KIN GROUPS AND MORTUARY PRACTICES:

ETHNOGRAPHIC IMPLICATIONS FOR ARCHAEOLOGY

By

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ABSTRACT

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This study seeks to address a long-neglected area of archaeological mortuary analysis, that of the symboling of "horizontal" societal groups (kin groups and sodalities) in mortuary context. A sample of 115 ethnographic societies forms the basis for an examination of such symboling. The results show that such groups, particularly clans and lineages, are frequently symboled in mortuary context, and a series of theoretical postulates and test implications is provided to allow the archaeologist to discern such groups from mortuary data.

The implications for discovering kin groups is integrated into a multidimensional research program designed to elucidate socio-political structural form in extinct systems. The patterning of kin groups, differential status, settlement structure, and other factors are used to explain formal variability. Three alternative models of structural form in ranked systems are offered as heuristic devices against which archaeological data may be evaluated. This construct is applied to a body of late prehistoric data

ABSTRACT

NEW CRITICAL AND HISTORICAL PERSPECTIVES ON THE DRAMATIC IMAGINATION OF ARTHUR MILLER

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from the central Mississippi River valley, and it is shown that variability between systems can be explained in terms of differences in kin group structures, the nature of differential status, and settlement configuration between these systems. The significance of this approach lies in the fact that it allows the more precise estimation of socio-political structural form in an extinct system, and thus goes far beyond previous approaches that focus on differential status alone, and thereby result in simple classifications of systems into gross evolutionary categories.

An ethnographic test of "Hypothesis 8" is conducted, and the hypothesis is rejected as a proposed explanation for the use of formal disposal areas. "Hypothesis 8" stated that disposal areas will be used primarily by economic corporate groups; the present study shows that disposal areas are usually used by kin groups regardless of the nature of economic corporateness.

This dissertation is dedicated to the memory of

DONALD G. KINGSLEY, Jr.

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CHAPTER 1

INTRODUCTION

A major emphasis in contemporary archaeology is the development of a body of theory to direct research and attempt explanations of phenomena observed in the archaeological record. One area of inquiry that has received considerable attention in this regard is the analysis of social and political dimensions of mortuary practices. Since 1970, mortuary specialists have been reasonably secure in the fact that a well-developed body of theory exists that attempts to explain mortuary behavior and hence the structure observed in mortuary sites (e.g. Saxe 1970, Binford 1971, Brown 1971, Goldstein 1976, Peebles and Kus 1977, O'Shea 1981, 1984).

From the vantage point of fourteen years of retrospection on these accomplishments, one can now observe that many mortuary studies in fact supercede themselves, by illustrating not what we think we do know about mortuary behavior, but rather what we do not know. This observation is not wholly original; several papers appearing in the past few years have called attention to various deficiencies and problems in current and past work (e.g. Brown 1981, Goldstein 1981, O'Shea 1984). The discussion that follows is an effort to continue this trend. Several related problem areas in contemporary mortuary theory and practice will be

isolated; these, in turn, form the substantive basis for the remainder of this work.

It is of first importance to appreciate the goals of current theory and method for it is at this base level that a fundamental problem exists. Theoretical propositions and most data analyses to date have been directed toward the recognition of mortuary site patterning that might elucidate extinct socio-political status systems. Accordingly, theorists (e.g. Saxe 1970, Binford 1971) have incorporated Goodenough's (1965) concept of the social persona, which represents a composite of any and all social identities (i.e., roles, statuses, relationships with other personae) held by an individual during life (Saxe 1970:6-7). An individual's social persona is not "fixed", but may vary as certain social identities are "selected" as appropriate for recognition in different social situations (ibid.). One such occasion is the event of death, in which "...a choice between incompatible social identities must be made. Those involving rights/duties counterparts with the greatest degree of influence, authority, and/or power by virtue of that set of relationships will be chosen" (Saxe 1970:6; emphasis in original). In other words, the social persona symboled at death will, according to Saxe, consist of a composite of social identities directly relating to that individual's position in a hierarchy of status in the society (see also Binford 1971 for an identical argument).

This theoretical proposition has guided mortuary

analysis since Saxe offered it in 1970. It is important to note that this perspective directs the analyst toward the examination of 1) the positions of individuals (not groups) in society, and 2) what might be termed the "vertical structure" of status positions that these persons occupied. Most case studies, for example, have focused on the nature of vertical status in ranked societies (sensu Fried 1967). Given the theoretical perspective just reviewed, "this is hardly surprising since the character of the archaeological record tends to encourage the search for traces of social rank" (Brown 1981:25). Conversely, there have been few attempts to deal with what might be termed horizontal structures (cf. O'Shea 1981, 1984, and below), such as kin groups and sodalities. It could be suggested that the character of the archaeological record does not encourage the search for such structures. On the other hand, the strict perspective of examining individual vertical status does not encourage it either; it is usually difficult to discover something that one is not looking for.

A phenomenon of mortuary analysis that appears to be the direct result of this focus on individual status systems is the assumption - usually implicit - that any and all variability observed in a mortuary site is somehow related to the symboling of various social personae in the status hierarchy. In many studies (e.g. Tainter 1977a, Buikstra 1976) virtually every artifact and every nuance of interment are factored into the calculations of relative

status. Few analyses or theoretical papers to date have allowed the possibility that all observed variability may not in fact be status-representative (e.g. O'Shea 1981, 1984). The assumption that all variability is status-related occurs hand-in-hand with a largely quantitative analytical approach, a trend fostered by Saxe's seminal work. Saxe offered the proposition that higher status people will manifest a greater number of positive components (i.e. artifacts, attributes of interment) in the manner of their burial relative to lower status people (1970: 69-71). Thus, this idea has directed investigators toward the quantitative assessment of status, where more versus less attributes generally corresponds to more versus less status. This is not to say that Saxe's proposition is incorrect, quite the contrary: it is a valid and useful construct, but the point to be made here is simply that most studies have not considered the possibility that some variability in the mortuary domain might not be status indicative, and may in fact symbol or signify something else.

It should be mentioned in this context that attempts to qualitatively assess meaning or significance of mortuary variability are not altogether lacking. Brown (1971), for example, has coined the term "badges of office" to refer to rare, distinctive, non-utilitarian artifacts that apparently denote power and authority, such as have been found in late prehistoric contexts in eastern North America, e.g. headdresses, monolithic axes. Goldstein (1976, 1981)

has taken what might be considered a bold step in an era in which quantitative approaches are dominant, by advocating that the meaning of mortuary variability might be better sought through simple visual examination of the data, particularly regarding spatial patterning. Braun (1979) has attempted to place controls on quantitative data analysis. His study began with a comparison of artifacts recovered from mound burials with those from habitation sites to better assess their assumed significance, i.e. to determine the extent to which they were common or truly "exotic". Those items found with burials but not in village middens were taken to represent status markers. These studies are noteworthy because they attempt qualitative assessments or judgments about the variability observed, and what it might signify, rather than simply counting up items per burial and subjecting them to a battery of statistical tests.

The theoretical perspective described above has tended to produce results that have been termed "pigeonholing" (Goldstein 1981:54). That is, mortuary analysts have tended to measure their data against one or two evolutionary stage schemes: Service's (1962) band, tribe, chiefdom, and state scheme, and/or Fried's (1967) egalitarian, ranked, stratified, and state model. That these models have been utilized is not a problem, but their manner of use is. The overwhelming majority of case studies have been "goodness-of-fit" tests, attempting to determine whether the data best fits one or another of these categories.

What has until recently been ignored is the fact that variability in scope, scale, and structural form exists within these categories - which has been amply documented ethnographically - but which has not been considered archaeologically. Put differently, emphasis has been placed on determining the degree of structure, not the form of structure.

This statement is not intended to be an overly harsh critique of previous studies. Indeed, any study that is able to determine that a prehistoric system belonged in, say, the ranked category would be an important contribution, whether this constituted pigeonholing or not. This statement is, however, intended to say that the attention of the mortuary analyst could and should be redirected toward the more explicit examination of form, as well as degree. At least one earlier writer on the subject recognized the problem. Saxe stated that his initial efforts were directed toward examining degree of structure; "more specific predictions as to form we leave to future research..." (1970:118). The determination of structural form poses a challenging and difficult problem, and may not lend itself to quantitative analysis. Goldstein has commented on this, by pointing out that empirical measures of complexity that attempt to scale (rather than pigeonhole) societies, such as measures of relative entropy, may actually say more about an investigator's classification scheme than about the nature of societal complexity or organization (1981: 55). Her own study of "rural" Mississippian populations in

Illinois (1976, 1980) is a contribution toward the analysis of form; she was able to make statements about the nature of socio-political organization and group structure at the "lower end" of Mississippian society, and thus went beyond simply labeling the system as "ranked".

A recent paper by Brown (1981) has attempted to address the problem. Brown focused on the study of ranked societies, and asserted that considerable variation exists within this general category. He makes distinctions between the concepts of rank, authority, and power (1981:26-28), and recognized that different forms of ranked society can and do exist, viz., those in which high social rank does not simultaneously entail absolute (or any) power and/or authority, versus those that do (1981:26-27). This is an important point. Brown has outlined a construct in which variability within the category ranked society is accommodated, and hence allows a more precise estimation of structural form within this category.

It is this writer's opinion that much of the reason why mortuary analysis has not progressed much past the pigeonholing stage is because when one asks questions as to structural form, one inevitably finds oneself in the realm of kinship, kin groups, and social organization. It goes without saying that the nature of kinship in a prehistoric society is difficult to determine; perhaps mindful of the criticism heaped upon earlier attempts to discern kinship and residence rules from material remains, it seems that

mortuary archaeologists have avoided this area. As stated at the outset, such horizontal structures - which in large measure constitute the structural form of society and determine the manner in which it operates - have been eclipsed by concern with the vertical dimension.

O'Shea (1981, 1984) has tried to come to grips with this problem. He examined mortuary sites of three North American Plains societies in an effort to determine the extent to which vertical and horizontal dimensions were or were not symboled upon death. Through comparison with a series of expectations generated from logic and ethnohistorical data, O'Shea was able to show that vertical status was more consistently symboled in the mortuary domain than horizontal groups; he notes also that preservational factors greatly affected his ability to discern both vertical and horizontal structures, particularly the latter. He concludes, then, that the search for horizontal structures in a mortuary site might not be altogether fruitful, or at least not to the same degree as analysis of vertical status (1981:51-52).

The chapter that follows generally concurs with O'Shea up to a point. He seems to be correct in asserting that vertical status is in fact symboled more often and more consistently than the horizontal dimension in most cases. At the same time, however, it is the position taken here that O'Shea's conclusions are too pessimistic. His study involved a direct comparison between ethnohistoric and

archaeological data for three societies; his results showed that horizontal groups - kin groups and non-kin sodalities - were either weakly symboled or not symboled at all in the mortuary domain. While these results are not encouraging, they should not be taken to indicate that any search for horizontal structure is doomed. O'Shea examined three specific cases within the same culture area. His unsatisfactory results should not deter mortuary archaeologists from attempting to discern general patterning of horizontal group symboling. Three societies hardly constitute an extensive sample upon which to base such a negative conclusion.

O'Shea's work brings up a final problem in mortuary analysis. It is this writer's estimation that there has been too little use of the ethnographic record to generate hypotheses, expectations, and/or models of mortuary behavior. Uses of ethnographic data to date have tended to be either very general or very problem-specific. Binford (1971), for example, used a sample of 40 societies to prove his point that social phenomena are indeed symboled upon death. Similarly, Tainter (1977) used over 100 societies to demonstrate the general principle that higher status personae receive a greater amount of energy expenditure on their mortuary treatment than lower status personae. Goldstein (1976) examined 30 societies to test specific relationships between the nature of disposal areas and corporate group structure in society. O'Shea's study just mentioned sought correlations between ethnographic and archaeological data for three

specific cases. Finally, Saxe's (1970) work used three societies to test a previously generated series of hypotheses. It is often suggested that a more ambitious use of the ethnographic data base could be worthwhile (e.g. Chapman and Randsborg 1981, Hodder 1982); as it stands, it is a largely untapped resource.

The present study, then, seeks to address the various problem domains outlined above. Specific goals can be summarized thus:

1) This study will undertake an examination of an extensive body of ethnographic data to examine the extent to which horizontal structures (i.e. kin groups and non-kin sodalities) are or are not symboled upon death. The material form of such symboling will be examined, along with the corresponding behavior correlates that produce these patterns. This phase of the study is intended to augment the mortuary specialists' ability to discern meaning from the archaeological record; it has been amply demonstrated that vertical status is inferable, and this study will posit expectations for infering horizontal structure as well. It will be shown that vertical status is not the only thing necessarily symboled in a mortuary site.

2) Yet another test of Saxe's (1970) and Goldstein's (1976) "Hypothesis #8" will be conducted. This hypothesis was first offered by Saxe to account for a presumed relationship between formal disposal areas and the nature of corporate group structure and resource abundance/scarcity in a system.

Goldstein tested and modified this construct. The present study tests it again; the results are very different from Saxe's and Goldstein's and suggest that Hypothesis #8 - in either form - is not a good explanation for the use of formal disposal areas.

3) This study will attempt an exploratory investigation into the archaeological elucidation of alternative socio-political structural forms. The dimensions of vertical status and horizontal group affiliation do not exist independently but are integrated into a functioning socio-political system. The independent correlation of a perceived vertical status pattern with a pattern of horizontal groups in a society would potentially yield important insights into the structural form of that system. Such an approach might help push mortuary analysis out of the pigeonholing stage and into a more rewarding line of inquiry.

In short, this study will consist of an examination of the ethnographic literature in order to discover material-mortuary patterning pertaining to the horizontal social dimension and corresponding behavior correlates that can be discerned in archaeological context. This is undertaken for the purpose of developing expectations of mortuary patterning in an archaeological site that might in turn indicate such horizontal structures in an extinct society. Multidimensional lines of inquiry will be suggested for the testing of hypotheses regarding the presence of horizontal groups.

This study is not intended to be a "cookbook". This

statement is, of course, a standard disclaimer; it is unfortunate that it cannot be a cookbook, with appropriate tests and measures for discovering lineages, clans, age-grades, etc., from prehistoric burials. The following analysis will demonstrate - as O'Shea has already suggested - that no such set formulae are forthcoming. While strong statements can be made regarding the discovery of horizontal structures in archaeological contexts, it would appear that, within the mortuary domain, the further away one moves from vertical status, the more ephemeral one's data becomes. In any case, this writer intends to explore the degree to which archaeologists can make cogent statements about extinct society and polity from mortuary remains; it will be demonstrated that the situation is not as bleak as some have suggested.

CHAPTER 2

ANALYSIS AND RESULTS

Data Collection

The data set used in this study consists of 115 ethnographically documented societies drawn primarily from the Human Relations Area Files and a few additional sources. The HRAF used is housed on microfiche in the Main Library, Michigan State University, and is complete and up to date. The Master Data List is presented in Appendix A.

Some comments regarding the collection of this body of data are in order. While data collection was planned to be a neat and orderly process, it actually was not, but progressed in largely unplanned "phases". Initial examination of the HRAF - "phase I" - was conducted essentially as a feasibility study to determine two things: whether the pertinent data on mortuary practices in general and regarding horizontal groups in particular were present, and if so, whether these data indicated that a lengthy study of horizontal group symboling in mortuary context would be a profitable undertaking. On the basis of a sample of 53 societies, both questions were answered in the affirmative, and "phase II" was initiated which was simply the continued collection of data.

At different points in this process, various patterns and correlations presented themselves which had not been anticipated (at least not formally) at the outset. One such finding, which occurred about midway through the data collection, was a positive correlation between certain disposal modes and unilineal descent group spatial arrangement (settlement pattern). Since settlement information had not been systematically sought up to this point, "phase III" consisted of a reexamination of all previous cases to include settlement data. With this task accomplished, the collection process resumed with the addition of this new class of information. Similarly, many societies examined near the end of collection happened to be complex systems, chiefdoms or states. This was completely fortuitous, since examination of the files was done on areal basis, and the last two areas happened to be Africa and Oceania. At this point, correlations between certain unilineal descent group disposal modes and form of socio-political structure were noted; so, "phase IV" necessitated the detailed reexamination of socio-political structure for many but not all of the previously examined cases. Finally, the last phase of data collection consisted of various rechecks of problem cases or groups of cases, usually where information was vague or sketchy. This final phase led to the rejection of numerous cases.

In addition to the HRAF, data was sought from other published sources, including previous mortuary studies and

ethnographies. The 115 society sample, then, is comprised of 103 cases culled from the HRAF and 12 gained from other sources.

All societies in the files were examined with the exception of "modern" industrialized state systems. The categories used include the following: settlement patterns (361), sodalities (575), kindreds (612), lineages (613), sibs (614), phratries (615), moieties (616), bilinear kin groups (617), clans (618), tribe and nation (619), community structure (621), funeral (764), and deviant mortuary practices (766). In the situation where complex societies were under consideration, and/or where information was sought to test Hypothesis #8, some additional categories were consulted: property system (421), real property (423), inheritance (428), castes (564), classes (565), territorial hierarchy (631), districts (634), and provinces (635). Murdock's "Ethnographic Atlas" (1967) was also consulted with regard to several data classes.

The data collection process resulted in a voluminous body of information. To help expedite the undertaking, a standardized check-list form was developed early on whereby the relevant data on a society could be recorded in summary fashion. However, due to the "additive" quality of the task as described above, several sets of notes on each case were also taken.

It was intended from the outset that the collection of the ethnographic data be as rigorous and selective as

possible; where data on a society were overly vague, contradictory, or absent, the fiche cards were cheerfully placed in the "reject" pile and another name was crossed off the (seemingly endless) list. It should be stressed that the multidimensional nature of the inquiry, wherein many and varied classes of information were considered, revealed the deficiencies and unevenness in coverage of many ethnographies. It was not uncommon, for example, to find a detailed account of mortuary practices, but virtually no consideration of social anthropology; the reverse was almost equally typical. The necessity for "good" data on the varied topics resulted in an alarmingly high rejection rate of about 50 percent: 103 cases were accepted, 105 rejected. The rate for non-HRAF sources was about the same.

In cases where the literature indicated that mortuary practices and/or social organization in a society had been somehow disrupted as a result of culture contact, these societies were usually omitted. Cultural changes of this sort were typically the result of either successful missionizing or proselytizing efforts by representatives of one of the great religions, or by decree enforced by governmental authority. A common recurring pattern was a reported shift from aboriginal mortuary practices, whatever these may have been, to burial in a Christian cemetery, or a cemetery designated and required by the government. Cultural changes were also noted to be the result of general interference and disruption through culture contact, particularly in North

America. If aboriginal mortuary practices were also described in sufficient detail, which was infrequent, then these data were used. The data were thus selected to represent aboriginal behavior and not that which resulted from cultural contact or disruption. It should be stressed, however, that every case where some kind of previous changes were indicated was not omitted, only those that were clearly the result of disruptive influences.

While the writer is personally satisfied with this rigorous screening process and has confidence in the resulting data set, it is appreciated that the data are only as good as the ethnographies they were taken from, and the ethnographies are only as good as the observations made by the ethnographers that wrote them. Thus, one fundamental underlying assumption of this study is a necessary acceptance that the ethnographic data are "accurate" and that the ethnographers were sufficiently knowledgeable so as to not misrepresent that which they observed. Stated differently, the assumption will be made that the present data set is not somehow biased due to biases of the ethnographers. This variable constitutes an unknown quantity and will therefore be held constant, any potential skewing effects considered negligible.

A perusal of the data list in Appendix A will reveal that the complete range of mortuary practices for most societies is not represented. Since this study was intended from the outset to examine the nature of horizontal group

symboling in mortuary context, and not symboling in general, only that information that was germane to the task was recorded. That is, data pertaining primarily to vertical status distinctions are not presented. For example, readers familiar with Ashanti mortuary practices (see Saxe 1970) will observe that their disposal mode is recorded in Appendix A as simply "L cem", or lineage cemetery. No mention is made of status-related treatments, such as the Royal Mausoleum wherein are interred kings and various nobility. For the vast majority of Ashanti, matrilineal cemeteries are the normative mode of disposal and are for that reason considered to be the most important datum, since it is the lineage cemeteries that reflect horizontal group symboling. This is being brought up to emphasize that the data are not comprehensive, and that Appendix A therefore represents only those features (both positive and negative) relating to the horizontal dimension.

The data have some shortcomings. First and foremost is the fact that the sample is not random, and was not drawn randomly; The HRAF as a whole is not a random sample. Partly for this reason, the following is not a statistical study, and numerical manipulation of the data will not go beyond simple frequency counts and percentages. Of greater significance is the fact that most of the data calculations presented below involve subsamples of the 115 society sample; rarely are all 115 societies included in a test. Thus, it was found that in most cases subsample sizes were sufficiently low so as to prevent meaningful statistical calculations.

