Looking Beyond the Obvious:
Identifying Patterns in Coles Creek Mortuary Data

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Two characteristics of prehistoric societies in the southeastern United States are commonly used to support arguments for the presence of chiefly political and social organization. One of these characteristics is the large-scale construction of earthworks (particularly large platform mound and plaza complexes); the other is the employment of elaborate mortuary ceremonialism and sumptuous burial goods. Some claim that the earliest indications of chiefdoms can be recognized in the indigenous Coles Creek tradition of southwestern Mississippi and east-central Louisiana. Around A.D. 700, people in this region began building large-scale earthworks similar to those of later, decidedly hierarchical Mississippian polities. However, previous investigators of mortuary remains from these Coles Creek sites report a paucity of burial goods and absence of ornate individual burials (Ford 1951; Giardino 1977; Neuman 1984).

Due to the distinct presence of one traditional marker for hierarchical social organization and the reported lack of another, the issue of Coles Creek social differentiation remains a paradox for Southeastern archaeologists. While a relatively small number of Coles Creek sites have been satisfactorily excavated, further analysis of data from these previous archaeological investigations may still reveal significant insights. In this paper, I present a reanalysis of three previously excavated Coles Creek cemeteries in the Lower Mississippi Valley as a step towards resolving this paradox (Figure 1). My goals here are to: (1) review the previous interpretations

of Coles Creek mound building and burial practices; (2) investigate whether meaningful patterns exist in the burials from Greenhouse, Lake George and Mount Nebo; and (3) offer suggestions as to how the results of my analyses can be combined with future research to more fully understand Coles Creek social organization.

The Greenhouse site, located in Avoyelles Parish, Louisiana, was first described and excavated by Gerard Fowke in 1926. Twelve years later, Greenhouse was more systematically excavated as part of a Works Progress Administration (WPA) project directed by James Ford. Greenhouse consists of seven mounds (A-G) arranged around a central plaza (Figure 2). The three most prominent mounds (A, E, and G) are roughly rectangular platforms that form a triangle with the longest axis along the shore of a lake. During the WPA project, three mounds were heavily excavated: Mounds A, C and F. Excavations in Mounds A and F revealed that the earthworks were constructed over a thick midden in as many as seven stages, most of which supported structures (Ford 1951:32-36). Nine burials were recovered from Mound A and two from Mound F. Mound C differed markedly from Mounds A and F in that it was made up almost entirely of black midden that had gradually accumulated on the original ground surface. In addition to the large amount of habitation debris, the upper levels of Mound C contained 93 burials. Although in some cases it is difficult to tell, it appears that most of these burials were secondary interments of large numbers of people deposited at once, a pattern consistent with the emptying of a charnel structure (Ford 1951:37, 42-44). A number of distinct spatial clusters may represent different burial episodes throughout the construction of the mound.

The Lake George site is also situated on the shore of a lake in the Yazoo Basin of west-central Mississippi (Williams and Brain 1983:1). Though the mounds had deteriorated significantly by the time C.B. Moore visited Lake George in the early twentieth century, he was

able to record more than thirty mounds inside the walled, 55-acre site (Moore 1908:590). Now, only 25 mounds and parts of the earthen wall and ditch complex can be discerned (Figure 3) (Williams and Brain 1983:1). Excavations at Lake George took place between 1949 and 1960 and included major work on and around Mounds A, C, F and P (Williams and Brain 1983: 23-68). Excavations revealed that while only a small portion of the earthworks at Lake George dated to the Coles Creek period, nearly all showed evidence of repeated structural occupations. A 1958 test unit in Mound C, a Coles Creek mound, revealed 22 burials and hence the truncated, pyramidal mound became the focus of the 1959 and 1960 excavations (Williams and Brain 1983:39). Built on a thick midden, this two-stage platform mound appeared to have been used primarily as a burial mound during the first stage and as a foundation for a number of structures during the second stage (Williams and Brain 1983:55-56). During the one and a half seasons of excavation at Mound C, approximately 200 skeletons were recovered. Like Greenhouse, burials appear to have occurred as mass interments such as would result from the periodic emptying of a charnel house. Again, distinct spatial clustering is visible, though this time clusters are identified more by depth of deposit and various irregular and ill-defined pits (Williams and Brain 1983:42).

Finally, the Mount Nebo site sits in the Tensas Basin of Madison Parish, Louisiana and consists of only one mound, approximately 12 ft tall (Giardino 1982:101; Neuman 1968:9). During salvage excavations in 1968 and 1969, it was determined that this mound was constructed in seven stages (Giardino 1977:1). Two of these stages are of particular importance here because together they contained roughly 100 human burials. Giardino (1982:116-118) notes that during one stage, bodies were most often interred in the extended prone position with the skull towards the south and during the other, bodies were most often interred in the extended supine position with the skull towards the north. Giardino's (1982:117) conclusion that "there

are significant differences between the burial custom of Stage A and Stage F" represents the first significant recognition of patterning in the Coles Creek mortuary record.

