimberly (1960:3) and Steponaitis (1983:56, 109) the most common vessel shapes for this variety are cylindrical bowls and subglobular bottles. In regard to the winged serpents, all but two of the known examples from Moundville occur on subglobular bottles

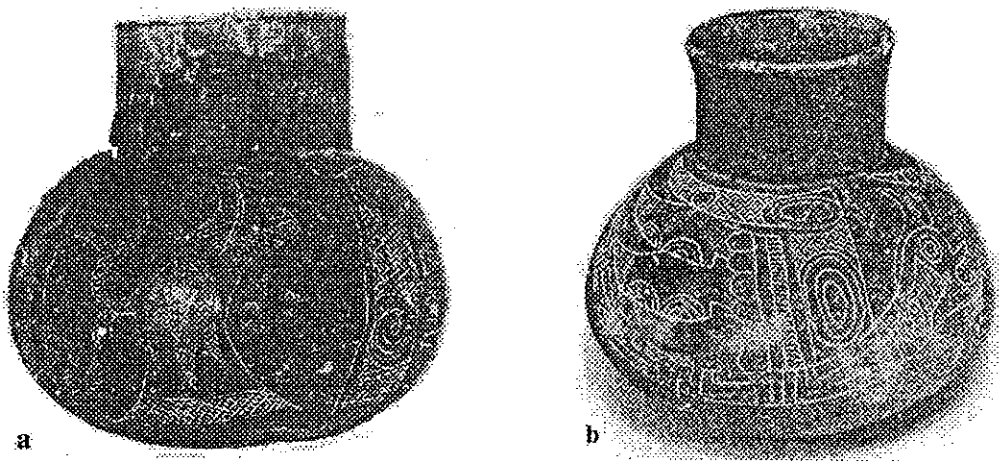


Figure 2. Examples of structures of execution of Moundville's winged serpents: (a) winged serpent in the round; (b) winged serpents trailing each other around the body of the vessel.

(Figure 2). The two exceptions, Mi431 and NE127, occur on what Steponaitis (1983:66) refers to as narrow-neck and cylindrical bottles respectively.

The SECC material on engraved pottery at Moundville has been divided into as many as thirteen themes (Lacefield 1995:36-37). However, Knight (1995:1) has noted that nearly 90 percent of the known designs on *var. Hemphill* pottery are variations ononly five "important" themes: the winged serpent, crested bird, celestial raptor, center symbols and bands, and trophy themes. What is meant by theme will be discussed in more detail in Chapter 2 but it will suffice here to say that a theme consists of conventionalized subject matter or forms. As mentioned previously, the winged serpent is one of the most frequent of Moundville's specific themes. The number of known whole vessels which I classify in this category is 33. All of these were examined by me either directly or through photographs and line drawings. Most of these depict two serpents, one on each side, while four of the vessels (not counting the Pseudo Raptor category to be defined later)

show one serpent in the round without bodies. This structure of design depicts disembodied elements of the image side by side around the body of the vessel with the rattle opposite the head (Figure 2a) as opposed to the typical serpent with the U-shaped body (Figure 2b).

Chapter 2
Applications of Stylistic Analysis

As was mentioned in Chapter 1, it is now almost universally accepted by scholars who work with this material that there are distinct regional variations in style. However, it is as yet unclear what the specific natures of these style systems are. What is clear is that, before we can know how the SECC functioned in particular societies (or even *what* the SECC was exactly) and how these societies might have related to one another, we have to understand the parameters of the art both in specific *cultural and stylistic* contexts (Brown 1976; Muller 1966, 1979; Phillips and Brown 1978, 1984). Before discussing these issues as they pertain to Mississippian art, I wish to go over briefly some of the pertinent theories and methods of art analysis in general, and by extension, their application to archaeological materials. I will discuss first a treatise on the general theory of art analysis and then move into specific anthropological applications, noting theoretical and methodological contributions of each. Subsequent to this, I will outline previous analyses of specific manifestations of the SECC in order to clarify what has been done and what current attitudes are concerning what is to be done next. These works will serve to elucidate the place of stylistic analysis of art systems, how it should be applied, and what the benefits and limitations are. I will also indicate those concepts which are most pertinent to Moundville art.

Stylistic Studies of Art Systems

In the study of the art of Pre-Columbian peoples, principles developed in the discipline of art history can be as applicable as those of anthropology. A prominent art historian who dealt with such issues was Erwin Panofsky. Panofsky (1978:28-30) describes three levels in the study of works of art. The first is called the level of primary or natural subject matter and is divided into factual and expressional. Panofsky discusses the factual level as involving the analysis and identification of pure form. It is at this level that the enumeration and identification of motifs and the styles in which those motifs are executed would fall. This type of analysis is what he terms a "pre-iconographical description of the work of art" (1972:28). This is somewhat problematical in that once the forms are identified with natural prototypes, the referent of the artist's choosing, the analysis ceases to involve solely the discussion of pure form. In other words, once a form is identified as, say, and apple, there is a certain level of meaning incorporated into that form. In this case, it is among other things, something which can be eaten. Panofsky's own definition of iconography, "that branch of the history of art which concerns itself with the subject matter or meaning of works of art, as opposed to their form" (1972:26), is at some level descriptive of what we have just done. The same situation applies when we consider Panofsky's expressional subdivision of the first level. In other words, at least a general level of meaning is involved when we identify a "mournful...pose or gesture" of a subject in a piece of art (1972:26).

It appears then that the division between Panofsky's first and second strata of analysis is somewhat blurred. This second level, that of secondary or conventional subject

matter, deals with the connection of certain natural prototypes to qualities which they possess and meanings they convey within a specific society. This is indeed the domain of iconography, but one could argue that so is the identification of natural prototypes, yet at a lower, broader level of meaning. In fact, I see these (tentative) identifications of natural prototypes as the entry point into iconography. According to Hermerén (1969:43), we as human beings cannot start discussions of meaning in any other fashion. Panofsky's third stratum, that of intrinsic meaning or content, deals with "underlying principles [of a] nation, a period, a class, a religious or philosophical persuasion" (1972:30). This type of meaning will be discussed only briefly in regard to the present study of Moundville art. However, all of these distinctions are useful concepts which should be kept in mind when examining the art of prehistoric peoples. Most of the stylistic analysis of the winged serpent theme at Moundville will be characterized as being on Panofsky's first, pre-iconographichal level. However, keeping in mind the above-mentioned qualifications of the second stratum, representations of specific natural prototypes and suggestions of what was meant by the artists to be portrayed in a number of various manifestations fall on the level entailed by iconography, if only in the broadest sense. This view is not in conflict, strictly speaking, with that of Panofsky; however, I simply feel that such issues must be made explicit and constantly kept in mind by the researcher and/or reader.

Perhaps some of the most thorough stylistic and structural analyses ever performed on traditional art systems were carried out by Franz Boas in the late nineteenth and early twentieth centuries for Northwest Coast art (Boas 1955). These studies are primarily ethnographic in nature. It should be noted that, in addition to having a substantial

influence on the principles used in the study of art, the series of papers which Boas wrote during this time helped to discount the unilineal evolutionist theories so popular in the nineteenth century (Jonaitis 1995:6-37). Rather than attempt to summarize these prodigious works here, I will illustrate some of the principles of art analysis embodied in them which are most applicable to this study.

For my purposes, perhaps the most pertinent of these principles was demonstrated in Boas's study of Alaskan needlecases (Boas 1995:248-278). Through an analysis of needlecases housed in the U.S. National Museum, Boas has disproved the notion that artistic materials must *necessarily* proceed from more or less realistic representations to conventionalized designs. These needlecases consist of a tubular form which bulges in the middle. There are two wings or flanges at the upper end, beneath which are two small knobs, one on each side. There is no indication, either temporal or geographical, that this type of needlecase, which has abstract designs as decoration, was derived from another style (1995:249). However, it was known to Boas that this type of needlecase was "old," in the sense that it preceded another type of needlecase in which the decorative forms began to take on animal characteristics (1995:255, 261). This latter type is of such a character that it might be perceived as being a realistic form of needlecase.

In analyzing these two types, Boas demonstrates that one could indeed seriate the specimens according to decorative attributes, with the traditional style at one end and the realistic animal depictions at the other. In this case, but not in all of the art of the area, it appears that the later, somewhat realistic animal types developed from the "imaginative play" of the artist on the old forms within the culturally prescribed boundaries of artistic

expression (1995:273). This statement by Boas is a very important contribution to art analysis because it shows that caution is indicated concerning statements of general tendencies in the development of art styles; for example, from realistic to abstract, and that the role of the artist's psychology in art creation must be taken into account. This indicates that not every element of an artistic design is culturally prescribed and many may have no meaning beyond that at the individual level.

Another significant principle advanced by Boas to the cultural/archaeological study of art is the idea of *additive sufficiency*. Additive sufficiency states that recognition of subject matter may result from *seemingly* arbitrary combinations of elements which by themselves are not necessary or sufficient to identify the theme. Boas describes this principle as having stylistic ramifications involving the interplay of form, function, and manner of depiction (Boas 1955:185). In discussing the symbolic art of the Northwest Pacific Coast, Boas identifies several elements which are necessary and sufficient for portraying specific animals. For example, when representing the beaver, the mouth must have two large upper incisors (1955:186-187). When a killer whale is represented, the dorsal fin must be present (1955:194). In many instances Boas notices that the shape of an object being decorated influenced the way a design is depicted. This is the case on a carved wooden club depicting a killer whale (1955:Figure 211). The dorsal fin must be present but to have it project from the club would create an impractical shape. This was solved by the artist by having the fin carved on the side of the club which is the body of the whale. This has the effect of conventionalizing the design somewhat but it is caused by the shape of the design field and the function of the object itself.

More important for my purposes here, however, is the fact that all elements of an animal do not have to be represented as long as those which are present are enough to allow for recognition of the specific animal being depicted and the ideological information contained. Additionally, a design may have characteristics of more than one animal. In these instances, the relative importance (in the conventions of the art) of the elements used would determine how it is to be seen. In many instances the secondary elements or characteristics are greatly reduced, only implied, or not present at all. It has also been demonstrated that the principle of additive sufficiency can be in operation even when limitations are not imposed on the artist by the shape of the design field (e.g., Helms 1995; Kubler 1969). It is this sense of additive sufficiency which will be most relevant to the discussion of Moundville's winged serpents.

Boas shows us, then, that not all art systems operate according to a generalized sequence of stylistic development from realistic and complex forms to conventionalized and simple ones. He also indicates that, within fixed culturally imposed boundaries, artists tend to "play" with accepted forms and hence increase *stylistic* variability in an art system. A related aspect is the principle of additive sufficiency which states that recognition of thematic material may result from unspecified combinations of elements which individually are neither necessary nor sufficient to identify a theme in an art system.

Boas dealt primarily with the art of living peoples in his analyses. In regard to archaeological materials, many advancements have been made in Mesoamerican studies through the use of stylistic and structural analyses of art. Tatiana Proskouriakoff was one of the first persons to apply these methods to the study of Maya art. Proskouriakoff

(1950), like Boas, concentrated on very minute details in execution to classify specific elements and motifs according to style. Proskouraikoff's method involved drawing these individual elements on small cards and then grouping them stylistically, element type by element type. These stylistic variations could then be grouped by geographical region and chronological position, if possible. In this way, a chronological seriation could be developed within a region which relies on variations in style to identify developmental trends in the art (1950:2-4).

This type of stylistic analysis allows for not only the elucidation of trends in manner of depiction of artistic subject matter, but also for the placement, both temporal and geographical, of specimens for which no provenience is known. Additionally, in certain regions there is still a significant amount of Maya monumental sculpture for which no dates are available, either from archaeological contexts of from glyphic notations. In these situations, stylistic analysis can be used, through comparisons to dated pieces in similar styles, to create a chronological sequence (Quirarte 1973). Although Proskouriakoff was not initially concerned with types of meaning conveyed by Maya sculpture, many advancements have been made in our knowledge of the belief system and organization of the civilization in general as a result of her stylistic studies. In fact, her work has changed the ways in which scholars approach Maya social organization and ideology (Schele and Freidel 1990:48).

In addition to Mesoamerica, stylistic analysis has contributed to the knowledge of several other Pre-Columbian cultures and art systems such as the North American Southwest (e.g., Plog 1980) and the pre-Inca Andean civilizations (e.g., Donnan 1976;

Rowe 1967). As for eastern North America, our knowledge of the ideological and artistic systems which together are seen as making up the SECC, is, at the current time,on the level that Maya studies were some six to eight decades ago (Vernon J. Knight and F. Kent Reilly, personal communication, 1996).

Previous Stylistic Analyses of SECC Materials

In Chapter 1, I presented an examination of changing perceptions toward the SECC as a conceptual entity. I will now discuss what has been accomplished by some of these works which have, to some degree, dealt with stylistic parameters of this material. Although some of these works deal directly with the art at Moundville to a limited extent, they will be presented in this section with a focus on general conclusions surrounding the nature of SECC art.

In 1959, Madeline Kneberg performed a study on engraved shell gorgets associated with the Dallas Culture of Tennessee. Kneberg (1959:35, 39) identified three major groups of gorgets, each consisting of distinct subject matter. Based on gravelot seriation, Kneberg placed each of the groups into a temporal sequence spanning the period A.D. 1000-1700 and also made mention of the geographical distribution of the designs within Tennessee (1959:Chart 1). Although she discussed the forms and manner of execution of the decorative designs in a fair amount of detail, and compared them to similar designs from other Southeastern sites, Kneberg did not deal with the specific stylistic derivations of particular forms. She did note, however, that in the manner of depiction of particular design elements, it appears that the more elaborate, realistic style gorgets degenerated into conventionalized ones (1959:19, 23, 35, 39).

Probably the first study to deal with questions of style in the systemic sense advocated by Brown (1976) is "Archaeological Analysis of Art Styles" by Jon Muller (1966a). Muller's paper is the first in a series of works which discuss several style systems of the so-called "rattlesnake" gorgets in the Southeast (1966a, 1966b, 1979). Muller has derived generative statements of the kind used in linguistics in regard to what he has referred to as the culturally prescribed and psychologically based rules for execution and representation of thematic material (1966a:28, 1979:173). Of primary importance in Muller's analyses are the overall structures of the thematic material because, "no analysis of form alone .. can hope to account for the *structure* of the style" (1979:162, 175 [emphasis in original]). In these works, Muller works out grammars which are intended to demonstrate the structures involved in several distinct style groups of shell gorgets. These stylistic and structural analyses have contributed greatly to what is known about the chronology and distribution of engraved shell styles in the Tennessee Valley region (cf. Brown 1976:121).

Considerable work regarding style has been carried out by James Brown over the past three decades. The comprehensive volumes produced with Philip Phillips (1978, 1984) which describe the stylistic parameters of the Spiro site engraved shell from eastern Oklahoma are an enormous step toward an understanding of the stylistic diversity of SECC material. The general method of stylistic analysis employed in these volumes focuses on the grouping of designs based on similarities in "design structure, size and number of components, formal characteristics of components, and degree of stylization" (1978:39). This analysis established the existence of at least two major style systems,

Braden and Craig, each with three distinct style phases (Brown 1976:121; Phillips and Brown 1978:39). Of these two schools, Braden has connections throughout eastern North America, and in fact, is seen as epitomizing the SECC (Brown 1989; Brown and Kelly 1996:32). In their section on the art of Moundville, Phillips and Brown stated the need for extensive stylistic studies of this body of work within specific media in order to facilitate comparisons with the art of Spiro. They indicated that the art from Moundville is much more restricted stylistically and iconographically than that at Spiro and if the reasons for this discrepancy were known, this would contribute to our knowledge of the roles of artists and their works in these societies (Phillips and Brown 1978:198).

Another study which concerns the parameters of carved and engraved shell is that of Brain and Phillips (1996). Through an integration of previous works, together with expanded knowledge of temporal and geographic distributions, the authors present the latest and most comprehensive treatment of stylistic systems of shell gorgets. Almost every known specimen is included in the analysis and these are divided most generally by subject matter and are then subdivided into specific styles within these "genres" on the basis of commonalties in form, technique and structure (1996:5-8). Most of the gorgets are placed by the authors into some 49 distinct styles. Although the existence of stylistic traditions which cut across genres is recognized and briefly mentioned (1996:128), these important connections are beyond the goals of this work.

Brain and Phillips not only attempt to refine the temporal distributions of the shell gorget styles, but they also use these distributions to modify projected occurrence of other style systems from eastern North America in virtually all media based on contextual

associations within and between sites. These comparisons lead the authors to conclude that the florescence of SECC materials occurred during the fifteenth through seventeenth centuries, some two centuries or more later than is now generally accepted (1996:2-3, 401).

Having outlined briefly some of the benchmark analyses of styles present in the SECC materials, I will now place previous studies of Moundville art within this largerframework to illustrate the need for a better understanding of the Moundville style.

Previous Considerations of Moundville Art

Most studies of Moundville Art have focused on the grouping of the specimens into categories based on type of medium, specific form of medium, and general subject matter. Relatively little in the way of stylistic analysis has been performed on this material. In this section I will note the type and extent of contributions which these works have provided. Most of the studies covered here and their relevant conclusions concerning the art in general and the winged serpents specifically, will be discussed in subsequent chapters of this thesis.

C.B. Moore's seminal works on Moundville art provide excellent illustrations of images engraved on ceramics. Moore also provides suggestions for the natural protypes of the whole images, as well as individual elements within the designs (e.g., 1905:138, 228; 19-7:369, 372). As for the winged serpents, Moore notes the varying ways in which the overall designs may be represented and makes some suggestions concerning conventionalizations of the serpent images (1907:377-379), the validity of which will be

taken up in Chapter 4. In interpreting the overall nature of the art at Moundville, Moore was among the first to promote the religious and ceremonial nature of the images and he also suggested early on that "cult-like" activity might explain some of the thematic variation (1907:404-405; also see Knight 1996:12-13 for discussion).

In Waring and Holder's original formulation of the SECC (1945) the motifs and representations of Moundville engraved pottery were included in the trait list. However, the ceramic vessels themselves were not included in the ceremonial objects category. This is somewhat perplexing given the restricted distribution of SECC icons to a specialized variety of pottery and vessel forms at the site (Steponaitis 1983:56, 109; Wimberly 1960:3). In any case, their trait list approach does not lend itself to true stylistic analysis of the material.

Wimberly (1954, 1956, 1960) and McKenzie (1964) have each elaborated on Waring and Holder's trait list scheme in regard to the engraved images on Moundville ceramics. McKenzie has also made observations on the associations and configurations of various motifs and attempted to define and "SECC pattern for the Moundville phase" (1964:191), concentrating on the relative frequency of various ceremonial objects and images. Concerning the winged serpents, McKenzie provides a generalized description of the images and makes a few perfunctory remarks concerning the stylistic variability of depiction (1964:164-187). This treatment provides little more stylistic information than Moore's original volumes.

A fairly interesting stylistic analysis is provided in Hardin's (1981) preliminary examination of some Moundville Engraved vessels. Using the criteria of motif used, form

of motif, and technique used in rendering the motif, Hardin identifies a style group on nine vessels which indicate execution by an individual artist on *variety Wiggins* vessels. These designs consist of the traditional Moundville scroll motif radiating around subglobular bottle forms. As a part of this study Hardin also isolated some four sets of two to four vessels executed by individual artists belonging to the winged serpent theme (1981:110; Welch 1991:Table 5.1).

Steponaitis's comprehensive study of Moundville ceramics (1983) has provided invaluable indexes of representational designs, charting their distributions by vessel forms and subphase, in addition to noting those which may be of nonlocal origin. There is no doubting the usefulness of this work in regard to examinations of the art but the study itself does not focus on stylistic or iconographic dimensions present in the designs.

Recently, steps have been taken to directly approach Moundville art in terms of amount of stylistic variability (Lacefield 1995). One of the primary goals of Lacefield's thesis is to contribute to a description of the Moundville style in engraved pottery. To this end, she has isolated three main stylistic groups in the crested bird theme of *var. Hemphill* pottery (Figure 3). This theme corresponds loosely to what Steponaitis (1983:59) has called *motifs* of the same name but has been modified by Lacefield to designs include certain images which are classified by Steponaitis as "paired tails." The differences in classification arise from Lacefield's emphasis on the number of shared formal elements (motifs) which make up the designs of the subject matter (theme), while Steponaitis focuses mainly on the structure of the designs to form his categories (Lacefield 1995:34). The classification used by Lacefield is more amenable to stylistic analysis of specific

subject matter because it does not arbitrarily throw out those with a different structural or stylistic manner of depiction. These, indeed, are indicators used in stylistic analysis to subdivide images by *style of depiction within an identifiable theme*.

Lacefield's study utilizes a largely quantitative method of analysis based on a matrix built up from proximity coefficients between the crested bird images and the styles in which their component formal elements were engraved. These coefficients were transformed into distance data that were scaled multidimensionally and then were entered

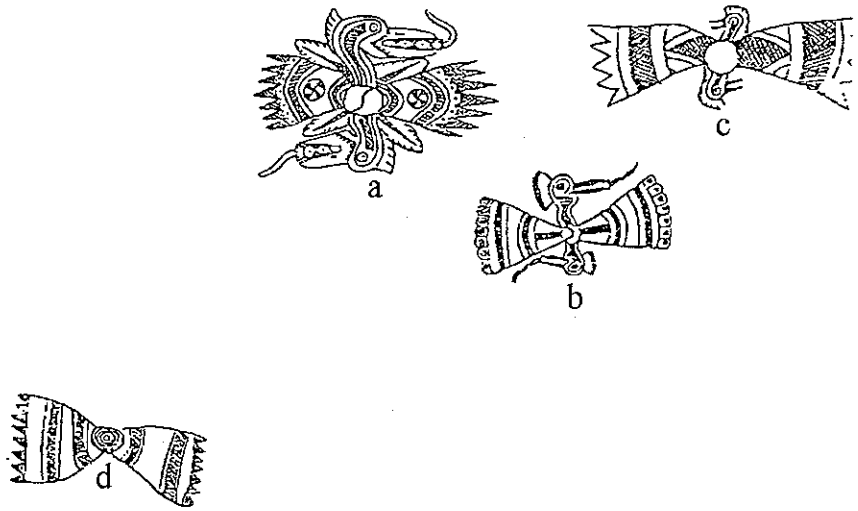


Figure 3. Moundville's crested bird style groups: (a) group one, earliest style; (b) group two; (c) group three; (d) intermediate style group, paired tails; From Lacefield (1995:Figure 5.3).

into a three-dimensional spinning program in order to discern a fairly accurate representation of the amount of linear space between the styles in which the vessels were executed. Lacefield's conclusions concerning the crested bird theme indicate that the best executed and most elaborate images occur early in the sequence in late Moundville II

times. In fact, they are most likely the earliest crested birds at the site (1995:63). The exact chronological placement of the other stylistic groupings and substyles is not known at this point but they are later in the sequence and less elaborate than Lacefield's "group one."

Although stylistic studies of SECC art are now becoming more prominent, the survey above indicates that there is still much to be done, especially in regard to the representational art at Moundville. There are still many questions about the stylistic parameters of this art and how the overall Moundville style and substyles within this corpus are related to the art from other sites of eastern North America which contain this material. The analysis described in the next few chapters is intended to provide some preliminary answers to these questions and to contribute to an eventual understanding of the nature and place of the art in Mississippian societies and how these groups interacted in the Mississippian Period.

Chapter 3
Methods of Analysis of Moundville's Winged Serpents

Lacefield's (1995) thesis represents the beginning of a long-term project intent on understanding the nature and diversity of Moundville representational art. In order to facilitate this goal, the first step has been to gather information on all *var. Hemphill* pottery vessels, including: location; accession number; provenience; and, whether the specimen is a whole vessel of fragment. This information was recorded into a database titled "Hemphill" using Paradox database software (1995:25-26). Another step was to obtain any and all drawings or photographs of this material and organize them in an image file housed at the Department of Anthropology at the University of Alabama. Another database was created using Paradox software which serves as a key to the image file and contains information on every known image on *var. Hemphill* pottery, such as: whether or not there is a copy of the image in the file; if it is a drawing or photograph; the source for the image; and, the document number. As a prefatory remark, I would like to clarify my use of terminology in this thesis when referring to vessels and the designs contained on them. I shall use the vessel catalog numbers in most instances to refer both to the vessel and the designs, using (A) and (B) to distinguish between two designs on one vessel where appropriate. For example, the vessel SD836 has two serpents, SD836(A) and SD836(B).

The illustrations of all of the images pertinent to this analysis are placed in the appropriate places in the text of Chapter 4 to facilitate convenient examination.

Winged Serpents in the Image File

When first assembled, the image file contained 39 "documents" (each corresponding to a vessel) which were labeled as winged serpents. Of these, Rho110, Rho214, and NN'18 are not whole vessels. For the purpose of this study whole vessels are defined as those in which dimensions can be determined accurately and completely. Sherds were excluded from the primary analysis because none of the extant specimens contain enough of one or both serpents to give a complete stylistic "picture." Comments regarding the placement of some of the sherds in the collections will be made in Chapter 5.

Four other vessels have been variously classified as winged serpents or raptors depending on the researcher. I chose to include three of these images in the quantitative analysis because, although it was not a primary goal of this research, I wished to gain a better understanding of the stylistic and iconographic relationships of the two major foci of Moundville's subject matter, birds and snakes. These four anomalous vessels will be dealt with in turn. Vessel SE8 (Figure 6) has been classified by Steponaitis (1983:249) as a raptor in the round but as a winged serpent in the round by Lacefield (1994:UA Image File, Document 34). I feel that the image is strictly neither one of these and have placed it, along with WR59 (Figure 7), in a stylistic group which I call the Pseudo Raptor group. Vessel WR59 has been called a winged serpent by both Steponaitis (1983:261) and Lacefield (1994:UA Image File, Document 44). Vessel SD18/M7 (Figure 8) has been

treated the same by Steponaitis (1983:241) and Lacefield (1994:UA Image File, Document 85) as vessel SE8. Again, this specimen has been classified by me into a distinct stylistic group which I call Transitional Pseudo Raptor. Another specimen, O9/M5 (Figure 9), is actually a falcon head with a highly abbreviated U-shaped body and feathers similar to those on the winged serpents. Steponaitis (1983:255-256) has called this image "raptor head with wing" while Lacefield (1994:UA Image File, Document 107) has dubbed it "winged serpent with bird head." Although the stylistic and iconographic relationships between the snakes and true raptors at Moundville are not well understood, I feel this supernatural character may indicate a link between these two themes.