For example, in the early stages of the analyses, chi-square tests were attempted to assess the presumed significance of certain associations. In every case, the resulting statistic was considered unreliable due to zeros or numerous other low frequencies in contingency tables, which were a result of small subsample sizes. The same thing occurred in bivariate examinations. While other kinds of tests might be attempted, it is the position taken here that statistical testing would not greatly enhance the findings discussed below, and in any event, the data do not lend themselves to statistical reliability; indeed, preliminary chi-square testing showed that as much time would have to be spent explaining the mechanical reasons why various tests did not work as discussing those that did.

There are two other factors that should be mentioned though their significance, or lack thereof, is unclear. The 115 case sample is uneven with regard to both areal coverage and socio-political-economic category representation. Concerning the latter, the sample has been grouped into socio-political-economic categories, about which a discussion is provided below but generally corresponds to Service's (1962) band, tribal, ranked, and state. As Appendix A shows, the tribal category contains fully half of the cases, followed by ranked (n=28), band (n=20), and state, with only ten examples. It might be speculated that this distribution is indeed representative of the non-Western world in the first half of the twentieth century, though this is certainly

debatable. It is clear that, based on an examination of all accepted and rejected cases, tribal societies do dominate in the HRAF, but that the present sample is even slightly more skewed toward this category. Or, more correctly, the sample is slightly skewed against bands, ranked, and states. It is difficult to assess any potential negative effects the over-representation of tribal societies may have on the results of this study, excepting the obvious fact that data on the other categories is therefore less abundant.

Areal coverage is also uneven. The breakdown by HRAF culture area is as follows: Africa (n=38), North America (n=30), Oceania (n=22), Asia (n=12), South America (n=11), and Middle East (n=2). Europe and USSR are not represented. Again, there is little to offer by way of comment on this distribution beyond simply pointing it out.

Concepts and Definitions

Some of the terminology used in this study should be explicitly defined at this point. Most of the terms and concepts are straightforward anthropological categories, while some require somewhat more precise parameters.

Horizontal groups

Unilineal Descent Group (hereafter abbreviated as "UDG"). A UDG is herein defined as any recognized societal group that reckons descent, either actual or stipulated, through either the male or female line, but not both.

Non-Unilineal, or Cognatic, Descent Group: Such groups are defined as any recognized societal group that reckons descent through neither line exclusively; bilateral descent is typical.

Double Descent Groups: Double descent is defined as the recognition of descent and descent groups through both the male and female lines; thus ego typically can be said to belong to two descent lines and to minimally two descent groups, one through the pater and one through the mater.

Lineage: A lineage is herein defined as any societal group that reckons descent through either male or female line, and where such descent is demonstratable.

Clan: A clan is any societal group that reckons descent through either the male or female line, but where such descent is stipulated and no longer demonstratable; clans can be characterized as groups of lineages related by stipulated descent.

The terms "sib" and "gens" will be herein incorporated under the category "clan", despite the fact that making a distinction between "sib" and "clan" could be of analytical value. Murdock (1949:47, 65ff) defines sib as a consanguineal kin group that usually lacks residential unity, and the clan as a compromise (i.e., including affines) kin group that does have residential unity; the sib, then, is usually "dispersed" in space, the clan "localized". It will be shown below that the mortuary symboling of particular UDGs is related to some extent on group concentration/

localization versus dispersal, and the sib/clan distinction might be meaningfully employed here. However, the term clan" has come to refer to either concentrated or dispersed kin groups of this order of magnitude, with emphasis placed on descent rather than on residence. This is the sense in which "clan" is used in this study, and the qualifiers "concentrated" and "dispersed" will be added when needed. The reader is free, of course, to substitute "sib" for "clan" whenever appropriate.

Phratry: A phratry is defined as any societal group consisting of two or more clans related by stipulated descent, and where at least two other like groups also exist in the same society.

Moiety: A moiety organization, or division, is considered in this study to be any division of society into two roughly equal halves; other, less inclusive UDGs are usually present but need not be; while moieties are herein lumped under the rubric UDG, membership by ego into one or the other division need not be exclusively based on unilineal descent.

Sodality: The term sodality will be defined as any recognized societal group where membership is not based on kinship or descent, and where such groups are relatively permanent (that is, an ad hoc task group is not considered to be a sodality). This term encompasses other terms for such groups, e.g. "societies", "associations". This definition is more restricted than some, in which the term sodality also includes UDGs; types of sodality noted in the present data set

include age grades, warrior societies, fraternal and sororal associations, secret societies, religious or medicine societies, and others.

Socio-political categories

For purposes of analysis and comparison the sample societies have been divided into what are termed socio-political categories. This term has been coined in order to avoid the concept of evolutionary "stages", with all the theoretical and conceptual baggage it carries. This point requires emphasis. Throughout this study, reference will be made to these categories, but no claim is made that this is necessarily an evolutionary sequence. Rather, these categories are held to be empirically recurring socio-political structures, or system states, within which variability does occur, but nonetheless, certain basic features exist which differ from other categories. These categories closely parallel Service's (1962, 1978) model but with a few modifications. A detailed discussion of all features of these categories will not be undertaken at this point (see Service 1962, 1975, 1978); rather, in keeping with the present interest in horizontal groups, the differences in the nature of such groups in the categories is emphasized.

Bands (n=20): Service defines band society as "...the least complex of societal levels, in the sense that it has no special integrative mechanisms except those common to all human societies" (1978:4). In the parlance of the present

study, bands will be demarcated from tribes by the absence of pan-societal integrative mechanisms such as UDGs and sodalities. The most inclusive kinship groupings are families or extended families and formal, defined lineages do not exist. The sample contains three exceptions to this rule, all of which are Australian Aborigine societies. These cases are paradoxical in that they constitute "classic" band-type demographics and adaptations, yet also incorporate society-wide kin-based social groupings. Considered in the broadest perspective, however, it seems desirable to retain them in the band category.

The 20 band societies represent ethnographic studies of these societies undertaken in (more or less) contemporary times. Many anthropologists have speculated that these contemporary societies, most of whom are living in marginal environments to which they have been forcibly exiled, are not necessarily representative of band-type structures of the more distant past (e.g. Service 1978:2-3; O'Shea and Zvelibil 1984:1-4). This is an important problem, particularly with regard to the development of band-related models and expectations for archaeology from ethnographic data, but this study can do little in the way of providing a solution. Fortunately, band societies have the least impact of any on the results of this study, since the focus is on horizontal structures, and bands have been defined as lacking these. Nonetheless, where this analysis does offer statements about band societies, the reader is advised to bear the foregoing

in mind.

Tribal (n=57): Of all the heuristic devices constructed to describe various socio-political forms, the concept of tribe has clearly been the most controversial. Fried has devoted many pages to the argument that tribes don't exist (e.g. 1967). Sahlins, in his definition of tribe, includes two general constructs, "segmentary" tribes and "chiefdoms" (1968). The present study will continue to follow Service's formulation (1978:4-6): tribes can be defined as societies having pan-societal integrative structures, that cross-cut the entire tribe to its very boundaries. These integrative structures are primarily kin-based, usually UDGs, or can consist of non-kin sodalities. The point of importance for the present study is that tribal systems incorporate UDGs and sodalities while bands do not. Thus, this definition also parallels Sahlins' segmentary category.

Another important distinction to be made is that tribes (and bands) are socially and politically egalitarian. Egalitarianism is, of course, a relative thing; the term is here employed to denote the lack of ascribed, or inherited, positions of status, power, or authority of any kind in a society. Most tribal societies do have status people or positions but - as herein defined - these statuses will be achieved, not ascribed. The condition of lack of status ascription constitutes the boundary between tribal and ranked systems. With this, the tribal category continues to follow Service, and departs from Sahlins.

Ranked, or Chiefdoms (n-28): If the tribal category can be said to be the most controversial, then ranked can't be far behind. The terms "ranked" or "social ranking" seem to mean different things to different people, especially archaeologists. For many archaeologists, "social rank" freely translates to "social status" or "social inequality" of any kind (see for example Renfrew 1981 and papers therein). Others have focused on the hierarchical or pyramidal character of ranked societies but have ignored the fundamental principle underlying the hierarchy (e.g. Mainfort 1979). This fundamental principal is that of status ascription, and the fact that the ranking pyramid is a kin-based phenomenon. Thus, a ranked society will be defined as one in which social or socio-political status persons or positions exist which are ascribed, or hereditary (Service 1978:6-8, Sahlins 1968:23-27). The terms "rank", "social rank", or "rank level" will refer specifically to ranked-type societies. Persons in a tribal society may have high social status, but they do not have high (or any) social rank; persons in a ranked society may have high social status and a correspondingly high social rank. It might be added that "highness" and "lowness" of rank and status are usually isomorphic, though the reverse also occurs in some situations. It should also be added that in some ranked societies some measure of social status - but not rank - can be achieved as well.

Perhaps "chiefdom" is a better term for this category: chiefdoms are societies that incorporate and are structured

by the principles of ascriptive social ranking. Chiefdom and ranked society have come to be used interchangeably in the literature however, and in the present study they will be considered synonomous.

Horizontal groups do not disappear or diminish in import with the advent of ranking. Rather, they continue to provide a pan-societal integrative function, generally similar to their tribal counterparts. Yet there is more to it than that, since ranking is based on kinship. Horizontal UDGs form the socio-political "armature" upon which the ranked system is based and maintained. Thus, in many, if not most, ranked societies UDGs have a different - or additional - character to them than those in the tribal category.

State, or Primitive State (n-10): This category is straightforward and defined by Service: state societies are those having essentially non-kin based political institutions (1978:8-9). Succession to the office of paramount may still be based on ascription within a limited group, but the governmental institutions and personnel are no longer predominantly kin-based. Horizontal groups still exist but tend to be attenuated or truncated, and may no longer fulfill the same functions as those in tribes or chiefdoms.

Theory

A study of this nature must of necessity be firmly based on the principle of uniformitarianism. Discussion on the principle of uniformitarianism has enjoyed a revival of

sorts in recent years, seemingly in concert with the advent of ethnoarchaeological studies (e.g. Gould 1978, Watson 1979, Salmon 1982). The most cogent presentation of uniformitarian principles is, in this writer's opinion, that provided by Binford (1981). Binford argues that a uniformitarian perspective on archaeological subject matter is essential if we are to gain any understanding at all of the past:

> Insofar as our inferences regarding the past refer to the dynamics of the past, these inferences must be accomplished by appeals to principles or knowledge about dynamics and how static properties preserved in the archaeological record may be derived from dynamics. Since the only access a researcher has to dynamics is through contemporary experience, all research directed toward the development of principles that serve to make possible inferences about the past must be conducted with documented dynamic situations generally in the present (1981:27).

It is important to appreciate that the above is a statement about the scientific method, and not necessarily about cultural reality through time (ibid.). That is, while uniformitarian principles are necessary to the very fact of archaeological inquiry, archaeologists cannot safely assume a direct correspondence between any and all cultural processes operating in the present with those that may have operated in the past. Yet some degree of correspondence between past and present must be assumed, lest the view be taken that the past was a totally unique (and hence unknowable) event. Binford states that the search for processual regularities between present and past is best conducted through "actualistic" studies of living systems; only in the study of contemporary, observable systems can relationships between

cause and effect, and their resulting material correlates, be elucidated with any measure of control (Binford 1981: 26,29).

But how does one know whether a cultural phenomenon observed in the present also existed or occurred in the distant past? In the context of the present study, this question becomes: Can the material patterns observed in the ethnographic data be legitimately used as explanations or identifications of similar patterning observed in the archaeological record?

> The problem is one of pattern recognition linked with the demonstration that the pattern is redundant and unambiguous, a diagnostic signature that discriminates one agent or set of agents from another (Binford 1981:26).

Thus, the methodology for discovering potential uniformitarian patterns must involve the demonstration that the pattern observed in the contemporary world is "redundant and unambiguous", and indeed accounts for all or nearly all observed examples of the phenomenon under study. Parenthetically, it is at this point where the use of uniformitarian methods and assumptions departs from the invocation of simple analogy. Pattern recognition alone is not enough however; two additional questions must be asked of any observed correlate between dynamic behavior and static patterning: 1) is the observation indeed an incidence of cause and effect, or rather is the correlation merely coincidence, and 2) is the observed correlation also characteristic of the past (Binford 1981:27)?

In this context, Binford and others (e.g. Gould 1978) have speculated that certain classes of data may lend themselves to uniformitarian assumptions better than others. Binford's suggestions for data classes relevant to uniformitarian assumptions include the study of spatial structure and artifactual patterning, and the study of animal species extant in the modern world that were also present in the past (1981:28). For present purposes, it must be determined whether or not mortuary phenomena can legitimately be considered in the same light.

All archaeological mortuary studies have been based on the assumption that spatial and temporal regularities in the manner of mortuary treatment exist. The temporal factor is a uniformitarian assumption, though this fact is usually left implicit in the particular studies. The following discussion will seek to demonstrate that uniformitarian assumptions regarding such presumed spatial-temporal regularities in mortuary practices are justified. As a point of departure O'Shea's recent theoretical statements will be considered.

O'Shea (1984) has offered a coherent theory of mortuary analysis which is based on a consideration of previous theoretical statements and as such should form the theoretical underpinnings of mortuary analysis for some time. Certain of O'Shea's principles are particulary germane to the consideration of uniformitarianism. "Principle 1" states that "All societies employ some regular procedure or set of procedures for the disposal of the dead" (1984:33-34,38).

This observation is based on contemporary experience of course; no human society simply leaves people where they drop. It is emminently reasonable that this principle be projected backward, minimally to the advent of biologically modern humans, perhaps some 40,000 years. "Principles 3, 3a, and 3b" are stated as follows:

> Principle 3: Within a mortuary occurrence, each interment represents the systematic application of a series of prescriptive and proscriptive directives relevant to that individual.
>
> 3a: The nature of the society will pattern and circumscribe the practices for the disposal of the dead.
>
> 3b: The specific treatment accorded an individual in death will be consistent with that individual's social position in life (O'Shea 1984:38).

These related principles postulate an isomorphism between the overall nature and structure of a society and the nature and structure of the disposal of the dead. Mortuary procedures are intended to deal with a dramatic and disruptive event, and are systematic and deliberate. They are performed for the benefit of the living, and are the result of conscious choice and purposeful action. As such, caprice or happenstance do not dictate mortuary practices. That this is a consistent and recurring phenomenon observed in the contemporary world suggests its temporal omnipresence.

In short, O'Shea's theory presents principles and correlates between society and the manner of treating the dead that are, in Binford's terms, "redundant and unambiguous", and therefore constitute a strong basis for uniformitarian assumptions. To this might be added two important, if

obvious, facts: 1) everybody dies, and 2) so far, when someone has died, there has always been someone left still living.

Turning now to the present study, this analysis will seek to discover patterned regularities between horizontal groups and mortuary treatment. It has been established that the fact of death is a temporally uniform event, and the assumption has been made that observed mortuary regularities in the modern world are too. Now the assumption must be made that the horizontal groups observed in the present also had counterparts in the past. Stated differently, this study will assume that the social structural forms observed in the present sample can be projected backward. This assumption is logical and seems well-founded: all contemporary societies are based to a greater or lesser degree on recognition of socially significant groups based on kinship. In particular, the ubitquitousness and importance of UDGs in contemporary non-western society cannot be solely a contemporary phenomenon; the projection of similar such social groups into the prehistoric past is a sound uniformitarian assumption.

It is concluded, therefore, that the various "redundant and unambiguous" patterns observed in the data are 1) actual cases of cause and effect and are not coincidental, and 2) that this causation is indeed relevant to the past. The claim is <u>not</u> made that the 115 case sample is representative of all possible horizontal group mortuary variability

that ever existed, but that the patterning and variability observed in the sample do indeed have counterparts in the past.

Based on the foregoing, then, this study constitutes an inductive pattern search whereby the ethnographic sample is examined for the purpose of discovering patterning and regularities between horizontal social groups, mortuary behavior, and material correlates. Such repetitive and recurring patterns will form the basis for a set of expectations and postulates for the discovery of such groups and behavior from patterning observed in an archaeological mortuary context. Many of these findings are highly redundant and unambiguous, and their application will thus allow the archaeologist to make inferences of high probability. Other patterning is more equivocal, and therefore will allow inferences of somewhat less conviction.

The patterning and correlates to be presented below will be stated in terms of positive representation only. O'Shea has made the important point that much mortuary theory to date has not been adequately "translated" into archaeological expectations (1984:44-46). That is, "if a hypothesized relationship is derived from ethnographic testing, it must be demonstrated that the relationship will still pertain after transformation into the archaeological context" (1984:45). This theme is integral to Binford's theoretical perspective discussed above. For example, many mortuary studies have provided correlates between human behavior and

the archaeological record, but have also incorporated an assumed obverse/presence-converse/absence relationship that is not verifiable and that has ultimately proven false or otherwise untenable (e.g. Saxe 1970, Goldstein 1976; see chapter 3). That is, where the presence of an entity indicates the presence of a past behavior, the absence of that entity conversely indicates the absence of that behavior. It is this proposed converse/absence relationship that is often called into question, since the absence of the entity might indicate any number of alternative behaviors or factors. The necessity that proposed correlates be archaeologically relevant dictates "...a restatement of the correlates to reflect the directional constraints on inference imposed by archaeological formation processes, allowing definitive statements only in instances of positive representation" (O'Shea 1984:45). The presentation of results will follow this useful advice. The fact that few correlates will work in the converse might be construed as a limitation of this study; on the other hand, recognition of this fact beforehand allows positive statements to be made that are unencumbered by bidirectional ambiguity.

One final comment must be made before the presentation of findings. The results of this study involve expected archaeological patterning that will permit an archaeologist to make inferences about the nature of horizontal groups in a past society. However, these expectations should not be used in a vacuum, but rather as part of a multidimensional

research program designed to examine socio-political organization in an extinct system. As such, these results regarding horizontal groups should be incorporated as one datum in an analysis involving different classes of data and converging lines of inquiry. The present results may allow an archaeologist to make inferences of high probability, but analysis should not terminate at this point. If a strong inference can be made, such an inference should be used as a hypothesis for further testing with other data, such as data pertaining to the vertical status dimension, other non-mortuary data, and - most importantly - mortuary data sets from other related sites. Kin group mortuary and spatial patterning is not a site specific thing, it is a system-wide thing, and independent confirmation for a particular inferred structure is best sought at another site. The strongest inferences to be made regarding horizontal group structures within a system will be those that derive from the study of as many related mortuary sites as possible; the strength of the inference will be proportional to the extent to which it can be demonstrated to be recurrent, repetitive, redundant, and unambiguous within the entire system.

The preceding paragraph may sound like a thinly-veiled caveat, and in one respect, it is. As mentioned in the introduction, it has become abundantly clear that horizontal structures are not symboled in the mortuary domain with either the frequency or consistency that the vertical dimension displays. Horizontal group symboling was described as

being more "ephemeral". Thus, the present results will probably have less applicability to mortuary data and use for the investigator than correlates pertaining to the vertical dimension. By the same token, however, if archaeologists continue to assume that such structures are always invisible, then surely they will not be found.

With that out of the way, the above demand that this work be used in conjunction with other lines of inquiry is not unique to this study, nor to mortuary analysis in particular, but is characteristic of archaeology in general, and increasingly so. Many mortuary analysts have correctly stressed the utility and necessity of a multidimensional approach (e.g. Goldstein 1976, Chapman and Randsborg 1981). The further archaeologists seek to push the theoretical and explanatory limits of the discipline, the greater the need for multiple avenues of testing and confirmation. If this statement can be taken as a general rule, then this study is no exception to it.

Presentation of Results

Introduction

The presentation that follows has been structured so that the discussion will progress from more general observed patterning of horizontal groups to more specific correlates between particular UDGs, disposal patterns, and other cultural phenomena. Most results are presented in tabular form. Throughout this discussion, the reader is referred to the

Master List in Appendix A; all data to be presented here is included in the Master List in summary fashion.

It should be explained that in most of the tables below there is included a notation labeled "cases omitted". This refers to various societies that were, for various reasons, omitted from a particular calculation. Most of these omissions are straightforward, e.g. where UDGs are under consideration, all cases lacking UDGs are logically excluded. A few other omissions were done for societies in which data on certain phenomena were inadequate, but where that lack did not warrant omitting the case altogether.