As these three examples demonstrate, the largest mounds at Coles Creek civic-ceremonial centers were continuously used for up to several hundred years, they were usually built in stages, and often, during each stage, at least one structure was erected on top of the mound (Neuman 1984:167; Steponaitis 1986:386). Past interpretations of these buildings as elite residences and/or important civic-ceremonial structures have led some archaeologists to believe that Coles Creek sites provide evidence of a significantly more differentiated and institutionalized social organization than that of earlier Woodland cultures (e.g. Barker 1999; Kidder and Fritz 1993; Nassaney 1992; Roe 2007; Sears 1954; Steponaitis 1986). They argue that the consistent reuse of these platform mounds shows the existence of more formal positions of leadership or political offices by allowing the power associated with them to exceed the life of the individual elite (Roe 2007:25; Schilling 2004:25; Steponaitis 1986:386). Furthermore, they argue that this important change is also evidenced by changes in the internal plaza-mound structure of Coles Creek centers (Kidder 2004; Roe 2007:24-25). For example, sites such as Osceola, Raffman, Greenhouse, and Lake George can be interpreted as showing a trend from open, public plazas to plazas characterized by purposeful and severe restriction of access (Ford 1951:102; Roe 2007:25; Schilling 2004:26).

While recent arguments from settlement pattern changes and earthwork construction seem to lean towards the existence of a more institutionalized social hierarchy during the Coles Creek period, current understandings of the mortuary record do not appear to support this conclusion (cf. Barker 1999). While some claim a substantial shift from the inconsistent and group-oriented burial pattern of the earlier Troyville period during the Coles Creek period, these

interpretations all come from synthetic articles about Lower Mississippi Valley cultural chronology and articles specifically devoted to showing Coles Creek settlements as hierarchical precursors to Mississippian chiefdoms (e.g., Kidder 2002; Neuman 1984; Steponaitis 1986). On the other hand, the original excavation reports from Coles Creek burial sites are dominated by a different set of interpretations.

In his report on Greenhouse, Ford (1951:106-107) summarizes the burial practices by saying:

> In each locality the skeletons appear to have been disposed of carelessly: there is no clear evidence that they were intentionally buried … The 93 found in Mound C were apparently all placed at the same time and were in a state of disorder such as might have resulted from a rude and careless emptying of a house of the dead … It can hardly be certain that the Greenhouse finds represent any intentional and planned disposal of the dead.

This sentiment is echoed by Neuman (1984:179) when he states, "It is difficult to think of a reason for this disorderly array of skeletons." Likewise, Williams and Brain (1983:45) describe the burials at Lake George by stating:

> There is no marked difference in the burial pattern – if, indeed, one can think in terms of a 'pattern,' for the overwhelming characteristic of both layers of burials is the obvious lack of order. The dead seem to have been treated inconsistently and often with minimal care.

Similar descriptions also exist for the Mount Nebo site (Giardino 1977), the Bayou Chene Blanc midden (Neuman 1984:187), the Pierre Clement site (Neuman 1984:197), the Morton Shell Mound (Neuman 1984:198-199), and the Diversion Canal site (Neuman 1984:194).

My initial challenge in working with the mortuary records from Greenhouse, Lake George, and Mount Nebo involved compiling all available data on the skeletal remains in a manner that would easily allow for comparison and pattern identification. The data from Greenhouse and Lake George were taken primarily from the published site reports (Ford 1951;

Williams and Brain 1983) and the later NAGPRA analyses (Peabody Museum of Archaeology and Ethnology 2000; Rebecca Saunders, personal communication). Data from Mount Nebo were taken primarily from Marco Giardino's Tulane University Masters thesis (1977). Although the original methods for recording the burial type and age-sex data for each of the sites were quite different, I made every effort to standardize the data without losing any accuracy. For the purpose of this paper, the following burial types are used: bundle, extended-prone, extended-supine, extended (unspecified prone or supine), flexed, semiflexed, skull, fragment and unknown; the age categories of infant, subadult, young adult, middle adult, and old adult are defined in Table 1.

The goal of my analysis was to see past the lack of grave goods and the absence of elaborate individual burials that are often used to define status differences in mortuary studies and instead to focus on other aspects of the burial record. Giardino (1982:100-101) argues that "burial styles or methods for disposal of the dead are the result of patterned cultural activity and therefore can be viewed as human artifacts" capable of augmenting our understanding of social conditions. Following this suggestion, I sought to identify patterns in burial type with regard to age and sex at Greenhouse, Lake George, and Mount Nebo. This more extensive and less common consideration of the "human artifacts" in the burial record is particularly appropriate for the study of Coles Creek social organization precisely because the burials are routinely lacking in grave goods and other associated artifacts.