It is my contention that at least the first three of these four images represent a stylistic *trend* which combines stylistic elements of the winged serpent and "raptor-like" themes. The evidence for this belief will be presented in Chapters 4 and 5. In any case, I do not consider the images on these four vessels to be Moundville winged serpents in the strict sense but I have included the Pseudo Raptor and Transitional Pseudo Raptor specimens based on their perceived stylistic similarities to the serpents.

These modifications bring the number of whole vessels which are thematically winged serpents to 32. However, one winged serpent in the Moundville style on a typical subglobular bottle (S.B.11, Figure 14) has been found at the Snows Bend site, some 20 kilometers from Moundville. This single mound site is in the Moundville polity (Welch 1991:147) and it is likely that this vessel and its decoration were produced at the primary center. At the very least, it can be said that these images were produced in concordance with the Moundville style of engraving winged serpents. For these reasons the two

serpents on this vessel were drawn by me and included in the image file, bringing the total number of known winged serpent vessels to 33.

Problems with two Moundville winged serpents illustrated in Fundaburk and Foreman (1957:Plate 36-top left, middle left) should be mentioned. The design in the top left of this illustration shows the engraving on vessel WR59 (Figure 7). The neck and head area as well as the tail and rattle area have been reconstructed incorrectly on the pot and this plate duplicates the error. In actuality, the image is a portion of the same type as shown on vessel SE8. The other illustration in Plate 36 shows an anomalous serpent. In may data collection I was not able to locate an image which corresponds to this illustration. It is possible that it was drawn from vessel Rho164. This vessel is no longer available for examination for reasons which will be discussed below.

Many of the document folders originally placed in the image file had no line drawings or photographs in them or had only one serpent represented. The data collection phase of this project sought to continue the gathering of winged serpent images, both photographs and line drawings, begun by Lacefield. In total, I made line drawings of 22 serpents on 14 vessels and added them to the file. I also added copies of photographs for six more vessels. These pictures were either not present in the image file before or they show a slightly different view of the engravings. I feel that it is important to have images of both serpents when applicable, because in many cases the two serpents are not depicted with the same forms or types of forms. These differences can and do serve as clues to stylistic relationships between vessels.

For a variety of reasons, it was not possible to examined or draw every serpent on every known whole vessel. First and foremost among these is the fact that five whole

vessels of the winged serpent theme (EE25, NED10, NG30, NN'38, Rho164) were among the dozens of *Hemphill* pots stolen from the Moundville Archaeological Park in 1981. In these instances I had to rely on extant photographs which, in each case, show only portions of the two serpents. Vessels Mi431 and NR17/M5 are presently housed at the National Museum of Natural History. Due to lack of funds, I had to consult photographs on these specimens also. One of the serpents on vessel SWM185 was found to be a complete reconstruction executed in plaster by an anonymous restorer in the 1930s. The second serpents on three other vessels, EE75, ND"B", and NE596 were not drawn. However, the stylistic executions of these images were coded for and included in the analysis described in the next section. The photograph of vessel Rho164, a definite winged serpent, is very indistinct due to the highly eroded nature of the surface of the pot. As a result, this specimen was not coded. Including the three pseudo raptors discussed above, 50 images from 35 whole vessels were coded for the presence or absence of style types of the elements which make up the designs (Table 1). The stylistic relationships of the two images on vessel O9/M5 to the other 50 were determined visually.

Initial Methods of Analysis

Although I was intent on examining both serpents on a vessel if at all possible, the unit of analysis used in this study is the vessel itself. The variability in style of depiction of these paired images is seen as being permissible within the style in which the artist was working. In no case do the two serpents on one pot appear to be wholly in a different style or even to have been engraved by a different individual. For the five stolen vessels

Table 1. Image file inventory, winged serpents and pseudo/transitional pseudo raptors, whole vessels: MAI- Museum of the American Indian; MAP- Moundville Archaeological Park; NMNH- National Museum of Natural History; (*)- M. Hardin, V. Steponaitis, cited in Welch (1991:Table 5.1).

Winged Serpents

Catalog and Figure #		Images	Accession #	Location/Collection	Provenience	Comments
EE1	(Figure 33)	Schatte line drawings, both serpents	A931.1.	MAP, E3L1F5, Lot 1, Box 1	East of Mound E	Same artist as EE25
EE25	(Figure 34)	Copy, Mellown (1976:Figure 44); photocopy, MAP FBI Master Set 8x10 print		Unknown	East of Mound E	Stolen in 1981, (2) prints labeled EE25 in MAP FBI Master Set (one is actually NED10); same artist as EE1
EE75	(Figure 32)	Lacefield line drawing, serpent (A); (3) prints, each of different scale, serpent (A)	A931.1.	MAP Special Collections, C-17	East of Mound E	
Mi62	(Figure 28)	Lacefield line drawings, both serpents; original negative;	A941.4.521	MAP Special Collections, B-4	Miscellaneous	
Mi431	(Figure 22)	photocopy, Fundaburk and Foreman (1957:Plate 35)	377382	NMNH	Miscellaneous	Narrow neck bottle
ND"B"	(Figure 18)	Lacefield line drawing, serpent (A)	A930.11.	MAP, E3L1F6 Box 1	Erosion North of Mound D	On two year loan as of 10/96 to Montgomery School of Business
NED10	(Figure 26)	Copy, Mellown (1976:Figure 45); photocopy, MAP FBI Master Set 8x10 print		Unknown	Northeast of Mound D	Stolen in 1981, vessel in MAP Special Collections is not NED10 (mislabeled)
NE59	(Figure 20)	Lacefield line drawing, serpent (A); MAP 8x10 print	A932.4.	MAP, E3L1F4, Box 1	North of Mound E	
NE90	(Figure 19)	Schatte line drawings, both serpents; 5x7 prints, each serpent; (1) misc. print (indeterminate)	A932.4.	MAP, E3L1F4, Lot 28 Box 2	North of Mound E	
NE127	(Figure 27)	Schatte line drawings, both serpents; copy, Mellown (1976:Figure 49)	A932.4.	MAP Special Collections, B-5	North of Mound E	Cylindrical bottle

Catalog and Figure #		Images	Accession #	Location/Collection	Provenience	Comments
NE596	(Figure 29)	Lacefield line drawing, serpent (A)	A932.4.	MAP, E3L1F5, Lot 58, Box 5	North of Mound E	
NG30	(Figure 36)	Schatte pencil sketch from photo; photocopy, MAP FBI Master Set 8x10 print		Unknown	North of Mound G	Stolen in 1981
NN'38	(Figure 17)	Copy, Mellown (1976:Figure 46); photocopy, MAP FBI Master Set 8x10 print; copy, Steponaitis (1983:Figure52[m])		Unknown	North of Mound N Prime	Stolen in 1981
NR17/M5	(Figure 13)	Copies, Moore (1905:Figures 151 and 152)	17/4359	MAI	North of Mound R	
NR30/M5 (round)	(Figure 12a)	Copies, Moore (1905:Figures 160 and 161)	17/3378	MAI	North of Mound R	Same artist as SD34/M7, SL31, WR81*
Q87	(Figure 25)	Lacefield line drawings, both serpents	F.S. 87	Department of Anth., Univ. of Alabama	Mound Q	Engraved images are very eroded
Rho141	(Figure 39)	Schatte line drawings, both serpents; (1) 8x10 print	A930.2.	MAP Special Collections, C-9	Rhodes site, Moundville	
Rho164	(No Figure)	Schatte (tentative) pencil sketch from photo; photocopy, MAP FBI Master Set 8x10 print		Unknown	Rhodes site, Moundville	Stolen in 1981, engraved images are very eroded in photo
RW878	(Figure 15)	Schatte line drawings, both serpents; (1) 5x7 print	A939.2.28	MAP E3L1F5, Lot 28, Box 2	Roadway	Same artist as NN'18 (sherds)*
S.B.11	(Figure 14)	Schatte line drawings, both serpents	F.S. 11	MAP general collection, Snows Bend specimens	Snows Bend site, burial 9	
SD1/M7	(Figure 23)	Copies, Moore (1907:Figures 54 and 55); (1) MAI 3x5 print, serpent (B)	17/3365	MAI	South of Mound D	Same artist as SD6/M7*
SD6/M7	(Figure 24)	Copies, Moore (1907:Figures51-53); (1) 3x5 MAI print - each serpent	17/4373	MAI	South of Mound D	Same artist as SD1/M7*

Catalog and Figure #		Images	Accession #	Location/Collection	Provenience	Comments
SD8	(Figure 35)	Lacefield line drawings, both serpents	A932.3.	MAP Special Collections, B-1	South of Mound D	
SD33/M7	(Figure 21)	Copies, Moore (1907:Figures 57-59)	17/4356	MAI	South of Mound D	
SD34/M7 (round)	(Figure 12b)	Copy, Moore (1907:Figure 56)	17/3361	MAI	South of Mound D	
SD42/M7	(Figure 31)	Copies, Moore (1907:Figures 60-62)	17/4353	MAI	South of Mound D	
SD44/M7	(Figure 10b)	Copy, Moore (1907:Figure 65); (1) MAI 3x5 print	17/3355	MAI	South of Mound D	Same artist as SD87/M7*
SD87/M7	(Figure 10a)	Copy, Moore (1907:Figures 63 and 64).	17/3350	MAI	South of Mound D	Same artist as SD44/M7*
SD836	(Figure 16)	Schatte line drawings, both serpents; copy, Steponaitis (1983:Figure 52[p])	A932.3.	MAP Special Collections, B-1	South of Mound D	
SL31 (round)	(Figure 12c)	Schatte line drawing; (2) 3x5 prints	A938.1.11.	MAP E3L1F6, Lot 11, Box 1	South of Mound L	Accessioned as SK31 (original number); same artist as NR30/M5, SD34/M7, WR81*
SWM185	(Figure 30)	Schatte line drawing, serpent (A); (1) 8x10 print	A930.3.	MAP E3L1F5, Box 1	Southwest of Mound M	Serpent (B) is complete reconstruction
WP'19	(Figure 38)	Schatte line drawings, both serpents	A936.1.	MAP Special Collections, C-17	West of Mound P Prime	
WR81 (round)	(Figure 11)	(1) 5x7 print; copy, Steponaitis (1983:Figure 53[b])		Unknown	West of Mound R	Location is unknown at this time, not on FBI theft list; same artist as NR30/M5, SD34/M7, SL31*
Pseudo Raptor and Transitional Pseudo Raptor Images						
O9/M5	(Figure 9)	Copies, Moore (1905:Figures 114 and 115)	17/3339	MAI	Mound O	"Winged serpent-like" raptor
SD18/M7 (round)	(Figure 8)	Copy, Moore (1907:Figures 10 and 11)	17/4355	MAI	South of Mound D	Transitional Pseudo Raptor

Catalog and Figure #		Images	Accession #	Location/Collection	Provenience	Comments
SE8 (round)	(Figure 6)	Schatte line drawing	A931.3.	MAP Special Collections, B-7	South of Mound E	Same artist as WR59
WR59 (round)	(Figure 7)	Schatte line drawing; (1) 8x10 print; photocopy, Fundaburk and Foreman (1957:Plate 38)	A930.1.	MAP E3L1F5, Lot 12, Box 1	West of Mound R	Portion of image on pot and Fundaburk and Foreman photo reconstructed incorrectly; same artist as SE8

and the two which were not available for examination, it is usually the case that the photographs show all of one serpent except the distal end of the body and rattle. The curve of the body of the vessel is such that the camera angle was not always able to frame an entire serpent from head to rattle. The tail and rattle can in most cases be seen on the other serpent in front of the first serpent as the typical structure of these vessels is to have the serpents trailing each other around the body of the pot. In a couple of these instances (vessels Mi431 and NG30) it was useful to enlarge and enhance portions of the photograph digitally in order to discern stylistic details. For all of these specimens, the tail and rattle of serpent B could be treated as belonging to the style of serpent A, since none of the other available specimens exhibit two completely different styles of execution. This treatment has the effect of maximizing the usefulness of the photographs an reducing the impact of missing portions of images and it also facilitates comparison to the other complete images. The same situation occurs on several vessels on which one or more elements of one of the designs have been eroded or broken away, but the same elements are still preserved on the other serpent.

Once all of the available images were gathered, the vessels were then sorted by structure of the designs. The only division at this level consists of two groups; those which were executed in the round without bodies (Figure 2) and those which have the typical U-shaped body. In the latter category, there are also two vessels in which the serpents face each other rather than follow each other around the body of the pot. I do not feel that this orientation represents a significant stylistic option, because, as it turned out, the two vessels fit nicely into stylistic groupings that were formed later on in the

research process with other vessels where the serpents trail each other. It may be the case, however, that there are other vessels yet to be discovered which would better match these two in style and structure.

The next step in the analysis was to decide upon those formal elements of the design which collectively define the theme. These forms are hereafter referred to as *salient elements* and are listed in Table 2a while examples are shown in Figure 4. Table 2a lists the individual elements along with the respective number of initial stylistic divisions, followed by a revised number of style types. The revised number indicates the number of types after the final stylistic seriation had been configured, and results from a small amount of "lumping" and "splitting" after learning the range of stylistic difference possible for certain elements within a style group. In most cases these differences are minor, such as whether semicircles open up or down.

The methods used here to identify small stylistic variations of salient elements are based loosely on those used by Phillips and Brown (1978, 1984) in their stylistic analysis of Spiro engraved shell as well as those used by Proskouriakoff in her analyses of Maya art. These initial stylistic divisions of winged serpent elements were arrived at by grouping the specimens element by element, following the premise "the antlers on specimen A are more like those on B than any other specimen." In this way, groups were assembled. For assignment to a group this premise had to be true for each specimen in relation to all of the others in the group. Individual elements on several images were sufficiently unlike all others as to warrant their own style type. This method of typology only worked for

Element	# of Types	Element	# of Types
mouth area	(20) 19	wing bar	13
curl nose	4	post bar band decoration	(5) 4
antler/horn/plume	15	covert feather	5
eye	12	feather	(7) 6
head decoration	14	body decoration	(14) 14
neck band	(8) 7	rattle	(8) 12

a

Variable	# of Vessels
FEATHNOT - Do any of the feathers have a notch?	7
FEATHBAN - Do the feathers have a blank band?	4
OVERLAP - Are the feathers overlapped?	26
SEPARATE - Art the feathers separate from each other?	9
FINGERMO - Does the serpent body contain a "finger" motif?	3
FANTAIL - Does the serpent have a banded "fan-like" tail?	4

b

Table 2. (a) Salient elements of winged serpents and number of style types for each; (b) dichotomous variables and number of vessels on which each occurs.

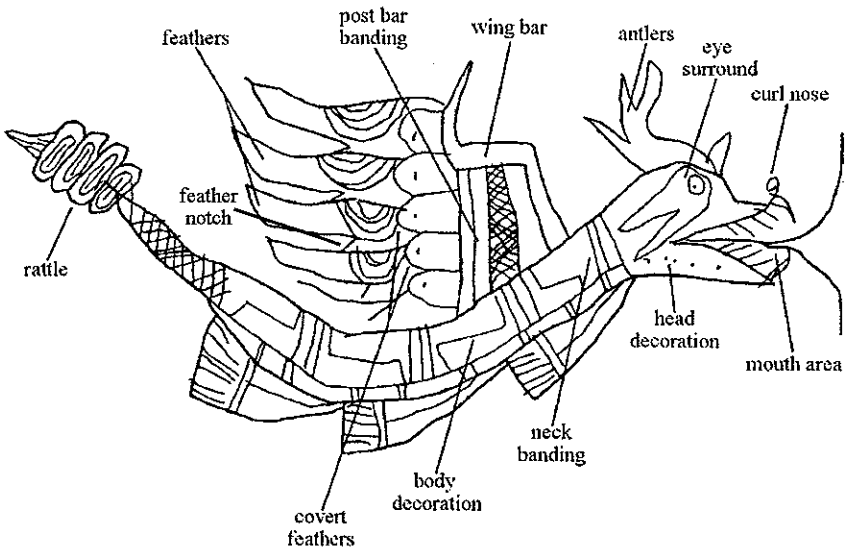


Figure 4. Examples of the salient elements of the winged serpent theme at Moundville.

individual salient elements and not for the designs as a whole. There is a large amount of stylistic diversity within certain individual elements themselves. When one attempts to sort entire images with these different elements grouped together it becomes an impossible task.

There were problems with grouping some of the elements together at first, because of the ways in which I had broken them down. For example, the salient element "mouth type" had originally been divided into tongue, teeth, and mouth shape types. Attempting to divide the images in this manner proved to be impractical. The resulting configuration consisted of many small groups of two vessels and just as many isolated occurrences which would not group at all. The criterion "mouth shape" appears to be very diverse almost to the point where each individual artist had a distinct manner of depiction. It was decided then to combine tongue and teeth forms and to basically disregard mouth shape, except in marginal instances. It is clear that even after these typological modifications there is a relatively large amount of variability in the manner in which mouth areas could be depicted at Moundville. The mouth itself is still "salient" to the depictions of winged serpents, but the artists were free to "play" with these forms to a high degree. This brings to mind the tendency toward imaginative play within prescribed cultural limits which was first advocated by Boas (1995:273) as was discussed in Chapter 2. The opposite situation occurred with the salient elements "post bar band decoration" and "under wing covert feather." These were originally grouped together, but the stylistic groupings were of little value and so they were divided. Although these problems appeared to have been solved, the procedure for differentiating stylistically between forms is not so straightforward and it inherently contains a certain amount of personal bias. The multidimensional analysis

described below helped to recognize some misconceptions in this process and to determine to a certain extent the importance of some of the small stylistic differences.

Even though the various types of the salient elements were all accounted for, there was still a small amount of variation in manner of depiction with which I have not dealt. These forms consist of small details of decoration and structure such as: feather notches; feather bands; "three fingers" motifs; "fan-like" tails; and, whether the feathers overlap or are separate (Table 2b). The exact nature of these forms will be explained below. For now, it is only necessary to say that their distribution precluded the classification as stylistic types because they are not salient elements as I define the term above (i.e., they occur in other SECC themes). For this reason, it was decided to treat these forms as additional dichotomous variables in order to determine if they have any relevance to specific style groups.

The quantitative methods of analysis described in the next few pages are basically the same as those used by Lacefield (1995) in her examination of Moundville's crested birds through the use of multidimensional scaling (MDS). It was hoped that the results would provide a seriation of the images as was the case for my predecessor. Although my results were not as clear cut as in the case of the crested birds, the technique was indispensable to the process of identifying stylistic relationships.

When the various stylistic types of the formal elements were tentatively identified, the next step in the process was to sketch all the specific manifestations of each type on 3 x 5 note cards along with the corresponding vessel catalog numbers on which these types occur. Variable names for each type were also added to the cards and briefly explained in

a formal codebook. In order to produce a proximity matrix of correlation coefficients, all of the variable names were entered onto formal codesheets and each vessel was coded as to the presence (1) or absence (0) of each of these style types. In total, 35 vessels were coded for 132 stylistic variables. Each unit has, in many cases, two types of one or more salient element. For example, two serpents on the same pot may have different styles of body decoration. On the other hand, there were also vessels on which certain formal elements were not preserved on either of the serpent images due to erosion or breakage, and these had to be left blank as missing data for all variables describing those elements.

These binary data were then entered onto a data worksheet in the SPSS statistical package (SPSS-X User's Guide 1988). SPSS was chosen because it will execute the coefficient of Dice (Dice 1945). This particular nonmetric matching coefficient was chosen because it give double weight to positive matches (where both cases have a certain style type) between cases, while negative matches (where both cases lack that style type) are ignored (Sokal and Sneath 1963). Since the goal of this analysis was to group cases together by style type, negative matches were of no value. Positive matches were of the utmost importance.

When these data were first run using the Dice coefficient of similarity, eight cases were rejected from the computations because of missing values (Table 3). These were those variables that were left blank, either because certain elements were not visible in photographs or were eroded or broken away from the vessel. It was initially thought that if these missing values were simply coded with a "0" (absence) then this might circumvent the problem. In testing this hypothesis, however, it was discovered that this would

Problem	Vessels
Vessels not included in statistical analysis	EE25, Mi431, NE59, Q87, SD87/M7, WR59, WR81
Vessels re-evaluated in 3D configuration	NN'38, RW878,SD18/M7, SE8, Mi62, NE127
Possible nonlocal vessels	Rho 141, WP'19

Table 3. Problematical vessels in the formation of the stylistic seriation.

introduce bias into the computation. In instances where one case has a particular style type and the other one lacks it, this non-match is included in the computation of the similarity coefficient even though it carries only half as much weight as the positive match. Using "0" for these cell values would result in higher calculated similarity than there might actually be between two cases. There was no way to get the Dice coefficient to ignore these missing values and still credit those which were coded with ones or zeros, and so these eight cases had to be excluded from this portion of analysis and were left to be placed in the stylistic seriation manually.

This discovery was beneficial to the analysis, though, because the effect of non-matches was thereby fully realized. This was important because 37 unique variables had been left out of the original SPSS worksheet, leaving 95. Unique variables are those coded elements which only occur on one vessel. These unique features were initially thought to provide no contribution to the grouping of the cases. In fact, the opposite is now known to be true. By excluding these variables, I was unknowingly introducing artificial distance between cases. In subsequent runs of these data, all 132 variables were included and 27 cases were used. The matrix produced consisted of similarity coefficients for each vessel in relation to every other vessel. These coefficients ranged from 0

(perfectly dissimilar images) to 1 (perfectly similar images) with the majority falling between .2500 to .3000. There were many instances where the coefficients were above .7000, but I suspected that very few of the vessels would group closely in the subsequent MDS analysis.

These data were then transformed into a *dissimilarity* matrix using the Binary Lance and Williams nonmetric coefficient which performs the inverse function of Dice (SPSS-X User's Guide 1988:832). The binary data could have been run initially using this program, but at the time I was interested in seeing the distances in terms of similarity coefficients. With the dissimilarity matrix now computed, I decided to enter it into a SYSTAT worksheet because this statistical package has more and better options for multidimensional scaling, at least for my data (Wilkinson et al. 1992a). The aim of MDS is to find the coordinates of a set of points in Euclidean space, given the information about the dissimilarities between the points (Chatfield and Collins 1980:189). In other words, the larger the dissimilarity between two objects, the farther apart they should be on the spatial map (Kruskal and Wish 1978:7).

The specific algebraic method which worked best in this analysis was Kruskal's stress formula 1 with a monotonic function of distances (regression). This technique is a loss function used to assess the agreement between the distances produced and the dissimilarities given in the matrix (Wilkinson et al. 1992a:113; Everitt and Dunn 1992:74). This goodness of fit measure, stress, ranges from zero to one, with values closest to zero being desirable. This number should be minimized over each iteration, a movement of all points in the plot toward a better solution (Wilkinson et al. 1992a:127).

Multidimensional scaling plots can theoretically be produced in one to five dimensions (Wilkinson et al. 1992b:109). In order for the stylistic relationships to be interpretable, the configuration of vessel distances needed to be plotted in three dimensions because one can envision this configuration, but not one in four or five dimensions. When these data were scaled in SYSTAT using the techniques described above, the resulting configuration yielded a stress level of .14315. This fit is only "fair" by some criteria but it has been demonstrated that stress is a function of dimensionality and therefore the interpretation of stress values is not so straightforward (Everitt and Dunn 1992:77-80). Everitt and Dunn (1992:77-80) have shown that an appropriate dimensionality for an accurate configuration can be determined by plotting stress against number of dimensions for a given data set. In their example, as dimensions increased, stress decreased. An appropriate dimensionality is indicated when the stress level drops suddenly and dramatically at a given number of dimensions and more or less levels off as dimensions are increased.

This test was applied to my vessel dissimilarity matrix and it was found that three dimensions does not provide the lowest level of stress but it is indeed appropriate and provides the best spatial configuration that I can hope to interpret. The best spatial representation I was able to generate in SYSTAT is shown in Figure 5. This graph is not the most useful output because it is not possible to examine it simultaneously in three dimensions in SYSTAT. Although the graph appears to contain several closely clustered groupings of vessels, this is misleading because the distances are represented in only the first two dimensions. In order to see this configuration in three dimensions it was

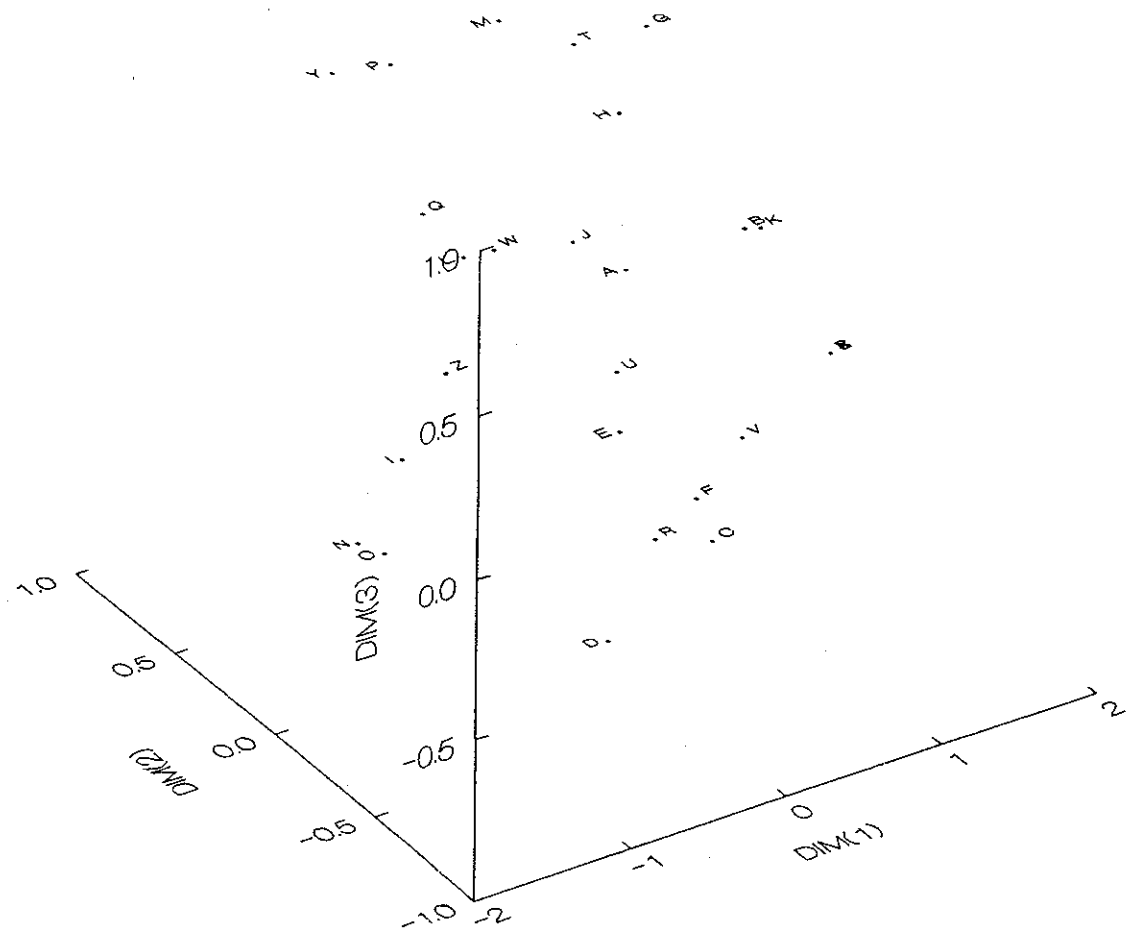


Figure 5. Initial MDS graph produced in SYSTAT.

necessary to import the coordinates computed by SYSTAT into AcroSpin. AcroSpin (Parker 1994) is a program which allows for rotation of the resulting graph in order to see spatial relationships in three dimensions. The ability to rotate the graph is important in determining which orientation makes the most sense in attempting to identify a stylistic seriation.