Disposal modes

As expected, a tremendous range of variation in modes of disposal of the dead was observed in the sample. It was nonetheless possible to categorize this variability into three gross disposal classes: 1) disposal associated with habitation structures, 2) use of some kind of recognized disposal area, where the disposal area is not associated with habitation structures, and 3) "no pattern" disposal. These categories will be explained monentarily, but first the variability observed should be summarized:

1) House-related:
   - house floor abandonment; individual
   - house floor cremation; individual
   - house floor burial; individual, family, UDG
   - house floor/near house burial; family, UDG
   - near house burial; family, UDG
   - house-related disposal for majority of population; high status or otherwise exceptional minority disposed of differently

2) Disposal area:
   - cemetery; family
   - cemetery; single UDG
   - cemetery; multiple UDGs
   - cemetery; cognatic descent group
   - tomb; single UDG
   - crypt; single UDG
   - cremation, no burial; UDG, cognatic descent group
   - cremation, cemetery burial; UDG, cognatic descent group
   - cremation, no pattern burial; individual
   - scaffold area, no burial; multiple UDGs
   - disposal area for majority of population; high status or otherwise exceptional minority disposed of differently

3) No pattern:
   - abandonment, no burial; individual
   - "random" burial; individual
   - stream burial; individual
   - exhumation, bones kept; UDG
   - highly varied disposal pattern, e.g. subadults abandoned, unmarried males in cemetery, females in house floor, high status cremated, etc.
   - no pattern disposal for majority of population; high status or otherwise exceptional minority disposed of differently

In the house-related category, then, disposal - usually burial - takes place in or near the habitation of the deceased. In some cases, different locations relative to the house structure are prescribed for different people, e.g. status elders buried in the house floor, younger adults buried outside under the eaves, and subadults in the back. One exception to the house-related identification should be mentioned. The Tucano, a South American tribe, maintain a formal cemetery below a large, communal Great House, or Maloca, in which entire clans reside. Since this mode of disposal actually constitutes a disposal area unlike the more typical house-related patterns, it has been categorized as

such.

The category disposal area contained the greatest amount of variability. Inclusion in this class was dependent upon the use of a recognized and defined (at least "loosely" defined) locus or loci for the disposal of the dead, that is or are exclusive and not associated with the specific habitations of the deceased (with the one exception). Some form of interment in cemeteries is most common. All cases of cremation - with or without subsequent burial - involved formal cremation areas where all or most people were processed; no cases of "random" or no pattern cremation were noted, and the infrequent occurrences of in-house cremation, where the entire structure is burned down, were scored as house-related. A few communal tombs or crypts were noted, as was a single case of scaffold disposal.

The no pattern category contains cases of disposal which indeed result in no pattern, whereby people are simply exposed to the elements, or buried on the spot where they died, wherever that may have been. A few cases, however, might be better characterized as "varied pattern"; as indicated in the list, a few societies utilized any number of disposal modes for different persons, for different reasons. This form of disposal has been lumped into the no pattern group because of this variability. This seems a logical thing to do since these examples are infrequent to begin with, and would appear ambiguous in archaeological context anyway.

Note that in the preceding list, each category contains a statement to the effect "house/disposal area/no pattern for majority of population, something else for status or 'exceptional' minority". It was mentioned at the outset of this chapter that the present goal is to determine the nature of horizontal group symboling in a society, and this approach extends to cases where horizontal groups are not symboled (or are even present). That is, this study focuses on what might be termed "modal tendencies" in disposal of the dead, or how the majority of the population, the non-exceptional "everyday folk", are treated. Many cases of differential treatment of certain individuals was noted, but are not herein considered. For example, most societies in which shamans are important dispose of this individual in "atypical" ways, i.e., the deceased shaman is accorded some special rite or location of disposal. Similarly, many cases were noted in which the normal disposal routine involved, say, cemetery burial, but where persons who died from "abnormal" causes, such as drowning, being mauled by an animal, killed in battle, or struck by lightning, were treated differently or simply left on the spot. Persons considered "anti-social" in a society, such as murderers, thieves, adulterers, or general miscreants are occasionally denied a normal disposal. Finally, a few societies were noted in which certain individuals of some exceptional calibre, i.e., respected elders of advanced age, were permitted to select their location of burial, which was often in some secluded

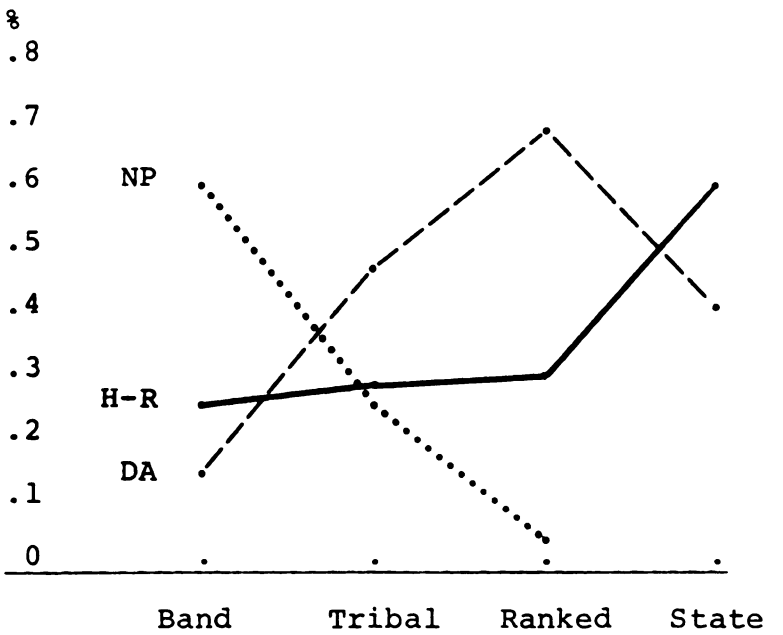
spot. The point to be made here is that such behaviors are not considered - by this writer and usually by the people themselves - to be the modal or normative form of disposal for the majority of the population. Thus the focus on modal tendencies; in accordance with O'Shea's admonition that models and expectations about mortuary behavior be translatable to the archaeological context, this procedure is justified. Exceptional disposal of exceptional people may be discovered archaeologically, and may or may not be understandable, but it does not reflect the modal mortuary practices of the "non-exceptional" majority of the society.

The three classes of disposal modes were compared with the societies' categorization into bands, tribes, ranked, or states. Table 1 illustrates these associations. As shown in the graph, no pattern disposal predominates in bands, with considerably fewer instances of disposal area or house-related. In terms of percentages of modes, tribal cases show the greatest variability, with about half disposal area and half house-related and no pattern. Disposal areas dominate in ranked, no pattern drops off to a single case. States show a downturn in disposal areas, an increase in house-related, and no no pattern disposal.

The generally inverse relationship between disposal area and no pattern disposal modes is interesting. It is suggested that this pattern corroborates other investigators' statements about the structured utilization of space in more versus less complex systems. Many social researchers have

Table 1. Disposal Modes, by Category

	House-related		Disposal Area		No Pattern		
	n	%	n	%	n	%	n
State:	6	60	4	40	0	0	10
Ranked:	8	29	19	68	1	4	28
Tribal:	16	28	27	47	14	25	57
Band:	5	25	3	15	12	60	20
							N = 115



Cases omitted: none

posited a linear relationship between overall societal complexity and the structured use of space in general. Specifically with regard to the mortuary domain, Goldstein (1976) posited that as overall socio-political complexity increases, so will the organized, structured use of mortuary space. The data in Table 1 nicely illustrate Goldstein's postulate.

It is also interesting, especially in light of the foregoing statement, that in the state category, the incidence of disposal areas declines and house-related increases. An explanation for this phenomenon can be offered which will be dealt with in detail later on. To anticipate, it will be suggested that the incidence of disposal areas correlates with the political importance or significance of UDGs in a society; such political importance of UDGs declines markedly in state systems as compared to most ranked societies, and the use of UDG disposal areas thus declines correspondingly.

Horizontal group symboling

At this juncture, the use of the terms "symbol" and "symboling" should be clarified. These terms will appear throughout this study, such as in the subhead above, as if to denote a conscious, deliberate symbolization of something on the part of the people involved. While such is indeed the case in the vast majority of the sample societies, this is not a necessary requirement for a particular pattern to be considered, say, "clan symboling". That is, some symboling in this study is in fact de facto symboling, whereby some

mode or form of mortuary treatment results in the signifying of a particular horizontal group that is observable archaeologically, whether this is a conscious symbolization by the people or not. As stated, by far the majority of cases are reported to do so deliberately, to consciously do certain things in order to symbolize the deceased's status or horizontal group affiliation even after the fact of death. A minority of the cases evidently do not, but the manner of their mortuary treatment nonetheless results in patterning that is reflective of structure in the living society. The latter is considered "symboling", then, regardless of how the people actually feel about it.

Symboling in the sample was recorded in three categories: spatial, artifactual, and ritual. Spatial symboling is fairly straightforward, and includes, for example, disposal areas (usually cemeteries) for the exclusive use of a lineage or clan, or disposal areas with internal divisions used by different lineages or clans. No case of house-related or no pattern disposal was considered spatial symboling; despite the fact that house-related disposal was occasionally reported to be intended by the people to symbol UDG membership, the vast majority of the cases did not, and UDGs were thus not isomorphic with house disposal.

The artifactual category might be better termed "material, non-spatial". Many of the recorded instances of horizontal group symboling do involve the deliberate inclusion of group-defining artifacts with the deceased. Other

"material" representations were noted, however, including UDG totems or other insignia engraved or painted on grave markers or commemorative monuments, or in a few cases painted on the body or skeletal materials. A few cases of sodality-specific costumery were also noted, as was a single occurrence of lineage-specific grave shape.

Ritual factors were recorded in this study principally for heuristic and comparative reasons. None of these occurrences is recoverable archaeologically, which is how it was intended. That is, any and all mortuary behavior could be considered "ritual" or "ritualized", but the term is herein restricted to non-material ritual; the ritual act of burial in the lineage cemetery or painting the clan totem on the face of the deceased is not considered UDG ritual. Rather, examples of ritual include "paired group" structures, such as paired clans or moieties, where part of the duties of the "opposite" group are to organize and expedite the funerary event, or some part of it. A few cases of group-specific rituals were recorded in which each group (usually clans) in a society possessed their own unique procedures. This behavior was scored as ritual. Similarly, societies in which sodalities are present and where each or some sodalities are responsible for the disposal of their dead members were considered "sodality ritual". Thus, with the exception of sodalities, which are non-kin groups, to be considered UDG ritual involves more than the simple fact that the deceased's kin take part in the funerary event. This fact is universal,

and for a behavior to be considered UDG ritual, it must involve something beyond this.

Tables 2a and 2b demonstrate the extent to which the 115 societies in the sample symbol horizontal groups. Note that these tables involve cases that symbol, not occurrences of symboling; any society that symbols at least one group at least once is scored as "positive" regardless of whether they also symbol more than one group, or one group more than one way. Also, the tables include all forms of symboling - including ritual - and not just that which is archaeologically recoverable. Percentages in parentheses are considered unreliable due to small sub-sample sizes. Table 2a shows that of 93 cases having horizontal groups, 49 or 53% symbol at least one at least once. Ranked societies show the highest within category percent. Table 2b considers UDGs; non-kin sodalities are excluded. Here, 45 of 89 societies with UDGs symboled at least one at least once, for 51%. Again, the incidence of symboling occurs most frequently in ranked societies. Table 3 examines the all important factor of archaeological recoverability of horizontal group symboling. These data can be interpreted a number of ways. As summarized in the table, of 49 societies that symbol, 38 or 78% do so in a way that is archaeologically recoverable. This statistic is encouraging, but somewhat misleading, since in the ethnographic cases it is known beforehand whether or not a society symbols, while archaeologically it is not. Thus, out of 93 cases that have

Table 2a: Frequency and Percent of Horizontal Group Symboling, by Category

	N	w/ UDG,S	Sym.	%
State:	10	8	2	(25)
Ranked:	28	28	19	68
Tribal:	57	54	27	50
Band:	20	3	1	(33)
Total:	115	93	49	53

Cases omitted: none

Table 2b: Frequency and Percent of Unilineal Descent Group Symboling, by Category

	N	w/ UDG	Sym.	%
State:	10	8	1	(13)
Ranked:	28	28	18	64
Tribal:	57	50	25	50
Band:	20	3	1	(33)
TOTAL:	115	89	45	51

Cases omitted: none

Table 3. Recoverability of Horizontal Group Symboling

	N of cases w/UDG,S	Cases Recov.	%	Spat.	Art.	Occur-rences Recov.	%
State:	8	1	(13)	1	0	1	(13)
Ranked:	28	19	68	17	3	20	71
Tribal:	54	18	33	17	1	18	33
Band:	3	0	0	0	0	0	0
TOTAL:	93	38	41	35	4	39	42

SUMMARY:

$\frac{38}{49}$ cases recoverable = cases symboled* — 78% of symboled cases are recoverable

$\frac{38}{93}$ cases recoverable = cases w/UDG,S — 41% of cases w/UDG,S are recoverable

$\frac{38}{115}$ cases recoverable = cases total — 33% of cases in sample are recoverable

$\frac{39}{93}$ occurrences recov. = cases w/UDG,S — 42% of occurrences are recoverable

$\frac{39}{115}$ occurrences recov. = cases total — 34% of occurrences in sample are recoverable

*Figure from Table 2a

Cases omitted: none

horizontal groups, 38 symbol in some archaeologically recoverable fashion, for a more sobering 41%. This figure is still somewhat unrealistic, since again, the archaeologist cannot know beforehand whether the society under investigation definitely did or did not have horizontal groups (but see below). Therefore, 38 recoverable cases out of the 115 cases sample yields 33%. Table 3 also includes occurrences of recoverable symboling, i.e., where a society symbols more than one group or one group more than once. These figures are little different from the preceding: of 93 cases with horizontal groups, 39 occurrences are recoverable for 42%; 39 occurrences out of 115 cases yields 34%. Note that spatial symboling is most common and is always recoverable, while minimally only four instances of artifactual symboling were judged to be recoverable (3 non-perishable artifacts, 1 grave shape).

What can be learned from these figures? From the standpoint of raw arithmetic, a bottom-line statistic of 34% recoverability rate might seem rather dismal. On the other hand, if it is recalled that most archaeologists have heretofore not seriously considered the feasibility of discerning horizontal groups from mortuary remains, then 34% sounds like good news. This is an important point. This study is less concerned with simply how many societies in the sample actually symbol horizontal groups than with trying to discover archaeologically interpretable patterning from those that do symbol. If a prehistoric society has chosen not to

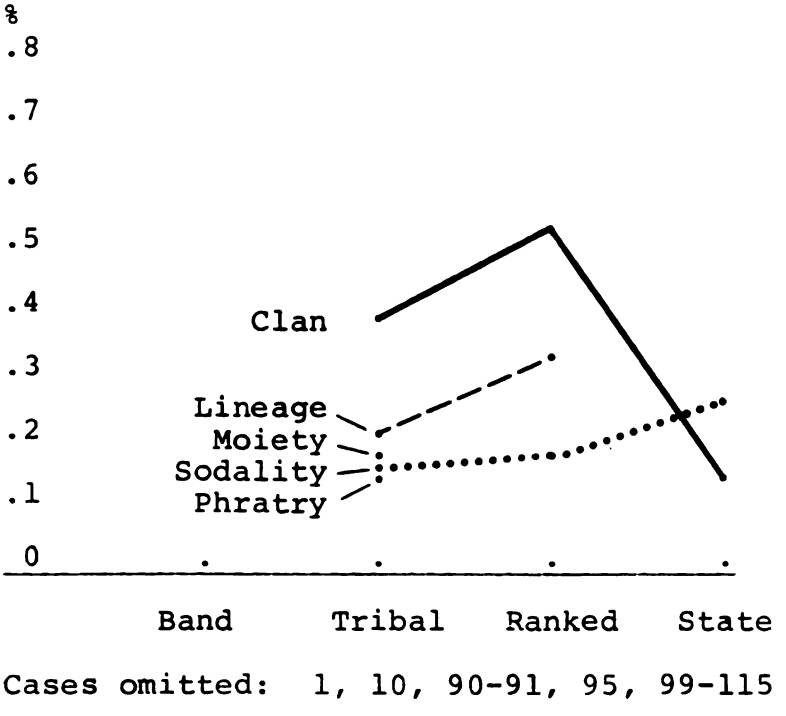
distinguish its horizontal groups in mortuary context - or anything else for that matter - then the archaeologist can obviously do little. However, if the society does so symbol, then archaeologists ought to be able to recognize this, and the figure of 78% recoverability of symboled cases takes on new significance.

Turning now to more specific examinations of symboling by particular group, Table 4 illustrates frequencies and percentages of individual group symboling by category, comparing all societies with particular groups with the incidence of symboling. Some of the percentages are again unreliable due to small sub-sample sizes. The table and accompanying graph show some important patterning: the most frequently symboled group is the clan, which is the favorite of both tribal and ranked societies. Lineages are next most often symboled; phratries and moieties are rarely symboled, and then only by tribal systems. Sodality representation is also uncommon. Considering symboling by socio-political category, it can be observed that tribal systems are the only ones to symbol all five groups at least once, but clans and lineages are dominant. The latter intensifies in ranked societies, and phratries and moieties are not represented. State systems show a marked decrease in clan symboling, no lineages, phratries, or moieties, and an apparent slight increase of sodality symboling; note that phratries and moieties do not occur in the states in the sample (see Appendix A). Also keep in mind that the state sub-sample

Table 4. Horizontal Group Symboling, by Group, by Category

	Lineage			Clan			Phratry			Moiety			Sodality		
	N1	N2	%	N1	N2	%	N1	N2	%	N1	N2	%	N1	N2	%
S:	7	0	0	7	1	(14)	0	0	0	0	0	0	4	1	(25)
R:	22	7	32	23	12	52	1	0	0	4	0	0	12	2	16
T:	36	7	20	46	18	39	7	1	14	19	3	16	27	4	15
B:	2	0	0	1	1	(100)	0	0	0	3	0	0	0	0	0
TOTAL:															
	87	14	16	77	32	42	8	1	13	26	3	12	43	7	16

N1: N of cases with horizontal group
N2: N of cases that symbol the group



Cases omitted: 1, 10, 90-91, 95, 99-115

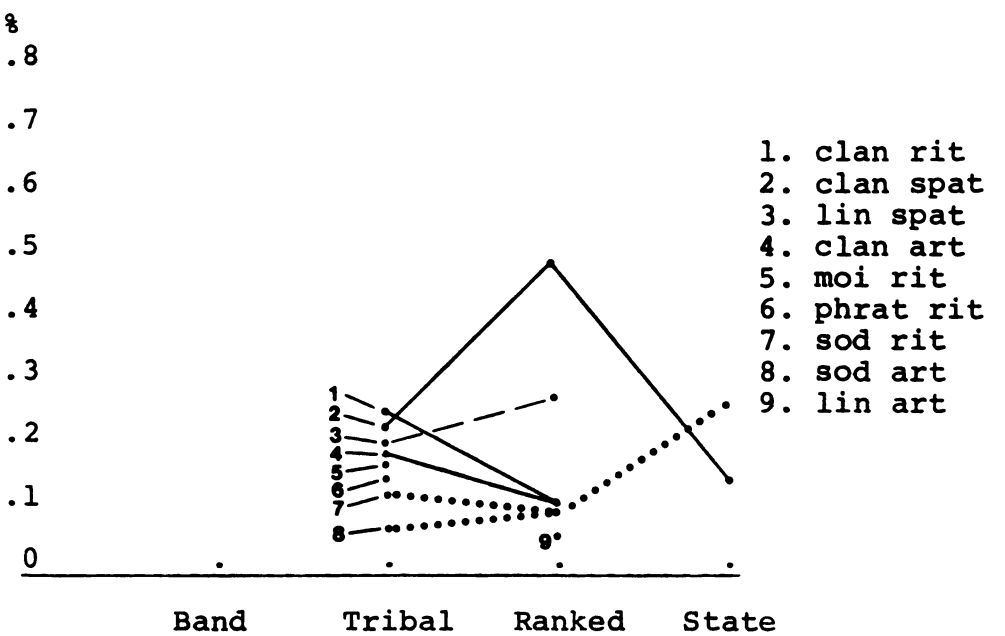
sizes are small.

Table 5 presents horizontal group symboling by specific horizontal group, by occurrence, by type of symboling, and by socio-political category. To begin, note that spatial representations occur only in lineages and clans. Artifactual symboling is present in lineages, clans, and sodalities. Ritual is present in all. The graph demonstrates that clan-spatial is the dominant mode overall. Again, tribal systems display the most variability: clan-spatial and clan-ritual are nearly equally likely occurrences, lineage-spatial slightly less so, followed by fairly low occurrences of other forms. Ranked societies clearly favor clan-spatial, then lineage-spatial. All other forms are comparatively rare. The figures for state systems are again subject to small sample sizes, but show a weak preference for sodality ritual and clan-spatial, with no other forms occurring.