For each site, tabulations (counts and percentages) were made for each burial type by age and sex. Due to the small number of categories, conclusions about sex-related patterning were easy to draw from merely looking at these numbers. Each population discussed here represents a relatively typical demographic profile with regard to sex. Furthermore, there does not appear to

be any significant difference between the burial programs undergone by men and those undergone by women (Tables 2-4). The demographic profiles with regard to age however, are not as consistent. Both Greenhouse and Mount Nebo show markedly low numbers of infants and subadults while the large number of infants present in the burial population at Lake George is closer to the expected demographic profile of a prehistoric population (Blakely 1971; Weiss 1973:14-30). While it is impossible to say, given the available data, whether this inconsistency is the product of taphonomy, differential preservation, discrepancies in excavation technique or conscious choice on the part of Coles Creek peoples (Hutchinson 2006:159), the inclusion of infants does suggest a potential difference in the burial practices of the populations at Lake George as compared to those at Greenhouse and Mount Nebo.

More interesting patterns emerge, however when considering age as it relates to burial type (Tables 5-7). Due to the larger number of age categories, I carried out a correspondence analysis on the burials from each site to identify and interpret age-related patterns. In relatively simple terms, correspondence analysis is a statistical method for identifying the degree to which the values of one categorical variable (here, age) correlate with the values of another (here, burial type). By plotting these associations in two-dimensional space, correspondence analysis produces a graphical representation of the relationships among the variables, such that points that appear close together or in the same portion of the graph) tend to be positively associated, while those that are farther apart are either not associated or negatively associated (Shennan 1997:308-306). For example, looking at the visual representations of the Greenhouse data (Figure 7), a number of clear associations emerge: infants are buried in the flexed position, subadults are associated with skull burials, young adults are buried in the semiflexed or bundled positions, and adults (middle, old and unclassifiable) are associated with the extended position. Similarly clear

patterns exist when one examines the Lake George data (Figure 8) as well as the Mount Nebo data (Figure 9).

In addition to the age-related patterns at each individual site, there are interesting commonalities among the sites (Table 8). For example, at all three sites subadults are associated with skull burials and adults were most often buried in the extended position. Greenhouse and Lake George also share strong associations of infants with the flexed position and young adults with bundle burials. Mount Nebo, however, does not follow either of these patterns. Perhaps an even more significant pattern becomes obvious when comparing the overall appearance of the correspondence-analysis graphs. Infants, young adults, and old adults are always the furthest from the center of the graph even though the specific burial treatments accorded to each category differ from site to site. In other words, while these three age categories were not treated consistently from site to site, they were consistently being treated differently from each other and from everyone else. These comparative observations allow me to draw broader conclusions about the general mortuary program of the Coles Creek period in the Lower Mississippi Valley

My analysis shows that the mortuary programs at Coles Creek sites were anything but unpatterned, unintentional, careless, unplanned, and disorderly (cf. Ford 1951; Williams and Brain 1983). On the contrary, age-related patterning at Greenhouse, Lake George, and Mount Nebo is abundant. In short, the burial data from Greenhouse, Lake George, and Mount Nebo represent a mortuary program that: (1) differs from site to site, (2) is characterized by mass burials such as would result from charnel house cleanings, and (3) consistently expresses age as the strongest variable in determining burial position. From this I argue that distinct evidence of institutionalized status differentiation in the Coles Creek burial record is lacking. The distinct lack of individual interments and emphasis on communal burial seems to minimize the

importance of the individual in the mortuary program as a whole. That said, the differences that do exist between individuals of different ages confirm that these mass interments were being made with some degree of care and consideration for those involved. Nonetheless, patterning that appears solely based on age can be used as an argument against inherited status—if status within a society was acquired based on inherited social position rather than on individual achievement, then one would expect similarities in burial type to crosscut age groups. This brings us back to the paradox mentioned earlier, i.e., that Coles Creek cultures show evidence of hierarchy in the form of monumental earthwork construction, but not in mortuary patterning. There are two potential explanations for this paradox: (1) that institutionalized social differentiation did not exist and we are misinterpreting the evidence from moundbuilding, and (2) that institutionalized social differentiation did exist, but is not expressed in the burial program during this time.

With regard to the first option, I feel compelled to point out the massive earthmoving ventures of populations commonly accepted as nonhierarchical (e.g., Wisconsin and Iowa's Effigy Mound culture [Birmingham and Eisenberg 2000:127-128; Stevenson, et al. 1997; 166-170], Ohio's Hopewell culture [Brown 2006:198; Spielmann 2002], and Louisiana's Poverty Point culture [Brown 2006:198, Gibson 2000]). Given the high frequency of mound construction in the Lower Mississippi Valley beginning in the Middle Archaic period, it is imprudent to use this line of evidence alone to make an argument for institutionalized social differentiation in the Coles Creek period. Furthermore, we must reconsider some of our unfounded assumptions about the meanings of these mounds. Thus far, very few Coles Creek mound-top structures have been satisfactorily excavated and hence, we have very limited data on which to base our interpretations of their function(s). Whether these structures were used by

elites as residences or by the general public as communal meeting places should become much more apparent with more complete examination of the assemblages either from the structures' floors or from associated flank middens.

With regard to the second option, I think it is imperative to examine and evaluate the hypothesis that Coles Creek mortuary practices may not reflect, but rather may ideologically mask (either intentionally or unintentionally) the social differences that existed in life. In contrast, the later, more elaborate Mississippian mortuary practices may represent the presence of an ideology that naturalizes rather than masks such differences (see Hodder 1982). Evaluating this hypothesis will require looking more closely at what other evidence exists for social differentiation in the archaeological record of the Coles Creek period. I contend that this research should focus on examinations of differences in diet and health within and among Coles Creek populations and the separation of elite and commoner areas within and between sites.