Interpretation of the Three-Dimensional MDS Graph

Upon first inspection of the MDS graph in AcroSpin, some of the clusters present in the two-dimensional representation produced by SYSTAT did not stay together, although others became newly apparent. At this point I do not wish to describe these clusters in any amount of stylistic detail, as they do not represent my final seriation. Here I will only discuss the configuration to the extent that I feel it indicated certain stylistic relationships and implied the presence of misconceptions in the original divisions of salient elements into style types. For convenience, I will use the names of the style groups of the final configuration shown in Figure 37 when referring to the images in the initial three-dimensional graph.

Several misconceptions in the typing of decorative and structural elements of four particular specimens, NN'38, RW878, SE8, and SD18/M7, created too much distance between them and other elaborate images. These mistypings also had the dual effect of creating too much similarity between these and a few broken down images. The way in which these were discovered illustrates the usefulness of AcroSpin and the entire statistical procedure. While rotating the graph, I was looking for an orientation that placed at opposite poles images that were very obviously of different style groups. The most promising orientation seemed to be one which placed the Recurvate Antlers group on the opposite side of the graph from the Fur-Head group. Lying between these two were several fairly elaborate serpents that were spaced in a way as to almost connect them stylistically.

When I began to trace out the stylistic implications leading from one group to the other, it was discovered that vessel NR17/M5, my First Body group, was placed by MDS

very near the vessels of the Recurvate Antlers group. The latter group consists of four specimens which are pictured in the round and the individual elements are very elaborate and naturalistic. Several of the salient elements of NR17/M5, the details of which I will not go into at this point, are very similar to the same ones in the Recurvate Antlers group. In fact, I feel that NR17/M5 represents one of the first attempts to execute the winged serpent with a complete U-shaped body and is probably one step removed stylistically from this elaborate group. Another vessel which lay between NR17/M5 and the Fur-Head specimens was SD836, in the Second Body group. Elements of the two serpents on this vessel, such as elaborate rattles, naturalistic antlers, and similarity in body decoration indicate continuity from the Recurvate Antlers and First Body groups while appearing to be yet another step removed stylistically. The next vessel in the sequence is ND"B" in the New Body group. Here again, continuity can be seen from the previous groups in the treatment of antlers and body decoration while, at the same time, slight conventionalization is evident and the overall designs are less elaborate. Additionally, there appear to be connections to the Fur-Head group in the treatment of the wing feathers, covert feather, rattles, and yet again body decoration.

There are probably "missing links" in this sequence, beginning with the Recurvate Antlers group and ending with the Fur-Head group, but the stylistic continuity which seemed evident from the start was enough to provide a rough framework for the seriation. By recognizing these stylistic relationships, it was possible to realize the misconceptions leading to the inaccuracies in the placement of the four vessels mentioned above. Except for these, the majority of the serpents which were placed by MDS in the upper right portion of the three-dimensional graph were more or less simplistic, broken-down images.

If these four vessels were ignored, there even appeared to be a second "loose" stylistic branch with vessel SD44/M7 of the Bird-Tailed Serpents group at one end and the highly broken down Thin Body group at the other. It was clear to me then that I would be able to use this configurational framework to examine the criteria for stylistic divisions and re-evaluate the validity of the placement of the stylistic position of NN'38, RW878, SE8, and SD18/M7, among other vessels. The process by which I arrived at the final seriation will be explained in Chapter 4.

Chapter 4
Formation of Final Seriation and its Stylistic Implications

When a portion of a stylistic sequence was discovered by MDS analysis in the three-dimensional graph and the stylistic continuities in this sequence were recognized, it was easy to see some of the same stylistic attributes present on these images in NN'38, RW878, SE8, and SD18/M7, as well as a few other related vessels (Table 3). At this point, I arranged the line drawings and photographs of the serpents in the same configuration as the three-dimensional graph by laying them out on a large, flat surface. The vessels that appeared to be in the approximate correct positions were left in place while those that were obviously out of place were removed. I will first present what I feel are the appropriate placements for these specimens, followed by an examination of the reasons why the statistical analysis placed them incorrectly. In total, eight of the 27 vessels used in the MDS procedure were stylistically re-evaluated based on the relationships mentioned above. Additionally, the eight vessels which had to be excluded from the computer analysis because of missing values were now examined in relation to these rough sequences. This discussion will be followed most easily by referring to Figure 37 which is the final stylistic seriation but I will also indicate individual figure numbers when necessary.

Perhaps the easiest place to begin the discussion of my re-evaluation is with vessel RW878 (Figure 15). The serpents on this specimen are fairly complex and extremely well

executed. In the three-dimensional MDS graph this vessel was not placed in proximity to any of the other pots but it was placed in the vicinity of the serpents on NG30, SD8, and SWM185 near the top of the graph. When re-examined with regard to the initially observed sequence in the lower portion of the MDS map, it was found that these serpents exhibit several stylistic similarities to those occupying the beginning of this sequence. In particular, the body decoration is of the same nature as that of NR17/M5 and SD836, though not yet as conventionalized as ND"B." The proper placement in the sequence appeared to be around vessel SD836. Additional indicators which support this assumption are the antlers and covert feathers, both of which are somewhat parallel to those on SD836.

Vessel NN'38 (Figure 17) was placed in the upper right portion of the MDS graph. It can be seen that this specimen has similar body decoration and coverts to both SD836 and RW878, and the post wing bar band decoration is of the same type as the former vessel. One other element present on NN'38 which is common to the groups early in this sequence is the feather notch which can also be seen on SD836. The serpents on this vessel are again nicely done and very elaborate. It seemed appropriate then to place this vessel around the same area in the sequence as SD836 and RW878. It certainly does not belong to any style group in the upper right section of the graph where it was placed by the MDS procedure.

The next vessels, SE8 and SD18/M7 (Figures 6 and 7), will be discussed together. As mentioned above, the image on SE8 is a "raptor-like" specimen depicted in the round. This creature is also very elaborate and well done and has extensive cross-hatching. Original placement on the MDS graph was near NN'38 in the upper right section. The

treatment of the feathers and the post wing bar band decoration support this proximity but the two are very different in other respects. Vessel SD18/M7 is analogous to SE8 in many respects, such as density of cross-hatching, yet is simpler in overall execution. Vessel SD18/M7 was also placed in the upper right portion of the configuration, not too far from both NN'38 and SE8. Based on similarities to NN'38, plus the fact that both SE8 and SD18/M7 were executed in the round, support a lower placement in the sequence, closer to the Recurvate Antlers group.

When it was noticed that vessel SD44/M7 was positioned by MDS closer to the Recurvate Antlers group than both SE8 and SD18/M7, this seemed to me to be strange and inappropriate. When considering this problem I noticed that the plume elements on SD44/M7 are almost parallel to those on SE8; in fact, the bird tail element of SD44/M7 is not too far removed from that on SE8. At this point, I began to posit a placement on the same level as, but on a different stylistic branch from, the Recurvate Antlers group. I felt then, and still do, that a developmental sequence beginning with SE8 and going through SD18/M7 to SD44/M7 might help to explain the stylistic relationship of the latter specimen to the more "serpent-like" images of the main sequence. It seemed very plausible then to propose the existence of this separate sequence which developed along with the primary one and shared with it certain stylistic types of elements until the point at which the branches became indistinguishable. The specifics of this merging and its implications will be discussed more thoroughly in a later section of this chapter. I only bring it up here to explain and justify the placement of SE8 and SD18/M7 as being lower in the overall configuration.

Inaccuracies of Initial Style Divisions

It then became necessary to discover the reasons why these vessels discussed in the previous section were placed where they were by the MDS procedure. The reasons for this can be seen when comparing the stylistic relationships between elements of the images in the developmental sequences to the original typology documented on the 3 x 5 note cards. This is, one could say, where personal bias enters into the picture.

For vessel RW878 I believe that mistakes in the typing of three salient elements, and possibly a fourth, contributed to the MDS placement. The first of these is that the antlers should have been classed the same as those on SD836 and NE90. I felt that, since two of the prongs emerge from the third and the former are distinguished by a solid line on the latter, this type of execution could be considered to be the same stylistically as the antlers on specimen SD33/M7. I now feel that the presence of a curve or curves in the prongs is more telling stylistically than is the dividing line between the prongs. It will be noticed that the antlers on SD33/M7 do not contain much curving in execution.

Another misconception in the typing of RW878 was the classification of its feather decoration as being the same type as that of SE8. Although both are fully hatched in the areas surrounding the concentric semicircles, the presence of the blank band on all three feathers of RW878 should have made me more suspicious of this pairing. The only other specimens on which this stylistic attribute is found are those of the Recurvate Antlers group. The presence of the blank band was accounted for by coding it as a dichotomous variable (Table 2b). Although I did code this attribute as present on RW878, I believe that

the fact that it is found on not only the wing bar feather, but also the other two feathers, justifies a separation in the typing of the lower feathers of SD8 and RW878.

The ways in which the body decorations were divided would also have affected the placement of this vessel. The single line "step-like" element as shown on such vessels as SD836 was typed distinct from those which exhibit multiple lines, such as on RW878 and NN'38. Whether one, two, or three lines were used is probably not an important stylistic distinction. It should be noted that this angular step element was typed separately from the more curvilinear ones on vessels such as SD1/M7 and SD6/M7. I also believe, given the immense amount of variability in depiction of the mouth area, that I might have been justified in typing RW878 with the mouth area of NE90. This correction, as well as the other three mentioned, would have had the effect of placing RW878 farther down on the graph, closer to the other elaborate images.

The distinction between multi-line step elements of body decoration would also have effected the position of NN'38, as it was typed with RW878. Another factor which determined in part the placement of NN'38, SE8, and SD18/M7 was whether the semicircle elements on feathers opened up or down. All other feather elements being the same, this stylistic attribute was used as the indicator serving to divide the two manners of depiction. I am now quite certain that this distinction is not a valid stylistic indicator. Given the stylistic relationships of the serpents on these three vessels to others near the bottom of the graph, I am confident that the final seriation places these images in the correct style groupings. Both manners of execution of semicircle elements (up and down)

occur early and late in the sequence and in fact, both can also occur within the same style group. I believe that the manner in which the concentric elements on feathers are handled is largely, but not completely, at the discretion of the artist. There is a certain amount of stylistic degeneration in these elements which can be traced through portions of the sequence.

One other major factor of the coding procedure which concerns both SE8 and SD18/M7 is the fact that I did not sufficiently take into account the importance of execution in the round. In the initial coding process I had considered adding a dichotomous variable to account for this manner of depiction. However, when I first sorted all of the available images by structure and then compared them, I felt that the formal elements of the designs would sufficiently segregate those without bodies from those with bodies. In the case of the Recurvate Antlers group this did work but not for the Pseudo Raptor and Transitional Pseudo Raptor groups. Part of the reason for their not segregating concerns the mistakes in initial coding which I just described. In hindsight, a dichotomous variable would have been beneficial in placing these two groups closer to the Recurvate Antlers group, especially in concert with the previously discussed modifications. At the time I was coding, however, I did not want the structural aspect of style to unduly influence the formal aspect.

Since I now felt that the basic order of the seriation was fairly accurate and I was aware of and familiar with the general stylistic relationships (especially for individual elements), I was satisfied that the quantitative analysis had at least minimally served its purpose. At this point I placed vessels Mi62 and NE127 into the sequence by visual inspection with relation to this expanded sequential framework. The two other vessels to

be re-evaluated, Rho141 and WP'19, turned out to be more problematic. Their placement will be examined later in this chapter. Concerning the vessels which were excluded from the statistical analysis, the same method was used to place these as was used to re-evaluate the placements of the other specimens above. Rather than waste space here describing the procedure, I will discuss these in the context of their specific style groups later in the chapter as well. I will focus my attention now on the whole of the internal stylistic evidence bearing on the final seriation.

Final Seriation

First of all, I would like to clarify my use of the term "final seriation." I use it here only to mean that it is the final configuration which I have developed throughout the research procedure. It will certainly be modified to incorporate new information as it becomes available. There are definite holes and missing links in the developmental sequence, the magnitude of which will hopefully be reduced by continuing excavation at Moundville by scholars such as my advisor, Dr. Vernon J. Knight, Jr. Until that time, I submit the configuration described in the next several pages as a general developmental sequence for the style of depiction of the winged serpent theme at the site. I will certainly point out those instances in which there are apparent holes and where I am not thoroughly convinced that my placements of certain images are entirely accurate. I must also mention that an individual element within a design may be stylistically earlier or later than another type of the same element placed on the same *general* stylistic and temporal level.

The Recurvate Antlers group, I believe, represents one of the first styles in which the winged serpent image was portrayed at Moundville. There is not one single case in the

The Recurvate Antlers group, I believe, represents one of the first styles in which the winged serpent image was portrayed at Moundville. There is not one single case in the *extant* examples of winged serpents which I have been able to isolate that shows that any of the stylistic attributes of this group necessarily developed *from* those of another group. It is conceivable that the artist (these images were almost certainly engraved by one person, see Table 1) which executed these specimens did so under a certain amount of stylistic influence from the members of the Pseudo Raptor group. However, the Pseudo Raptor group, vessels SE8 (Figure 6) and WR59 (Figure 7), are not strictly winged serpents in the sense that I am describing them here, but, in the mind of the artist they may

Figure 6. Pseudo raptor, vessel SE8; tail is opposite the head on vessel, same as on Recurvate Antlers specimens; one-half actual size.

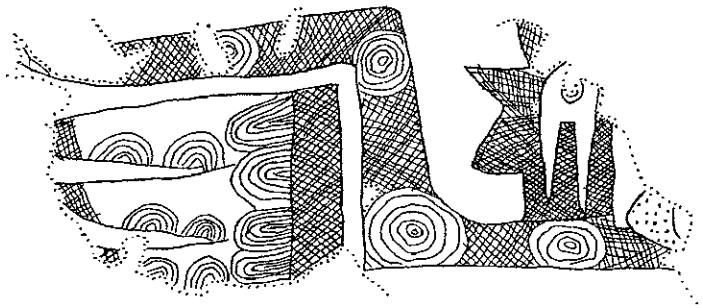


Figure 7. Pseudo raptor, vessel WR59; one-half actual size.

well have been the same supernatural. Indeed, I believe this very well could have been the case but that is more of an iconographic issue rather than a stylistic one and, again, will be addressed in a later section. Iconography is a process distinct from stylistic analysis and so I wish to treat them accordingly in this thesis. I will refrain from expounding on these iconographic issues in this section, with the exception of using the names of tentative natural prototypes in regard to particular elements and their stylistic degeneration.

If it was the case that these two supernaturals represented the same idea, there could of course be missing links which would better connect the Pseudo Raptor and Recurvate Antlers groups stylistically, as I feel is the case with vessel SD18/M7 (Figure 8) and possibly O9/M5 (Figure 9) between the Pseudo Raptor and Bird-Tailed Serpents groups (Figure 10). The stylistic similarities between the Recurvate Antlers and Pseudo Raptor groups are; first, they are executed in the round; and second, both groups possess much cross-hatching on the heads, antler/plume elements, wing bars, and tails, which are to a greater or lesser extent banded. Based on the present stylistic evidence, however, I feel safe in saying that the stylistic branch which here begins with the Pseudo Raptor

Figure 8. Transitional pseudo raptor, vessel SD18/M7; one-third actual size; from Moore (1907:Figure 11).

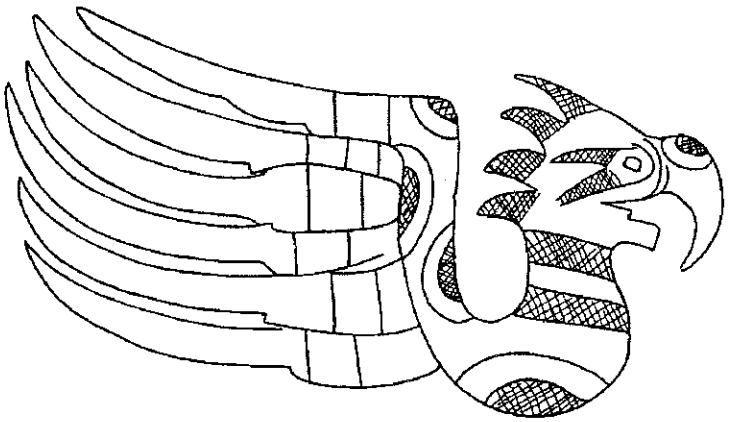
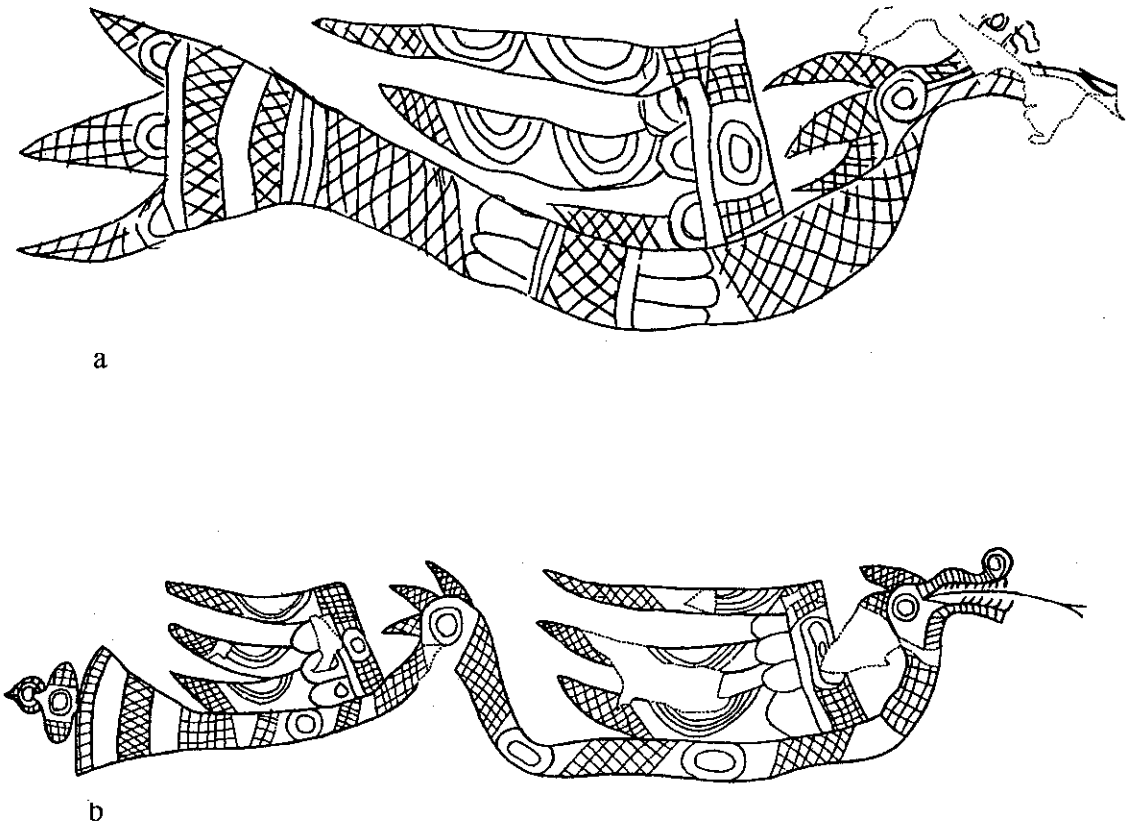


Figure 9. Possible transitional raptor or pseudo raptor form, vessel O9/M5(A); one-half actual size; from Moore (1905:Figure 115).

group ends up in forms such as those of the Bird-Tailed Serpents group and eventually merges with the main stylistic sequence, although there are probably holes in the seriation. The temporal aspect of this development is not well understood at this time. I would like to note that what Moore (1907:377) has referred to as conventionalization on vessel SD44/M7 (Figure 10b) is likely the result of a situation where the artist ran out of room



a

b

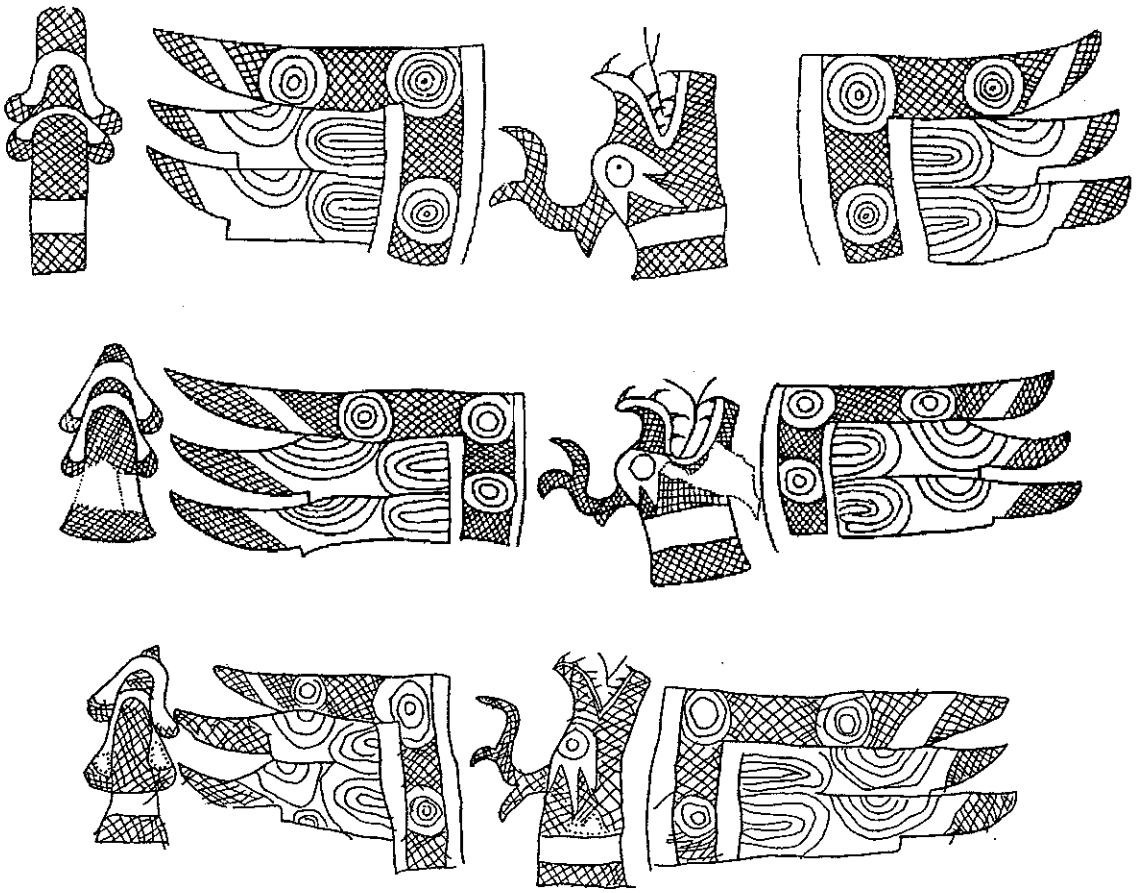
Figure 10. Bird-Tailed Serpents group: (a) vessel SD87/M7, one-half actual size, from Moore (1907:Figure 64); (b) vessel SD44/M7, one-third actual size, from Moore (1907:Figure 65).

on the vessel. If it indeed was meant as a stylization, it apparently did not influence other works. In any case, if appears that the members of the Recurvate Antlers group are stylistically separate from, but related to, this branch of development in a more or less parallel manner. I reiterate that, in my "Western approach" (*sensu* Phillips and Brown 1978:33) the style exhibited by the Recurvate Antlers group appears to be the first of the extant styles in which the *winged serpent subject matter* appears at Moundville even though these specimens are not as "serpent-like" as the later specimens.

Recurvate Antlers Group

This style group, consisting of vessels NR30/M5, SD34/M7, SL31, and WR81 (Figures 11 and 12), is characterized most obviously as being depicted in the round without a body. Another important feature is the presence of naturalistic, recurved antlers. I suspect that they need not necessarily be hatched, as this has not proven to be an accurate stylistic indicator, but all four of the extant examples possess intricate cross-hatching. Extensive cross-hatching on the head is present on three of the four specimens while the three-forked eye surrounds are devoid of hatching in order to demarcate this form from the rest of the field. The same situation holds true for the neck band which is a common winged serpent element. The anomalous specimen of this group, WR81 (Figure 11), is treated in the opposite manner, having hatch lines within the surround and a hatched neck band. The mouth areas of this group are also fairly distinctive. The teeth are very "fang-like" and the forked tongue extends to near the back of the mouth in three

Figure 11. Vessel WR81; unsure of scale.



a

b

c

Figure 12. Other Recurvate Antlers specimens: (a) vessel NR30/M5, slightly less than one-half actual size, from Moore (1905:Figure 161); (b) vessel SD34/M7, one-third actual size, from Moore (1907:Figure56); (c) vessel SL31, one-half actual size.

of the four images. The most diagnostic feature of this mouth type is the presence of a "gum-like" form from which the fangs emanate.

The wing bar in each instance has on the medial margin a blank band. This feature is found on none of the other serpents and may simply be a sort of artistic "signature." The wing bars themselves are ornately decorated with cross-hatching and concentric circles which are customary for this element. Immediately behind the wing bar is a blank band which has attached to it covert feathers formed by multiple semicircles. A small blank

band is definitely present on the wing bar feather (top feather) of three of the specimens (WR81 cannot be seen from the photograph). The other two feathers on each wing bar formation have one set of multiple semicircles under which, on the lower margin of the feather, there is invariably a notch delineating the feather tips which are cross-hatched. The tails of these serpents possess a blank band element within the cross-hatched field. The rattles of the three specimens which can be seen are elaborate and realistic to the point of emphasizing the subtle overlap seen between individual rattle segments of the prototypical rattlesnake as well as the projection of the final segment (Wright and Wright 1957:Figures 269, 274, 275).