Finally, Table 6 is presented to summarize some of the information presented in the preceding tables. This table shows the three forms of symboling by category, with the horizontal groups lumped together. In the graph, "ALL" refers to the percent of cases with horizontal groups that symbol at least one group once; the "SPAT", "ART", and "RIT" are the percents of that type of symboling by category. These data mirror that in Tables 4 and 5. Ranked societies show the highest occurrence of symboling, and the overwhelming majority of that symboling is spatial. Ritual

Table 5. Horizontal Group Symboling, by Occurrence, by Type, by Category

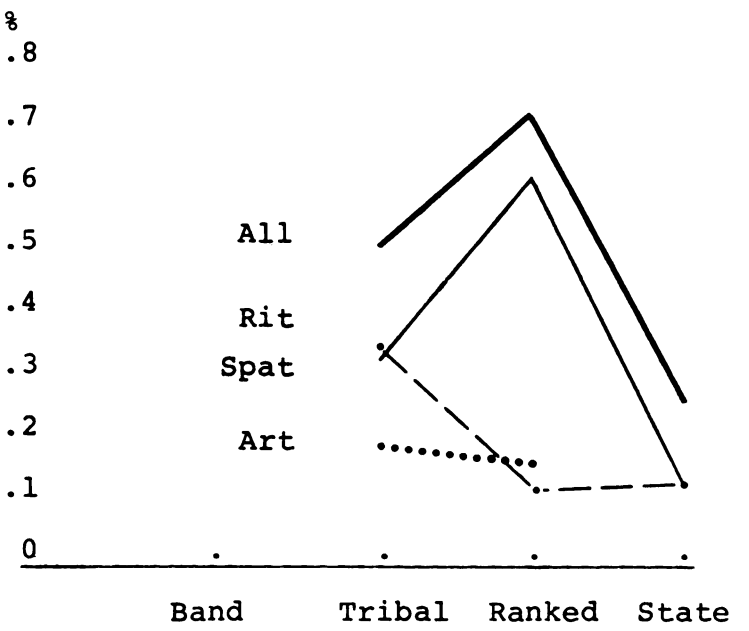
	Lineage				Clan				Phratry		Moiety		Sodality			
	N	S	A	R	N	S	A	R	N	R	N	R	N	A	R	
S:	7	0	0	0	7	1	0	0	0	0	0	0	4	0	1	=n
						(14)									(25)	=%
R:	22	6	1	0	23	11	2	2	1	0	4	0	12	1	1	=n
		27	5			48	9	9						8	8	=%
T:	36	7	0	0	46	10	8	11	7	1	19	3	27	2	3	=n
		20				22	17	24		14		16		7	11	=%
B:	2	0	0	0	1	0	1	0	0	0	3	0	0	0	0	=n
							(100)									=%
TOTAL:																
	87	13	1	0	77	22	11	13	8	1	26	3	43	3	5	=n
		15	1			29	14	17		13		12		7	12	=%



Cases omitted: 1, 10, 90-91, 95, 99-115

Table 6. Horizontal Group Symboling, by Type, by Category

	Spatial n	Spatial %	Artifactual n	Artifactual %	Ritual n	Ritual %	N of cases	N of sym.	%
State:	1	(13)	0	0	1	(13)	8	2	(25)
Ranked:	17	61	4	14	3	11	28	19	68
Tribal:	17	31	10	19	18	33	54	27	50
Band:	0	0	1	(100)	0	0	1	1	(100)



Cases omitted: 1, 10, 90-91, 95, 99-115

and artifactual are infrequent. Tribal systems are again most variable, with spatial and ritual almost equally expectable; artifactual is less common. The figures for states are somewhat inflated, but still reflect the data presented above.

At this point, the reader might welcome some summary statements of the above data. Regarding specific horizontal groups, it has been shown that clans are the predominant groups that are symboled in mortuary context, followed by lineages. Sodalities, moieties, and phratries, roughly in that order, are relatively infrequent occurrences. Spatial symboling is the most common type for lineages and clans, and phratries, moieties, and sodalities are never represented spatially. Artifactual symboling is least common of all types; clan artifacts predominate, and phratries and moieties are never symboled artifactually. Phratries and moieties are only symboled in ritual, and this infrequently. Again, the clan is the most frequent locus of ritual; lineage ritual does not occur. From the standpoint of archaeological recoverability, then, phratries and moieties are archaeologically invisible, and sodalities only slightly less so.

Tribal systems display the greatest amount of variability, both in terms of different groups symboled (all five) and in types of symboling (all three). Frequencies and percentages of group/type symboling are not dramatically different, as Table 5 shows, though clans are the generally

preferred group. Ranked societies show a marked preference for clan symboling, and this representation is overwhelmingly spatial. Lineage spatial is next most common. Phratries and moieties are not represented and are in fact rare in the ranked category. Ranked systems in general display less variability and greater consistency with regard to both groups symboled (clan and lineage) and type of symboling (spatial) than their tribal counterparts. It is suggested that this pattern reflects a more systematic utilization of space by ranked systems, as discussed earlier. Clans and sodalities are the only groups symboled by states. The state sample is small and the figures suspect, but nevertheless show a marked preference for symboling no group; the clan-spatial and sodality-ritual symboling are represented by only one case apiece.

Lineage and clan

The selection or determination by a society of which of two or more horizontal groups are symboled in mortuary context is clearly not a random process. It was shown above that lineages and clans are the most common groups chosen for symboling, and Appendix A shows that in only two cases (Bemba, New Ireland) does a society with two or more groups (here, two apiece) symbol all of them. All five horizontal groups, then, do not appear to have an equal chance of being symboled in a mortuary site, even though all five may be present in the living society.

An explanation for this phenomenon is suggested by the ethnographic literature. Throughout the course of data collection, a frequent and recurring pattern emerged whereby if a society did indeed symbol a horizontal group, it was usually the group considered - by the people as well as the ethnologist - to be the most socially "significant" or "important" in the society. When two or more groups were symboled, then at least one was the "important" group. Stated another way, "stronger" horizontal groups were usually selected over "weaker" groups. This writer will be the first to admit that assessment of "significance", "importance", "strength", and "weakness" of one group over another is a relative and subjective thing, as are the terms themselves. At the same time, however, examination of the literature demonstrates that such assessments are a common preoccupation of most anthropological fieldworkers.

The ethnographic works used in this study devoted a substantial portion to an anthropological study of a society's kinship and social structure; the lack of such an analysis in a study was usually grounds for its rejection from the sample. The vast majority of the writers provided a judgment - usually explicit, sometimes implicit - regarding which of two or more social groups appeared to be the most "important" or instrumental in structuring overall social relations and general day-to-day living in a society. These judgments were made on the basis of various criteria including how incest/exogamy was defined and how marriage

was arranged and regulated. Also, the degree of "corporateness" of a social group was important, i.e., the extent to which a group functioned in an economic, political, and/or religious manner. Further, a group's physical location in space was often a factor, such as concentrated lineages versus dispersed clans. In short, while the assessment of "strength" or "weakness" of one horizontal group over another may be subjective, it is nonetheless a real phenomenon, and most writers made such judgments as a matter of course. There is no valid reason to suspect or suggest that such assessments are somehow all incorrect.

On the basis of the foregoing, assessments of "strong" versus "weak" groups in the societies were incorporated into the present study. The vast majority of these determinations were gleaned from the ethnographic works; in some cases where no judgment was made (or noted), no group was considered dominant. A few were made by this writer on the basis of the criteria listed above. If it is accepted that strong or weak horizontal groups can be accurately identified in a society, then this analysis can examine the extent to which this relative strength and weakness correlates with mortuary symboling.

In no case was a phratry, moiety, or sodality observed to be the single most important group in a society; in no case were these groups more instrumental in structuring social relations than lineages or clans. Tables 7a and 7b show the relationship between strong and weak lineages and

Table 7a. Lineage Symboling,
by Strong vs. Weak, by Category

	Strong			Weak		
	n	Cases sym.	Cases not sym.	n	Cases sym.	Cases not sym.
State:	6	0	6	1	0	1
Ranked:	12	7	12	10	0	10
Tribal:	20	7	13	16	0	16
Band:	0	0	0	0	0	0
TOTAL:	38	14	24	27	0	27
%:		37	63		0	100

Cases omitted: 1, 10, 88-115

Table 7b. Clan Symboling; Lineage and
Clan Symboling, by Strong vs. Weak, by Category

	Strong			Weak		
	n	Cases sym.	Cases not sym.	n	Cases sym.	Cases not sym.
State:	2	0	2	5	1	4
Ranked:	10	9	1	12	3	9
Tribal:	24	15	9	22	3	19
Band:	0	0	0	0	0	0
TOTAL:	36	24	12	39	7	32
%:		66	33		18	82
L and C:	74	38	36	66	7	59
%:		51	49		11	89

Cases omitted: 1, 10, 88-115

clans, and the extent to which these are symboled in mortuary context. As summarized, 74 cases have strong lineages and/or clans, and of these 38 cases (51%) symbol and 36 don't (49%). Sixty-six cases have weak lineages and/or clans; only 7 symbol one or both (11%) while fully 59 or 89% do not. Note that in Table 7a strong lineages are symboled only 37% of the time, and weak lineages not at all. Table 7b shows that when present, strong clans are symboled fully 66% of the time while weak clans evidence only 18%. Minimally, then, there appears to be a strong correlation between the horizontal group that is "dominant" in a society and the group that ultimately gets symboled. Notice, too, that out of the three socio-political categories, ranked societies are more likely to consistently and frequently symbol the strong group, while tribal systems seem to be less so inclined.

Table 8 is presented to add detail to the preceding findings. This table is rather complicated, but careful inspection will reveal conclusions similar to those above. Again, there is a very strong correlation between symboling and strong group. Further, symboling of the weak group where the other is strong never occurs, i.e., if one group is strong and the other weak, the strong group or neither is invariably selected. Interestingly, where both or neither lineage or clan is strong/weak, the clan is by far most often symboled (9 clan to 1 lineage), and symboling occurs almost twice as often as not. Symboling of both groups by

Table 8. Lineage and Clan Symboling, by Strong vs. Weak, by Type, by Category, with Combinations of Symboling

			Lineage		Clan			L & C			
		N	S	A	S	A	R	S	R	none	oth.
State	L/L	1								1	
	L,C	3								2	1
	L,C	2								2	
	L,C	1			1						
	L,C										
	C/C	1								1	
Ranked	L/L	6	2	1						2	1
	L,C	6	2							4	
	L,C	3	1		1			1---1			
	L,C	3			1----1					2	
	L,C	4			3 1----1----1						
	C/C	6			5					1	
Tribal	L/L	3	2							1	
	L,C	14	5							8	1
	L,C	4			1----1----1 1---1 1---1						1
	L,C	4				2 1---1					
	L,C	10			2	1 2-----2				6	
	C/C	14			3	1----1 1 2---------2				6	

(underlined: strong; oth.: cases symboling group(s) other than lineage or clan; connecting lines denote cases symboling lineage/clan with combinations of types of symboling).

Cases omitted: 1, 10, 88-115

the same society occurs only once, and in this case both lineage and clan were considered strong. The combinations of lineages and clans further show that strong lineages, with or without the presence of clans, are symboled less often than are strong clans, with or without the presence of lineages. Finally, Table 8 demonstrates that the symboling of a phratry, moiety, or sodality without the simultaneous symboling of a lineage or clan is rare.

The nature of the relationships between lineage and clan versus phratry, moiety, and sodality representation are straightforward and do not require a table. Where a society symbols the lineage, phratries, moieties, or sodalities are never symboled. If the clan is symboled, any of the three can occur: six (1 phratry, 3 moiety, 2 sodality) occur in tribal systems, 1 (sodality) in a ranked society. Where neither lineage or clan are symboled, sodalities can be, about evenly in tribes (n=2), ranked (n=1), and states (n=1). These data must be viewed with caution due to the relatively low occurrence (n=11) of any phratry, moiety, or sodality representation, and the frequencies of these groups are highly skewed toward the tribal category. However, it might be suggested that phratry and moiety symboling, while always infrequent, is "linked" to clan symboling. That is, a society may feel that it is important to symbol the phratry or moiety only if the clan is considered important too. Sodalities are evidently not nearly so constrained: three occur with clan symboling, four by themselves. It might be

mentioned in passing that three of the four cases of sodality symboling without lineage or clan are North American Indian societies, perhaps suggesting the importance of these organizations in these societies relative to societies elsewhere.

Finally, Table 9 illustrates relationships between the three types of symboling by lineage or clan, specifically the correlation of artifactual and ritual symboling with the predominant spatial mode. The table shows no overwhelming patterns, except that clan spatial symboling is more likely to also involve artifactual and ritual symboling than lineage spatial. The table shows that the artifactual and ritual symboling of a lineage or clan can occur about equally with or without concommitant spatial symboling. The presence of clan spatial patterning can be taken as a predictor of artifactual or ritual only about half the time.

To summarize this section, the data show that all horizontal groups do not have an equal probability of being symboled in mortuary context, and indeed, as discussed previously, just under half of the cases in the sample that have such groups symbol none at all. For those that do symbol, the choice of group seems to be dictated, in the vast majority of the cases, by the degree to which a group is important in the living society, relative to other groups. Strong clans, then lineages, are by far the most common occurrences. Where the strong-symboled/weak-not symboled rule is broken or where neither lineage or clan is strong or

Table 9. Correlation of Lineage or Clan Spatial Symboling with Artifactual and Ritual Symboling, with Combinations of Types

	Lineage		Clan		L & C
Spatial	Art	Rit	Art	Rit	A & R
Lineage				1	1
Clan			2	3	
			2	2	7
Neither	1		1	2	
			5	5	9

weak, the clan is the most common choice, followed by infrequent occurrences of phratry, moiety, or sodality.

This correlation is important from the standpoint of archaeological expectations. A generalization can be offered about this phenomenon, which is parallel to a generalization by Saxe regarding symboling in the vertical dimension. Saxe (1970:71ff) observed that upon the event of death, not all of an individual's social identities can or will be represented in the mortuary rite. Rather,

> The greater the social significance of the deceased the greater will be the tendency for the social persona represented at death to contain social identities congruent with that higher position at the expense of other (and less socially significant) identities the deceased may have had in life, and conversely (Saxe (1970:71; parens in original).

That is, when the living make decisions about the treatment of the dead, factors "...which are structurally more significant should tend to take precedence over others" (Saxe 1970:72). In the jargon of the present study, then, the factors chosen for mortuary symboling of an individual will be those that are "stronger", "more important", or "more socially significant" than others.

A parallel process is proposed in the decisions affecting the symboling of horizontal structures. It has been shown that when a horizontal group is symboled, it is usually the one(s) that people consider dominant in the social structure of their society relative to and at the expense of other groups.

This postulate regarding the horizontal dimension

differs from Saxe's vertical dimension hypothesis in one important way. Saxe's hypothesis is necessarily ego-specific, in that decisions must be made for every deceased individual upon the event of death. Of course, mortuary treatments are usually conventionalized or standardized for persons of roughly equal vertical status, but nonetheless, the necessity for ego-specific decisions can create distinctions or variability in the mortuary rite. The present postulate, on the other hand, is group-specific. The decision to symbol upon death a person's horizontal group affiliation is based on only one factor: whether the group is symboled at all. Stated differently, when somebody dies, ego-specific symboling involves selection between various personal attributes, while group symboling is a phenomenon already decided upon, and was selection made between groups, not persons. Thus, vertical symboling can be fairly characterized as having a scalar, or continuous, quality, while horizontal is presence-absence, or discrete. When present, horizontal group symboling will be expressed in the same manner for everybody in the group, or nearly so (cf. O'Shea 1981:46-47; 1984:49-50), whether spatial, artifactual, or ritual, or some combination of these. The point of this discussion is to illustrate that, while horizontal group symboling may be less frequent in mortuary context than the vertical, if present, it will be less variable than the vertical. A dead person's various social identites may be open to selection, but his clan is simply symboled or it

isn't, and if it is, it will likely be symboled the same way any other clan member is symboled. The selection of various individual social identities based on vertical status may create variability and even ambiguity in the archaeological record, while the horizontal dimension is far less variable and is either symboled or it's not.

Descent groups, cognatic descent systems, and disposal areas

It has been shown above that lineages and clans are the most frequent horizontal groups in the sample that are symbolized in mortuary context, and that this symboling is predominantly spatial, followed by ritual and artifactual. In terms of developing expectations regarding the archaeolological recognition of such groups, the spatial mode clearly is the most visible, the artifactual rather less so, and the ritual not at all. This is, then, a correlation of importance to the archaeologist: that lineages and clans often dispose of their dead in specialized, more-or-less formal disposal areas. These disposal areas would be recognizable; cemeteries are most common, followed by group crematories (with or without subsequent burial), tombs, and crypts.

At this point, the extent to which disposal areas are isomorphic with UDGs should be tested. Table 10 shows the breakdown of the 53 cases that use disposal areas by whom is disposed therein. Thirty-five or 66% of the disposal areas are used by lineages or clans. Nine (17%) represent disposal areas used by societies organized by non-unilineal

Table 10. Correlation of Disposal Areas with UDGs

	Disposal Area = UDG	Disposal Area ≠ UDG	Disposal Area = non-UDG	TOTAL
State:	1	1	2	4
Ranked:	17	2	0	19
Tribal:	17	6	4	27
Band:	0	0	3	3
TOTAL:	35	9	9	53
%:	66	17	17	

or cognatic descent; these cases are generally cemeteries or crematories used by the bilaterally related occupants of a single settlement. Finally, 9 or 17% of the cases are societies that are organized on the basis of unilineal descent, but where the disposal areas include all members of a settlement, and where the disposal areas evidently do not differentiate between different UDGs. In sum, 66% of the disposal areas in the sample represent UDG-specific facilities, while 34% represent something else.

Minimally, it can be observed that, based on the present sample, one may expect a disposal area to represent a UDG about two-thirds of the time. This figure, by itself, is not encouraging. Fortunately, it is possible to go beyond it and offer additional statements regarding the reliability of the association between disposal areas and UDGs.

First of all, it might be noted that in Table 11, 5 of the 9 non-unilineal descent cases are bands or states. Regarding the former, the definition of band includes the assertion that UDGs do not occur. As discussed previously, the use of disposal areas by bands is in any case rare. Similarly, disposal areas are uncommon in state systems. To the extent that an investigator has some idea about the nature of socio-political-economic complexity in the society under study, he can then interpret the significance of a disposal area accordingly. That is, if an archaeologist has reason to believe, based on other data, that the society

under study was band-organized, then UDGs will not occur and a disposal area will thus not represent a UDG. If the society is believed to be state level, then the same caution applies. In short, other kinds of data must be brought to bear to assess the probabilty that a disposal area represents a descent group or not. An indication of band or state level organization decreases that probability to zero and negligible, respectively.

For ranked and tribes, the former category shows no cases of cognatic descent. By definition, all ranked societies will be organized on some variation of the principle of unilineal descent. Thus, if a study of the vertical dimension of mortuary data suggests ranking, then UDGs must be present, and the association of a UDG with a disposal area is an inference of very high probability. Tribal systems are more equivocal and, as usual, display the greatest amount of variability. If previous analyses of mortuary and non-mortuary data suggest the absence of ranking but more complexity than band, then the presence of a disposal area can be taken as a "reasonably" strong inference that a UDG is interred therein. Actually, the presence of a disposal area in a tribal system should be the basis for a working hypothesis that UDGs may be present.

The last point is important, and recalls a subject discussed earlier, that of the necessity for a multi-dimensional approach to horizontal groups in particular and to the analysis of prehistoric socio-political structure in

general. The use of multiple converging lines of inquiry is necessary for the testing of hypotheses regarding horizontal groups in a prehistoric society.

The reader may have noticed by now that in the preceding pages, only infrequent reference has been made to particular societies, the data instead being considered in aggregate. Non-conforming or contradictory cases have not been "explained away" by reference to unique or unusual structures or behaviors of particular societies (though frankly, such could be done legitimately as often as not). In the present context, however, certain non-conforming cases must be discussed, since some demonstrate archaeologically distinguishable patterning, and others may be otherwise atypical.

Two cases were recorded in which UDGs were present, but disposal areas consisted of family members. The Mossi, a state system, reportedly buried their dead in family groups in agricultural fields near their houses. The Mossi have a strong lineage structure, and the family disposal areas could be interpreted as lineage disposal areas. However, since the luxury of second guessing was expressly forbidden, this extrapolation was not made. The point is, it would appear that a Mossi family cemetery would be archaeologically indistinguishable from a lineage cemetery, which in fact, it probably is.

Such does not seem to be the case for the Nootka. Nootka are also reported to utilize family cemeteries, the

location of which is left up to the families. Often caves, islands, or other isolated spots are used; this mode of disposal could almost be considered no pattern. In any case, Nootka family cemeteries are distinctive and are unlikely to be misinterpreted as UDG disposal areas.