If mortuary ritual and other forms of symbolic communication may be manipulated to disguise social distinctions (Hodder 1982; see also Barker 1999), it is reasonable to expect that differences in diet and health trends (especially malnutrition) would not be as simple, or desirable, to manipulate (Cannon 1989:456). While studies of such discrepancies in diet and health data from previously excavated mortuary remains may be productive, such information will be much more important if a significant number of nonmound burials are included. The discovery, excavation, and analysis of such burials, if they exist, would also greatly enhance future analyses of the relationship between age and sex distributions and burial type like the one presented here.

Finally, settlement patterns, architectural remains, and subsistence patterns provide means to look at the separation of subgroups on the landscape, particularly if data from

nonmound habitation sites are included. For example, comparisons of domestic assemblages from a variety of Coles Creek sites may or may not expose telling material and architectural differences between groups utilizing the mound and plaza complexes and those living at smaller, outlying sites. Moreover, the excavation of different site types may allow us to identify hitherto undiscovered sets of nonmound burials that may represent a different subgroup of the population altogether (see discussion in Barker 1999 and Black 1979:98-101).

While this paper has ended (like many archaeological analyses do) in a call for further research in order to appropriately answer the broader questions, my analysis has two very important conclusions. First, I demonstrate that despite claims to the contrary, there is distinct patterning in the Coles Creek mortuary record. Abundant age-related patterns attest that the people at Greenhouse, Lake George, and Mount Nebo were not interring their dead randomly and without care; instead, they were following distinct patterns in selecting the burial type associated with each individual. Second, I conclude that, while this patterning may not indicate institutionalized status differentiation, we must look elsewhere for evidence of such social demarcation before drawing further conclusions as to the degree of status achieved by individuals in the Coles Creek period. In other words, we, as archaeologists, must be willing to see burial practices as only one part of a much larger social process.