First Body Group

The next stylistic phase in the main developmental sequence, the First Body group, is represented at this point only by vessel NR17/M5 (Figure 13). At this point a body is added to the design and the serpent is becoming overall slightly more stylized and less ornate. I suspect that the designs of the Bird-Tailed Serpents group may fall on a stylistic level between this group and the Second Body group. Stylizations can be seen in the mouth and head areas, in that the teeth are less like fangs and the tongue is somewhat exaggerated. The "gum-like" form is retained while a series of parallel lines adorn the lower jaw area which I refer to as a "throat pouch" which may have iconographic significance. The antlers do not exhibit the same degree of naturalism or cross-hatching as with the previous group, but they are still somewhat recurved. The eye surround is

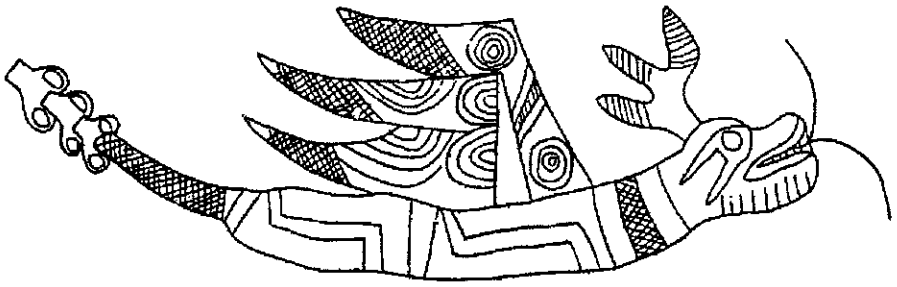


Figure 13. First Body group, vessel NR17/M5; one-half actual size; from Moore (1905:Figure 152).

slightly different in that it only has two prongs. A neck band element is present as in the previous group which now appears to serve to delineate the head area from the body.

This body is to a certain extent segmented in that two vertical lines separate two double-lined step elements from each other and the distal step element from the cross-hatched tail. The rattles in this style are still realistic, but not as complex as those of theRecurvate Antlers group. Small ovoid forms in the lobes of each rattle segment replace the cross-hatching present in the earlier group. The wing bar formation is structurally and formally much like that of the Recurvate Antlers serpents. The blank bar in the front is not present and the cross-hatching has been replaced by a small series of alternating bands. The angle of the wing bar has affected the shape of the post bar band but the form is still depicted. The coverts and wing feathers are almost exactly the same as those in the previous group, except that there are no feather notches.

The reason for stating that this style represents the first phase of stylistic development from the Recurvate Antlers group is simply that is the one which is most similar to these serpents. The treatments of the mouth area, wing formation, and the rattle are the strongest indicators of this development. Although Moore (1905:228-229) states

that there are two serpents on this vessel, I was not able to examine both, as one of the figures he gives is a line drawing and the other is a vessel photograph showing the same serpent. The other serpent may provide more clues about the way this style developed, as might other vessels with serpents in this same style, which we do not yet have.

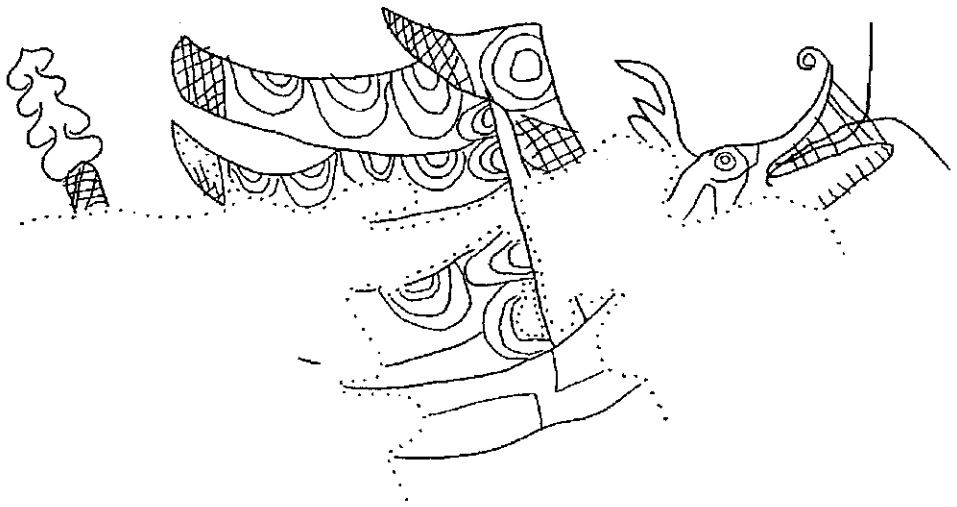
Second Body Group

The Second Body group shows much more stylistic variation than the two groups just discussed. It is entirely possible that this is the result of a biased sample, especially since one artist is responsible for the Recurvate Antlers group and there is only one example of the First Body group. Therefore the existing examples need not *necessarily* say anything about the nature of variability in these groups. However, a decreasing amount of naturalism would probably give rise to more variation in the acceptable depiction of forms.

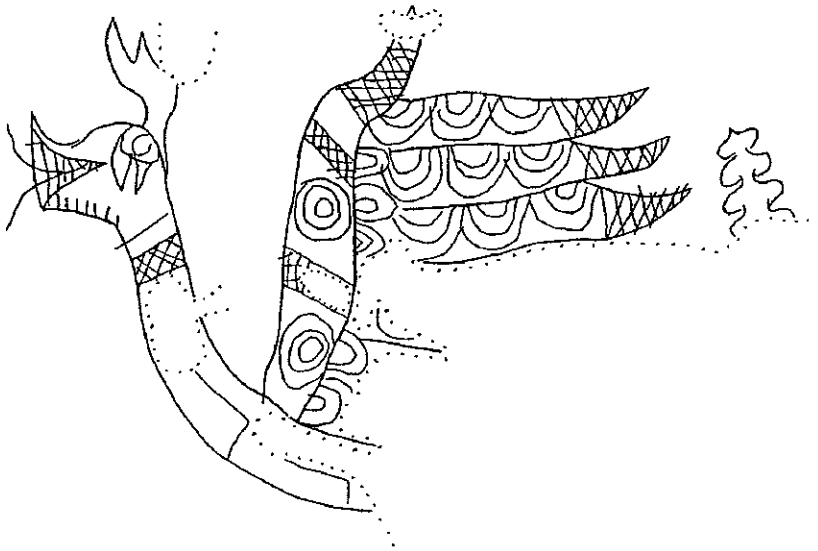
Of the four vessels which I classify as belonging to the Second Body group, one is the Snows Bend pot (S.B.11) (Figure 14) and the others are RW878 (Figure 15), SD836 (Figure 16), and NN'38 (Figure 17). Vessel S.B.11 is one of the examples which had to be left out of the statistical analysis because portions of each of the two serpents are eroded. Placing this specimen here was a fairly straightforward process thanks to the style of several elements. For one, both serpents possess the "throat pouch" lines shown on NR17/M5. However, the mouth area appears to be another step removed from the earliest type in that the "gum-like" apparatus is gone and the teeth are even more stylized.

This group is characterized by a fairly high degree of naturalism and elaborateness of forms, while at the same time, obvious degenerations in style are evident. Those forms

which show the most stability and continuity overall are the antlers, rattles, and feathers. This is the latest group we have which shows the feather notch (Figure 4), a diagnostic early style form. Increasing variability in antler forms is seen on NN'38. Additionally, this



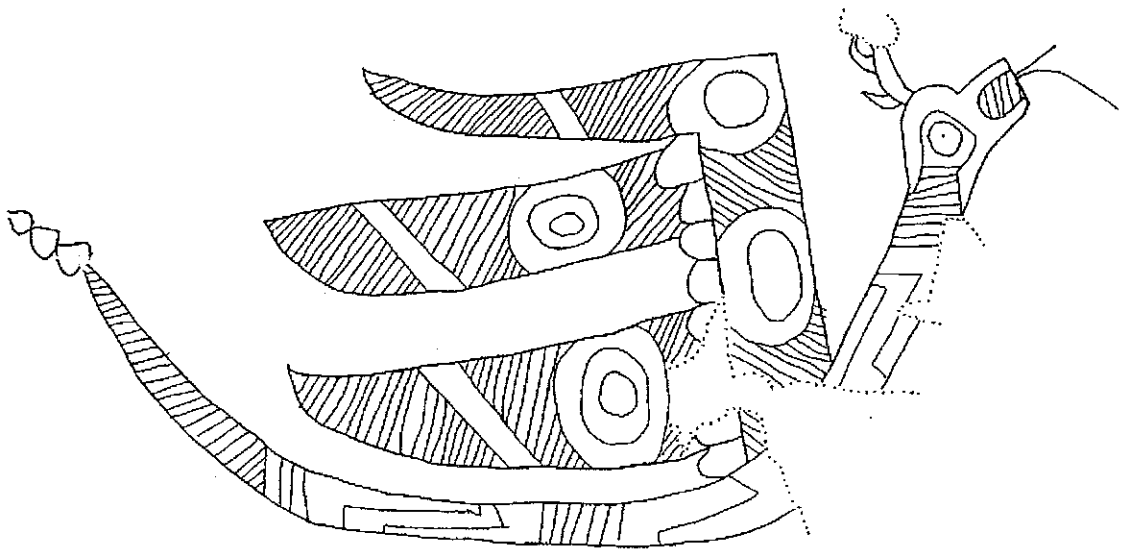
(A)



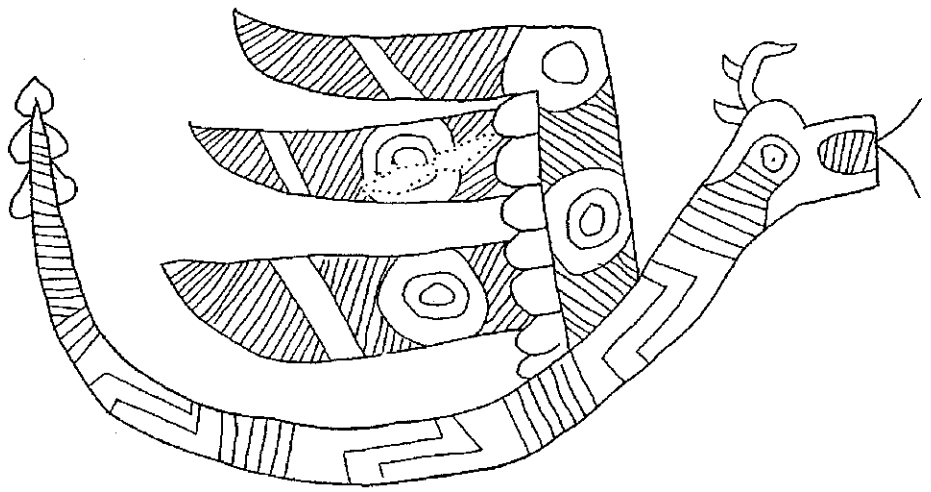
(B)

Figure 14. Vessel S.B.11 (Snows Bend field specimen 11); both are one-half actual size.

vessel, along with RW878, and SD836 shows a new manner of treating the post bar band decoration and covert feathers. The forms of these elements on these vessels indicates to me continued stylistic borrowing between the raptor/serpent sub-sequence and the main line. The post bar banding of the Pseudo Raptors is of the same or similar type as that on SD836 and NN'38 of the Second Body group. Other stylistic parallels between the main

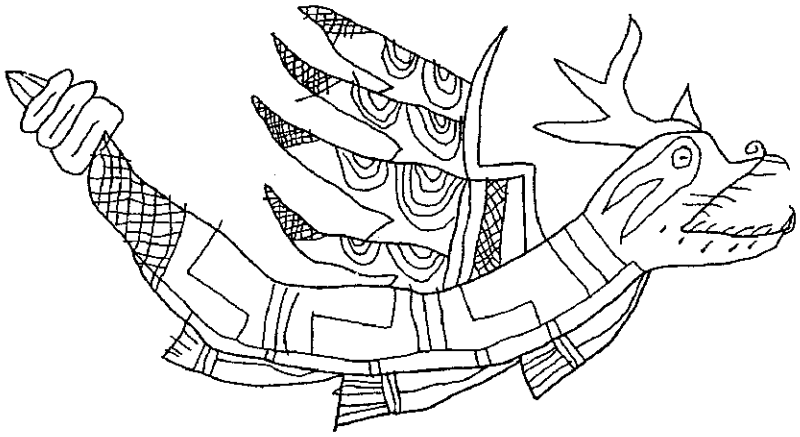


(A)

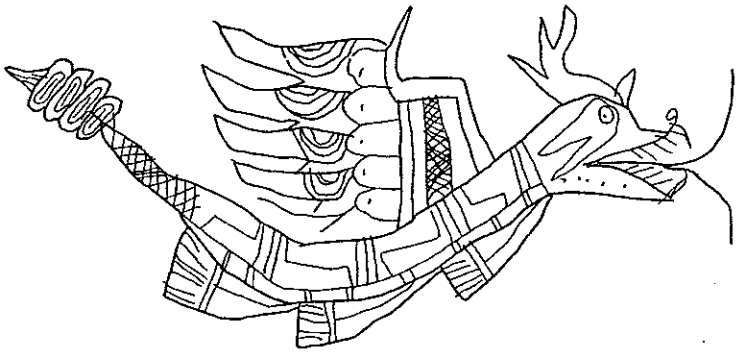


(B)

Figure 15. Vessel RW878; both are one-half actual size.



(A)



(B)

Figure 16. Vessel SD836; both are one-half actual size.

sequence and the sub-sequence are that the covert feathers of these specimens are of the same type as the Bird-Tailed Serpents group.

Vessels RW878 and S.B.11(B) possess no post wing bar banding while on NN'38 and SD836 the banding is more elaborate than earlier specimens of this main sequence. All three of these vessels show a simpler, semi-oval treatment of the covert feathers. Additionally, SD836(A) has no covert feathers, perhaps indicating the simplifications which soon came. Stylizations is also evident in the mouth area forms of RW878 and NN'38. The tongue of the former also shows a new manner of depiction, however, the

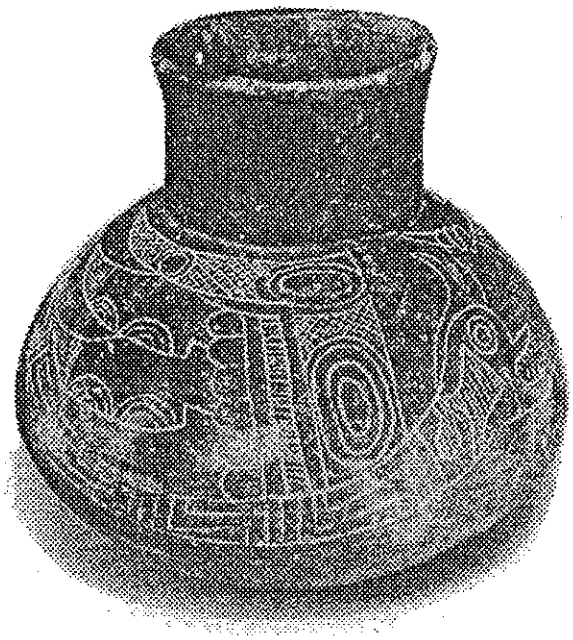


Figure 17. Vessel NN'38; actual vessel size- h. 14.3 cm, d. 15.4 cm; from Mellown (1976:Figure 46).

tongues of this group are essentially depicted in the same manner as that of NR17/M5.

Vessel SD836 is one of the most curious of Moundville's winged serpents and may in fact reflect direct or indirect contact with Spiro art. The dorsal/ventral distinction, while widespread on serpents at Spiro, is shown on only one other serpent at Moundville, SD1/M7(A) (Figure 23). The "tassel-like" fringes shown under the body of SD836 are the only occurrence of this element at Moundville. These elements occur fairly abundantly in the Braden school of art from Spiro. Also distinct is the treatment of the wing bar form on this vessel and the presence of a basal tine on the antlers. This element only occurs in two other places in Moundville art to my knowledge. One is on the snakes of the famous Rattlesnake Disk, which are themselves very "Braden-like." The other occurrence is on

the supernatural "monster" of vessel SD805, to be discussed below. Here again, the basal tine is also abundant at the Spiro site.

A curious element which makes its appearance on both SD836 and S.B.11 of the Second Body group is the "curl nose" (the term may indeed be a misnomer). It may be that it has iconographic significance such as might be the case with the "throat pouch" lines. For example, it is theoretically possible that these are additive elements which make up for the lack of a "gum-like" form. Additionally, the dots on the lower jaws of SD836 may be a stylization of the "throat pouch" element. Another strange innovation is the eye surround treatment of vessels NN'38 and RW878. No convincing developmental form of this type can be found on any of the other serpents, although it appears that the form develops somehow from a merging of a more traditional eye surround with elaborate neck banding.

New Body Group

The New Body group comes next in the sequence and consists of ND"B," NE59, and NE90 (Figures 18-20). Continuities from previous groups can be seen in post wing bar banding, coverts, antlers, and eye surrounds, as well as the "curl nose" on vessel ND"B." The eye surround of ND"B" however, shows a certain amount of stylization in that the eye consists now of projections rather than the true surround. This treatment can be seen to a small degree on the pot from Snows Bend. Another interesting feature of this eye is the three anomalous lines (or two bands) that project from the front of the eye to the lower jaw.

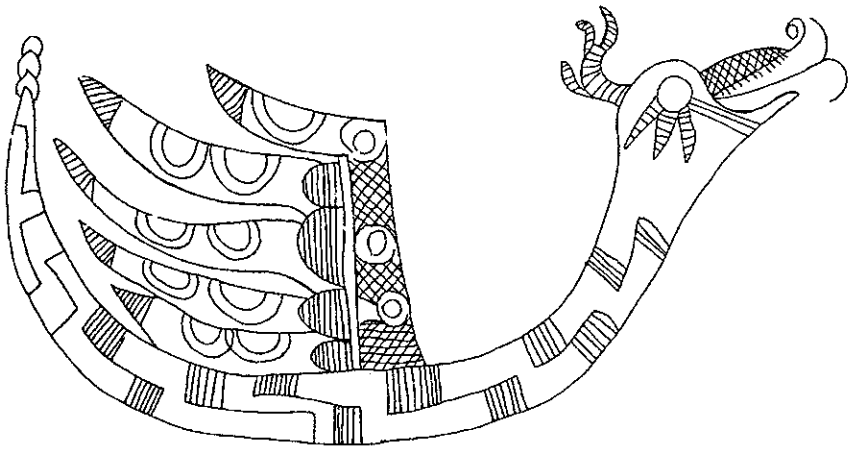
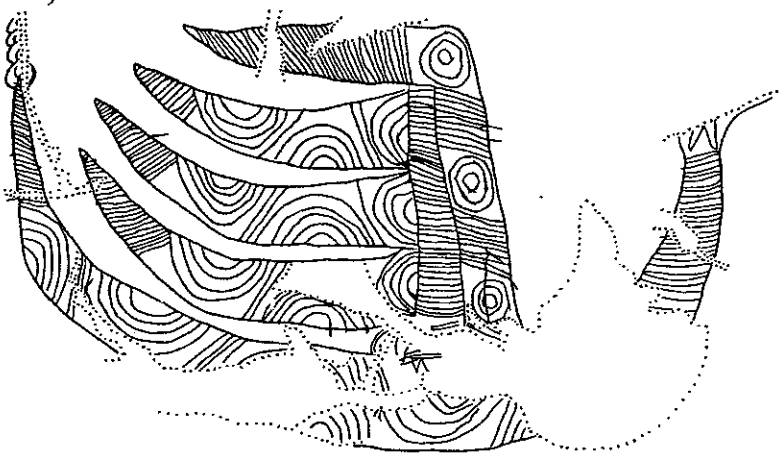
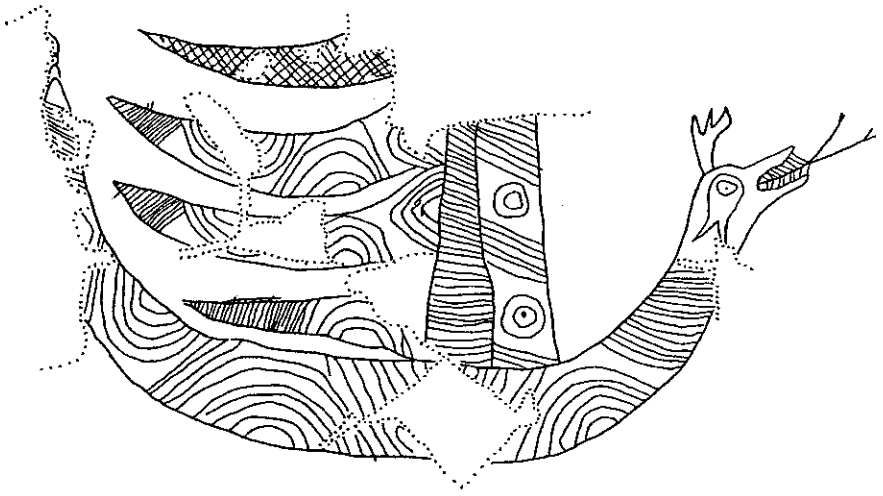


Figure 18. Vessel ND"B"(A); one-half actual size; drawing by Lacefield (1994:UA Image File, Document 177).



(A)



(B)

Figure 19. Vessel NE90; both are one-half actual size.

The New Body group is characterized most strikingly by the application of new body decoration forms and stylizations of old forms. The mouth areas on the serpents of this group have become much more variable in manner of depiction. Rattles are also more stylized as is the feather decoration on two of the three vessels. The covert feathers of ND"B" are the same semi-oval shape as on three of the vessels in the Second Body group but now vertical parallel lines fill the interior. Given these stylistic attributes, it was possible to ascertain that vessel NE59 (Figure 20), which was not included in the original

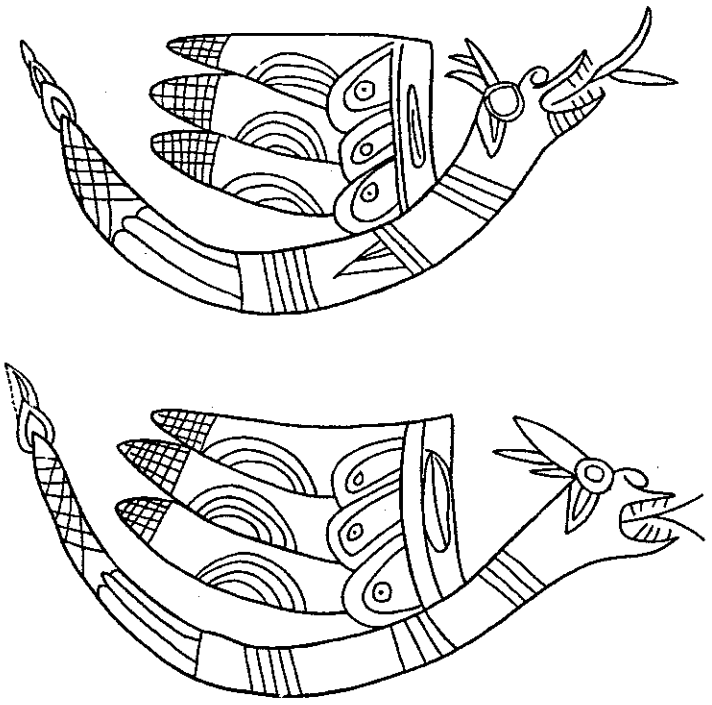
Figure 20. Vessel NE59(A); one-half actual size; drawing by Lacefield (1994:UA Image File, Document 16).

three-dimensional graph, belongs in this group. Note the similarity of the tongue on the serpents of this vessel to that of SE8 (Figure 6) of the Pseudo Raptor group.

Barred Oval Group

The "barred oval" motif, first identified by Waring and Holder (1945), is widespread throughout the art of the SECC but only occurs on one winged serpent vessel. The Barred Oval group vessel, SD33/M7 (Figure 21), is one which I feel probably represents the earliest point at which the two stylistic trends fully merged to form what would become the late style of Moundville winged serpent depiction. I place this vessel on approximately the same developmental level as the New Body group but in its own distinct style group. Although there are almost certainly missing stylistic connectors, there are many elements on these serpents which indicate that the artist firmly combined the two stylistic trends. The most telling of these elements for me are the eye, antlers and body decoration types, and possibly the covert feathers.

The circular eye elements themselves are most like those on the Bird-Tailed Serpents specimens while the projection elements really have no clear-cut developmental antecedent. The parallel lines of the lower jaw may be another stylization of the "throat pouch" element of the main line. The mouth area type of serpent (B) is also quite similar to that of NN'38. The "curl nose" at the bridge of these serpents does not appear to develop from any known specimen either, although it is not unique in the sequence. It is my opinion that the antlers of SD33/M7 may be involved in the stylistic mixture of the main line antlers and the plume elements of the sub-sequence, leading to the antlers of the



(A)

(B)

Figure 21. Barred Oval group, vessel SD33/M7; both approximately one-half actual size; from Moore (1907:Figures 58 and 59).

Split Antlers group. The antlers are particularly informative in this part of the sequence, especially on this vessel.

The body decoration seems to represent a mixing of the main line and the sub-sequence in that they are segmented with groups of parallel lines like those of the Second Body group but they also contain the "three fingers" element found on vessel SD87/M7. The fact that this element is also found on NED10 (Figure 26) is not problematical in my opinion because I feel that the style group represented by NED10 did not precede either the Bird-Tailed Serpents of the Barred Oval style groups.

The covert feathers on the Barred Oval group are most similar to those on the second serpent of vessel SD44/M7 but are also reminiscent of those on SD836. The

"flame-like" rattles on SD33/M7 are similar to those on NE59 and may be a direct stylization from this type, which itself is a variant of the rattle on S.B.11. However, I suspect that this form may have also been influenced by the forms added to the tail of SD44/M7, whether they are intended to represent rattles or not. It should also be noted that the down-turned semicircles on the feathers of SD33 are the same as the decoration on NN'38 *as well as* the decoration of the Pseudo Raptor and Transitional Pseudo Raptor groups. Although, as I said earlier, this feature is probably not that significant stylistically (see p. 51), it is interesting to see this concentration of down-turned semicircles in the lower right quadrant of the seriation.