The Pawnee, herein considered a ranked society, were divided into four societal segments, referred to in the literature as "bands". Each of the four "bands" was evidently spatially distinct, and each had its own communal cemetery. It can only be speculated whether such a cemetery would be distinguishable from a UDG cemetery, and logical arguments could be made either way.

The remaining six cases appear to be clearly abberant: Omaha, Ojibwa, Fox, Mandan, Hopi, Zuni. All of these societies reportedly lived in multiple UDG settlements but evidently did not segregate the dead according to descent group membership. Rather, a general "village" disposal area was used, a scaffold area for the Mandan and cemeteries for the rest. It may be worth mentioning that the Omaha, Ojibwa, Fox, and Zuni symbol the clan through artifacts and ritual, the Zuni sodalities through artifacts and ritual, and the Hopi sodalities through artifacts.

It is interesting that these six cases are all North American Indian societies; indeed eight of the nine non-conforming cases are North American. The writer has speculated that, in some cases at least, non-conformity <u>may</u> be the result of cultural disruption prior to anthropological

study. For the Zuni, for example, there are indications that village cemeteries may be a recent introduction replacing previous house floor burial (Cushing 1896:336, 365-366). However, no statements were discovered explaining exactly why this apparent shift occurred. Similarly, the Mandan are reported to have formerly practiced no pattern burial and later adopted scaffold disposal areas (Bowers 1950:24,99). In lieu of clear evidence that the mortuary programs reported for these societies are somehow reflective of cultural disruption through contact with Europeans, these cases could not be legitimately rejected at the outset, and will not be rejected now. However, the fact that eight out of the nine contradicting cases are North American may be more than coincidental. On the other hand, it may not, and these societies cannot be dismissed simply because they do not conform to the behavior of other people elsewhere in the world.

At this point, two general principles will be offered that derive from the foregoing. First, it is posited that where UDGs are present in a society, they will consistently segregate their dead, usually on the basis of one of these groups. Out of 89 societies in the sample with UDGs, only 9 seem to contradict this rule, and there is some question about some of these. The dead are segregated by all three modes of disposal: house-related, disposal area, and no pattern. Only in the disposal area mode and possibly a few cases of house-related is UDG segregation a deliberate,

intentional behavior.

Secondly, it is proposed that where present, a more-or-less exclusive and formal disposal area will contain the deceased members of a UDG. As noted earlier, the accuracy of this inference will vary with the nature of socio-political complexity in a society. Further, it has been stressed that while this is herein considered an inference of high probability, this study does not claim that any disposal area is de facto proof of the presence of a UDG. Rather, the presence of a disposal area can be considered the basis of a working hypothesis that requires further investigation.

A brief consideration of cognatic descent systems is in order. Table 11 shows the 26 sample societies lacking unilineal descent broken down by disposal mode and category. There is little to learn here. The totals indicate that systems of this type tend to slightly favor no pattern disposal, though this fact is heavily weighted toward the band category. No dominant patterns other than that are apparent, and mode of disposal by these systems seems rather variable. It might be added in passing that four out of the seven tribal societies have non-kin sodalities, but these are not symboled in mortuary context.

Descent groups, disposal areas, and settlement patterns

It has been established that, with few exceptions, societies with UDGs will segregate their dead, usually on the basis of one of these groups, and that a formal and

Table 11. Correlation of Disposal Modes with Non-Unilineal Descent Systems, by Category

	House-related	Disposal Area	No Pattern	TOTAL
State:	0	2	0	2
Ranked:	0	0	0	0
Tribal:	1	4	2	7
Band:	5	3	9	17
TOTAL:	6	9	14	26
%:	23	35	54	

exclusive disposal area has a high probability of containing the deceased members of a UDG. This section will seek to demonstrate how UDG disposal area spatial patterning is related to - and in some cases may be determined by - the spatial arrangement of UDGs over the landscape.

Table 12 shows the spatial configuration of lineages and clans - whether single ("Si") or multiple ("Mu") - in a settlement, juxtaposed with the presence of lineage or clan disposal areas; non-conforming cases are also included. The single lineage, single clan, and single lineage and clan categories are essentially autocorrelations, showing that where a settlement consists of one discrete UDG, and where a disposal area is used, it will naturally be a single UDG disposal area. (Incidentally, it is in regard to some of these cases where the aforementioned de facto symboling enters in, i.e., it is not entirely clear from the literature whether some of these cases maintain a disposal area for the purpose of representing a UDG, or whether a settlement-related disposal area is used simply out of expediency. In either case, the archaeologically visible result is the same). The two categories "multiple lineage, single clan" and "multiple lineage, multiple clan" show an interesting phenomenon. In the former, the symboling of the single clan occurs over the multiple lineage 8 to 1; in the latter, the multiple clan and multiple lineage are evenly represented at 4 apiece. The combined totals are 12 clan to 5 lineage. The final categories, "multiple lineage, no

Table 12. Correlation of Lineage/Clan Disposal Areas with Lineage/Clan Settlement Configurations, by Category

Sett. L	Sett. C	State Clan	Ranked Lineage	Ranked Clan	Tribal Lineage	Tribal Clan	Non-conforming
Si	-				Yokut Mapuche		
-	Si			Flores Bella Coola Monguor		Mongo Toda Goajiro	
Si	Si	Ganda	Kurd Bemba Easter Is.		Tiv		
Mu	Si			Tanala Thonga Ambon Lolo Tlingit	Dogon	Mae Enga Tucano Tallensi	
Mu	Mu		Ashanti	Marshall Is.	Yao Truk Fellahin	Iroquois W. Apache Talamanca	Mossi Fox Nootka Hopi Mandan Zuni Omaha
Mu	-		Mbundu Puka Puka				Pawnee
-	Mu			Khasi Siwans		New Ireland	Ojibwa

(Sett.: Settlement; "Si" = single UDG, "Mu" = multiple, "-" = does not occur)

clan" and "no lineage, multiple clan", shows that these societies somehow spatially distinguish the different UDG dead through the use of disposal areas.

Table 12 illustrates three related points. First, it is clear that while these societies (excepting the non-conformers) segregate their UDG dead, the smaller of the two groups is not necessarily the one that will be symboled. Rather, the reverse is more likely, that the clan will be symboled over the lineage. The second point may explain the first. In the 12 cases of clan over lineage symboling, 7 are strong clans, 3 are strong lineage and clan, and 2 are weak lineage and clan. Of the 5 lineages symboled, 4 are strong lineage and 1 is strong lineage and clan. Thus, it will be recalled that in cases where the clan is strong and the lineage weak, or both/neither are strong/weak, the clan is the favored group. In the "multiple lineage, single clan" category, the overwhelming dominance of clan disposal areas probably reflects the simple fact any local settlement is comprised of members of the same clan, and residential or spatial contiguity promotes the effective functioning of the group, and hence its relative importance; where single strong clans occupy a settlement, then it would seem to be "unnecessary" to symbol the lineage. In the "multiple lineage, multiple clan" category, the symboling of the clan reflects the segregation of the more inclusive UDGs in the settlement vis a vis other like groups. The societies who chose to symbol the less inclusive group, the lineage, are

also de facto segregating their clan members as well. Finally, a third point derives from the foregoing: it is apparently not possible to distinguish a lineage from a clan in a disposal area on the basis of spatial patterning alone. Minimally, the presence of a lineage or a clan can be inferred from the presence of a disposal area; probability favors a clan, but the disposal area by itself evidently cannot indicate which.

The data to be discussed in the remainder of this section is presented in Table 13. In order to add detail to the foregoing and to develop more explicit archaeological implications for the identification of UDGs, it is necessary to discuss the types of disposal areas involved and their internal structure; various individual cases will be brought in where necessary. Table 13 shows four categories of settlement/disposal area association, which will be explained in turn:

1) Single UDG disposal area, one per settlement: This category is straightforward and contains 18 cases in which a single UDG settlement is associated with a single disposal area, in which all members are interred or processed. Note, too, that the table contains a class "concentrated vs. dispersed". These terms describe the nature of the habitation sites. "Concentrated" settlements can be thought of as more or less compact, nucleated villages where habitation structures are located fairly close to one another. "Dispersed" settlements are sometimes referred to (Murdock 1967)

Table 13. Correlation of UDG Disposal Area Types with Attributes of Settlement Pattern

	DA Type	Conc or Disp?	Case	UDG Sym	Cat.	Div sett?
Si UDG	cem	conc	Bemba	L	R	-
DA; 1 per			Mbundu	L	R	+
Sett.			Kurd	L	R	-
(n=18)			Bella Coola	C	R	-
			Thonga	C	R	-
	crem/cem	conc	Tlingit	C	R	-
			Lolo	C	R	-
			Yokut	L	T	+
	crypt	conc	Flores	C	R	+?
			Ambon	C	R	+
	cem	disp	Mapuche	L	T	+
			Mongo	C	T	+?
			Goajiro	C	T	-
			Tiv	L	T	-
			Tallensi	C	T	-
			Mae Enga	C	T	+
			Marshall Is.	C	R	+
	crem/cem	disp	Monguor	C	R	+?
Si UDG	cem	conc	Tucano	C	T	-
DA; 1 per			Ganda	C	S	-
UDG	tomb	conc	Tanala	C	R	+
(n=8)			Easter Is.	L	R	-
	crem/cem	conc	Khasi	C	R	+?
	crem	conc	Toda	C	T	-
	cem	disp	Truk	L	T	+
	tomb	disp	Talamanca	C	T	-
Si UDG	cem	conc	Siwans	C	R	+
DA; 1 per			Dogon	L	T	+
UDG per			W. Apache	C	T	+
Sett.			Iroquois	C	T	+
(n=5)	cem	disp	New Ireland	C	T	+
Mu UDG	cem	conc	Ashanti	L	R	-
DA; 1 per	(divided)		Puka Puka	L	R	+
Sett;			Fellahin	L	T	-
(n=4)		disp	Yao	L	T	+

as "hamlets" or "neighborhoods", where there is some degree of dispersal or spacing of structures beyond that of a concentrated village, but where the aggregate whole is still recognized as "the settlement". In the concentrated settlements, the disposal areas are usually situated adjacent to the settlement, or rarely (e.g. Flores, Ambon) within its boundaries. For dispersed settlements, disposal areas are located somewhere within the area occupied.

2) Single UDG disposal area, one per UDG per society: Societies in this category utilize one disposal facility for every UDG in the system. Deceased persons are brought from wherever they may have been living for processing or interment in the facility. Types of facility and spatial arrangements range from burial in a single clan cemetery beneath a clan Great House (Tucano), to the more common cemetery or tomb, either located within a fairly circumscribed, concentrated UDG territory (e.g. Easter Island, Tanala), or otherwise located in some convenient, often "traditional" spot (e.g. Ganda).

3) Single UDG disposal area,one per each UDG per settlement: Five societies live in multiple UDG settlements, and maintain spatially separate disposal areas for each UDG. Disposal areas are located within the boundaries of a dispersed hamlet-type settlement (e.g. New Ireland), adjacent to a concentrated settlement (e.g. Iroquois), or even within a concentrated settlement (e.g. Siwans). In one case (W. Apache), it was not entirely clear whether the disposal

areas were located nearby or somewhat removed from the habitation site.

4) Multiple UDG disposal area with internal divisions, one per settlement: This final category includes four societies that live in multiple UDG settlements and maintain a disposal area nearby. Deceased UDG members are interred in spatially distinct and defined divisions within a cemetery.

Based on the above, explicit implications can be derived for the recognition of UDGs. This UDG disposal area patterning must be contrasted with other patterning to determine the extent of possible obfuscation. Beginning with the first category, single UDG disposal area, one per site, archaeologically recognizable patterning would be straightforward: a concentrated settlement with an adjacent disposal facility, or several nearby hamlets with an associated facility. It is of paramount importance to point out that all non-conforming or non-unilineal descent cases resemble the single concentrated settlement-single disposal area pattern. The reader will recall that 9 cases lacked UDGs but maintained disposal areas, and 9 cases had UDGs but apparently did not segregate the dead. The literature on these 18 societies indicated that they utilized disposal areas directly adjacent to the habitation settlement or, in one case (Java) somewhere within it. Thus, it can be concluded that the primary source of obfuscation is where disposal areas are located adjacent to habitation sites, since this pattern can represent single UDG disposal areas

(n=18), cognatic group disposal areas (n=9), or multiple UDG disposal areas (n=9) that lack internal differentiation. It is further noteworthy that all but one (Mossi) of the non-conforming/non-unilineal cases (even the three band societies) are reported to live in more or less discrete, concentrated settlements.

Expectable patterning deriving from the second category, single UDG disposal area, one per UDG, would be a lack of a disposal facility anywhere near most or all habitation sites, with the exception of the Tucano cemetery-under-Great House. Concentrated versus dispersed settlement has no bearing here. Disposal areas would be few, and presumably could be located anywhere. Further, since all UDG members are interred or processed through a single facility in the same place, a large quantity of human remains would be expectable, particularly if a cemetery, tomb, or crypt is used. It might be added that this mortuary pattern was not noted for anything other than single UDGs, such as multiple UDGs maintaining the same facility. Also, there were no cases in which a single UDG maintained two or more facilities that were spatially removed from settlements; if more than one facility is used, they are invariably located somewhere near the settlements of the users.

The last two categories deal with multiple UDG settlements and demonstrate two highly recognizable spatial patterns: distinct UDG disposal areas near or within a settlement, and single disposal areas with internal divisions near

settlements. Such patterning would be unambiguous in archaeological context. Multiple cemeteries and divided cemeteries occur only where a society seeks to distinguish UDGs. No other cases were noted where multiple or divided disposal areas were intended to signify something else. It should be noted that the four divided cemeteries are divided into formal sub-areas; UDG affiliation is not represented by burial in rows or non-patterned family plots. It is also interesting to note that these four societies symbol the lineage rather than clan (one case, Puka Puka, reportedly lacks clans).

At this point, other kinds of intra-disposal area patterning that does not symbol UDGs should be summarized. Four cases reportedly bury in family plots within the cemetery (Kurd, Bella Coola, Java, Yao). It seems unlikely that such family plots would be confused with formal divisions, and indeed, the Yao do both. Two societies buried in rows: the Monguor buried cremated remains in family plots with generations in rows, and the Salish buried in rows for no apparent (or reported) reason. This discovery is disappointing from the perspective of some recent mortuary studies that suggest that rows can be an important organizational feature of cemeteries (e.g. Goldstein 1976, Milner 1984). Two societies (Mae Enga, Thonga) utilized cemeteries for male UDG members only; females and children are bured elsewhere. Three cases spatially distinguish by sex: Zuni in a cemetery, Toda by two adjacent crematories (no burial),

and Khasi by separate, adjacent cairns for cremated remains.

Several societies utilized disposal areas for most people, but excluded some others not on the basis of status or deviancy. Many interred only adults in disposal areas, with subadults disposed elsewhere. The Mbundu practice no pattern burial for hunters. The Trukese will bury an individual somewhere other than the lineage cemetery after a deathbed request, which is apparently a rare occurrence. Some portion of the W. Apache tribe practiced no pattern disposal rather than the more common clan cemetery. In the Marshall Islands, clan cemeteries are used but also some no pattern and sea burial; an explanation for this was not found.

Several cases were discovered where different body positions were used, but only one denotes UDGs. The Nyakyusa utilize different grave shapes to symbol lineage affiliation, and round or oval graves, being small, thus contain flexed burials, while oblong graves contain extended burials.

Finally, at the outset of this study considerable interest was placed on discovering cases where combinations of processing modes were utilized, such as cremation with inhumation, or primary with secondary burial, since such combinations often appear archaeologically. The results are disappointing. The Yurok are reported to have cremated most people, but status individuals were buried. One case, Goajiro, combined primary burial with secondary urn burial

in a clan cemetery. Unfortunately, no explanation for this distinction was found. Further disappointing was the relative rarity of any secondary burial. In archaeological context, secondary burials are often presumed to be individuals who died away from the prescribed disposal area and who could not be brought there immediately for burial, e.g. during the winter months. In the present sample, the dead were evidently brought to the facility straight away. All secondary burial was apparently done deliberately and out of preference, or at least no other reasons were reported.

One other correlation between settlement structure and disposal area patterning should be mentioned. Table 13 includes a class "Divided Settlement?" which denotes whether a settlement is internally divided on the basis of some criterion. This information was taken from Murdock's (1967) categorized data, and is somewhat less than clear. Note that in Table 13 four societies that according to Murdock have "clan barrios" also have an accompanying question mark, meaning that the ethnographic data contradicted this, at least in this author's reading of it. However, possible discrepancies aside, taking the information at face value shows an interesting - if not overpowering - tendency: that single UDG settlements tend to be not internally subdivided, and that multiple UDG settlements do. The latter show the stronger association. The ambiguous factor is the criteria by which the settlement is divided,

which was not provided by Murdock and could not always be determined from the HRAF data. Many cases did, however, indicate division into UDG-based areas. In any case, if a habitation site can be determined to be internally divided into "wards" or "barrios" (ibid.), then the archaeologist can in turn hypothesize the presence of multiple UDGs. If multiple or internally divided disposal areas are discovered as well, then this becomes an inference of very high probability. Considered separately, however, it is clear that multiple or divided disposal areas are a far better single indicator of multiple UDGs than are divided settlements.

Disposal modes and subsistence patterns

Appendix A shows subsistence practices for all societies. These data were extrapolated from Murdock's (1967) tabulations. An examination of modes of disposal of the dead with dominant subsistence pattern (Table 14) reveals no surprises. The sample is heavily weighted toward primary agriculturalists, who demonstrate a marked preference for disposal areas, and then house-related disposal. Hunters and gatherers clearly favor no pattern disposal. The 9 primarily pastoral societies show no marked preference, and societies whose primary subsistence mode is fishing demonstrate a slight preference for disposal areas.

These findings mirror those of Binford (1971), who showed that agricultural societies generally tend to manifest more structured and varied mortuary treatments than

Table 14. Correlation of Disposal Modes with Primary Subsistence Modes, by Category

		Primary Subsistence Modes				
		Agri.	Pastoral	Fishing	Hunting	Gather.
State:	HR	6				
	DA	4				
	NP					
Ranked:	HR	8				
	DA	16		3		
	NP		1			
Tribal:	HR	11	4	1		
	DA	18	3	1	3	2
	NP	6	1		5	2
Band:	HR	2		2		1
	DA	1		2		
	NP	1		1	3	7
TOTAL:	HR	27 37%	4	3		1
	DA	39 53%	3	6	3	2
	NP	7 10%	2	1	8	9
		73	9	10	11	12

hunter-gatherer groups. However, this study concurs with O'Shea (1984:6-7) who notes that Binford's results are somewhat misleading, in that the determinant of increased complexity is not necessarily agricultural subsistence versus hunting-gathering, but rather relative sedentism versus mobility. That is, greater or increased structure probably coincides with sedentism regardless of subsistence mode, and mobility does not promote such elaboration. The data in Table 14 can probably be taken as support for O'Shea's thesis, to the extent that agricultural subsistence and perhaps fishing correspond to sedentism. Further, 38 of the 49 cases that symbol horizontal groups are agriculturalists, demonstrating some degree of greater complexity in agricultural/sedentary societies relative to all others.

Disposal patterning and descent

An examination of disposal patterning and descent reckoning produced no useable results, and for this reason, the reader will not be encumbered with a table. The sample is highly skewed toward patrilineality (n=50), followed by matrilineal (n=24), bilateral (n=18), double descent (n=11), and undetermined (n=12). Because of the preponderance of unilineal descent systems, any results should be considered unreliable, but for the record, patrilineal and matrilineal systems favor disposal areas, and matrilineal societies tend to symbol some horizontal group more frequently than any other descent system.

The problem of house-related disposal

It was mentioned near the outset of this chapter that observed instances of house-related disposal presented a conceptual problem, in that it was not clear the extent to which house-related disposal constituted horizontal group symboling. Despite the fact that the literature occasionally indicated that, for example, people are buried in the house floor in order to keep the lineage together even in death, house-related disposal is not herein regarded as symboling. The problem is twofold: 1) it is not certain, even in cases where there was some indication that the group "should be together", that this behavior was truly intended to symbol the horizontal group, and 2) unlike disposal areas, de facto spatial patterning of groups could not be interpolated. That is, even when the literature did indicate deliberate symboling, in all but one case (Tucano; scored as disposal area) the members of the UDG lived in more than one structure, and the UDG was thus "symboled" in the ground under several of them. This pattern, then, is identical to house-related disposal where the UDG is not intentionally symboled (or even present), and is hence archaeologically ambiguous.