Figures

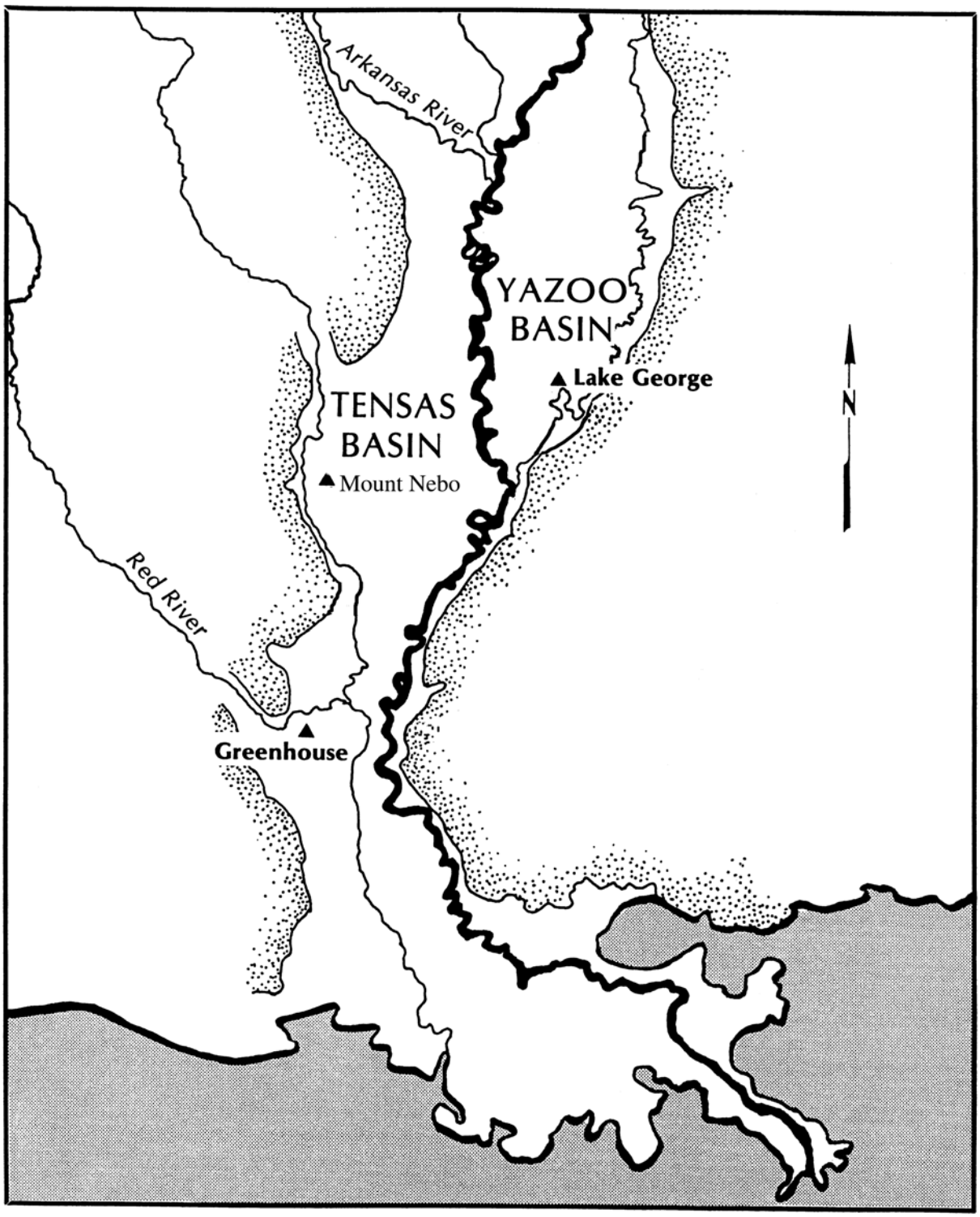

Figure 1: Map of the Lower Mississippi Valley showing associated river basins and the location of the three sites used in this analysis (adapted from Brain 1991: Figure 5.2).

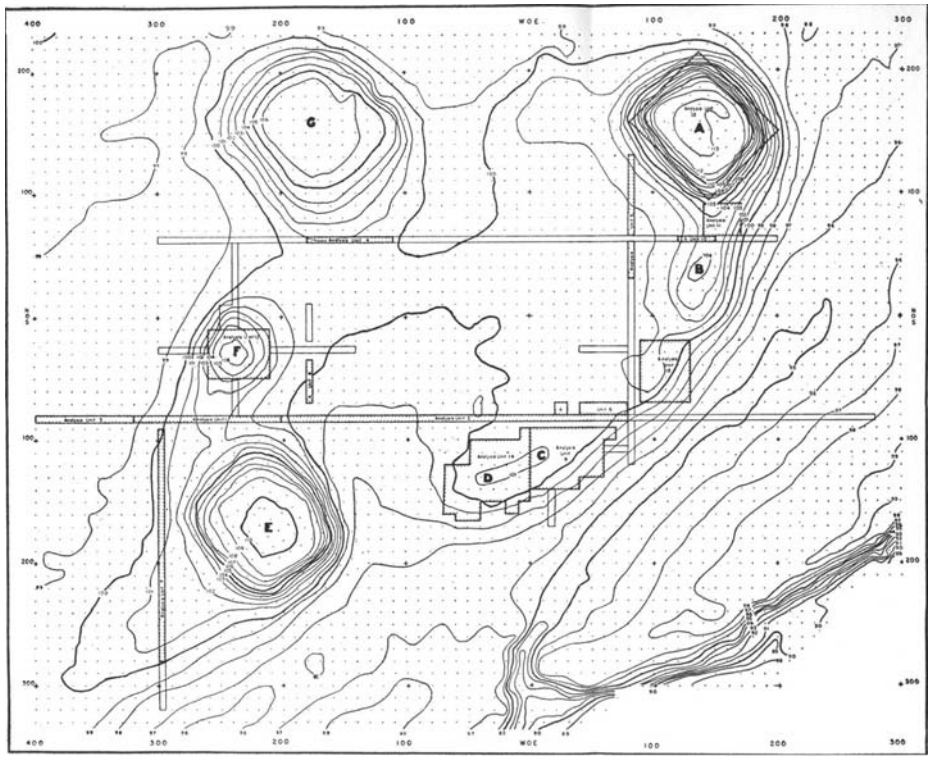

Figure 2: Map of the Greenhouse Site showing the topography, locations of the different mounds and areas excavated (from Ford 1951: Figure 3).