The stylistic groupings in the upper half of the seriation are, in many instances, difficult to connect convincingly to earlier forms. It is in this section of the seriation that missing links are most evident. Stylization and variability in the depiction of traditional forms within a style group increase dramatically at this point in the overall development. In some instances in these upper groups inclusion is based only on a couple of diagnostic elements. The finding of additional winged serpents at Moundville will certainly help to refine these particular style groups.

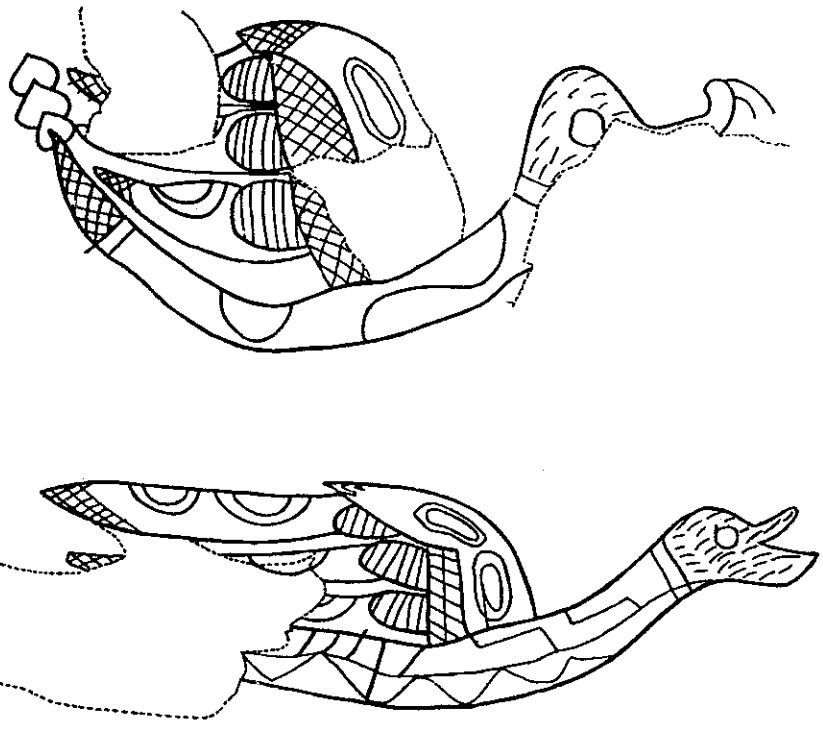
Fur-Head Group

The Fur-Head group is an agglomeration of vessels in which inclusion is based primarily on head decoration, head form, and covert type. Vessels Mi431, SD1/M7, SD6/M7, Q87, and (Figures 22-25) are assigned to this group and the first two of these were produced by the same artist (Table 1). The placement of Mi431 here is somewhat

tentative in that the serpent visible on this specimen does not possess the diagnostic dash marks on the head. However, the overall shape of the head is close to that of the specimens on SD1/M7 and SD6/M7 and it fits better here than with any other group.

Direct continuities are certainly evident between the New Body group and the Fur-Head group in a few of the individual elements. The overall stylistic distance between these two groups however, does appear to be greater than that between contiguous style groups of the lower portion of the seriation. The treatment of the covert feathers of SD1/M7, SD6/M7, and Q87 is one of the most obvious connections. Additionally, the body decoration on vessel Q87 appears to be a stylized version of the body decoration of ND"B." A surviving feather decoration is seen on Mi431, that of the alternating up/down semicircles shown on NE90 of the New Body group.

Figure 22. Vessel Mi431; unsure of scale; from Fundaburk and Foreman (1957:Plate 35).

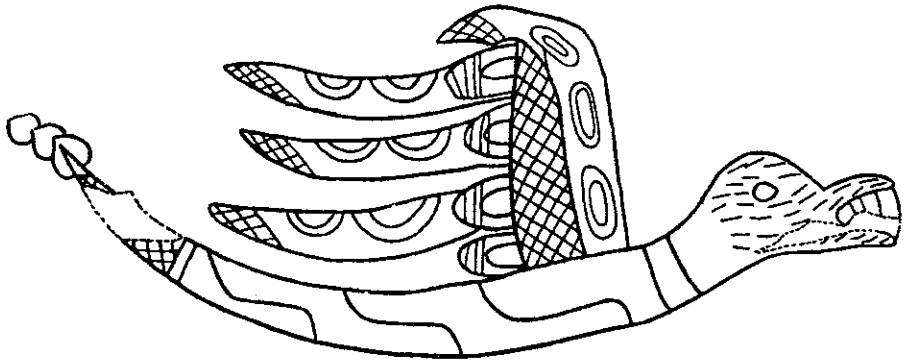


(A)

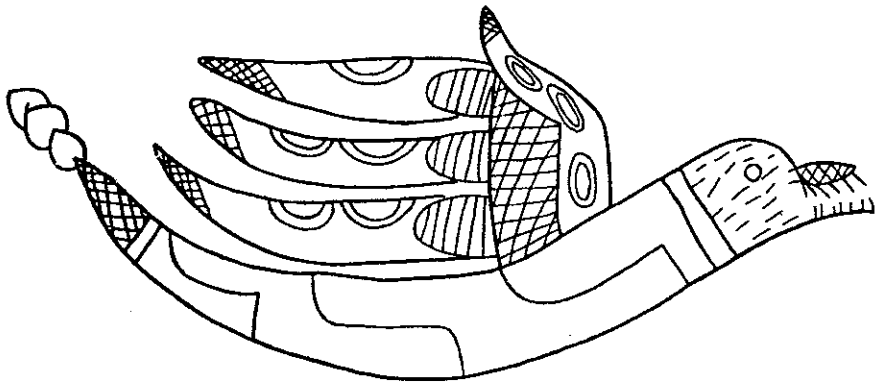
(B)

Figure 23. Vessel SD1/M7; both are one-half actual size; from Moore (1907:Figures 54 and 55).

Some of the other defining features of this group are the lack of antlers and simple mouth areas. None of the four vessels have antlers portrayed on their serpents, a possible exception being Q87 since the head areas are not preserved completely. As for mouth areas, serpent SD1/M7(A) has no tongue or teeth and serpent (B), although incomplete, probably does not have teeth but apparently has a stylized thick tongue apparatus. Both serpents on SD6/M7 have teeth but no tongue. The serpent visible on Mi431 has a tongue similar to those of earlier groups but no teeth. The eyes of this group are depicted simplistically, the form on four of the six visible specimens being a simple circle. This probably is a result of the desire to depict the dash marks on the head rather than an



(A)



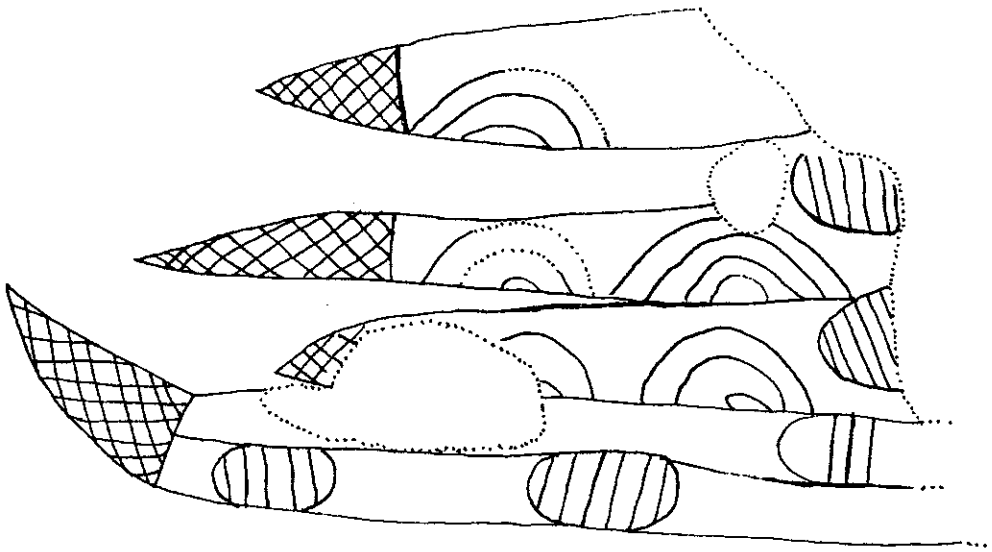
(B)

Figure 24. Vessel SD6/M7; both are one-half actual size; from Moore (1907:Figures 52 and53).

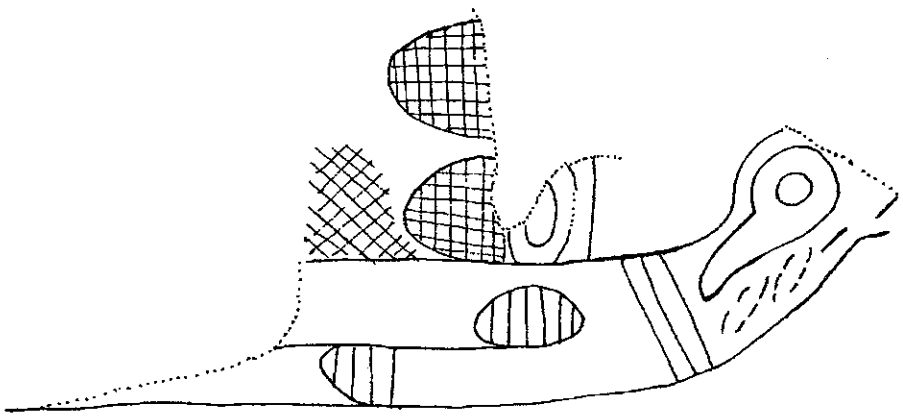
elaborate eye. Serpent Q87(B) has a single-pronged surround but fewer dash marks while Mi431 has apparently no dash marks and a stylized two-pronged eye apparatus.

The forms of the wing bars themselves on SD1/M7 and SD6/M7 are reduced, in each instance only barely proceeding beyond the post bar banding and covert feathers. Notice too that the decoration consists only of concentric oval elements with a slight amount of hatching on the tips. The post bar banding, present on only these two vessels, is probably descended stylistically from the type on NE90 although there are no

connecting forms. The rattles on SD1/M7 and SD6/M7 are just like those on ND"B" but Mi431's rattle is more stylized, similar to types later in the seriation. Interestingly, Q87(A) has no rattle.



(A)



(B)

Figure 25. Vessel Q87; both are full size; drawing by Lacefield (1994:UA Image File, Document 146).

Banded Mouth Group

The position of the Banded Mouth group (Figure 26) in the seriation is to an extent problematical since it is represented by only one interesting vessel, NED10. Given the stylized antlers, rattles, and mouth area, as well as the fact that it possesses no post wing bar band decoration or covert feathers, it definitely belongs in the upper portion of the graph. Notice also that the treatment of the wing bar is similar to SD1/M7 and SD6/M7, discussed above. The rattle of serpent (A) of this vessel looks to be a stylized version of the type on S.B.11. The body decoration and the two-pronged eye surround are the same types as those on serpents in the First and Second Body groups.

As for the band elements at the back of the mouth, I suspect that these probably only serve to emphasize the differentiation of the mouth from the rest of the head. This probably takes the place in this instance of the hatched jaws of other, mostly earlier style

(A) (B)

Figure 26. Banded Mouth group, vessel NED10; actual vessel size- h. 14.3 cm, d. 15.4 cm; (A) is from Mellown (1976:Figure 45).

groups, although it may be related somehow to the bands element shown on the head of ND"B" (Figure 18). Serpent NED10(A) has no tongue and many elongated and vertical teeth while serpent (B) has a unique "squiggle" tongue and many teeth projecting horizontally from the back of the mouth. These mouth areas may be stylizations of the type present on RW878. One last stylistically interesting element of this vessel is the "three fingers" motif, first identified by Moore (1905:223), which occurs on only two other vessels, SD33/M7 and SD87/M7 of the Barred Oval group and the Bird-Tailed Serpents group respectively. I believe that NED10 represents increasing stylistic mixture of the main serpent line and the raptor/serpent sub-sequence, as do all of the other groups on the upper right side of the seriation.

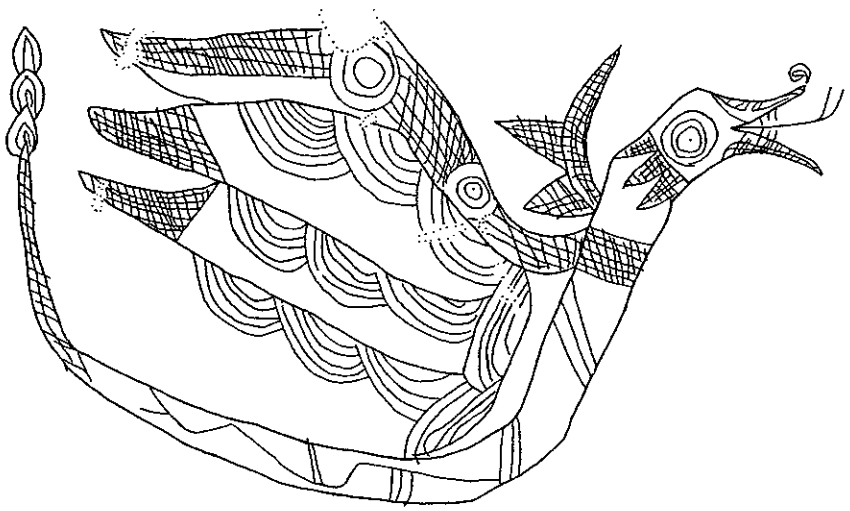
Bunched Feathers Group

The vessels of the Bunched Feathers group, consisting of NE127 and Mi62 (Figures 27 and 28), contain serpents which are highly stylized overall, rather than in just a few of the elements. Despite the fact that these serpents are still elaborate in regard to the number of salient elements used, the elements themselves and the manner of engraving are somewhat sloppy and simplistic. In any case, stylistic continuity and degeneration can be seen in some of the forms.

The serpents on NE127 possess the same type of "curl nose" that is shown on SD44/M7 and SD87/M7 (Figure 10) of the raptor/serpent sub-sequence. The tongues of NE127 appear to be of the same or similar type as those on both SD44/M7 and NE90 (Figure 19). The eye surrounds on both NE127 and Mi62 are highly stylized versions of the original three-pronged surround of the Recurvate Antlers group and are basically the

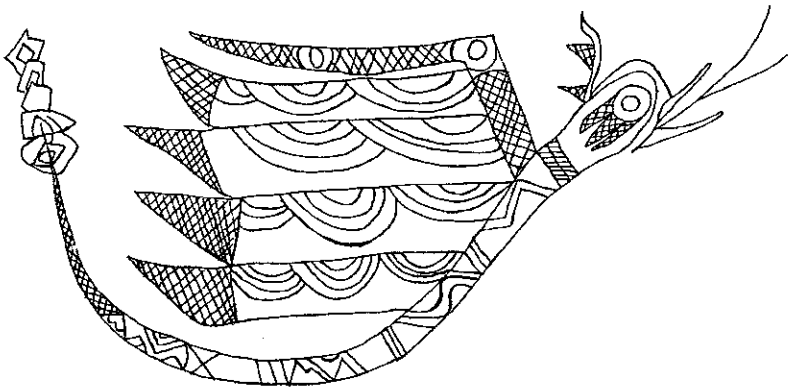
same type as those on ND"B." The antlers on the serpents of the Bunched Feathers group again appear to me to indicate a stylized mixture of plumes and traditional antlers.

(A)



(B)

Figure 27. Vessel NE127; both are one-half actual size.



(A)

(B)

Figure 28. Vessel Mi62; both are one-half actual size; drawings by Lacefield (1994:UA Image File, Document 45).

The main prong on both of the examples on Mi62 exhibit the traditional recurve while the two smaller prongs on each are executed in much the same manner as the plumes of SD44/M7. The same is true for NE127 although the main prongs curve but do not recurve.

The strange curved wing bar formation on NE127(B) is unique among Moundville's winged serpents. This is probably due to the fact that the artist depicted the forward part of the body in an almost vertical position. Post wing bar banding is only present on one of the serpents on each vessel and is depicted in a corrupt manner, especially on NE127(B), as are the coverts. The sets of semicircles decorating the feathers of this group extensively overlap each other and even the body, wing bar and/or coverts. The feathers themselves are portrayed in a crowded manner and they indeed overlap all the way to the beginning of the tips.

The wavy lines and S-shaped elements of Mi62 appear to me to be stylizations of the original "step-like" design with the curvilinear type on SD1/M7 and SD6/M7 of the Fur-Head group perhaps showing a developmental form. The body decoration of Mi62 also shows the banding style type evident on Second Body group serpents as well as SD33/M7 (Figure 21). The body decoration of the serpents on NE127 seem to show stylistic influence from several of the other groups also. The banding shows up here in a stylized and reduced form. On the body of serpent (A) of this vessel a small banded triangle form is portrayed which is much like the one on SD33/M7(A). Lastly, the overall "busy" character of NE127's body decoration is similar to that of SD1/M7(A) (Figure 23).

In regard to the rattles of these specimens, Mi62 shows an uncharacteristic dichotomy between the two rattles contained on the vessel. The rattle of serpent (A) shows five irregularly shaped segments, four of which contain concentric elements. The rattle on (B), however, has only two simple diamond shaped segments. The rattles of two serpents on a vessel are usually identical. In any case, they are both highly stylized. As

for NE127, the form of the segments is much like that of SD33/M7 but more concentric elements are depicted and they are not as well executed.

Split Antlers Group

The Split Antlers group contains probably the highest range of variability of any of the groups. Four vessels; NE596, SWM185, SD42/M7, and EE75 (Figures 29-32) composed this style group. The only element which is depicted in a consistent manner on all of the specimens is the antlers. Those on NE596 are probably the ones which are closest to what I feel to be the major stylistic influence, the plumes of the raptor/serpent sub-sequence. I should qualify this statement by saying that I believe that the forms of antlers on SD33/M7 (Figure 21) also had some influence, given that these are slender, small, and pointed, as are those in the Split Antlers group. There most likely are missing developmental forms which might clarify this connection. The plumes on NE596(B), which was not drawn, have an interesting element of double semi-ovals at the base which merge with the head. This element, which is probably only decorative, is not found on the heads of any of the other serpents.

Another connection to the raptor/serpent sub-sequence is the body decoration of SD42/M7. The alternating bands of cross-hatching with concentric circle elements are of the same type as SD44/M7 (Figure 10b). Additionally, the extensive cross-hatching on SWM185 is similar to that of SD87/M7 (Figure 10a) without the "three fingers" motif. The wing bar formations of SWM185, SD42/M7, and EE75 appear to be broken-down and simple versions of the traditional wing bar treatment evident in both of the stylistic

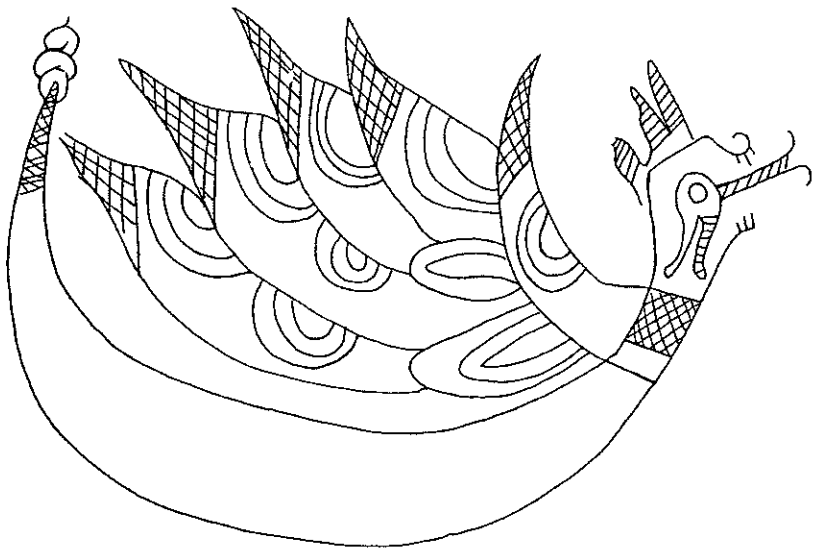


Figure 29. Vessel NE596(A); one-half actual size; drawing by Lacefield (1994:UA Image File, Document 25).

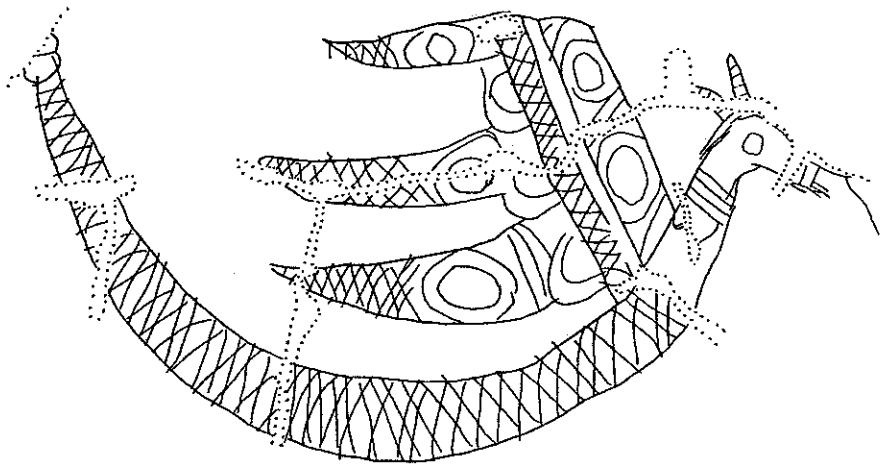
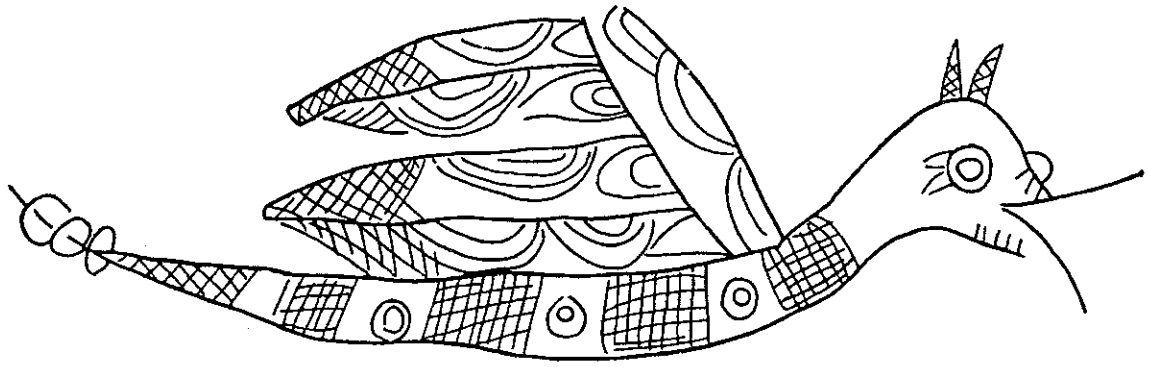


Figure 30. Vessel SWM185(A); one-half actual size.

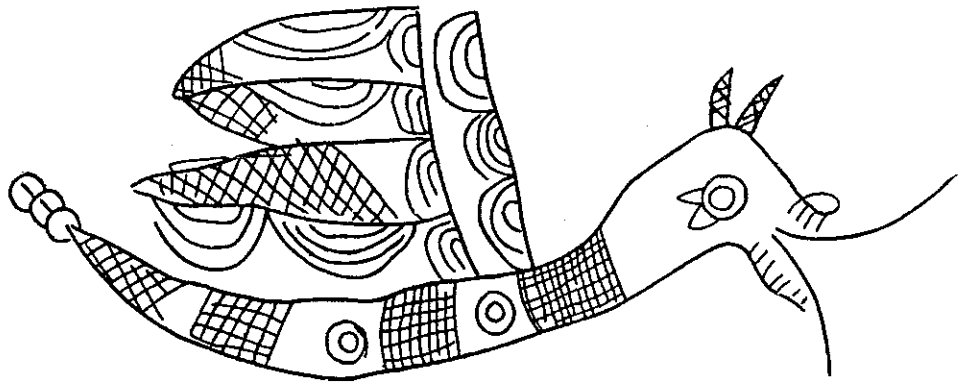
trends. The curved attachment to the body is similar to the wing bars of NE127 (Figure 27) and the reduced nature of their form is a treatment similar to that of SD1/M7 and SD6/M7 (Figures 23 and 24) of the Fur-Head group. Concerning the variability of the Split Antlers style overall, this group contains extensive use of what I believe are stylistic types of elements drawn from both the stylistic trends, which reflects the merging of the

raptor/serpents with the winged serpents. Additionally, the degree of stylization and simplification on all of the groups of this level is more or less parallel, which supports the placements of each relative to the others.

The mouth areas of these serpents exhibit a large amount of stylistic variability, although those of NE596 and SD42/M7 are quite similar. Additional similarities between these vessels are that they have the same type of rattles and "curl noses." It will also be noticed that SD42/M7 contains both a degenerative type of the traditional single line "curl nose" first appearing in the Second Body group and one which is on the "bridge" of the



(A)



(B)

Figure 31. Vessel SD42/M7; both are one-half actual size; from Moore (1907:Figures 61 and 62).

head, similar to that of the Barred Oval group. The mouths of the specimens on EE75 are fairly anomalous although they may represent a corruption of type contained on vessel WP'19 (Figure 38) which, one may recall, could not be accurately placed in the seriation due to its enigmatic style. One of the other curiosities of EE75 is that neither of its serpents contain rattles. I suspect that the reasons for this absence are two-fold. First, the vessel itself is very small, almost to the point of being considered miniature. Second, by this point in the stylistic sequence, the inclusion of every element has become less

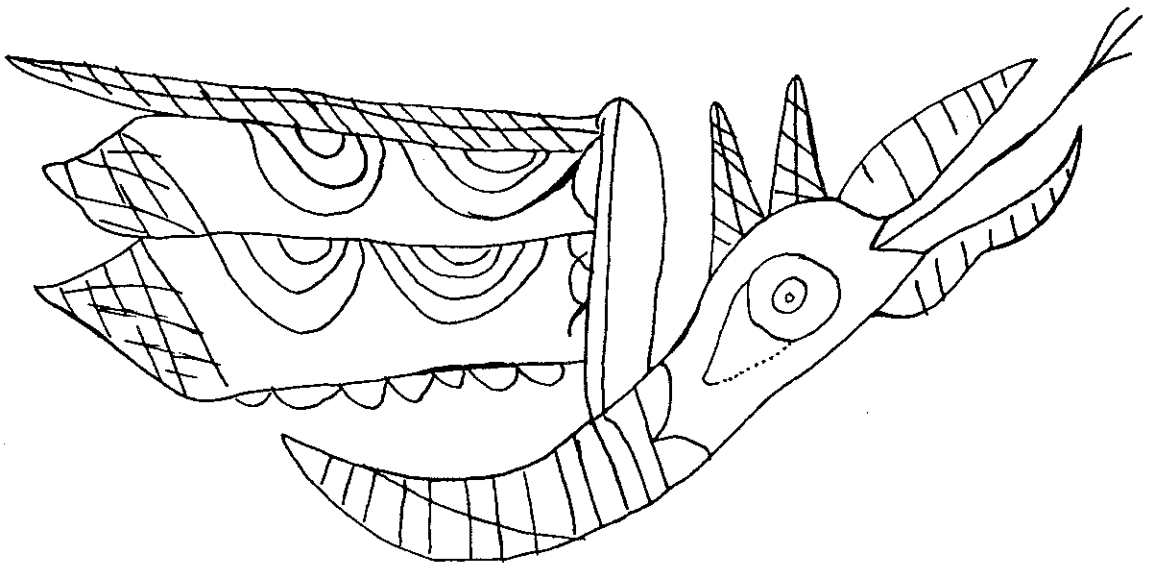


Figure 32. Vessel EE75(A); full size; drawing by Lacefield (1994:UA Image File, Document 31).