During the course of data collection, however, certain patterning was noted that, while not being really redundant and wholly unambiguous, could be of value to the archaeologist and should be discussed at this time. Out of 35 societies using house-related disposal, by far the majority are

indeed ambiguous, both with regard to horizontal group symboling and archaeological patterning. Several African societies, however, displayed a pattern that can be called "complex house" burial, which is far more structured than most. Four cases were noted (Ngoni, Swazi, Zulu, Igbo) and three possible others (Azande, Rundi, Ila) in which kraal-type settlements are used, usually by a single UDG; these kraals, or compounds, constitute single UDG residence areas within a larger, often dispersed, multiple UDG settlement. Mortuary practices are of the house-related variety but are more complex than simply burying everybody in the floor. To generalize, the eldest male head of household is typically interred under the floor of his sleeping room or otherwise somewhere in his house; non-elder males are buried somewhere else, say, within the compound near one of the walls. Females will likewise have a spatially distinct area, perhaps just outside the compound wall, or on the opposite side of the compound from the males. Infants and children may be buried in some spatially distinct spot. The point to be made here is 1) that this kind of mortuary pattern is more complex and structured than more typical house-related disposal, and would be archaeologically interpretable, and 2) this kind of structured disposal program was not observed to be utilized by anything other than a distinct UDG (in the four cases mentioned, all lineages). Spatial locations and other elements of funerary treatment are determined on the basis of age, sex, and status, but <u>within</u> a UDG; the latter

provides the pool of people about whom age, sex, or status distinctions are made. Stated more generally, it appears that as complexity of house-related disposal increases, so does the probability that the mortuary programs are undertaken by a distinct UDG. It is tentatively suggested, then, that "complex house" mortuary programs, if discovered by the archaeologist, may indicate the presence of a single UDG. At the very least, such a pattern can be taken as a working hypothesis to be tested with additional data.

The second pattern worthy of mention involves the previously discussed division of settlements into "wards" or "barrios", within many of which dwell members of separate UDGs. It was pointed out above that the probability of accuracy in inferring that a disposal area represents a UDG approaches 100% in ranked societies, since by definition all ranked societies have UDGs, and the probability that a disposal area represents something else is therefore negligible. A similar, if weaker, case can be made for house disposal. If clear evidence of ascriptive ranking in a system is discovered, then the presence of UDGs can be strongly inferred; if house-related disposal is discovered, and if clear, unequivocal evidence of wards or barrios is present, then the inference may be permitted that these subdivisions may represent UDG residential areas, and the dead are UDG members. The problem involved in an inference such as this is the fact that in some complex ranked systems, spatial subdivisions in habitation sites <u>may</u> <u>not</u> in fact be made along UDG

lines (see Chapter 4). That is, the spatial configuration of the domain is often determined by administrative or chiefly decree and need not conform to spatial arrangements of UDGs. In any event, the correspondence of house-related disposal and distinct settlement divisions may be taken to represent hypothesized UDGs, particularly in ranked systems. Again, however, this inference by itself is not terribly strong, but can serve as the basis for further testing.

Summary

Discussion

With the presentation of findings completed, it remains to summarize and emphasize some of the main points in the discussion. First and foremost, it should be reiterated that no claim is made that the patterning and correlates presented above are an exhaustive survey of the nature of horizontal group symboling in mortuary context. Rather, it is asserted that, through the invocation of uniformitarian principles, the patterning observed in the 115 society sample should have counterparts in the archaeological record. In this regard, it should be restressed that the frequencies and percentages of the 115 societies that symbol is less important than the fact that most of this symboling results in structure that is, for the most part, redundant and unambiguous, and is archaeologically recoverable. Put another way, less concern is placed on, say, the fact that only about one-third of the cases symbol horizontal groups in the

archaeologically visible spatial mode than with the fact that this symboling is indeed recoverable and interpretable by the archaeologist. It can never be known what proportion of all prehistoric societies symboled horizontal groups or how they did it, but if some did, and in a manner similar to the ethnographic cases, then archaeologists are now in a position to recognize this.

The results discussed above clearly demonstrate that societies do in fact symbol horizontal structures in mortuary context more often and more consistently than suggested in O'Shea's (1981, 1984) study of mortuary variability. While O'Shea is very correct when he posits that the vertical dimension seems to take precedence, horizontal dimension symboling is not so rare or vague as he supposed. Further, it has been suggested that horizontal symboling can be expected to be far less variable than vertical dimension symboling, to the extent that vertical dimension symboling involves the selection of various attributes of individuals, while the horizontal is represented the same way for everyone in a group. The present data set indicates that clans and lineages are the overwhelming favorites to be represented in death, and that any and all horizontal groups in a society do not have an equal chance of being symboled. Thus, a theoretical postulate has been offered to account for this phenomenon:

Postulate 1: When a horizontal group is symboled in mortuary context, it will usually be the one(s)

> that people consider dominant in their social structure relative to and at the expense of other such groups.

In no cases were phratries, moieties, or sodalities found to be dominant in a society; the most important groups were always lineages or clans, and these stronger groups were more often and consistently symboled than any other groups.

This fact is important in the context of O'Shea's expectations for horizontal dimension symboling. Based on a study of three North American Plains systems, O'Shea constructed a logical model consisting of archaeological expectations for discerning horizontal groups (e.g. 1981:42, 1984:43-47). For example,

> Suppose a society differentiated individuals in death on the basis of moiety membership. Such a distinction if observed in an archaeological context would produce a pattern with a number of predictable characteristics, such as:
> 1. The mortuary occurrences would be divided into two groups of approximately equal size.
> 2. The demographic composition of the resulting two groups would be similar to that of the population as a whole.
> 3. A number of other classes of mortuary distinction would cross-cut the group division ...(O'Shea 1984:46).

It can be argued that O'Shea's expectations would more probably indicate the presence of two local lineages or clans utilizing the same cemetery. This assertion is made on the basis that O'Shea's model is a logical construct indicating that if a society is divided into two halves (moieties), and if the disposal area or other symbolic indicators are likewise bipartate, then these must be the moieties. While this

is certainly possible, it is unlikely, and the above results indicate that when multi-partate structures are present, probability suggests the representation of less inclusive UDGs, lineages or clans. Further, O'Shea's model does not take into account settlement arrangement. While a society may be divided into two moieties, these halves need not be represented in every settlement or disposal area. Again, probability favors the presence of two less inclusive UDGs. In short, this research has shown that there is no "automatic" isomorphism between horizontal group structure and mortuary representation, such as moiety organization divides into two, three phratries divide into three, eight clans divide into eight, etc. The configuration of any single disposal area will be dictated by 1) whether any group is symboled at all, 2) the relative strength or weakness of two or more groups present, and 3) the social configuration of the local settlement using the disposal facility. Given this, it is expectable that such a pattern as described by O'Shea is less likely to represent a moiety than two clans or lineages.

In the presentation of results, heavy reliance has been placed on the spatial dimension of mortuary variability as an indicator of the presence of horizontal groups. With this concern with space, this study follows the lead of Goldstein (1976, 1980), who was perhaps the first to recognize the fact that mortuary variability includes something beyond the simple presence/absence of grave goods, or at

least first explicitly emphasized this fact. This emphasis has since been echoed by many (e.g. Chapman and Randsborg 1981, Brown 1981). The results show a general linear correlation between overall socio-political-economic complexity in a system and the structured utilization of mortuary space, to the extent that the use of formal disposal areas indicates greater spatial structure than house-related or no pattern disposal. The use of space as a symbolic indicator of the horizontal dimension also increases in linear fashion with complexity at the expense of ritual and artifactual indicators, at least from band through ranked society. It can be concluded that, as one moves from band through tribal to ranked systems, 1) the use of disposal areas increases over house and no pattern, 2) the spatial symboling of horizontal groups increases over artifactual and ritual, and 3) the incidence of horizontal group symboling in general increases. Interestingly, this pattern seems to fall off dramatically at the theoretical apex of ranked society and in state systems, a phenomenon to be explored in a later chapter.

In the context of spatial patterning, a second postulate with three correlaries, has been offered.

Postulate 2: Where unilineal descent groups are present in a society, they will with few exceptions consistently segregate their dead, usually on the basis of membership in one of these groups.

The qualifier "with few exceptions" is necessary since the data indicate that this fact is unfortunately not omnipresent. Almost, but not quite. Similarly, "usually on the basis of membership in one of these groups" indicates that UDG dead may be segregated on the basis of no pattern disposal, which is not done on the basis of group affiliation. With this, the first corollary can be added:

Corollary 2a: The presence of a more or less formal, exclusive disposal area indicates with high probability the presence of a discrete unilineal descent group.

The phrase "with high probability" denotes just that, that this is indeed an inference of high probability but that exceptions have been observed to occur. The relative strength of that probability will be affected by the sociopolitical context of the disposal area: it has been argued that an identification of band or state system will decrease the probability, while tribal or ranked increases it. This finding should be encouraging to students of ranked society, since all ranked systems will be based on some variation of the principle of unilineal descent, and will thus ipso facto have UDGs. One whole category of non-conforming cases, cognatic descent systems, does not occur here, which greatly strengthens the probability that disposal areas will represent UDGs. The fact that ranked systems have been shown to more consistently symbol UDGs and to do so spatially further pushes that probability to close to 100%. Stated

differently, in ranked systems there is an extremely low probability that formal, exclusive disposal areas could represent something else.

The nature of spatial arrangement of UDGs affects the probability of a disposal area representing a UDG(s) in tribal, ranked, and state systems. Perhaps the strongest correlation derived in this study deals with multiple UDG settlements and the use of disposal areas. Thus:

Corollary 2b: Where disposal areas are divided into formal divisions, or where multiple disposal areas occur around/near a settlement, they will invariably contain members of the respective multiple unilineal descent groups inhabiting the settlement.

There are no exceptions to this rule, at least in the present sample. As well as from the empirical findings, the writer is intuitively confident of this generalization, since with but few exceptions it is difficult to imagine the partitioning of a disposal area on some other basis. One obvious exception would be on the basis of status, which for the most part should be archaeologically self-evident. Another possible basis suggested by Ucko (1969) is differential wealth, which again can be expected to be discernable. The locus of most uncertainty lies with single UDG settlements and disposal areas, since all non-conforming cases resemble this pattern (but see below).

One final formal corollary of UDG disposal areas

should be added. It has been shown that where lineages and clans are present in a society, and where the society symbols one or the other, the smaller one - the lineage - is not necessarily the one that is chosen. Clans are the across-the-board favorites, perhaps reflecting the greater importance, on the whole, of this more inclusive societal group over the other. From the archaeological perspective, a third corollary to the postulate that people consistently segregate UDG dead presents itself.

Corollary 2c: If unilineal descent groups are spatially symboled in disposal areas, probability favors the presence of a clan(s), though lineages can be similarly represented.

Other kinds of data may or may not shed additional light on distinguishing a lineage from a clan, e.g. concommitant artifactual symboling would tentatively suggest clan. In any event, archaeologists will have to content themselves with inferring the presence of lineages or clans, but apparently not precisely which.

The results regarding the artifactual symboling of horizontal groups are somewhat disappointing, from the standpoint of both the relatively infrequent ethnographic occurrences of such symboling as well as the poor recoverability factor. These conclusions may not be as discouraging as all that though, and at least it is important to bear in mind the fact that any and all artifactual inclusions with a burial may not be indicative of vertical status.

O'Shea's comments in this regard are of interest. O'Shea (1981:50-52) discusses a hypothetical case in which three kin groups utilized a cemetery and where each group distinguished itself spatially and with an artifactual totem. He states that if only one of the totemic symbols is non-perishible, then "...it is no longer possible to establish unambiguously the existence of a tri-partate kin structure" (1981:50). The present findings argue to the contrary: the presence of three spatially distinct disposal areas, with a kin group-specific artifact in one, can be taken as strong evidence for UDGs; in this case, the artifactual occurrences support the spatial inference. Further, this study does not concur with the assertion that "the pattern might be interpreted erroneously as a two-level rank structure, with limited access to the obvious socio-technic artefacts, and with ranked and non-ranked burial zones" (O'Shea 1981:50-51). This position is taken because elsewhere in the same article O'Shea states that,

> horizontal distinctions should be expressed through channels of 'neutral' value. Hence, 'unvaluable' tokens such as clothing, coiffure, symbolically distinctive artefacts, and elements of body posture and orientation, should be common indicators of horizontal differences (1981:49-50).

The present data support this observation, and the question of kin group artifact versus indicator of "rank" devolves upon the archaeologist's interpretation of the artifact. Two observations can be made: 1) that artifacts of "neutral" value should be distinguishable from indicators of

rank or status, and 2) each archaeological case must be evaluated independently, i.e., artifactual indicators of kin groups affiliation or rank/status can be expected to vary considerably (or theoretically even be inverted) from system to system. The point to be made here is simple: artifacts will remain symbolically ambiguous if the archaeologist continues to consider all artifacts as indicators of vertical status. Minimally, it can be concluded that horizontal group-defining artifacts or other "material" phenomena do occur, and the archaeologist should consider an artifact from both the vertical and horizontal perspective.

A multidimensional approach

It has been stressed repeatedly in the foregoing pages that a multidimensional approach is the most fruitful line of inquiry for the discovery of horizontal groups in mortuary context, and indeed in mortuary studies in general. The problem is straightforward, that of multiple verification of an inference made on the basis of a perceived pattern. Certain UDG disposal patterns are in themselves inferences of high probability, others are somewhat less so. In either case, independent sources of confirmation or verification must be sought. A sequential hypothesis testing procedure should be utilized in order to avoid potential tautology or self-fulfillment of the initial inference. What follows is a discussion of the kinds of multidimensional procedures that can be employed in the search for UDGs in archaeological

context.

As pointed out, different configurations of disposal areas can indicate different things to the archaeologist. Discussion will begin with the least ambiguous configurations, the multiple disposal areas associated with a site and the single disposal area with internal divisions. In the present sample, these patterns indicated multiple UDGs utilizing the settlement and disposal area(s) without exception. The nature of intra-disposal area divisions must be stressed: in the present sample, these are invariably formal subdivisions or sub-areas within the larger disposal area. While it is clear that internal disposal area patterning may be less than obvious to the eye, as Goldstein (1976) has aptly demonstrated, or may be incredibly complicated, as shown by Chapman and Randsborg (1981), it can only be suggested that such formal divisions can be discerned. If such divisions are not obvious, then clustering of burials might be sought; in this endeavor, statistical pattern recognition techniques might be usefully employed (e.g. Goldstein 1976, Robertson n.d.). It is important that subdivisions or clusters be unambiguous vis a vis other kinds of structure, such as small family plots or row burial that do not represent UDGs. It might be added that row burial could denote UDGs in spite of the fact that such was not the case in the present data. Thus, a second line of inquiry presents itself. Bio-anthropoligical study of the mortuary population should be undertaken to evaluate the expectation that each

hypothesized UDG indicated by internal divisions, multiple disposal areas, or perhaps rows is comprised of a normal cross-section of the population as a whole. Possible sources of obfuscation must be kept in mind at this point, such as the disposal of certain individuals or sub-groups (e.g. subadults) elsewhere. Epigenetic and genetic distance studies (e.g. Buikstra 1976, Droessler 1981) should be profitable in assessing the degree of biological closeness within versus between the hypothesized descent groups.

Intra-disposal area material patterning can be employed as a further test of hypotheses. First and most obvious, UDG-defining artifacts, if present and interpreted as such, would provide clear confirmation. Failing that, other material nuances of interment can be considered, e.g. grave shape, burial posture or orientation. Further, non-random artifactual associations with proposed UDGs might be sought. That is, even if unequivocal "totems" are not found, the inclusion of contrasting artifact sets in UDG divisions might indicate burial accompaniments that, while not exactly imbued with some special significance, might reflect differences in mortuary ritual between groups. The inclusion of certain utilitarian or otherwise mundane artifacts might be "customary" within one group but not in another. It is strongly suggested that many artifacts that have been heretofore assumed to be status markers be reevaluated in this light. Similarly, stylistic studies of the various artifact classes can be brought to bear. Regarding artifacts in

general, caution should be exercised in consideration of artifactual associations with specific burials. For example, perhaps clan totems are only included with males, or distinctive utilitarian artifact sets are included only with females. The greatest conceptual problem is, of course, the assessment of whether such artifactual inclusions are indicators of horizontal group affiliation or of vertical status. This writer cannot offer any hard and fast rules for telling the difference, and each case must be considered on its own.

Turning to one of the weaker correlations, that of divided disposal areas and divided settlements, a strong case can be made that if both are associated, then the presence of multiple UDGs is an inference of very high probability. However, the converse does not necessarily obtain, i.e., if divided/multiple disposal areas are present but settlement partioning is not found, this does not diminish the probability that the disposal area patterning represents UDGs, though it does not support it either. The artifactual dimension enters in here as well. Intra-settlement studies of artifact type and style may isolate UDG wards. Cross-comparison of artifact style between habitation and disposal sites could prove useful in confirming the presence of multiple UDGs.

The most profitable test of hypotheses is inter-site analysis. Should unambiguous patterning suggesting multiple UDGs be discovered at one location, independent confirmation is strongest when additional data sets are employed. The

reasoning is obvious: if multiple UDGs are hypothesized at one site, then this pattern should be redundant throughout the rest of the socio-cultural system. The same kinds of pattern recognition procedures described above - spatial, artifactual, biological - should be employed at other sites of the same system. Further, if divided/multiple disposal areas are indeed discovered at two or more culturally related sites, then inter-UDG artifactual patterning could yield insights into the relationships of the various UDGs over space. Such a line of inquiry could provide interesting results beyond the more typical comparisons between whole sites and/or disposal areas. Comparing assemblages associated with hypothesized UDGs might narrow the overall range of variability and facilitate pattern recognition.

A second UDG disposal area pattern involves the processing or interment of entire UDGs in a single facility. As discussed previously, this pattern also has no exceptions, such as multiple descent groups using the same facility for all of their dead, or of a cognatic descent society processing all dead members in a single facility. Archaeologically, this mode of disposal would result in a lack of settlement related disposal areas or house-related disposal. Some kind of "central" facility would be used, one per UDG in the society. It is problematical whether these facilities would be totally isolated or be associated with one particular habitation site. If such a facility was used by a large group and/or over a considerable period of time,

then one would expect a large amount of human remains in tombs, crypts, or cemeteries. It is uncertain whether a mass crematory without subsequent burial could be identified as such.

Additional lines of inquiry are similar to, though more limited than, those discussed above. Within cemeteries there should be be no formal divisions, though presumably rows or family plots could occur. If group specific artifacts or other material factors are used, they should be homogeneous throughout the entire burial population.

Biological analysis would necessitate mortuary populations from more than one site. Again, such studies are herein considered very important for the testing of hypotheses regarding the presence of UDGs. Each disposal area should contain a fair cross-section of the population as a whole, and should demonstrate greater biological closeness within versus between disposal areas.

Settlement pattern studies can be directed toward the further evaluation of the pattern. As stated, disposal of the dead would not be expected to occur near or within settlements, or at least disposal of everybody; it is conceivable that certain classes of individuals, such as subadults, could be disposed of in such a manner. The spatial relationships between habitation sites and the disposal areas could indicate the spatial configuration of UDGs within the system. Analyses of material culture patterning and style can be integrated into the research to determine whether

these variables tend to cluster within suspected descent group areas.

Single UDG disposal areas adjacent or otherwise nearby single UDG settlements present the greatest difficulty in interpretation. This pattern could be confused with cognatic descent systems who, in the present sample, often bury or cremate deceased settlement members in such nearby facilities, or with multiple UDGs who inter their members in a single facility without apparent spatial differentiation. Artifactual data can serve as a check on this. If a facility was used by a cognatic group, then no group-defining artifacts would be expected; if a single UDG used the facility, then any group-defining artifacts would be homogeneous throughout that population and contrast with any other disposal area. If the disposal area was indeed used by multiple UDGs, and if these groups employed group-specific artifacts as do four of these cases in the sample (though not all are recoverable), then these should indicate to the archaeologist that the population may not be a single UDG.

Biological study can be employed as discussed above. However, it is uncertain whether biological analysis could discriminate between a single UDG and a cognatic group, or could segregate members of multiple UDGs; each would call for very fine-grained analysis with excellent and abundant data. Inter-disposal area analysis could be profitable, and should seek to demonstrate higher within-disposal area

similarity and between-disposal area dissimilarity. Finally, intra-habitation site spatial and artifactual study could be brought to bear: if clear evidence of wards or barrios is discovered, then this could suggest something other than single UDGs. At the very least, it would suggest with some degree of confidence that this was not a cognatic group.

One more converging line of inquiry can be employed that has not been mentioned. This is the analysis of the vertical dimension of status. It must be emphasized that the probability that UDGs existed in a prehistoric society approaches 100% in ranked systems. Thus, if ascriptive ranking is clearly indicated, a disposal area of any configuration has a correspondingly high probability of representing a UDG. If a state or band is indicated, then the probability is negligible to nil. In a tribal system the probability is also good, but it is here that the greatest amount of ambiguity can occur.