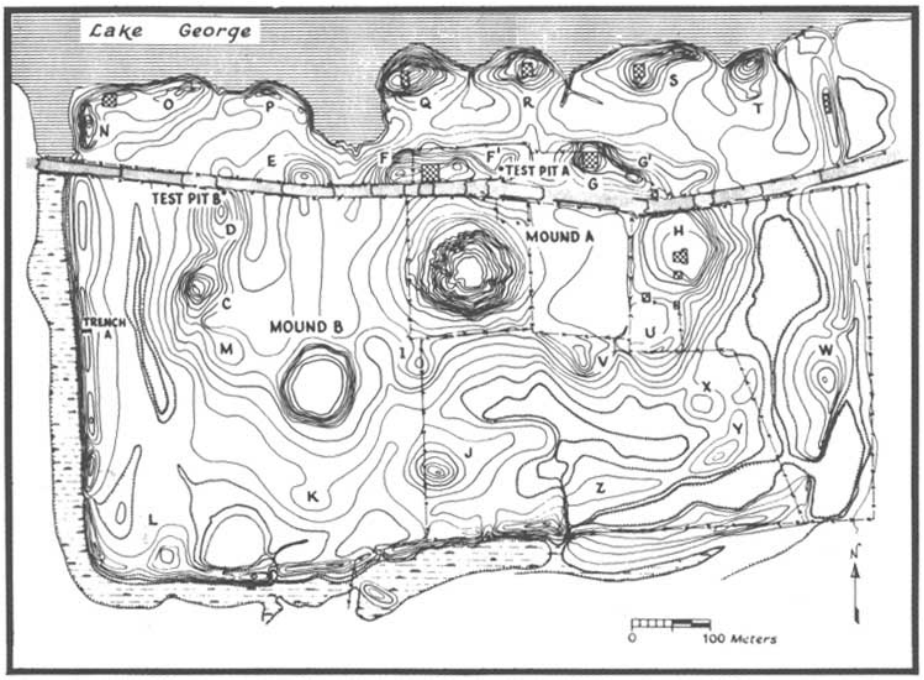

Figure 6: Map of the Lake George Site showing topography, locations of the different mounds and areas excavated (from Williams and Brain 1983: Figure 1.2).

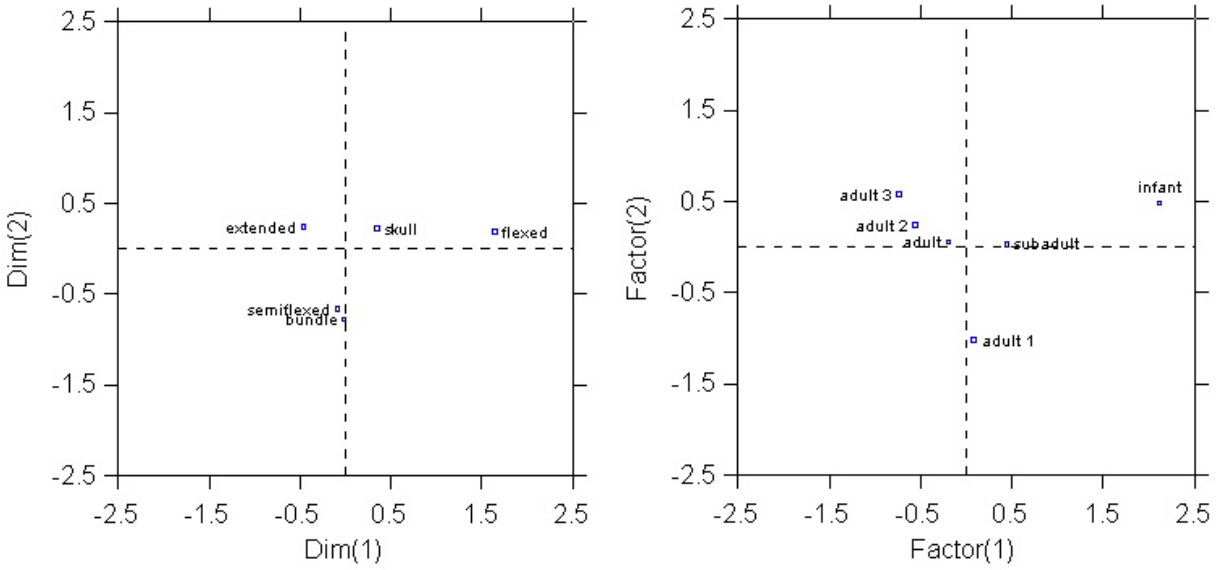

Figure 7: Biplot of the correspondence analysis from the Greenhouse site showing the burial types on the left and age categories on the right. Points that appear close together (or in the same portion of the graph) are positively associated.

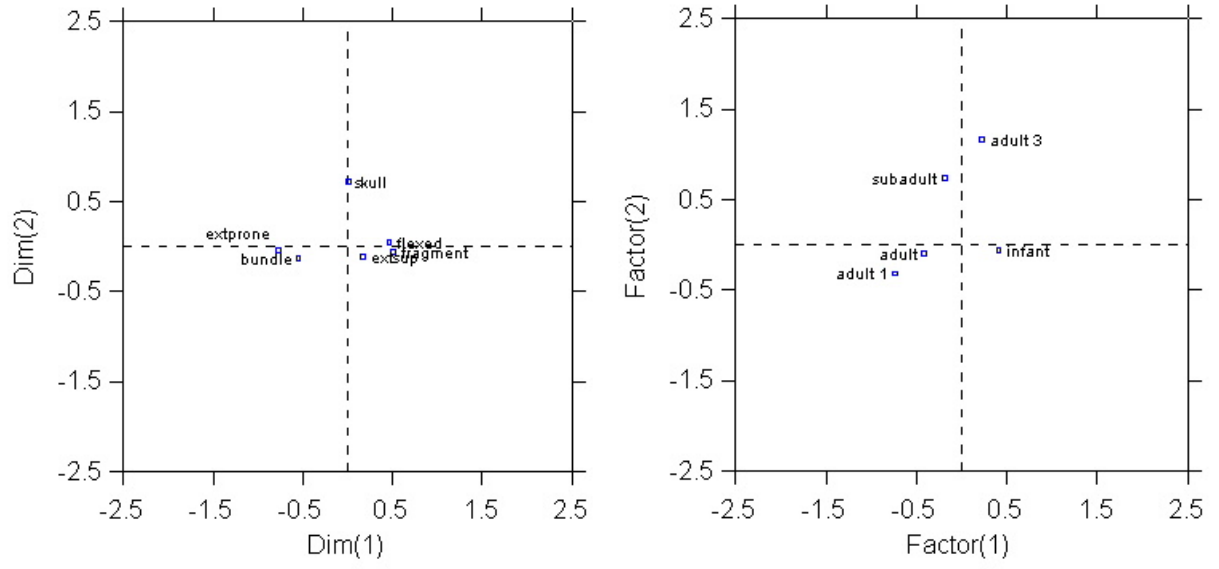

Figure 8: Biplot of the correspondence analysis from the Lake George site showing the burial types on the left and age categories on the right. Points that appear close together (or in the same portion of the graph) are positively associated.