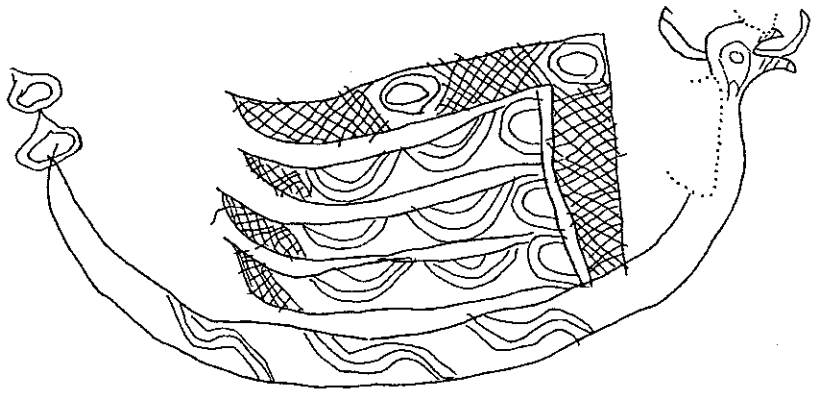
obligatory, as can be seen in other style groups in the upper portion of the seriation which omit such elements as teeth and/or tongues. In other words, it appears that the principle of additive sufficiency, as discussed in Chapter 2, is by this time in operation and has begun to affect stylistic variability. This may also be the reason that vessel NE596 possesses no body decoration except the cross-hatching on the tip of the tail.

Concerning the amount of variability in eye types, it is evident that the eyes of NE596 and SD42/M7 are closest to the traditional surround type, while those on EE75 and SWM185 are highly broken-down in nature, similar to those of the Fur-Head group (Figure 22-25). Even though the first two specimens contain the most traditional eye treatments, their style in depiction of most of the other elements is highly broken-down, disavowing an earlier placement in the seriation.

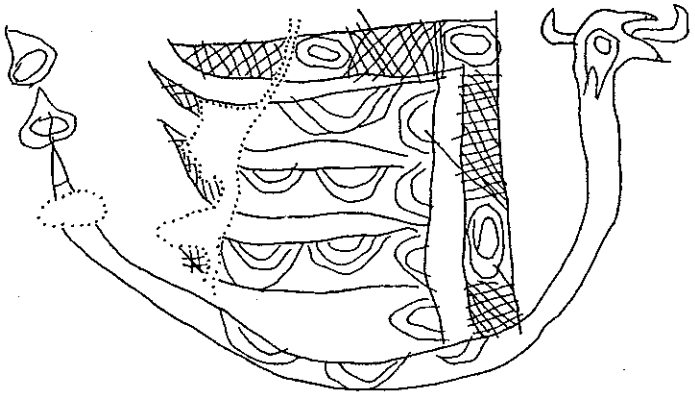
Thin Body Group

The Thin Body group represents probably the latest style in which winged serpents were depicted at Moundville. These are the most simplistic of all of the extant specimens. They contain stylistic influences and degenerative forms from many earlier groups. The style of virtually every element on each specimen is broken down or stylized. It is clear that nowhere near the amount of time, care, or imagination was applied in the execution of these serpents as was required for the production of the early style groups of the sequence. Again, holes in the seriation affect what can be said about how the specific styles of some of the elements developed.

Probably the most overarching connection between NG30, EE25, EE1, and SD8 (Figures 33-36) is the body form and decoration. The bodies are very long and slender and I believe the decoration of three of the four (NG30 has no visible body decoration) show the final degenerative forms of the step element present on NR17/M5 of the First Body group (Figure 13). The closest of these to the intermediate forms is probably EE1(A). These wavy lines are very similar to ones on Mi62 (Figure 28). I think that



(A)



(B)

Figure 33. Vessel EE1; both are one-half actual size.

serpent (B) of EE1 represents a further degeneration of this form as does EE25, which was most likely decorated by the same individual, further support for the manual placement of the latter vessel in the seriation. Additionally, serpent SD8(A) depicts another degenerative branch of this form executed by a different artist. The mouth areas, head decoration, and eyes of the Thin Body group also imply degeneration from earlier forms. For example, SD8's serpents appear to contain mouths which might be seen

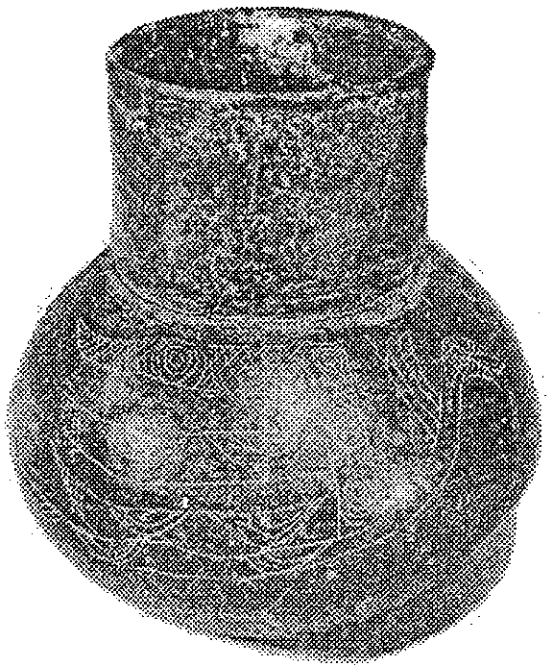
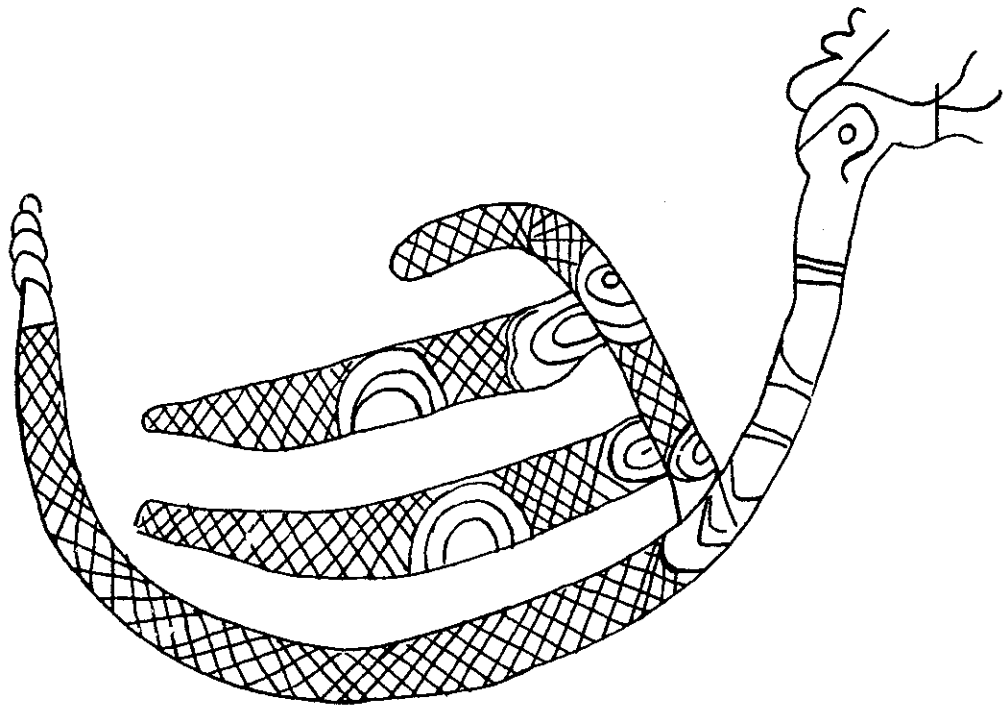
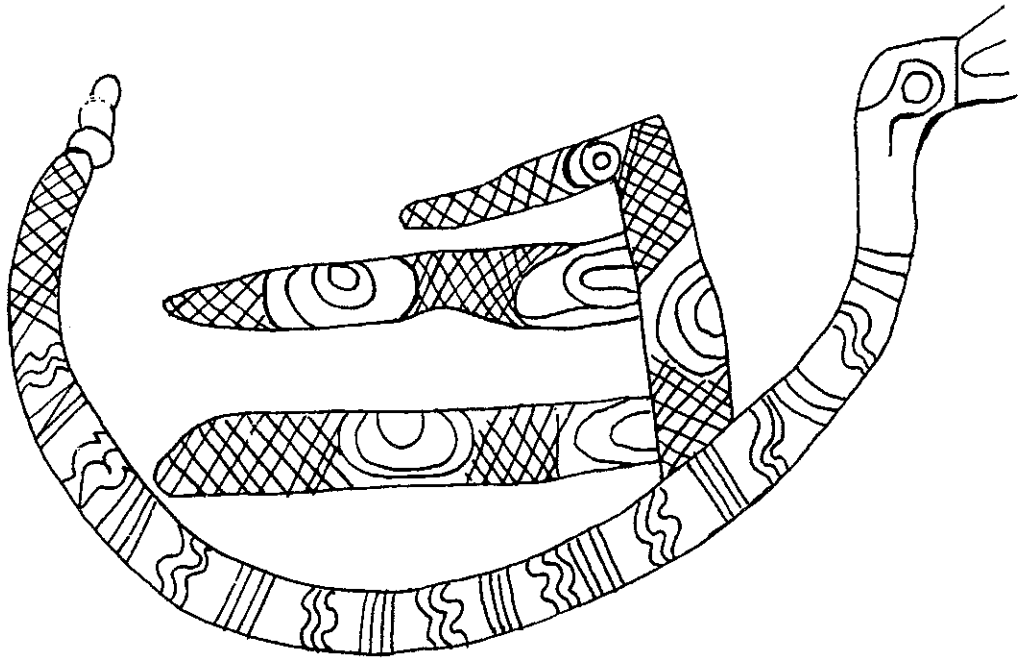


Figure 34. Vessel EE25(A); actual vessel size- h. 12.4 cm, d. 12.1 cm; from Mellown (1976:Figure 44).

as corruptions of the types seen on Mi62 (Figure 28) as well as SWM185 (Figure 30) of the Split Antlers group. The parallel lines on both jaws of the serpents on vessels EE1 and EE25 are reminiscent of the treatment of the jaws of the images on EE75 (Figure 32). Additionally, the eye of EE25 is much the same as that of EE75. The eyes in the group as a whole again show a large amount of variation. Both serpents on EE1 even possess a very traditional, although sloppy, version of the two-pronged surround while at the same time, the eyes of SD8 are very broken down versions. I suspect, in fact, that these types may represent the final corruption of the "yin/yang" treatment first represented on RW878 and NN'38 of the Second Body group (Figures 15 and 17). Vessel NG30 contains an eye consisting of two concentric circles, which is the same as the eyes of SD87/M7, SD44/M7 (Figure 10), and SD33/M7 (Figure 21). In contrast to NG30, these vessels contain some



(A)



(B)

Figure 35. Vessel SD8; both are full size; drawings by Lacefield (1994:UA Image File, Document 143).

sort of elaboration around the circles which is either implied through intricate cross-hatching or produced through the application of a projection.

As for the antlers of the group, which are on the whole poorly depicted, the forms cannot easily be traced to a specific developmental form, perhaps with the exception of NG30. This antler type appears to be a further stylization of the type present on the serpents of the Bunched Feathers group (Figures 27 and 28). The most broken-down antlers of any specimen are those on SD8(A). In this case, a simple "squiggled" line is meant to imply antlers, possibly in concert with the straight line projection in front of this element. It is also possible that this straight line was not intentional and was the result of a slip in the engraving process. The other serpent on this vessel is the only member of this group which has no antlers.

The rattle of specimen NG30, which can be seen when digitally enhanced, seems to be a simplified version of the type shown first on SD33/M7 (Figure 21)and also on NE127(B) (Figure 27) in that it is "flame-like", but the individual segments do not have concentric forms. The rattles on SD8 show similarities to both the Fur-Head group and the Split Antlers group. As for EE1, and, I believe EE25 (through digital enhancement), the forms of these rattles are probably further stylizations of the type portrayed on NE59 (Figure21) of the New Body group although there appear to be missing developmental forms. The only element of this group which depicts what is usually a diagnostic early form is the post bar band of EE1, although the coverts behind it are simplified from the multiple semicircles which normally accompany this banding. The same situation applies in the case of SWM185 and EE75 of the Split Antlers group (Figures 30 and 32). This

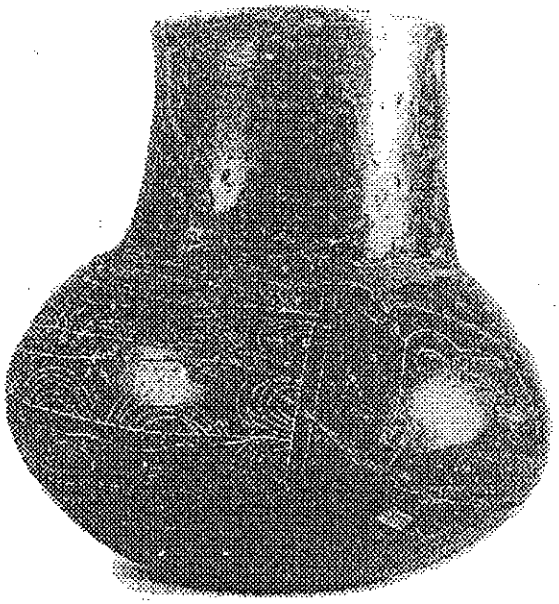


Figure 36. Vesel NG30(A); approximately one-half actual size.

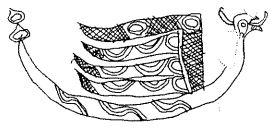
form then was still used in these late specimens but in a very broken-down manner. In most cases of the Thin Body group there is no such banding and the coverts, if present at all, are not depicted with as much care in execution as most of the earlier specimens.

Although at first glance the members of the Thin Body group appear to be highly decorated, when the style types of the elements used are compared to those of earlier specimens it can be seen that they do not reflect the same level of artistic achievement. Besides the stylized nature of the elements, most of the decoration consists of large amounts of cross-hatching or multiple concentric semicircles which are generally not wellexecuted. Elaborate and imaginative forms seem to have been discarded infavor of simple ones which almost appear to have been used to fill up space in the designs.

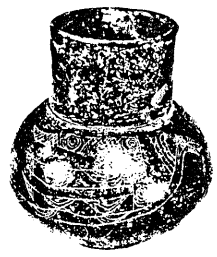
Figure 37. (Foldout-Next Page) Final seriation of Moundville's winged serpents.

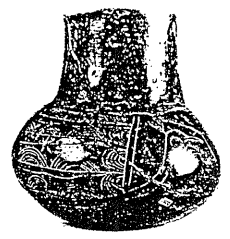
Early Moundville III Groups

As there is less continuity in style degeneration between these groups, I am treating them slightly differently here. The main problem with these groups as a whole is that they do not seem to directly emerge out earlier style phases. However, these images are placed in the positions which I feel reflect the best fit in the sequence. One can see remnants of earlier styles in certain elements in these groups but it appears that there are probably missing forms which might make connections clearer. I believe that the antlers in the Split Antlers group might have developed from a mixture of the "plume-like" style of the Pseudo Raptors and the more traditional antlers. Also, the Fur-Head style group probably developed out of a sub-style of the New Body cluster. The Thin Body group in my opinion represents the latest style in which winged serpents were engraved.

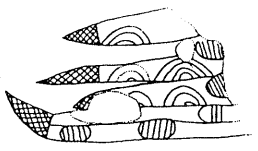

EE1


SD8

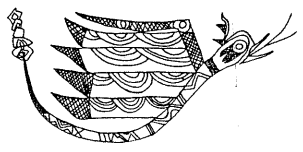

EE25


NG30

Thin Body Group

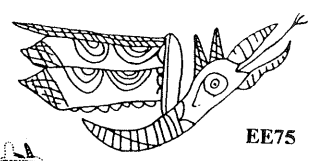

Q87

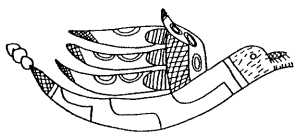

Mi431

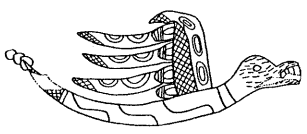


Mi62 NE127

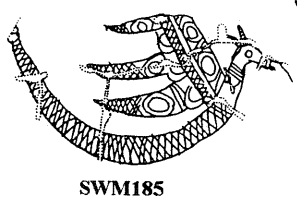

SD42


EE75




SD6


SD1

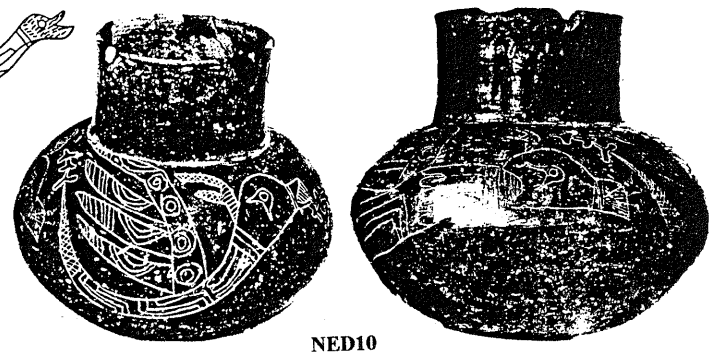

SWM185


NE596

Bunched Feathers Group

Split Antlers Group

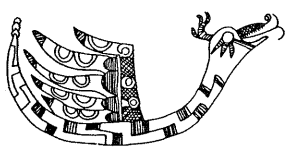
Fur-Head Group


NED10

Banded Mouth Group

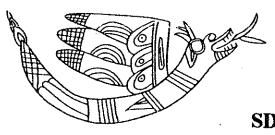
New Body Group

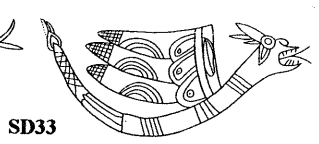
At this point, the serpents become even more stylized, especially in regard to body decoration, feather treatment, and mouth area types. The feathers on ND"B" are simplified whereas those on NE90 are elaborated.


ND"B"


NE59


NE90




SD33

Barred Oval Group

This group contains one vessel, SD33. The temporal placement of this style is problematical; however, due to overall complexity of design and stylistic features, I place it on about the same level as the New Body group.

Second Body Group

This style phase appears to be another step removed from the prototypical style, but still retains some similar features including fairly realistic antlers. The body decoration is slightly embellished from the First Body group, the majority of the rattles become more conventionalized, and a "curl-nose" feature is added. Changes are also evident in head form and decoration. Additionally, the post wingbar decoration now includes a hatched band in two of the specimens. This element is present in the Pseudo Raptor and Transitional Pseudo Raptor groups indicating some stylistic mixture.

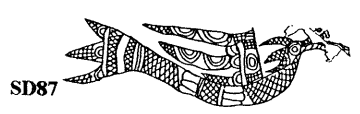

SD836


S.B.11


RW878


NN'38


SD44


SD87

Bird-Tailed Serpents Group

I see these two images as being on the same approximate level of stylistic degeneration as the Second Body group of the main line. However, the plume-like antlers and banded bird tails appear to show a development out of the Pseudo Raptor images. At this point in Moundville II, two distinct stylistic traditions begin to merge. Again, these two serpents are probably the work of the same artist.

First Body Group

I am speculating that NR17 is representative of a style group which immediately succeeds the Recurvate Atlers group. The elements of this serpent which support this proposition are the "gums" and the overall treatment of the feathers and forward wingbar. The primary difference of course is the addition of the curvilinear body. Also, note the reptilian "pouch-like" element under the jaw. The eye surround is also different and is, in fact, very similar to WR59 of the Pseudo Raptor cluster. There may be intermediate forms which we do not have but it appears that stylistic degeneration began very early in the sequence.


NR17


SD18

Transitional Pseudo Raptor Group

This style group is represented on only one vessel, SD 18. I believe that this style represents a degenerate form of the Pseudo Raptor group. Additionally, I feel that the treatment of the plumes and tail of this engraving may be an intermediate form between the Bird-Tailed Serpents group and the Pseudo Raptor group.

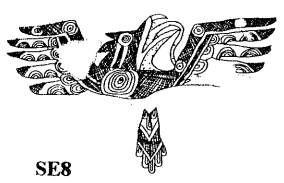

SL31


SD34

Pseudo Raptor Group

Although not strictly winged serpents, these specimens are included because I feel that they may have influenced or even given rise to certain stylistic forms in the winged serpent theme. They more than likely date to the same or similar time period as the Recurvate Antlers group and share many characteristics with those representations. The Pseudo Raptor group is so named because they are distinct from the traditional Moundville raptor theme. Indeed, these images may be an alternate form for depicting the same supernatural being as is represented by the winged serpent. These two images are another instance of common artist execution.


WR59


SE8

Recurvate Antlers Group

This style group is most likely one of the earliest forms of the winged serpent at Moundville. It is characterized by a high degree of overall elaborateness of design and naturalism in form. Similar forms are present on sherds from Mound Q in contexts which have been dated to the Moundville II phase (AD 1250-1400). These four images were almost certainly produced by a single artist.


WR81


NR30

Stylistic Implications

In spite of the fact that the vessels of the Recurvate Antlers group do not depict designs which look like snakes overall, the corresponding realistic nature of the individual salient elements have convinced me that this grouping is the earliest style in which the winged serpent images were depicted at Moundville. I believe that the depiction of these designs without bodies might involve structural influences from the Pseudo Raptor group. The connections between these groups also seem to involve iconographic issues which are more or less ideologically oriented and will be discussed in Chapter 5. However, I feel that this shift toward snakes is stylistically evident in the raptor/serpent sub-sequence and also, to some extent, in the main sequence as can be seen in Figure 37. The five or six vessels which appear to be involved in the stylistic sub-sequence terminate in the very "snake-like" designs of the Bird-Tailed Serpents group. There are also stylistic parallels in the Recurvate Antlers and Second Body groups of the main line. I would not be surprised if newly discovered examples of styles of this main sequence exhibited additional stylistic parallels. The apparent examples of forms in the upper part of the sequence which show a mixing of these two stylistic trends also supports this hypothesis, in my opinion. Again, the iconographic aspect of this suggestion will be covered in greater detail in the next chapter.

For whatever reason, at some point after the execution of the Recurvate Antlers specimens the body of a serpent was added to the subsequent designs. In effect, the *structure* of the designs begins in a somewhat conventionalized manner and then becomes more realistic. On the other hand, slight stylizations of the forms of the original

component salient elements such as mouth area, antlers, wing bar/feather formation, and rattles are evident from the start but on the whole are still highly naturalistic. Stylizations and simplifications persist generally unabated through the seriation until some of the elements are discarded and others are unidentifiable. Despite the fact that art systems need not necessarily proceed from realistic forms to stylized geometric ones as Boas (1995:273) has shown, this does appear to be the case with Moundville's winged serpents in regard to *form*. External evidence will be provided in Chapter 5 in support of this statement. The *structure* of the designs, however, appears to take the opposite path. For a short time at the beginning of the sequence the overall structures are unrealistic but they soon take on realistically shaped bodies, a manner of depiction which is prevalent throughout the rest of the sequence.

In demonstrating this stylistically in the previous section, it was shown that not all of the individual salient elements became stylized at the same rate nor did all of the salient elements persist throughout the sequence. This brings up the question of which of these elements are most indicative of particular portions of the seriation. First of all, the simple two-pronged eye surround, post bar band decoration, multiple semicircle coverts, and feathers with concentric sets of semicircles are forms which occur in similar styles in isolated instances in both the upper and lower portions of the seriation. That is not to say that these forms did not undergo stylization, it is only to say that some artists used more traditional forms even when other, more conventionalized ones were available to them. However, in each of the instances where early forms occur late, the remainder of the elements used in the designs are very stylized and support the later placement. This means

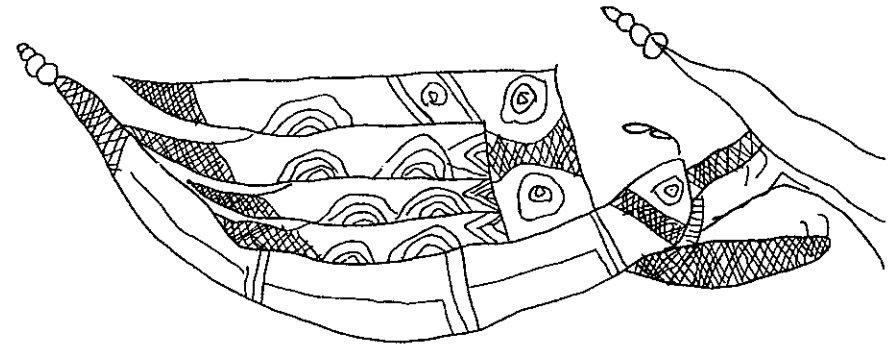
that eye, post bar bands, and covert feather types are not always good chronological indicators by themselves, even though the later examples of these elements are more sloppy and simple in execution.

The specific elements whose stylistic degeneration are most easily and completely traceable throughout the seriation are mouth area, antlers, rattles, and body decoration. The first three of these generally follow a more or less smooth pattern of degeneration at roughly the same rate. In the beginning of the seriation mouth areas are depicted realistically with "fang-like" teeth, a realistic forked tongue, and a "gums" element. These forms become more and more stylized in the lower part of the seriation and in the upper half become both stylized and simplified, in that one or all of these distinctive mouth parts are omitted. The antlers follow a similar pattern. In the lower part of the seriation they are very realistic, complete with a certain amount of recurve. By the end of the seriation they are either highly stylized, simplified, or absent. The rattles proceed from detailed and complex depictions to simple geometric forms that are very unrealistic.