Finally, a brief summary should be provided regarding various potential sources of obfuscation that the archaeologist might encounter in a study of this nature. While most problem areas are obvious and none are unique to the kind of research advocated here, they do deserve comment. First and perhaps foremost is the nature of the data sets required for a successful analysis. In order to discern spatial and/or artifactual patterning in a disposal area that can be demonstrated to be "redundant and unambiguous" requires quality data and largely intact sites, or at least

sites with a minimal amount of disturbance. Such disturbance - whether modern or aboriginal - may obscure the original patterning. At the same time, however, the lack of a virgin cemetery should not deter the archaeologist from the attempt. Several partial data sets could be profitably employed (see chapter 5).

The multidimensional approach discussed above relies heavily on bio-anthropological analysis as an independent test of hypothesized UDG constitution. Obviously, poorly preserved human remains do not facilitate this operation.

Another problem involves temporal control. In common with settlement system studies, any meaningful analysis of kin group structure necessitates the demonstration of contemporanaity or near contemporanaity of the mortuary and habitation sites involved. Also, it is conceivable that the use of a disposal area over a prolonged period of time might complicate spatial patterning. Good chronological control can mitigate against such variability, and whether this can be accomplished will depend on the nature of the particular cases. The relative lack of fine-grained temporal control in archaeology is perhaps the single biggest problem faced by the discipline in general.

Finally, it has probably become clear to the reader that this multidimensional research program as outlined above, requires research on a fairly large scale. For example, reference has been made to the testing of hypotheses with multiple data sets from many sites, which would require

a good deal of data. It is the present opinion that any large-scale, regionally focused, long term research program can recover the kinds of data necessary for the analysis of the horizontal dimension. This writer is not the first to advocate such long term regional research, and large-scale survey and excavation is a prerequisite to any study seeking to examine inter- and intra-site spatial structure. The point is, the kinds of data necessary for horizontal dimension analysis can be recovered from existing programs if only the investigators seek it. Just as importantly, existing data sets can be employed in pattern recognition, both as bases for hypothesis formation or as supplemental data for the testing of hypotheses generated from "new" data.

Conclusion

One final point will be made before moving on. In the present opinion, the elucidation of horizontal groups from archaeological data is as much a conceptual or perceptional problem as methodological. A large part of the problem seems to involve 1) the previously discussed preoccupation with the vertical status dimension, and 2) the tendency for many archaeologists to conceive of their subject matter in terms of asocial adaptational systems. Concern with the vertical dimension directs attention toward the positions of individuals in a system. A systems approach directs attention to the entire system, or to abstracted subsystems, i.e., economic, political, etc. It would appear that many

archaeologists have lost sight of the fact that all human beings configure themselves into socially significant groups beyond the level of the individual and below the level of the system as a whole. In large measure, it is these social groups - not subsystems or the system as a whole - that comprise the functioning units of society; human adaptation may be systemic in nature, but systems *per se* do not adapt, people do. The ethnographic research conducted in this study has demonstrated that social groups can leave considerable residue in the archaeological record: in a mortuary site, in a settlement pattern, and in general artifactual patterning. A habitation site or mortuary site was not used by a random assortment of people, nor is a settlement system simply an ordered assortment of various sites relative to the environment. A settlement system is also an ordered assortment of social groups across a landscape. Socially-defined groups of people occupying these sites are what adapt to their environment, not the sites or artifacts themselves. In this writer's opinion, then, archaeologists should reconsider their data in terms of such socially significant groups. This study by no means advocates the abandonment of the systems approach, only that a "social perspective", as it were, be integrated into it. The perspective advocated here may not yield all the answers, but it can surely promote the asking of some interesting questions.

CHAPTER 3

AN ETHNOGRAPHIC TEST OF "HYPOTHESIS EIGHT"

Introduction

It is the purpose of this chapter to conduct an examination and ethnographic test of an explanatory construct referred to as "Hypothesis 8". This hypothesis was offered by Saxe (1970), and attempts to relate the use of formal, exclusive disposal areas to a certain corporate group structure in a society and to ecosystemic variables. Goldstein (1976, 1980) has further examined the construct and has offered modifications to it. The present study will reexamine the hypothesis in light of the ethnographic data base from the HRAF.

Saxe's Hypothesis 8 is phrased as follows:

> To the degree that corporate group rights to use and/or control crucial but restricted resources are attained and/or legitimized by means of lineal descent from the dead (i.e., lineal ties to the ancestors), such groups will maintain formal disposal areas for the exclusive disposal of their dead, and conversely (Saxe 1970:119).

This construct is essentially a mechanical model positing that when four dependent variables coincide, they will produce the independent variable. That is, when D_1) corporate groups are present in a society that D_2) maintain lineal ties to the ancestors, for the purpose of D_3) legitimizing

group rights to use/control D_4) crucial but restricted resources, these groups will I_1) maintain formal disposal areas for the exclusive disposal of their dead. The hypothesis is phrased as a law-like generalization; while it is expectable that Saxe, if queried on the subject, would allow that exceptions to the rule are inevitable, the hypothesis is nonetheless phrased as though it will obtain in every case where the dependent variables form a set. Of equal importance is the converse proposition that in societies where the dependent variables do not obtain, there will be no disposal areas. Saxe tested this model against a sample of three ethnographic societies, and found general confirmation (see also Saxe and Gall 1977).

Goldstein's (1976) test of the hypothesis included 30 societies. She developed a modified and amended version of the hypothesis, thus:

> A. To the degree that corporate group rights to use and/or control crucial but restricted resource(s) are attained and/or legitimized by lineal descent from the dead (i.e., lineal ties to the ancestors), such groups will, by the popular religion and its ritualization, regularly reaffirm the lineal group and its rights. One means of ritualizing is by the maintenance of a permanent, specialized, bounded disposal area for the exclusive disposal of their dead.
>
> B. If a permanent, specialized bounded area for the exclusive disposal of a group's dead exists, then it is likely that this represents a corporate group who has rights over the use and/or control of crucial but restricted resource(s). This corporate control is most likely attained and/or legitimized by means of lineal descent from the dead, either in terms of an actual lineage or in the form of a strong, established tradition of the critical

resource passing from parent to offspring.

C. The more structured and formal the disposal area, the less number of alternate explanations of social organization apply, and conversely (Goldstein 1976:61).

The thrust of Goldstein's reformulation was to render Saxe's mechanical model into a statistical one, i.e., Goldstein states that when the four dependent variables form a set, people will engage in deliberate, usually ritualized behaviors that are intended to reaffirm or reify a corporate group's rights to crucial but restricted resources. One possible manifestation of this behavior involves symbolization in the mortuary domain through the use of formal, exclusive disposal areas wherein are interred deceased corporate group members. This practice would clearly reaffirm the group's rights, since the ancestors are buried in the land and, therefore, there can be no question as to control or ownership. Given the necessary conditions, then, there is a postulated strong probability that a disposal area will result, though this is not inevitable (Goldstein 1976:58-62).

Goldstein's version of Hypothesis 8 is an improvement over Saxe's original construct. Still, a very fundamental problem remains, viz., "item C" above: "The more structured and formal the disposal area, the less number of alternate explanations of social organization apply, and conversely" (Goldstein 1976:61). The problem is simple, that this statement, like Saxe's original hypothesis, implies quite clearly that the only reason a society will use formal disposal areas is in order to legitimize corporate group rights over crucial

but restricted resources.

At this juncture, it is important to examine the approach taken by Saxe and Goldstein in their formulation and testing of Hypothesis 8, since the shortcomings of the hypothesis (see below) are a direct result of the approach. Also, their method differs from that used here. Saxe states that the hypothesis was stimulated in large measure by Meggitt's work with the Mae Enga, a highland New Guinea society. The Mae Enga are a society in which arable land is a crucial but restricted (by its scarcity) resource; Meggitt noted that the Mae Enga had strong corporate groups (localized clans) that utilized the principle of lineal descent from the ancestors to legitimize group rights to the land (Saxe 1970:119-121). Saxe further discovered that the Mae Enga maintained cemeteries for male members of the corporate groups. Thus, Saxe's Hypothesis 8 is essentially an extension of the Mae Enga case, whereby he takes the Mae Enga situation one step further and rephrases it as a general construct, presumably applicable to any society (Saxe 1970: 121). He then went on to examine three additional societies as tests of the hypothesis; importantly, his perspective was to determine first whether the societies possessed the four dependent variables, and secondly whether or not they then utilized formal, exclusive disposal areas for members of corporate groups. Goldstein's test included 30 societies, and her approach was identical to Saxe's. In short, they both posed the question: "If a society has corporate groups

that attain and/or legitimize use/ownership/control of crucial but restricted resources, then how do they dispose of their dead"? Both concluded that people in this situation usually used formal and exclusive disposal areas, ostensibly in order to reinforce group control of the resource.

Two problems present themselves. The first is straightforward, that Saxe developed a general behavioral model with expected material correlates that was based on only one case study; a more ambitious use of the ethnographic record would have been desirable. The second problem is far more important however, and involves the analytical approach adopted by Saxe and Goldstein. Their method is essentially unidirectional, whereby societies exhibiting the four dependent variables were sought, and then examined to determine the nature of mortuary practices and their presumed relationships with the dependent variables. That presumed relationship was stated to be one of cause and effect. What these investigators did <u>not</u> undertake was an examination of whether <u>other kinds of factors</u> might also produce formal, exclusive disposal areas. In particular, Goldstein's retest modified Hypothesis 8 to the effect that formal disposal areas were only one of several alternative behaviors that could result from the congruence of the four dependent variables. Unfortunately, she did not take the next analytical step and try to determine whether disposal areas were ever used by people in other economic or ecosystemic circumstances. Thus, Saxe and Goldstein appear to have committed

the logical fallacy of affirming the consequent, since alternative behaviors or factors were not considered (Salmon 1984: 28-31; cf. Braun 1981:411). The archaeological implications of this are important and will be explicated below.

The present study, then, seeks to avoid this pitfall and examine Hypothesis 8 from a different perspective. The question being posed here is: "Of any and all societies that utilize formal, exclusive disposal areas for their dead, how many do so in order to legitimize corporate group rights to use/control crucial but restricted resources"? Further, this test seeks to learn whether the populations from disposal areas constitute the members of recognized corporate groups in societies, or perhaps something else. Most importantly, this test of Hypothesis 8 will examine the extent to which an archaeologist, upon excavating a disposal area, would be correct in inferring that the burials represent an extinct corporate group, that maintained lineal ties to the ancestors, and that their crucial resources were somehow restricted.

This endeavor is complicated by the fact that Saxe and Goldstein neither explicitly define or parametize some of the dependent variables. One significant and pivotal concept is that of corporate group. Saxe feels that the recognition of corporate groups in archaeological context would tie social (i.e. mortuary) behavior into an economic and hence ecosystemic context. Unfortunately, he never defines corporate group or states what their societal configuration might be

(though they are said to have lineal descent), or even what their functions are. From the wording of Hypothesis 8, one can infer that the corporate group is a group whose primary function is the control of crucial but restricted resources. In her review of Saxe, Goldstein also found it necessary to make this inference (1976:43). Given this, then, Saxe's corporate groups are essentially economic corporate groups, to the extent that ownership/control of land or resources can be considered to be a predominantly economic function (see also below).

Similarly, the nature of "crucial but restricted resources" was not defined by Saxe. Goldstein, after a thorough examination of the Mae Enga data upon which Saxe based his hypothesis, concluded that control/ownership of land by sedentary agriculturalists might be the critical variable necessary for Hypothesis 8 to obtain (1976:38). That is, strong corporate group control of resources might not occur in hunter-gatherer or otherwise mobile societies; she further suggests that control of land, veneration of the ancestors, and burial of the ancestors in the land might be the important set (ibid). Accordingly, Goldstein incorporated into her test an examination of the extent to which societies in her sample had corporate groups that controlled land/property tenure and inheritance, and the extent to which these societies were sedentary agriculturalists.

An Ethnographic Test

The present study involved an examination of variables similar to Goldstein's. As noted, however, the analytical approach is very different. The societies utilizing more-or-less formal and exclusive disposal areas in the 115 case sample were extracted, and the extent to which they conformed to the expectations of Hypothesis 8 was assessed. Data was sought in the HRAF regarding the nature and composition of corporate groups in these societies, corporate group being defined in an essentially economic sense, i.e., the group(s) that owned or controlled land or resources. Ownership or control of other tangible property was also noted but had no bearing on the outcome. The nature of inheritance and tenure was recorded, as well as whether or not these groups (actually the societies in general) maintained lineal ties or otherwise venerated their ancestors. The degree of "restrictiveness" or "pressure" on the crucial resource(s) could be determined for the majority of the cases. Finally, the composition of the population interred in the disposal area(s) was noted.

These data were sufficiently complete for 48 societies. Disposal types included cemeteries, tombs, and crypts (n=42), crematories with subsequent burial (n=3), crematories without subsequent burial (n=2), and scaffold areas (n=1). All areas of the world are represented to some extent: North America (n=14), Africa (n=12), Oceania (n=9),

Asia (n=7), South America (n=4), Middle East (n=2). The full range of socio-political complexity is also represented, though not evenly: state (n=4), ranked (n=19), tribal (n=23), band (n=2). These data are shown in Table 15 and in Appendix C; Table 15 presents in summary faahion the 48 societies arranged in a manner to be described momentarily, while Appendix C provides the detailed information on all cases.

Before discussing the results in detail, some general comments are in order. The results of this test can be interpreted a number of ways. Differing interpretations would depend upon one's "level of acceptance" of whether Hypothesis 8 does or does not obtain. That is, if one requires a "conservative" level of acceptance, then Table 15 shows only one "perfect" fit of all five variables in Hypothesis 8. By "conservative" is meant quite simply that all four dependent variables must form a set, and that a disposal area must be present containing <u>exclusively</u> members of a corporate group. A more "liberal" approach, one that would allow that a certain amount of variability in mortuary practices is inevitable, would show that perhaps half of the cases tend to conform to the hypothesis. Regardless of perspective, however, the rest of the cases would seem to not meet the expectations.

In all but the single "perfect" case, certain discrepancies are present which deviate from the posited expectations of Hypothesis 8. These will be discussed below, but

Table 15. An Ethnographic Test of Hypothesis 8

1. "Perfect"	2. Unknown Pressure Only	3. No Pressure Only	4. Disp Area Greater than Crp Grp	5. Grp Grp plus Fam/ Indiv
Puka Puka (U,+)	Mongo (U,?)	Easter Island (U,-)	Mapuche (U,-)	Goajiro (U,+)
Mae Enga (U*,+)	Ashanti (U,?)	Ganda (U,-)	Iroquois (U,-)	Khasi (U,-)
	Tallensi (U,?)	Tiv (U,-)	Tanala (U,-)	Dogon (U,-)
		Mbundu (U*,-)	Flores (U,?)	Fellahin (U,+)
			Ambon (U,+)	Siwans (U,+)
			Lolo (U,?)	Monguor (U,+)
			Thonga (U,?)	New Ireland (U,-)
			Hopi (U,?)	Toda (U,?)
			Zuni (U,?)	Mossi (F,?)
			Iban (N,?)	
			Java (N,?)	

U = UDG disp area
N = non-UDG disp area
* = disp area w/some house-related/no pattern
F = family disp area
+ = resource pressure present
- = resource pressure absent
? = resource pressure undetermined
underlined = less than "formal" disp area

Table 15 (cont'd)

6. Various Crp Grps and/or Chiefs/State	7. Weak Ownership	8. No Ownership
Truk (U,?)	W. Apache (U,-)	Tlingit (U,-)
Marshall Islands (U,+)	Talamanca (U,-)	Klamath (N,-)
Kurd (U,-)	Tucano (U,-)	Yokut (U,-)
Bemba (U,-)	Bella Coola (U,-)	Mandan (U,-)
Lozi (N,-)	Ojibwa (U,-)	SE. Salish (N,-)
Nootka (F,-)	Pawnee (N,-)	Ainu (N,?)
	Pomo (N,-)	

generally it would appear that many societies maintain formal, exclusive disposal areas for their dead, but do not maintain corporate group rights to resources, do not endure "pressure" on their resources, and/or do not restrict their disposal areas to members of any particular economic corporate group.

By way of illustration, consider Table 15. On the left, Column 1 has been labeled "Perfect". While two cases appear here, only one, Puka Puka, actually conforms to all expectations of Hypothesis 8. The Mae Enga have been included here though in reality they are "not quite" perfect, since not all members (i.e., females) of the corporate groups are interred in the disposal areas, nor are their disposal areas particularly formal or exclusive. Column 2, "Unknown Pressure Only", contains three cases in which all variables obtain with the exception of resource pressure, the nature of which could not be discerned from the literature. Thus, these three cases are potentially "perfect" also. Column 3, "No Pressure Only", shows four societies in which all variables except restricted resources obtain; the literature on these cases indicated that resource pressure or scarcity is not a problem for these people. Note also that one case (Mbundu) does not dispose of all economic corporate group members in an exclusive facility.

The next three columns contain societies in which disposal area populations do not reflect economic corporate group membership. These cases exhibit certain discrepancies

in the nature of ownership/control of resources and corporate group disposal from the expectations of Hypothesis 8. Column 4, "Disposal Area is Greater than Corporate Group", contains 11 cases in which members of more than one corporate group are interred in the same disposal facility. The Tanala, for example, maintain patrilineal corporate group rights to ownership of land. Upon death, individuals are interred in clan tombs; members of several corporate patrilineages are thus buried in a common - not exclusive - facility. The Iroquois are very similar: matrilineages controlled rights of usufruct over land/resources, yet burial occurred in clan cemeteries. It should also be mentioned that in many cases resource pressure is not a problem, and one society (Thonga) does not include all corporate group members in the same facility.

Column 5 is titled "Corporate Group plus Family/ Individual". This group of nine societies shows variability in the nature of land and resource ownership/control and tenure: some is owned by recognized economic corporate groups, some by families or individuals. On New Ireland, for example, clans own non-economic land, while families own their own agricultural plots. Inheritance of land is within the family, and there is no pressure on land or resources. Similarly, the Khasi have much clan-owned land, containing ancestor stones and cemeteries where clan members are buried. However, much productive land is owned by individuals and is open to buying and selling; land is not a restricted

resource.

The six societies in Column 6 possess "Various Corporate Groups and/or Ownership by Chiefs/State". These societies show complex land tenure systems. In the Kurd case, various groups and individuals own land, including the Iraqi state, common people, and various chieftains, who desire (or require) control of land as a source of personal wealth and hence personal power. Land is variously bought, sold, rented. Many common people successfully usurp unused state land simply by settling on it for an extended period of time. A somewhat similar case occurs on the Marshall Islands, where certain chiefs own all the land. As often occurs in complex chiefdoms, land equals power. Chiefs designate their own heirs, typically someone within their own rank. Usufructs are granted to commoners, and the usufruct is transmitted within families, though the owning chief reserves the right to revoke it at any time and for any reason. The users must pay tribute to the owning chief and to his administrators. The situation on Truk is a little different. Here, ownership is variable and can be situational: lineages, extended families, and individuals can own various things, including land and resources. For example, a lineage may own a particular parcel of land, but an individual can own the trees or other resources on it.

The final two columns, "Weak Ownership" and "No Ownership", are straightforward. In the former, most societies "own" loose, informal, usually "traditional" usufructary

rights to territories, but do not really claim to own the land, or to transmit/inherit it. In the latter column, recognized ownership of land or resources does not exist.

As mentioned, these data can be differently interpreted. A "conservative" level of acceptance of Hypothesis 8 would allow that only one and potentially three cases actually conform to the predictions of the hypothesis. A more "liberal" perspective on the data might indicate that about half of the cases support the construct. In Column 4 ("Disposal Area is Greater than Corporate Group"), for example, the disposal facilities contain two or more corporate groups, but after all, these people are indeed being interred together, albeit in a non-exclusive facility. This might be taken as de facto spatial patterning of corporate groups and hence supports the hypothesis, despite the requirement of "...disposal areas for the exclusive disposal of their dead ..." (Saxe 1970:119; emphasis added). However, the further to the right one moves in Table 15, the less correct Hypothesis 8 seems to be in accounting for the use of formal, exclusive disposal areas.