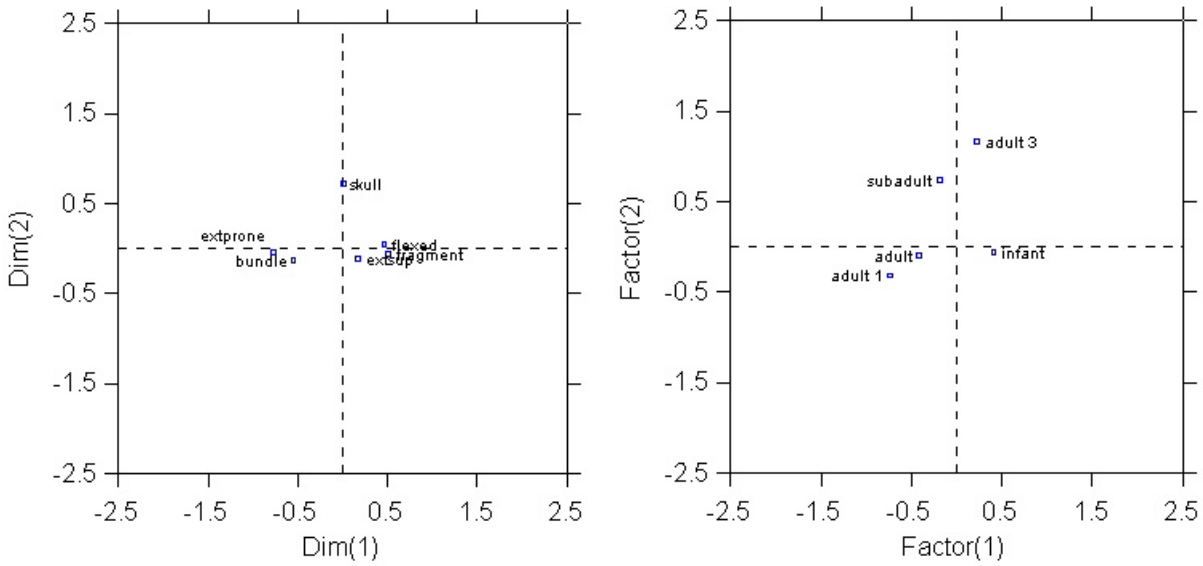

Figure 9: Biplot of the correspondence analysis from the Mount Nebo site showing the burial types on the left and age categories on the right. Points that appear close together (or in the same portion of the graph) are positively associated.

Tables

Table 1: The age estimation system employed in this paper. Note: For some sites in which distinctions were not originally drawn between the subcategories of adults, the category "Adult" will be used to imply any individual over 18 years of age.

Age Category	Age Estimate
Infant	0-5 years
Subadult	6-17 years
Young Adult (Adult 1)	18-30 years
Middle Adult (Adult 2)	31-50 years
Old Adult (Adult 3)	Over 51 years

Table 2: Numbers (and percentages) of burial positions at Greenhouse with respect to sex.

GREENHOUSE	Bundle	Extended	Flexed	Semiflexed	Skul1	Unknown	Total
Male	3 (13%)	9 (39%)	3 (13%)	3 (13%)	4 (17%)	1 (4%)	23 (23%)
Female	4 (14%)	22 (76%)	0 (0%)	2 (7%)	0 (0%)	2 (7%)	29 (30%)
Unknown	11 (26%)	8 (19%)	5 (12%)	1 (2%)	12 (28%)	6 (14%)	43 (44%)
Total	20 (20%)	39 (40%)	8 (8%)	6 (6%)	16 (16%)	9 (9%)	98 (100%)

Table 3: Numbers (and percentages) of burial positions at Lake George with respect to sex.

LAKE GEORGE	Bundle	Extended-prone	Extended-supine	Flexed	Fragment	Skul1	Total
Male	3 (14%)	4 (19%)	9 (43%)	1 (5%)	1 (5%)	3 (14%)	21 (11%)
Female	0 (0%)	7 (70%)	3 (30%)	0 (0%)	0 (0%)	0 (0%)	10 (5%)
Unknown	13 (8%)	16 (10%)	82 (53%)	9 (6%)	18 (12%)	18 (12%)	156 (83%)
Total	16 (9%)	27 (14%)	94 (50%)	10 (5%)	19 (10%)	21 (11%)	187 (100%)

Table 4: Numbers (and percentages) of burial positions at Mount Nebo with respect to sex.