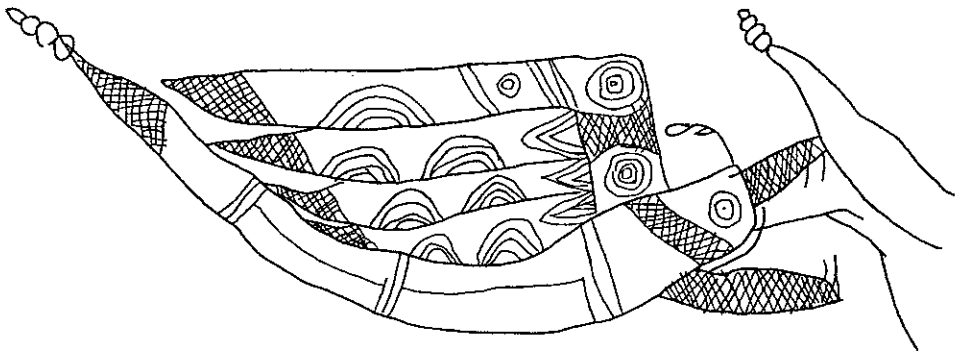
The treatment of the body decoration in general follows the same pattern. However, there are at least three instances where the type used does not match the styles of some of the other elements. One of these, vessel NED10, is not that problematical in that the stylistic distance between the position of the vessel in the seriation and the closest occurrence to the same type of body decoration is not that great. In other words, the step element is only slightly out of place in the overall style of NED10. Another problematic vessel in this respect is WP'19, one which has many other anomalies. The antlers and rattles of these serpents would be right at home up near the Thin Body group while the

body decoration is the angular step element type seen on NED10 and in the lower half of the sequence. It should be noticed, though, that this simple body decoration element survives as a secondary form on ND"B" as well as serpent SD1/M7(A).

Given the manner of depiction of the antlers, rattles, feathers, coverts, and even mouth areas of the WP'19 serpents (Figure 38), I would suggest that this vessel should



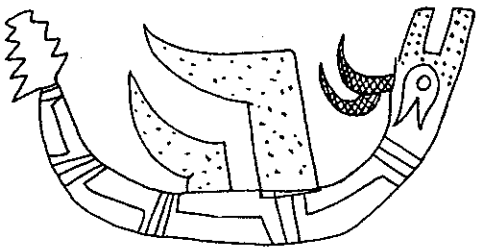
(A)



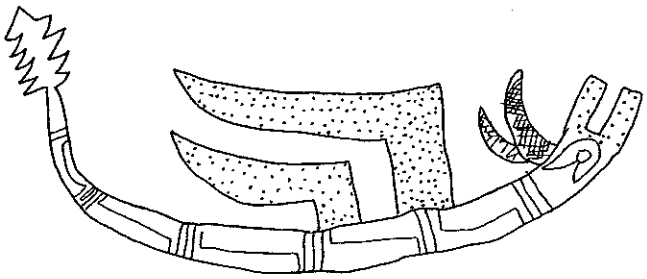
(B)

Figure 38. Vessel WP'19; both are one-half actual size.

probably be placed in the seriation at some point above the Banded Mouth group and between the Fur-Head and Bunched Feathers groups. The body decoration is somewhat out of place, but its appearance might be explained through the secondary survival of this



(A)



(B)

Figure 39. Vessel Rho 141; both are one-half actual size; (A) drawing by Lacefield (1994:UA Image File, Document 3).

form as well as the fact that is a simpler version of the same type of decoration on NED10. It appears that in certain instances the artist chose the traditional form over the more widely used conventional ones. However, at least two main branches of stylization of the traditional "step-like" form are evident. One begins with ND"B" and presumably ends with Q87. The other branch appears to end up in the S-shaped forms of serpent SD8(A) and the other vessels in the Thin Body group as described in the previous section. For these reasons there need not necessarily be any conflict with the appearance of all of these stylistic types on approximately the same level in the stylistic seriation. In regard to WP'19, it is also possible that this style is not of Moundville origin or there may be missing information which would better illustrate the placement of these images.

The last problematic vessel in regard to body decoration is Rho141 (Figure 39). I believe that the mixture of early and late style types on this vessel can be explained by the possibility of nonlocal engraving. A subglobular bottle from northern Alabama with plumed winged serpents is pictured in Fundaburk and Foreman (1957:Plate 113) which shows extensive use of punctations on the jaws and feathers. Vessel Rho141 has this same type of treatment. The mouths, feathers, and rattles of this vessel are in fact all non-Moundvillian. Even if Rho141 is not of nonlocal manufacture, it apparently includes nonlocal styles of these elements. For these reasons, I am not classifying this vessel or WP'19 as being within the Moundville style of winged serpent depiction.

Chapter 5
Chronological, Social, and Iconographical Implications

Chronological Implications

In order to test the hypothesis that the most elaborate and realistic specimens occur early in the seriation, it was necessary to consult external sources which have relevance to the stylistic development of the winged serpent theme. The first of these sources is a collection of sherds of Moundville Engraved, *variety Hemphill* pottery excavated at Moundville by Dr. Vernon J. Knight. This collection has developed out of several excavations carried out by Dr. Knight since 1989 as part of an ongoing project which seeks to establish a construction chronology for the mounds as well as an understanding of variability in use of mound summits and summit architecture (Knight 1995:3-4). An added benefit of these excavations has been the recovery of *var. Hemphill* sherds from radiocarbon dated contexts in mounds Q, E, and G (1995:6, Tables A, B). A minimum number of vessels (MNV) equal to 52 have identifiable subject matter and can be confidently assigned radiocarbon dates, the majority of which date specifically between A.D. 1350 and 1450 in the Moundville II and III phases (1995:7). Of these, 24 have been identified as winged serpents.

In examining the sherd collection, the first and foremost conclusion to be made was that the winged serpent theme was not strictly a Moundville III phenomenon as Steponaitis (1983:129, Table 30) has claimed, based on his seriation of whole vessels. In

fact, 7 of the 24 sherd specimens date to Moundville II deposits and one of these even dates to the early part of the phase (Knight 1995:7, Table A).

An examination of the styles in which the designs in which the Moundville II specimens (Figure 40) were engraved reveals the presence of several types of elements which appear in the lower half of my seriation. Perhaps the most revealing of these examples is the sherd depicted in Figure 40a. This specimen belongs to the same white filmed vessel as Figure 40b which appeared in contexts dated to the Moundville II phase. The sherd in Figure 40a contains only antlers. The style of these is highly naturalistic with extensive recurve and is the same type as those antlers in the Recurvate Antlers group. The other sherd, Figure 40b, contains double semicircle coverts which are carefully

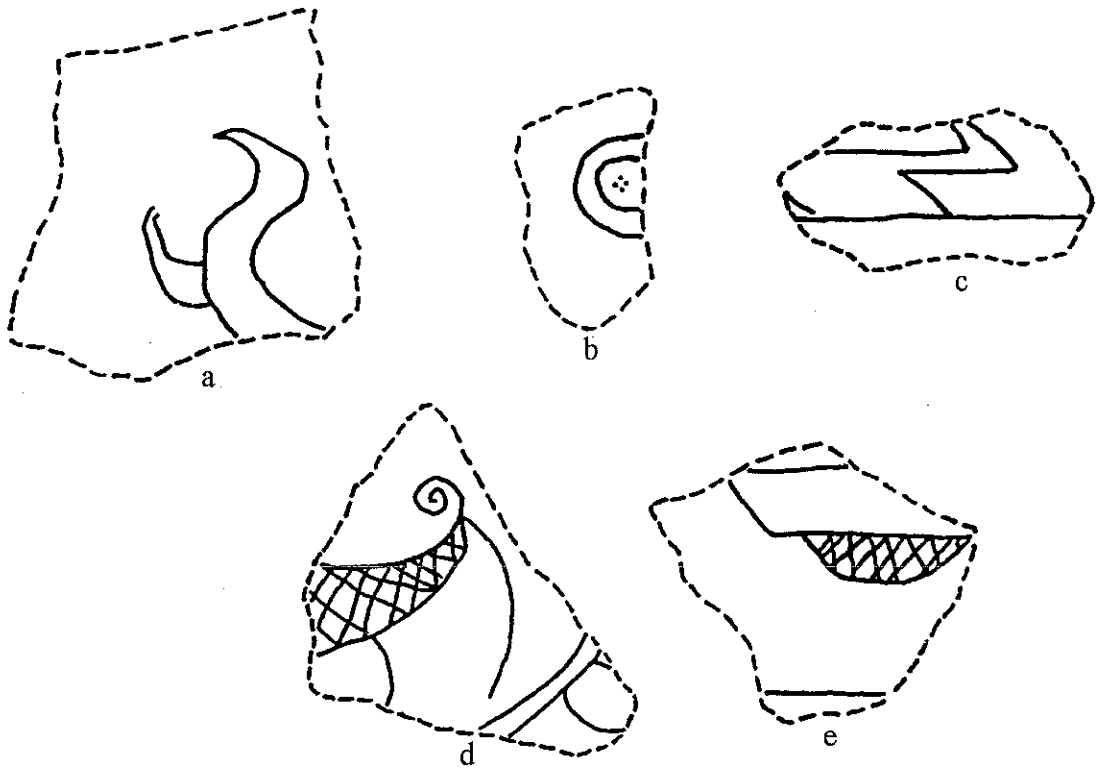


Figure 40. Moundville II phase sherds: (a) #A989.40.2508.1, (b) #A989.40.1655.1, (c) #A989.40.2375.2, (d) #A989.40.2042.2, (e) #A993.31.620.4.

executed and may have a punctation or small circle in the middle in a style similar to the coverts on SD836 (Figure 16), SD44/M7 (Figure 10b), and SD33/M7 (Figure 21). This sherd does not show the point at which the semicircles connect to the wing bar formation.

The sherd illustrated in Figure 40c also dates to Moundville II and it has a virtually complete stylized double line step element of the same type as is shown on vessel NE59 (Figure 20). The thick tongue which is also present on NE59 is similar to a portion of one on the sherd shown in Figure 40d which was recovered from contexts that date to the early Moundville II phase (ca. A.D. 1250-1375). This specimen additionally contains a portion of a cross-hatched upper jaw form with two elongated inward curving teeth which are similar to the front-most teeth on SD836 (Figure 16), although those on the sherd are single lines. Another element on this Moundville II sherd which is in a style exclusively associated with the lower portion of the seriation is the original single line "curl nose" as represented on S.B.11 (Figure 14), SD836 (Figure 16), and ND"B" (Figure 18).

Three of the other Moundville II sherds, which are not illustrate, show that the multiple semicircle element as feather decoration is definitely present in Moundville II times although this type occurs throughout the seriation. One of the Moundville II sherds, Figure 40e, depicts what appears to be a feather which has no hatching on the tip and is shaped exactly like the feather tips of SD836(B). However, the sherd feather has an almost "covert-like" semicircle element which is hatched and is suspended underneath the feather. This may be an earlier representation similar to the concentric semicircles beneath the bottom feathers of NE127. This sherd dates to contexts from the late Moundville II phase.

In sum, the Moundville II phase sherds from independently dated contexts indicate that many of the elements which are distinctive of the lower portion of my final seriation and the styles in which they were executed were being used in the engraving of winged serpents certainly between A.D. 1350-1400 if not before. Knight (1995:6-7) states that the majority of these Moundville II phase specimens date specifically to A.D. 1350-1400. None of these sherds possess a form which is only found in the upper portion of the seriation. Styles of elements which do occur in the upper half of the sequence that are present on the Moundville II sherds, such as multiple semicircle feather decoration, are not good chronological indicators because they occur throughout the seriation.

As for the Moundville III phase sherds (Figure 41), Knight (1995:7) says that all of these specimens are from contexts which date to ca. A.D. 1400-1450, or the early part of the phase. Three of these sherds show elements which are of the same style types as some of those which are only present in the upper half of the final sequence. Figure 41a shows a sherd with the same types of cross-hatched post bar band and covert feathers as are depicted on SD1/M7 and SD6/M7 of the Fur-Head group (Figures 23 and 24). Two companion sherds, which compose Field Specimen 113 (Figure 41b), also exhibit this configuration as well as portions of two concentric down-turned semicircles as feather decoration. These types of feather decorations and covert feathers are shown together on vessel Q87, which is also in the Fur-Head group in the upper portion of the seriation.

Another Moundville III sherd, Figure 41c, shows the feather decoration of the style type seen on SD1/M7 and SD6/M7. This type consists of two shallow concentric semicircles opening up. The same decoration is present on the feathers of ND"B"

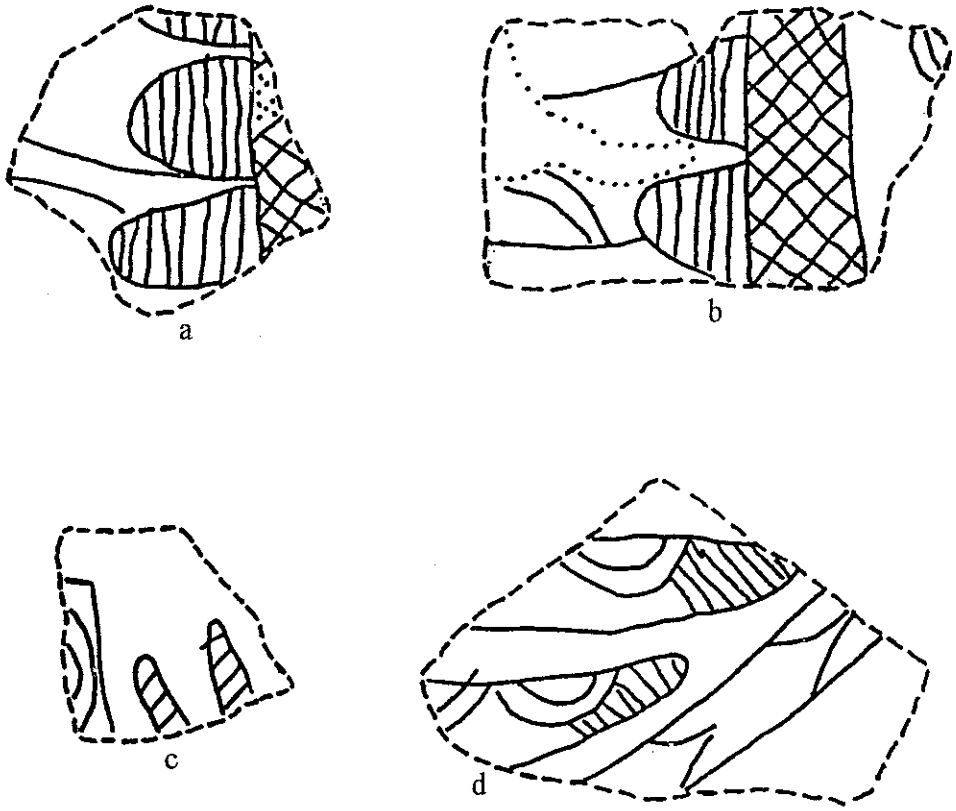


Figure 41. Moundville III phase sherds: (a) #A989.40.347.4; (b) companion sherds, field specimen 113, #A989.40.2550.2 (left) and #A989.40.3995.1 (right), break is at notch on top; (c) #A989.40.1094.1; (d) #A989.40.34.5.

(Figure 18) in the New Body group, but these are not generally as shallow as the ones in the Fur-Head group specimens (Figures 23 and 24). Figure 41c shows a sherd with approximately half of the two prongs of antlers, the type which is diagnostic of the Split Antlers group (Figures 29-32). The ones on the sherd possess the same type of parallel lines which decorate the examples on NE596 and SWM185 of the Split Antlers group.

It is true that at least three of the sherds found in Moundville III phase contexts show stylistic types which occur on vessels which almost certainly date to the Moundville II phase (Figure 42). Given the ideological and religious nature of these designs and the SECC art in general, I see no reason why many of these pots could not have been

"curated" from late Moundville II times into Moundville III. After all, most of the Moundville II winged serpents appear to have been produced within a period of about 50 years, and the same seems to be true for the Moundville III serpents which probably ceased being made by about A.D. 1450 (Knight 1995:6-7, personal communication 1997).

Brain and Phillips (1996:129) have recently spoken out about how archaeologists too often use the idea of "heirlooming" of ceremonial items to rationalize chronological conflicts. I believe that in the case of *variety Hemphill* serpents at Moundville, the stylistic data may support the practice of heirlooming, at least along the order of a generation. This would explain the sudden use of a traditional early form of an element on a vessel which, given the stylized nature of the other elements, obviously seriates late. These traditional forms may have been copied by a few artists who were privy to seeing these early forms.

In addition to the whole vessels to be discussed below, the sherd data may also support this suggestion. While it is not unusual for earlier phase sherds to show up in later contexts, I wish to discuss the stylistic data on the sherds which are out of place in the early Moundville phase III as possible support for the "heirlooming" of whole vessels to be discussed briefly below. The sherd in Figure 42a shows the head of one specimen and the tail and rattle of the other. This design was most likely engraved by the same artist which produced vessel RW878 (Figure 15). The distinctive head shape is the same on both the whole vessel and the sherd. I feel that the sherd is stylistically earlier than the serpents on the vessel. The teeth are more similar to fangs in that they are short and

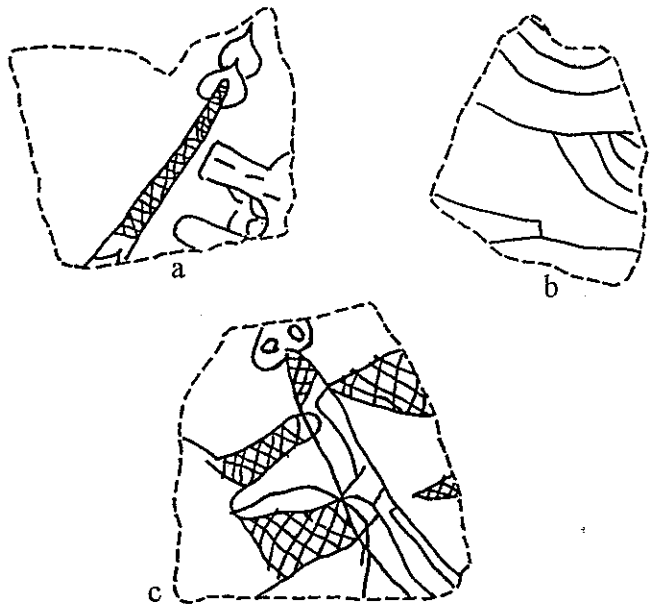


Figure 42. Moundville III phase sherds with elements in the Moundville II phase style: (a) #A989.40.35.4, (b) #A989.40.1128.1, (c) #A989.40.1160.2.

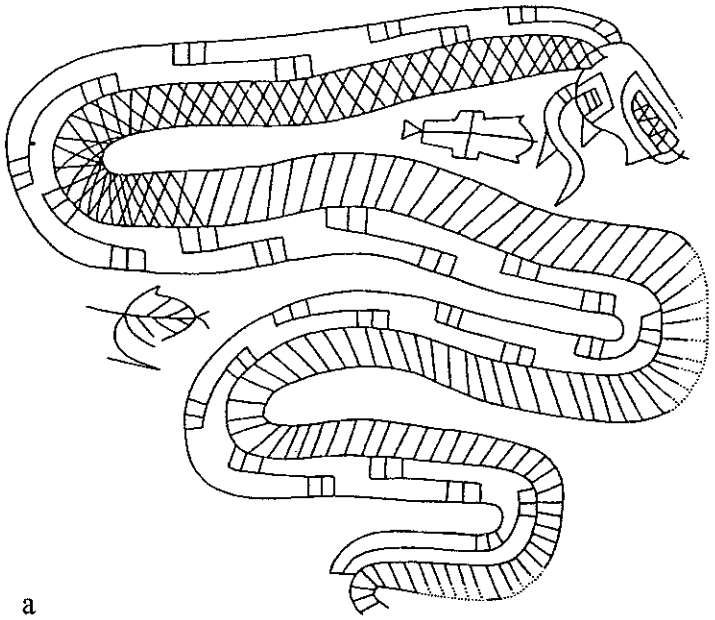
curved inward. The two visible rattle segments of the other serpent may also be an earlier form from which the artist strayed on the RW878 serpents. The rattle type on the sherd appears to be in the line of stylistic degeneration from S.B.11 (Figure 14) to SD1/M7 and SD6/M7 (Figures 23 and 24) but its form is closer to S.B.11.

Two other Moundville III context sherds show distinctive early forms. One, (Figure 42b), contains the feather notch as shown in the Second Body, Recurvate Antlers, and Pseudo Raptor groups. This stylistic element occurs on none of the later style groups. The other sherd (Figure 42c) preserves the first segment of a rattle which is similar to that of NR17 (Figure 13) in that it has the two circular elements in the lobes *in addition to* having both the single-line and double-line step element as body decoration. Even though the mouth has no teeth and only a tongue, I would probably place this specimen in the Second Body style or possibly as an intermediate style between this group and the New

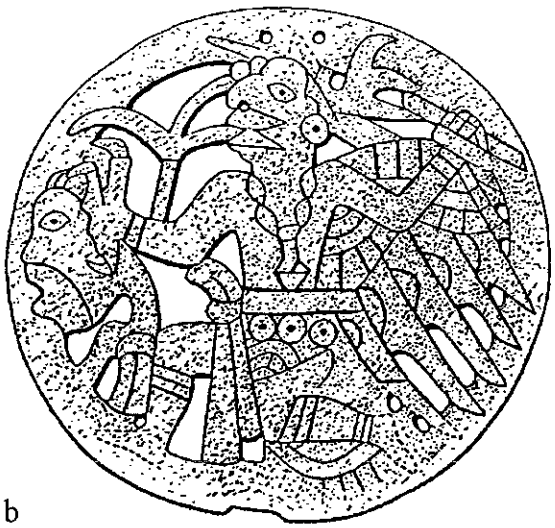
Body group in the lower portion of the seriation. I would suggest then that the pots represented by this specimen, and the two others I mentioned, might very well have been kept for several years before being deposited in the Moundville III contexts.

Most of the bottles on which the winged serpents are found are chipped, scarred, and eroded. In fact, many are eroded and worn to such a degree that portions of the designs are difficult to discern. Taft (1996:49) suggests that wide neck bottles of this sort were most likely used for individual use or temporary storage for liquids. Since these vessels contain religious imagery they would have probably been used for ceremonial activities (Dye 1997; Knight 1986; Welch and Scarry 1995). It is interesting to note that vessel SD42/M7 (Figure 31) discovered by Moore (1907:375-376) exhibits a high degree of wear around the neck as if it were suspended for long periods of time.

Given the nature of the sherd data which I have described, it appears to me that the seriation can roughly be divided into halves with the New Body and Barred Oval groups and those below representing the early portion. I suggest that these vessels were engraved in the Moundville II phase, probably between ca. A.D. 1300-1400, with the majority falling into the second half of this period. Those style groups beginning with the Banded Mouth group (and *possibly* even the New Body group) and above were most likely produced after A.D. 1400 and probably not much later than ca. A.D. 1450. The early style groups of my seriation most closely resemble the Braden style of artwork (Figure 43) first defined by Phillips and Brown (1978) that is now believed to epitomize the SECC (Brown 1989). Figure 43a shows a Braden B serpent from Spiro which exhibits recurved antlers of the type present on SD836 from Moundville (Figure 16), complete with the



a



b

Figure 43. Styles similar to Moundville II phase style: (a) Spiro serpent in the Braden B style, approximately full size, from Phillips and Brown (1978:Plate 80); (b) "eagle dancer" gorget from Etowah, Mound C, approximately full size, from Moorehead (1932:Figure 26a).

basal tine. The Spiro serpent also displays a body decoration of the same type as shown on ND"B" from Moundville (Figure 18) while a separate Spiroan image (Phillips and Brown 1978:Plate 82) shows the double line step element as body decoration present on Moundville's NR17 (Figure 13) and RW878 (Figure 15).

Several additional examples from Spiro's Braden B art contain these types of elements as well as others, such as the "three fingers" motif (1978:Plate 78). This motif is engraved on the bodies of Moundville serpents from vessels SD87/M7 (Figure 10a) and SD33/M7 (Figure 21). Refined chronological information now places much of the "Braden-like" style artwork in the fourteenth century A.D. at Spiro, Etowah, Cahokia, and Moundville (Brown and Kelly 1996; King 1994; Knight 1995; Knight and Steponaitis 1996). In regard to similarities with Spiro engraved shell, the Moundville style of engraved pottery has been characterized as being most similar to the Braden B style phase at this site (Phillips and Brown 1978:195). At Etowah, similarities can be seen on some of the materials from Mound C (Figure 43b), which was apparently sealed off no later than around A.D. 1375 (King 1994).

If my seriation is accurate, the portion of the gravelot seriation provided by Steponaitis (1983:91) which orders these vessels should be interpreted cautiously, since many of the early styles post-date some of the later ones, according to the seriation. However, some of the burial associations of the winged serpent vessels may indeed be further support for the suggestion that many of these vessels were used year after year for extended periods of time before becoming a part of the archaeological record. Vessels WR81 (Figure 11), SD836 (Figure 16), NN'38 (Figure 17), and SD33/M7 (Figure 21) are

all placed very late in Steponaitis's seriation of burials containing *var. Hemphill* pottery, yet they are all early stylistic forms. The refined chronological information obtained from winged serpent sherds from dated contexts at Moundville (Knight 1995) must also be taken into account.

Social Implications

At this point I wish to make a few observations which I feel are pertinent to the stylistic variability exhibited in Moundville's winged serpents. According to Knight and Steponaitis (1996:20) the general populace of Moundville was evacuated from the primary center and spread throughout the polity by A.D. 1400 if not earlier. The pattern appears to have been that the higher ranking individuals, mostly concentrated at the northern end of the site, remained at Moundville while the majority of the mounds on the southern margin were abandoned. Given the number of off mound burials which apparently date to this period, it seems as though much of the valley population was returned to Moundville for burial, in effect turning the site into a "necropolis" (Knight and Steponaitis 1996:19).

The expanded amount of variability in the upper half of the winged serpent seriation which appears to date to after A.D. 1400 may in fact be a result of this emptying of the site. It is entirely possible that some of these winged serpents were being engraved away from the primary center by artists who were dispersed throughout the Black Warrior Valley, the pots being returned to Moundville as burial accoutrements. It might well have been the case that very few of these artists had ever had access to engravings of the early portion of the seriation which appear to have been influenced by the Braden style of artwork.