MOUNT NEBO	Bundle	Extended-prone	Extended-supine	Flexed	Semiflexed	Skull	Unknown	Total
Male	5 (21%)	5 (21%)	6 (25%)	3 (13%)	1 (4%)	1 (4%)	3 (13%)	24 (26%)
Female	9 (38%)	6 (25%)	5 (21%)	0 (0%)	1 (4%)	1 (4%)	2 (8%)	24 (26%)
Unknown	7 (16%)	5 (11%)	13 (29%)	0 (0%)	0 (0%)	8 (17%)	12 (27%)	45 (48%)
Total	21 (23%)	16 (17%)	23 (25%)	3 (3%)	2 (2%)	10 (11%)	17 (18%)	93 (100%)

Table 5: Numbers (and percentages) of burial positions at Greenhouse with respect to age.

GREENHOUSE	Bundle	Extended	Flexed	Semiflexed	Skull	Unknown	Total
Infant	0 (0%)	0 (0%)	3 (75%)	0 (0%)	1 (25%)	0 (0%)	4 (4%)
Subadult	2 (12%)	3 (18%)	2 (12%)	1 (6%)	6 (35%)	3 (18%)	17 (17%)
Adult (total)	13 (21%)	31 (49%)	2 (3%)	5 (8%)	7 (11%)	5 (8%)	63 (64%)
Young	4 (44%)	2 (22%)	1 (11%)	2 (22%)	0 (0%)	0 (0%)	9 (9%)
Middle	1 (7%)	11 (73%)	0 (0%)	1 (7%)	1 (7%)	1 (7%)	15 (15%)
Old	0 (0%)	3 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (3%)
Unknown	5 (36%)	5 (36%)	1 (7%)	0 (0%)	2 (14%)	1 (7%)	14 (14%)
Total	25 (20%)	55 (44%)	9 (7%)	9 (7%)	17 (14%)	10 (8%)	125 (100%)

Table 6: Numbers (and percentages) of burial positions at Lake George with respect to age.

LAKE GEORGE	Bundle	Extended-prone	Extended-supine	Flexed	Fragment	Skull	Total
Infant	3 (4%)	3 (4%)	49 (62%)	7 (9%)	11 (14%)	6 (8%)	79 (42%)
Subadult	1 (7%)	3 (20%)	4 (27%)	1 (7%)	1 (7%)	5 (33%)	15 (8%)
Adult (total)	10 (13%)	21 (27%)	36 (46%)	2 (3%)	3 (4%)	7 (9%)	79 (42%)
Young	0 (0%)	1 (50%)	1 (50%)	0 (0%)	0 (0%)	0 (0%)	2 (1%)
Middle	0 (0%)	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (>1%)
Old	0 (0%)	0 (0%)	1 (50%)	0 (0%)	0 (0%)	1 (50%)	2 (1%)
Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)	1 (>1%)
Total	14 (8%)	29 (16%)	91 (51%)	10 (6%)	15 (8%)	20 (11%)	179 (100%)

Table 7: Numbers (and percentages) of burial positions at Mount Nebo with respect to age.

MOUNT NEBO	Bundle	Extended-prone	Extended-supine	Flexed	Semiflexed	Skull	Unknown	Total
Infant	1 (17%)	1 (17%)	0 (0%)	0 (0%)	0 (0%)	2 (33%)	2 (33%)	6 (6%)
Subadult	5 (31%)	1 (6%)	3 (19%)	0 (0%)	0 (0%)	5 (31%)	2 (13%)	16 (17%)
Adult (total)	13 (26%)	10 (20%)	14 (28%)	3 (6%)	2 (4%)	2 (4%)	7 (14%)	51 (54%)
Young	5 (33%)	2 (13%)	6 (40%)	1 (7%)	0 (0%)	0 (0%)	1 (7%)	15 (16%)
Middle	5 (26%)	4 (21%)	5 (26%)	2 (11%)	1 (5%)	2 (11%)	0 (0%)	19 (20%)
Old	1 (25%)	1 (25%)	1 (25%)	0 (0%)	1 (25%)	0 (0%)	0 (0%)	4 (4%)
Unknown	1 (5%)	4 (20%)	7 (35%)	0 (0%)	0 (0%)	1 (5%)	7 (35%)	20 (22%)
Total	31 (24%)	23 (18%)	36 (27%)	6 (5%)	4 (3%)	12 (9%)	19 (15%)	131 (100%)

Table 8: Summary of the burial type associations with regard to age for Greenhouse, Lake George, and Mount Nebo. Key associations that crosscut two or more sites are shown in bold.

	Infant	Subadult	Adult	Young Adult	Middle Adult	Old Adult
Greenhouse	**flexed**	**skull**	**extended**	**bundle**/ semiflexed	extended	extended
Lake George	**flexed**/ extended (supine)	**skull**	**extended** (prone)/ bundle	**bundle**/ extended (prone)	---	Skull
Mount Nebo	skull	**skull**	**extended**/ flexed	extended/ flexed	extended	semiflexed

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