At least the early style groups probably were produced in workshop situations by a very few number of potters (Welch 1991:144). The smaller amount of stylistic variability in these early style groups and the four instances of one individual engraving multiple vessels (Table 1) tend to support the hypothesis that few potters were at work. Those style groups in the upper half of the seriation which exhibit the greatest amount of stylistic continuity may have been produced in the same manner. There are two recognizable instances in these later groups where one artist engraved two vessels. I would estimate that probably no more that four or five artists were engraving these early vessels at any one time in the fourteenth century. This is probably also true of the crested bird theme examined by Lacefield (1995). However, the degree of stylistic degeneration in the winged serpent theme is much greater than that of the crested birds, and this might be the result of the emptying of the primary center.

Iconographic Implications

Since the formulation of my final seriation, it has been pointed out to me by my advisor, Dr. Vernon J. Knight, that one of Moundville's composite "monsters" possesses, among characteristics of other animals, raptor, crested bird, and winged serpent elements (Vernon J. Knight, personal communication 1997). This image, vessel SD805 (Figure 44a), shows three elements shared by winged serpents of the early style; the "gum-like" element, "throat pouch", and recurvate antlers. The crested bird element is the tail feather device and the raptor characteristic is represented by the claws. The tail feather device is the same type as Lacefield's "group one", placing it in the late Moundville II phase

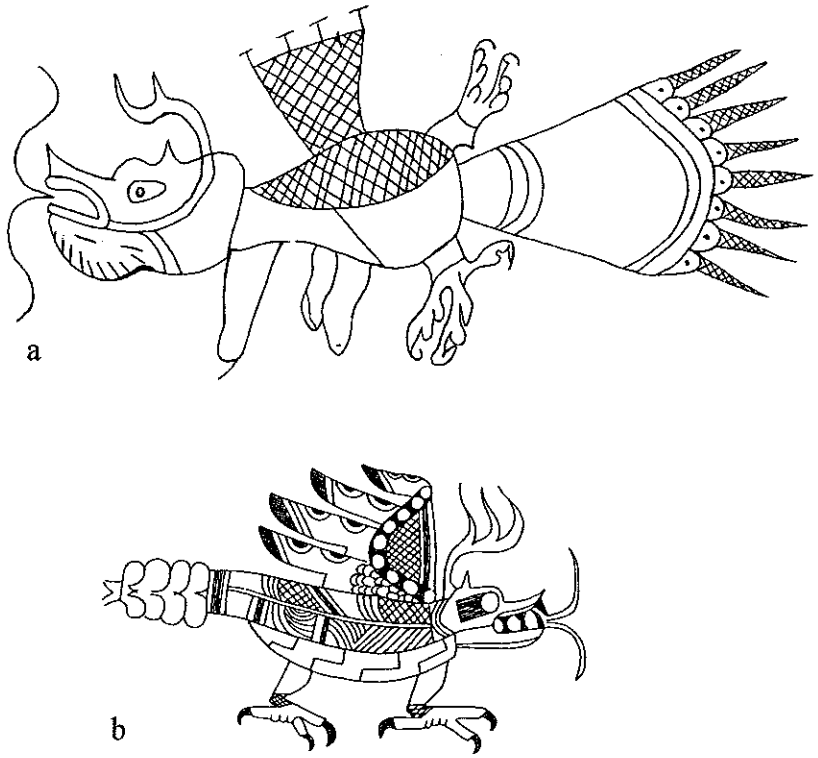


Figure 44. Composite Southeastern "monsters": (a) Moundville vessel SD805, one-half actual size, drawing by Lacefield (1994:UA Image File, Document 12); (b) Gilcrease "monster" from Arkansas, unsure of scale, from Phillips and Brown (1978:Plate 80).

(1995:Figure 5.3, 63) (Figure 2). This provides further chronological support for the placement of the aforementioned winged serpent element styles in the Moundville II phase.

The "monster" on vessel SD805 seems to be a variant of the supernatural character represented by the Gilcrease "monster" (Figure 44b) from Arkansas which is discussed by Phillips and Brown (1978:Plate 80). This supernatural has been described as an example of the Piasa theme which is prevalent in the Craig school of engraving at Spiro

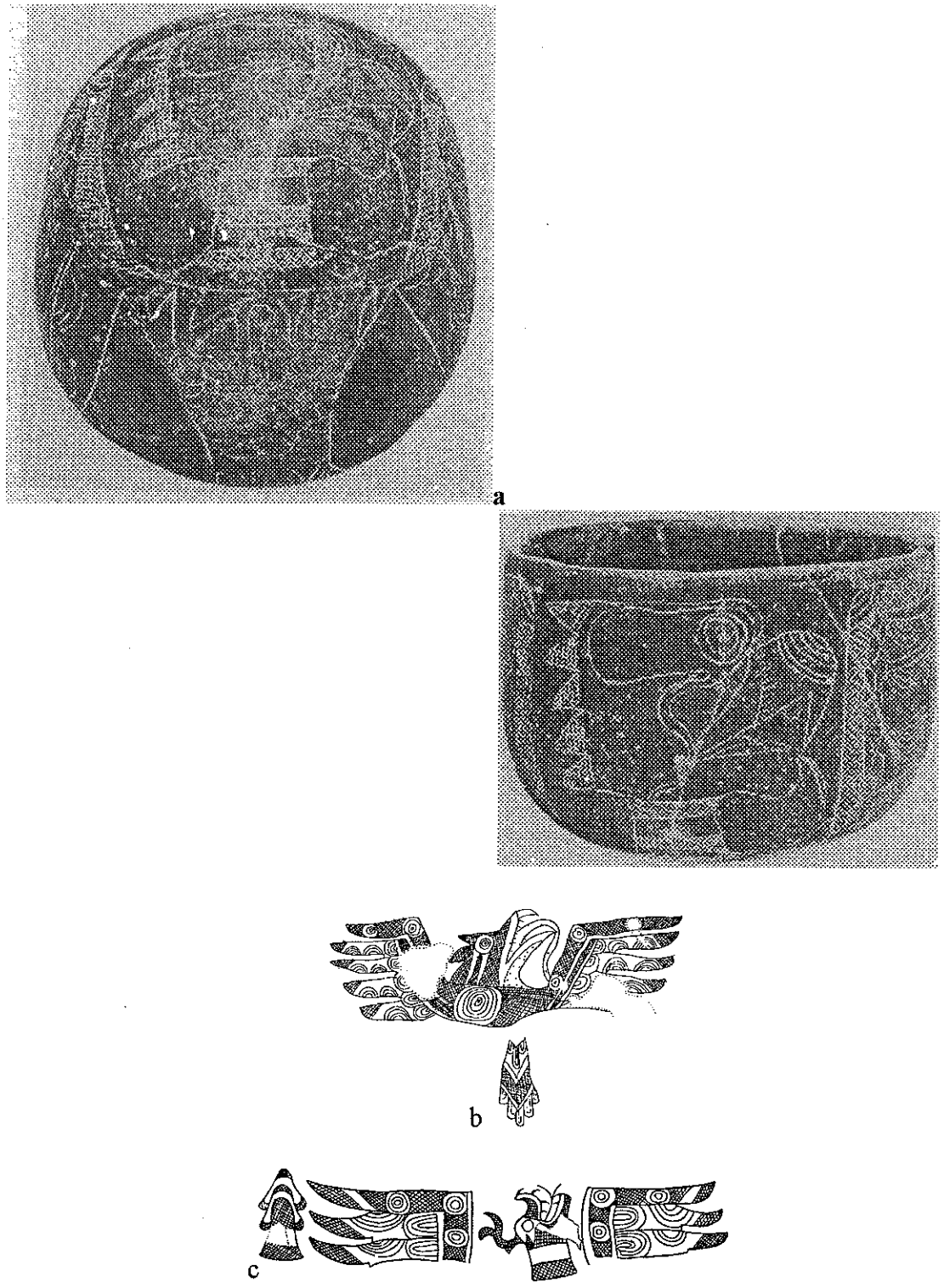


Figure 45. Illustration of similarities between Moundville imagery: (a) true raptor, vessel EE416, actual size- h. 8.3 cm d. 11.9 cm, from Futato and Knight (1986:83); (b) pseudo raptor, vessel SE8; (c) winged serpent, vessel SD34, from Moore (1907:Figure 56).

(1978:140). Interestingly, several Braden B shell cups from Spiro also show variants of this theme (1978:140). In fact, several elements of the Braden B serpent shown in Figure 43a, such as the recurved antlers with an additional small tine, are compared by Phillips and Brown to those of the Gilcrease "monster" (1978:Plate 80). The authors have suggested that four other Braden B cups from Spiro with serpentine images are very similar to the Piasa theme as well as to Craig B cup 229 (1978:140-141, Plates 68, 73, 76, 81, Figure 204). These similarities may be purely stylistic borrowings between themes or they may have iconographic significance. Vessel SD805 from Moundville may indicate an iconographic connection with the raptors and winged serpents, at least at Moundville, as will be discussed presently.

Although the relation of the images which I have referred to as pseudo raptors to the true Moundville raptors is not well understood, I suspect that there might be an iconographic link between the two. A *var. Hemphill* cylindrical bowl, EE416 (Figure 45a), shows a true raptor in the round in which the entire wing device is depicted in a manner very similar to the Pseudo Raptor and Recurvate Antlers groups, examples of which are also shown (Figures 45b, c). I suspect that these images are all representative of the same or similar style phase of the sequence which eventually merge stylistically, and presumably iconographically with the traditional winged serpent design. Figure 46 shows the raptor/serpent sub-sequence to which I have added, for comparative purposes, the "winged serpent-like" raptor, O9/M5, and the raptor of vessel EE416. Notice that the body of the image on EE416 is portrayed on the *bottom* of the bowl.

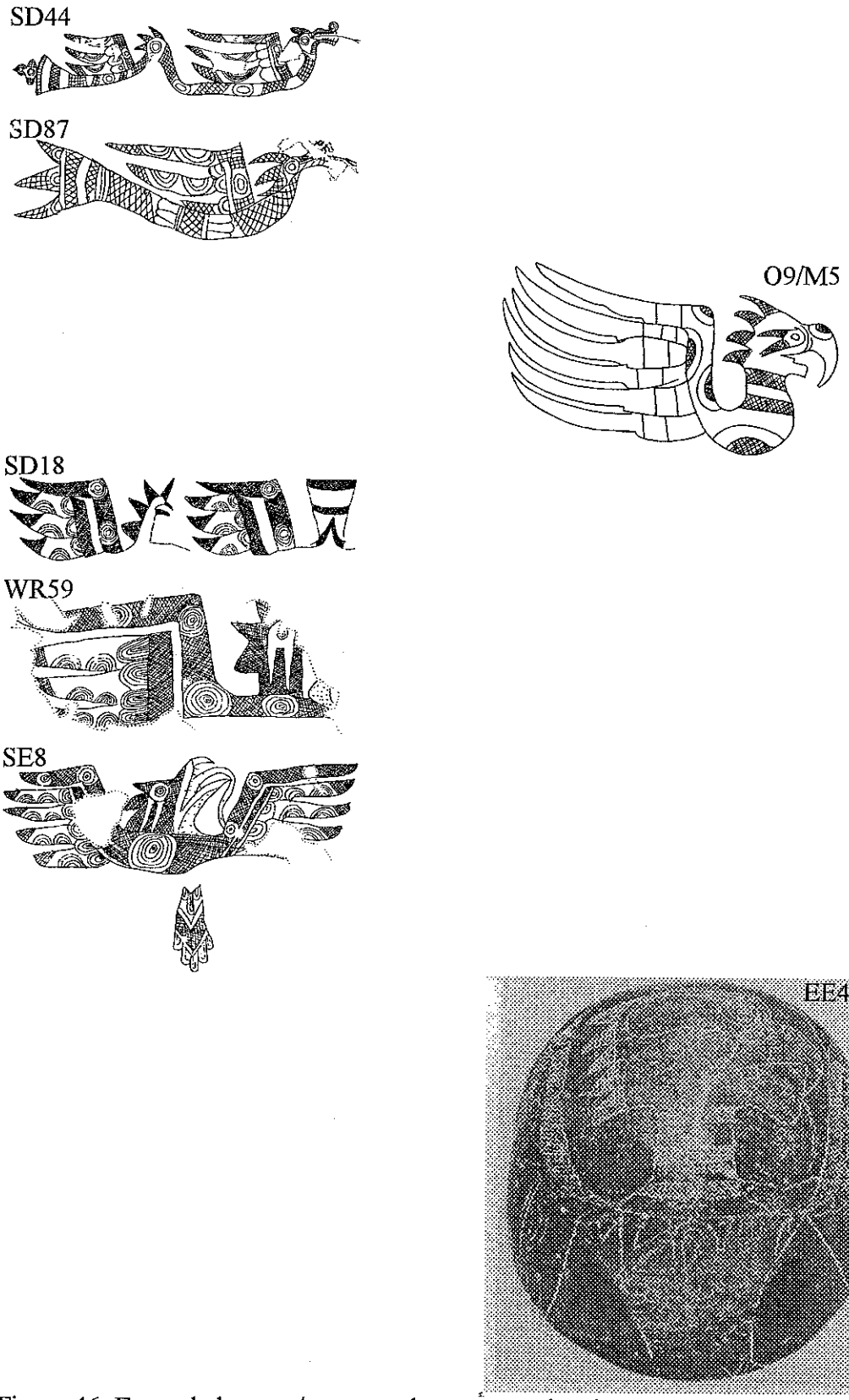


Figure 46. Expanded raptor/serpent sub-sequence showing possible connections between winged serpents and raptors, with relative stylistic positions indicated (bottom is earliest).

In my opinion, the raptor/serpent sub-sequence consisting of the Pseudo Raptor, Transitional Pseudo Raptor, and the Bird-Tailed Serpents groups constitute a stylistic branch which mixes elements of the winged serpent and raptor themes, in effect providing a "bridge" between these two distinct types of subject matter. This indicates to me that itis highly possible that they represent the same supernatural. If these two themes portraying serpents and birds are in fact linked at Moundville, this has implications not only at this site, but also at many others in eastern North America with composite serpent/bird/mammal imagery. In fact, the Moundville variant of the Piasa "monster", vessel SD805, may also be tied in iconographically with this supernatural. I speculate that this image may represent all aspects of this being in one image.

If all of these images do represent the same supernatural, perhaps the identification of this creature is the ruler of the "Beneath/Water World" as suggested by Lankford (1996). According to Lankford's model, this supernatural is associated with all earthly waters as well as with the celestial realm of the Path of Souls in the Land of the Dead (1996:18, 23). The various manifestations of this supernatural (e.g., as snake, bird, or other composite "monster") may simply be alternate ways of depicting this specific creature and/or they may represent different aspects of roles of the supernatural.

Clearly, a better understanding of the chronology of the raptor theme at Moundville is needed. Steponaitis (1983:Table 13) suggests that this thematic material dates from the Moundville III phase, but was possibly present in Moundville II. Given the similarities of vessel 416 to the Pseudo Raptor and Recurvate Antlers groups, I suggest that this theme may very well have been present at the site in Moundville II times. The bodiless structures of the Pseudo Raptor and Recurvate Antlers groups might have even

degenerated from the structure of design shown on EE416, where the body is presented on the body of the vessel. Knight's preliminary sherd data indicate, for Mounds Q, E, and G, that there might have been a thematic shift "toward snakes, away from birds" around the time of the Moundville II-III transition (1995:7). If more were known concerning the specific stylistic and chronological distributions of the raptor theme at Moundville, we would be in a better position to evaluate the specific relationships between the raptor and winged serpent themes at the site.

In other words, we cannot determine at this point if the winged serpent forms and the true Moundville raptor forms coexisted for an extended period of time. If this was the case, then the raptor/serpent sub-sequence which I have formulated may simply represent a stylistic variant which eventually merged with the more numerous winged serpent variant. On the other hand, if the true raptor forms occurred around the beginning of the sequence, or even earlier, then the possibility arises that the raptor theme gave way to the winged serpent theme in depicting this supernatural being. Of course, these options are most significant only if these two themes are iconographically linked as I have suggested.

We do have a fairly good understanding of the stylistic and chronological parameters of the crested bird theme; however, this theme is thought to have a different ideological association from the winged serpents. Much of the crested bird imagery of the SECC in general is thought to be associated with the mythological Thunderbirds and the four winds (Lankford 1987:72, 76-79, 247; Lankford 1997). Additionally, there are no good stylistic connections between the crested birds and the winged serpents at Moundville which might indicate an iconographic connection as appears to be the case between the serpents and the raptors from the site.

Lest I wander too far afield, I will now examine the specific iconographic implications of the stylistic seriation. The stylized and simplified forms depicted in the upper portion of the seriation should be seen as representing the same concept as the naturalistic, prototypical forms. For example, the highly stylized antlers of NG30 (Figure 36) should be seen as representing the naturalistic antlers of the Recurvate Antlers group. Additionally, given the stylistic connections to the raptor/serpent sub-sequence, the possibility that these stylized antlers also represent the same idea as the plumes of the Pseudo Raptor group must be considered. Indeed, all of the stylized forms of specific elements toward the end of the winged serpent seriation should then be seen as being relevant iconographically to early prototypical forms of those images which are considered as winged serpents and those which are pseudo raptors.

Other specific situations occur in this seriation that seem to indicate that one form is replaced by another form which is different in natural prototype (at least for us), but apparently is intended to represent the same idea. This seems to be that case with the Fur-Head group where the dash marks appear to take the place of the deer antlers. It is thought that these lines represent fur. If this is so, this decorative element may have substituted for the antlers in emphasizing the mammalian characteristics of the supernatural. Other examples of this kind of substitution may be the throat lines and the "curl nose" element. The throat lines element may have been intended to emphasize a reptilian "throat pouch" (Vernon J. Knight, personal communication 1997). If so, it may have served to emphasize the "snakiness" of the creature in the face of the less naturalistic depictions of the fangs, forked tongue, and rattles, as well as the loss of the "gum-like" element. The same or similar situation may be true in regard to the "curl nose" element.

As mentioned above, Lankford (1996) has identified Moundville's winged serpents with the Beneath/Water World supernatural prevalent in the mythology of native groups of the Eastern Woodlands. The natural prototype for the "curl nose" design is not known but it may conceivably represent smoke or vapor. It is possible that both the "throat pouch" and "curl nose" forms came to be used to emphasize the "reptileness" of the supernatural in the face of the disappearance of the realistic reptile mouth area.

Many of the other elements in the winged serpent designs, such as the concentric circles (ovals) and semicircles, appear to be purely decorative when they are depicted on wing bars, feathers, and bodies. The highly variable way in which these elements are represented seems to support this assumption but they may indeed reference specific natural prototypes of bird markings. Additionally, these designs may have had some sort of ideological significance for their creators/users. The true ideological significance of these designs is beyond the scope of this research, but I believe that these iconographic implications must be acknowledged and understood by scholars who are dealing with questions such as these.

Chapter 6
Conclusions and Implications for Future Research

The intent of this research has been to formulate an understanding of the stylistic variation among Moundville's winged serpent theme on engraved pottery by establishing a developmental sequence for the styles of depiction of these designs. By extension, this study is intended to contribute to a description of the Moundville style of engraved pottery. Although it is beyond the scope of this project, extensive comparisons to the stylistic renderings of this subject matter in the art of other sites and regions are of obvious value for interpretations concerning the nature and distribution of the SECC. At this time, research into these types of broad comparisons is being performed and I hope that this study will be useful to such research. Although I will not attempt to describe the overall style of Moundville Engraved, *var. Hemphill* pottery, I would like to sum up my observations concerning the winged serpents which I feel may be useful to future studies.

1. *Beginning in the Moundville II phase* individual elements and/or overall designs were depicted in a more or less naturalistic manner. This early style of depiction is similar in many respects to "Braden-like" art prevalent in the SECC. The images immediately began to degenerate into broken down, stylized, and more sloppy depictions, especially during the Moundville III phase. This late style typically does not exhibit "Braden-like" attributes.

2. In regard to particular elements, those which appear to be most indicative of particular style phase are the antlers and rattles. The use of the sequence [blank + hatched $\pm$ blank] for post bar banding and neck banding occurs generally in the first half of the seriation. The two exceptions are vessels NE596 and SWM185. The mouth areas, eyes, and body decoration can also be used to indicate phase but since early types of these elements can also appear later in the sequence they are not as sensitive or reliable as antlers and rattles. The "gums" element, feather band, and probably the feather notch are early stylistic attributes. In the upper half of the seriation extensive cross-hatching can take the place of the more common types of body decoration or the body area may be left blank. Tips of feathers and tails are generally cross-hatched. Overall, the type and amount of cross-hatching seems purely decorative and is not very sensitive to stylistic degeneration. The type and configuration of concentric elements as decoration on wing bars and feathers does not seem to be indicative of style groupings. The type and configuration of *covert feathers* are indicative in some situations.

3. The amount of overall stylistic degeneration and variability in the winged serpent sample appears to be greater than that which occurs in the crested bird theme. This may be related to changes in social organization which are evident around the Moundville II-III transition.

4. The designs represented structurally in the round appear only in the early part of the sequence. In effect, the *structures* of the winged serpent designs began in a stylized manner and proceeded to a more naturalistic body structure.

5. Iconographic issues appear to influence style of depiction throughout the sequence in regard to the presence or absence of such elements as "gums", "fang-like" teeth, "curl nose", and even antlers. This may indicate the presence (conscious or unconscious) of a concept of additive sufficiency.

6. It appears that there may be both stylistic and iconographic connections between the winged serpent and raptor themes at the site, the specific nature and significance of which is not known at this time.

I would like to address the position of the winged serpent theme within the larger corpus of Moundville Engraved, *var. Hemphill* representational art by commenting on a previous list of general characteristics for the style of these images. Lacefield (1995:78) offers a tentative list of general characteristics for the *var. Hemphill* style: 1) "...conservative range of figural depiction;" 2) "...sparing use of cross-hatching;" 3) "...little regard for the design field." The first item contains four specific explanatory statements, three of which are applicable to the winged serpents. These three statements generally seem to be supported by the stylistic analysis, although some qualifications are indicated. The first one is that the winged serpents have a U-shaped body. This is true for all style groups except for the Recurvate Antlers group, which is the earliest in the seriation and which appears to have the most connections to other subject matter. It might have been the case that the curved bottoms of the vessels were intended to imply curved or U-shaped bodies in this group. The second sub-statement is that "dorsal/ventral distinctions are minor." As I have indicated above, only one of the winged serpent images possesses this distinction fully (SD1[A]). The final descriptive statement of the first characteristic is that "There are no seriously abstracted or ornate forms." This is, of

course, a relative statement and when *var. Hemphill* art is compared to the shell engravings from Spiro it is certainly true, even though one particular vessel (EE75) possesses fairly abstract serpents. As I mentioned previously, this may have something to do with the size of the vessel on which they are portrayed. In any case, all of the winged serpents are easily recognizable as such in the context of the theme. The ornateness of the designs is also relative in the same respect. Additionally, the fact that stylistic degeneration and variability occur very early in the sequence might imply conscious or even unconscious attempts by a small number of artists to distinguish their works from others being produced.

Concerning the amount of cross-hatching (number 2 above), the winged serpents probably display the most of any of Moundville's subject matter. This is certainly not an integral component of the representation of serpents at the site, and, as I have made clear above, the use of cross-hatching is apparently very idiosyncratic. In some instances, though, the placement and amount of hatching appears to be stylistically telling, as on the bodies of SWM185 and SD8(A).

The third of Lacefield's characteristics, little regard for the design field, is not wholly correct when it comes to the winged serpents. In most cases the entire design is visible on the curvilinear side wall of the subglobular bottles. In only a few instances do the bodies of the serpents extend onto the base of the vessel. There are even fewer instances of the antlers or rattles extending onto the neck of the vessel and when they do, it is only slightly. In general, the serpents are engraved in a horizontal position trailing each other around the body of the vessel. The trailing feather of the wing bar on many of the well executed designs curves consistently with the neck line of the vessel (e.g.,

NN'38). Overall, I submit that the winged serpents do conform fairly well to the design field. I suspect that the depiction of these supernatural creatures on globular vessel forms may have ideological implications concerning the nature and shape of the universe and the functions of particular supernaturals in the universal order. This type of concept has recently been described as framing the contents of the vessel (Dye 1997).

Since there is a large amount of stylistic variability even early in the sequence, I do not feel that an attempt to describe the "standard" treatment of a Moundville winged serpent is particularly valuable, or even appropriate at this specific level of stylistic analysis. I have not attempted here to define the Moundville style and have only been concerned with the *stylistic development* of one theme. Therefore, I have only a few additional statements to make concerning the position of the winged serpents in the larger thematic context of Moundville representational art. In regard to both complexity of design and number of specimens, the winged serpent theme is of the highest importance in Moundville's representational art on pottery. This likely has important implications concerning the place of the theme in the religious and/or "cultic" system(s) of its prehistoric makers. Additionally, the stylistic and iconographic relationships between themes are equally important. I have only touched on the possible existence of such a relationship between the winged serpents and the raptors at Moundville. I feel that further study in this direction is appropriate at Moundville and may indeed help to explain the reasons for the fairly limited thematic variation at the site when compared to other sites such as Spiro. Understanding such aspects of the art is crucial to investigations of the nature of this material in the cultural systems of eastern North America, as Phillips and Brown (1978:198) have previously indicated.

This study has also provided information which I feel is highly relevant to general models dealing with the distribution of the SECC. It seems evident that the more "Braden-like" style of winged serpents fall chronologically toward the end of what Brown and Kelly (1996:14-19) have described as the "Copper-Dominated Horizon" (CDH) (ca. 1250-1350). My research appears to support, at least in part, the contention that styles of art which were executed during the CDH at Etowah, Moundville, and Spiro influenced or gave rise to subsequent developmental styles of the SECC (1996:14-19). Brown (1989:198) has described these style types as "derived styles within the Braden complex." These styles are similar to, yet distinct from, the Braden school of art during the CDH at Spiro (1989:198).

At Moundville specifically, those style groups in the winged serpent stylistic seriation which most closely resemble the Braden B style phase of engraved shell from the Spiro site, the engraved shell gorgets from Etowah Mound C, and the repoussé copper style from Etowah Mound C which Brown (1989) places fully within the Braden style, encompass the lower, earlier portion of the stylistic sequence and appear to date to the fourteenth century. This research does not seem to support the idea that the full or "classic" expression of the SECC at Moundville occurred in the fifteenth century or later as Brain and Phillips (1996:354, 395-397) have suggested. Future stylistic analyses are needed to help further clarify the extent and significance of the artistic similarities within the Southeastern Ceremonial Complex.

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