As noted earlier, Goldstein felt that Hypothesis 8 might be applicable only in situations where agricultural subsistence and sedentism were marked. Her idea tends to be borne out in the present data. As an informal test of this proposition, the societies in Table 15 were evaluated using the subsistence data in Appendix A, which was drawn from Murdock (1967). This information indicates that as one moves

across the columns in Table 15, 1) the degree of sedentism of settlement decreases, 2) the degree of reliance on agriculture decreases, and, 3) the intensity of agriculture decreases. These findings tend to support Goldstein's contention, at least in a general way. She is probably correct in suggesting that the critical set necessary for Hypothesis 8 to obtain is ownership/control of land, veneration of ancestors, and burial of ancestors in the land, coupled with sedentism and agricultural subsistence as important limiting variables. To that should be added that land must be truly "restricted", i.e., that real pressure or scarcity must exist, as in the Puka Puka and Mae Enga cases.

Discussion

In the present opinion, a major shortcoming of Hypothesis 8 in attempting to account for the use of disposal areas is in the use of the concept of corporate group, and in the proposed relationship of such groups to land ownership, control, and tenure. That is, Hypothesis 8 specifies control of resources by some specific group(s) of people, but the present data set illustrates considerable variability in land/resource control. As discussed, in many societies land and resources are owned or controlled by groups, families, individuals, high ranking persons or groups, the state, or some combination of these. This phenomenon has been recognized by Fortes who, after an in-depth consideration of the corporate group concept, aptly concluded that

> ...it is surely indisputable that one and the same kind of property lends itself to ownership, use, and transmission in a great variety of structural arrangements, for example, by individuals, partnerships based on contracts that can be dissolved at will, and by corporate groups that are based on non-contractual credentials of membership and are presumed to be indissoluable and perpetual. Conversely, different kinds of property can be dealt with in all of these ways (1969:301-302)

Recognition of this fact has obvious implications regarding the ability of Hypothesis 8 to accurately predict the nature of resource control in an extinct society. That is, it is clear that ownership or control of land or resources is not always in the hands of a specified "group", and is not necessarily in the hands of the people that actually use the land or resources. It is worth mentioning that for the Mae Enga, localized clans do indeed own and control land and thus constitute a specifiable economic corporate group. However, it is misdirected to expect that identical systems of ownership or land tenure should obtain in all other societies. To postulate that, for example, a clan on the Marshall Islands is an economic corporate group that owns/controls land would be incorrect; families within clans use the land, but they don't own it, or control it either, since all land is owned by ranking chieftains.

It can be observed that corporate groups in any given society can be expected to vary in terms of function, composition, and perhaps in different social or environmental situations. As Befu and Plotnicov (1968;see chapter 4) have stated, the "corporateness" of a group can involve economic, political, and/or religious behaviors, and the extent to

which various groups manifest such behavior will depend, in large measure, on group size and spatial arrangement. It might be argued that utilizing the concept of corporate group as an analytical unit - as a specified and isolatable societal grouping - is ill advised, since corporate functions and group composition can and does vary from society to society. Rather, it is herein proposed that "corporateness" should be viewed as one aspect of socially-defined descent groups. Put differently, no society has economic, political, or religious corporate groups per se, but have socially-defined kin groups that can undertake economic, political, or religious action; it is only to the extent that these groups actually do any of these things can they be appropriately labeled "corporate". Thus, it is proposed that searching for prehistoric corporate groups is bound to fail, since corporateness and systems of resource ownership and tenure will vary, and this variability cannot be controlled. On the other hand, the use of descent groups as discrete analytical units would be much more fruitful, since it is these groups that are socially defined and isolatable and are in large measure non-variable and permanent at any given time.

Saxe (1970) stated that his focus on corporate group rights over resources was the result of his desire to relate mortuary behavior and patterning to ecosystemic factors, a relationship that, if validated, would be of value to both social anthropologists and archaeologists. It is the

position taken here that such an economic generalization is insufficient. That is, one might expect the other motivating factors of a social, political, religious, or ethnic nature might provide the rationale behind the disposing of deceased individuals in particular configurations. The research discussed in chapter 2 showed that the use of formal, exclusive disposal areas by a society was usually the result of a desire to represent or symbolize unilineal or cognatic group affiliation even after the fact of death. These are the patterns displayed by most societies in Table 15. It is concluded that the predominantly economic factors motivating the use of disposal areas specified by Hypothesis 8 are reductionist and cannot be assumed to obtain in every case.

It is clear that despite the primacy often given to economy in anthropological studies, the present analysis suggests that such is not a priori the motivation behind the use of any and all disposal areas by and and all societies.

Archaeological implications are straightforward. Based on the foregoing, it is proposed that Hypothesis 8 be dropped from consideration as a general construct explaining particular mortuary configurations. Hypothesis 8 is a probability statement of very limited applicability. By contrast, the interpretation that formal disposal areas represent discrete UDGs, which is also a probability statement, has a much broader applicability and a sound basis in ethnographic fact. An archaeologist would be on much more secure theoretical footing by inferring that a disposal area

represents a socially-defined kin group than an economic corporate group that owned/controlled land or resources. Both inferences might be correct, but only the former is an inference of high probability.

It is also apparent that the relationship between the use of disposal areas and resource pressure or scarcity cannot be expected to obtain in every case. Again, this postulate constitutes an economic reductionist perspective on mortuary behavior. In light of the present previous research, it is obvious that resource pressure will have little or no effect on the decisions people make regarding mortuary behavior, and certainly cannot be linked in every case to the use of disposal areas. The converse is also true and is of greater archaeological importance: an archaeologist cannot argue from the presence of formal disposal areas to the presence of intense competition between corporate groups for crucial but restricted resources (e.g. Charles and Buikstra 1983). Such estimations are best left to the paleo-ecological and environmental analysts where they rightfully belong. The notion that the presence of a formal disposal area can be used as an indicator of group competition and pressure on resources is specious at best.

CHAPTER 4

TOWARD THE ARCHAEOLOGICAL STUDY OF SOCIO-POLITICAL STRUCTURAL FORM

Introduction

It is the purpose of this chapter to present an application of some of the results derived in chapter 2. An exploratory analysis into the development of certain socio-political structural forms and their archaeological correlates will be undertaken, which will be based principally on the ability to recognize different UDG configurations from mortuary patterning. The term "structural form", as used herein, will be defined as the nature of structure and organization in a socio-cultural system; differences in structure and organization produce variability observed in the ethnographic and archaeological records.

Structural form can be characterized as having two dimensions, the vertical and horizontal, which together determine structure and function in a system. These two dimensions have been discussed in detail above, however, it should be emphasized at this point that the two do not exist independently. In complex societies, for example, horizontal groups can become "verticalized" as ranked lineages or clans, or stratified castes. As discussed, most attention

has been directed toward the vertical dimension of individual status but, in the present opinion, the analysis of vertical status alone cannot discern alternative forms; indeed, it results in the "pigeonholing" phenomenon, whereby an archaeological society is simply assigned to a gross evolutionary category. (In fact, most studies have used a simpler, dichotomized scheme: "ranked" or "not ranked"). The more precise estimation of form then, must go beyond vertical status and consider horizontal groups. The latter comprise the significant functioning units of a society, and as shown above, can be discovered archaeologically. And as shown below, differing configurations of such groups can tell the archaeologist much about structural form in an extinct system.

The following pages cannot offer expectations for discerning any and all structural forms known to ethnology. Such a task is well beyond the present scope, and is probably impossible anyway. Rather, discussion will be limited to an in-depth examination of structure in ranked or chiefdom societies. Given the current interest in archaeological ranked societies, important new insights can be offered that can be of explanatory value. Further, the procedure is not exclusive to ranked systems, and structural variability in other categories can be similarly examined.

What follows is a consideration of some previous explorations into formal variability in archaeological contexts, followed by an examination of variability in

ethnographically known ranked societies. These data form the basis for the generation of archaeological expectations for some alternative formal structures. In the following chapter, this construct will be applied to a body of archaeological data from the Eastern United States.

Archaeological Approaches to Formal Variability

Socio-political form has been variously treated in the archaeological literature, from simply being ignored to the development of complex, multidimensional models. Saxe recognized that his work focused on the vertical dimension, and deferred the more precise determination of form to "...the second round of data collection and analysis" (1970:118). Similarly, Tainter (1977a, 1977b) recognized the difficulty in dealing with form and the horizontal dimension. However, he tried to obviate the problem by suggesting that horizontal dimensional variability varies linearly with the vertical dimension, i.e., the greater the number of vertical levels (or "ranks") in a system, the greater the number of horizontal divisions in the system. Knowledge of one dimension thus allows prediction of the other. Tainter based this supposition on a study of structure in modern corporations. This formulation has been criticized by Braun (1981: 410-411) who pointed out that the postulated linear relationship is a variance with empirical data, and that considerable organizational variability can exist between two systems that each possess similar vertical structures.

While Braun's comments are certainly valid, it is still noteworthy that Tainter made an effort to come to grips with the problem.

The greatest amount of effort toward determination of form has been directed to the study of ranked societies. As mentioned, this fact is unremarkable, since in these more complex systems greater variability exists, thus facilitating analysis. Renfrew (1973) offered a model of chiefdom-type society based on his examination of various theoretical works; his model contained twenty factors relating to chiefdoms, that might be sought by the archaeologist in order to identify an archaeological chiefdom. His application of the model to Neolithic Wessex proved interesting and useful, with a fairly high degree of correlation between the archaeological data and the expectations of the model. Significantly, Renfrew postulated the presence of several chiefdoms in Wessex, each with its own territory and associated monumental works. Thus, he was able to identify chiefdoms in a spatial context through an examination of settlement patterning.

The most ambitious and useful attempt to deal with structural form to date is Peebles and Kus' article "Some archaeological correlates of ranked societies" (1977). These authors posited five correlates, or test implications, for determining whether a prehistoric system embodied principles of ascriptive ranking, and conformed to the expectations of a chiefdom-type socio-political system. Their

first correlate deals with the mortuary domain, within which there should be present two "dimensions" of status; generally, the superordinate dimension should be relatively small (i.e., contain relatively few people) and display clear indications of hereditary rank, while the subordinate should be relatively large and clearly not display indicators of ascriptive rank (1977:431). Minimally, a "two-level" hierarchy of status is thus indicated. Settlement patterning, their second correlate, should show a hierarchy of site types and sizes, which should correspond to their positions in the chiefly regulatory network (1977:431-432). Thirdly, sites should be located in areas where a high degree of local subsistence autonomy could be maintained (1977:432). As a fourth correlate, ranked societies in archaeological contexts should reflect some degree of organized labor, such as in monumental architecture, and some degree of craft specialization above and beyond the domestic sphere (ibid.). Finally, there should be evidence of the system's capacity to buffer or mitigate large-scale social or environmental perturbations. That is, the system's responses to such phenomena as environmental uncertainty or change, or trade or warfare, should be manifested and observable archaeologically (1977:432-433).

In addition to formal correlates, Peebles and Kus have also offered a discussion regarding the nature of systemic "control" evident in a chiefly system. They point out that ranked societies differ from egalitarian systems in that

ranking involves systemic control mechanisms that are in the hands of chiefly personnel. In egalitarian systems, by contrast, control mechanisms can be said to be "imbedded", and are often manifested in sanctified religious or ritual cycles that attempt to regulate the system and deal with uncertainty (Rappaport 1971a, 1971b). In a chiefdom, the chiefs and their sub-chiefs, assistants, or administrators are imbued with decision-making powers that are binding on their following; importantly, such a hierarchically-organized system can respond to ecosystemic perturbations and general unpredictability far more efficiently than can egalitarian systems (Peebles and Kus 1977:427-431). Peebles and Kus characterize the chiefly system as a "homeostatic" institution which is far better capable of decisive responses to system-endangering events, largely because the binding decisions are made by the few and not by the many. This kind of homeostatic system control is the rationale behind their second and fifth correlates listed above. Later on, it will be demonstrated that this level of system control has other archaeologically recoverable implications as well, and indeed has a tremendous effect on structural variability.

Part of the attractiveness and applicability of the Peebles and Kus construct lies in the fact that it is multidimensional, combining various lines of inquiry; mortuary, intra- and inter-site settlement patterns, subsistence and non-subsistence economics, and classes and

patterning of material culture remains are integrated into a coherent analytical device.

The Peebles and Kus model would seem to have one shortcoming however. It appears that the model essentially describes a very complex form of ranked society, and is, therefore, not applicable to less complex forms. The same can be said for Renfrew's model. That is, it does not accommodate all formal variability within the general category ranked society. Examples come readily to mind, such as the various societies of the Northwest Coast of North America that incorporate ascriptive ranking but clearly are not accountable by the model, at least not in all respects. Peebles and Kus' and Renfrew's constructs would seem more appropriate as estimations of complex Polynesian chiefdoms or African kingdoms. The point of importance is that while ethnographically this discrepancy is easy to see, it could cause ambiguity in an archaeological context. A good example is provided by this writer's modest inquiry into Hopewell socio-political organization (Kingsley 1984). Peebles and Kus' correlates were used to assess structure in a Hopewell mortuary data set from Michigan. The data and the model clearly did not "fit". In retrospect, this perhaps should have been obvious from the outset, and it is now clear (to this writer at least) that Peebles and Kus' test for ranking is not appropriate to the Hopewell case; lack of congruence cannot be taken as de facto proof that Hopewell society did not entail some form of ascriptive ranking.

Brown (1981:29) has leveled criticism at Braun (1979) for similar reasons.

At any rate, this discussion is not to say that Peebles and Kus' model is incorrect, only to say that it appears applicable to certain complex forms of ranking. This fact was apparently not lost on these authors, since near the close of the paper they state that further refinement of the model is necessary, in order to differentiate levels of complexity within ranked societies as a class (1977:444). Such is the intention of much of the following.

The most recent contribution toward the study of differential complexity has been provided by Brown (1981), and bears directly on the above comments. He distinguished between two general forms of ranking, roughly corresponding to the degree to which the possession of high rank did or did not concommitantly entail the possession of centralized power and authority. Thus, less complex forms do not incorporate power and authority in status positions, while more complex forms do. Regarding the former,

> The independence of social rank and authority has been documented among small independent self-sufficient village-based groups with stable subsistence bases. These societies display basic features of social ranking without authority extending beyond the local community.... Ranking appears to emerge as a result of competition for marriage mates and control of wealth among groups that are automomous, but not biologically self-sufficient (Brown 1981:26).

Contrasting with these societies are

> ...more complex ranked systems in which central authority spans many villages (and) the chiefly

> family enjoys privileges that are unavailable to the masses. The reward that accrues to villagers for complying with chiefly demands...is mainly intangible, and characteristically it is the chiefly establishment that benefits most from the relationship...(ibid.).

Brown states that these two forms of ranked system should be discernable in the vertical dimension. Generally, less complex forms with minimal hierarchy will display various symbolic distinctions, which might tend to grade through the population proportional to the degree of hierarchy. The more complex forms should show greater effort expenditure and differential accumulation of wealth, as well as spatial distinctions indicative of the powerful versus powerless groups (1981:29).

While Brown's paper raises the crucial point that formal variability exists in the ranked category, it lacks the utility and multidimensionality of the Peebles and Kus approach. Brown is still concerned with vertical status distinctions and "...detecting gradations of rank irrespective of the institutionalized contexts in which it might be expressed" (1981:28). While detecting such gradations of rank is certainly important, it is the opinion taken here that detecting some of the contexts within which it occurs can be even more so.

With that the present endeavor will seek to discern certain alternative structural forms of ranked society that have been recorded ethnographically. A series of expectations will be developed that will allow the archaeologist to

detect similar such structures in the archaeological record. Emphasis will continue to be on the nature and spatial configurations of horizontal groups, but other kinds of data will be considered as well.

The procedure is largely empiricist. The forms developed here derive from general, theoretical, and synthetic anthropological literature; observations made during the course of study of ethnographic data in the HRAF; and specific ethnographies, roughly in that order of importance. The approach will be multidimensional as mentioned above, though an overriding concern with space and spatial relationships will become evident. It was shown previously that spatial patterning of mortuary phenomena can be securely correlated with differing modes of spatial arrangement of people across a landscape. In turn, differing spatial arrangements of people can be correlated with differing socio-political structural forms within the category ranked society.

It must be stressed that the structural forms to be discussed below <u>should be considered as heuristic devices</u>, and not as rigid, monolithic "types", or "stages". No claim is made that what follows is an evolutionary sequence from less to more complex; such might have been the case in some situations, but some specific cases could in fact represent cultural breakdown or "devolution" (e.g. Friedman 1982). Thus, this discussion will not be concerned with how particular societies may have evolved to their respective

structural forms. Rather, the forms that follow represent empirically observed recurring structural patterns - or recurring system states - that will be offered to serve as ethnographic baselines against which archaeological data may be evaluated. Thus, this study continues with its use of uniformitarian assumptions: recurring, redundant structural forms of ranked society have been recorded in the contemporary world, and it is unlikely that these are all unique. If similar such structures occurred in the prehistoric past, then archaeologists should have an approach by which they may be discovered. At the same time, these forms do not exhaust the range of structural variability in ranked systems. As such, the rest of this chapter is intended to illustrate the method as much as it is to present alternative structural forms.

Socio-political Complexity in Ranked Societies

It is an axiom in anthropology that kin groups and kin relationships form the basis for most social action in most non-industrialized societies. It has been demonstrated both theoretically and empirically that such groups, particularly unilineal descent groups, form the basis or "framework" for socio-political structure. A kinship structure provides the rules for behavior, and indeed much non-kin related behavior in simpler societies is conducted in a kinship idiom (Evans-Pritchard 1940). This statement is not in conflict with the observation that individual actors

can and do "manipulate the system" for personal reasons (e.g. Leach 1954, Keesing 1975); such often occurs, but the "system" remains the framework for such action.

It can also be observed that the political role or function of kin groups will differ in different socio-political structural forms; generally, when one moves from egalitarian tribes to ranked systems the political import of kin groups tends to increase. However, it will be demonstrated that this is not a simple linear function, at least within the ranked category. The relative political importance of kin groups correlates with the nature and degree of vertical status in a system. This phenomenon will be further examined shortly.

Fried's now classic definition of ranked society is one in which there are fewer status positions available than there are persons capable of handling them (1967); unlike egalitarian systems, status is no longer achieved, but is now hereditary within a certain group or groups, usually (but not always) regardless of personal qualifications or abilities. Service has remarked that the shift from egalitarianism to ranking entails the emergence of a greater degree of <u>individuation</u> in the ranked form (1976:55-56, 71ff). That is, status, power, and political authority become institutionalized, and are increasingly invested in one or a few individuals. At the same time, however, it is the kin group that provides the political armature upon which relative status is based.

As discussed previously, ranked societies have received the lion's share of attention by archaeologists, and have enjoyed considerable treatment from socio-cultural anthropologists as well. Authors have differed as to their emphasis on the various aspects of ranked systems, i.e., on what they feel are the important, predominant structural features of these societies. Discussion has centered on such phenomena as subsistence systems and economic exchange (e.g. Sahlins 1958, Service 1975, Fried 1960), the ritual/regulatory control of the system (e.g. Peebles and Kus 1977), the degree of true power and authority held by the status group (e.g. Brown 1981), the nature of status rivalry in status lineages (e.g. Goldman 1970), and the degree of political centralization of the chiefly system (e.g. Fortes and Evans-Pritchard 1940, Lloyd 1965, Renfrew 1973). From the standpoint of selecting a perspective on the topic, one has much from which to choose. In the discussion that follows the focus will remain on the nature and roles of descent groups in ranked systems, but factors such as those above will be considered as well.

Variability in ranked or chiefdom societies is not difficult to observe; one need only compare the complex and often spectacular examples in Africa or Polynesia with their comparatively modest counterparts in South Asia or the Northwest Coast of North America. The latter generally corresponds to Brown's (1981) "lower level" ranked category, in which the presence of ascribed status does not

concomittantly entail the presence of considerable power or authority. For present purposes, systems of this nature will be labeled "Basic Ranked". These societies are characteristically small in size, and in many cases subgroups of the population (e.g. UDGs) may form internally ranked "sub-chiefdoms", with no one paramount chief over the entire society. The term "petty chiefdom" seems a particularly apt description. Ascribed status in such systems can be fairly characterized as primarily social status with comparatively little political function (except, of course, to the extent that any differential status has a political basis). Status is usually gained or maintained through such mechanisms as feasting, gift giving, and/or organizing strategic marriages between groups. Typically, such competition for relative status - or for the legitimization of claims of status - occurs between structurally equivalent status persons.

A chief in this kind of society exercises very little control over the system as a whole, which is a manisfestation of his lack of real power or authority. In some cases, a chief or chief's group may own title to land or resources, but may exercise little right of alienation of others to these resources. Indeed, such "ownership" actually involves a simple chiefly perogative of first selection of the land/resources he desires (Goldman 1970). The chiefly group may or may not be economically subsidized by the rest of the population. As such, there is relatively little hierarchy

involved, either in the sense of a political hierarchy of office holders, or in their functioning as system "homeostats"; there are no real specialized political offices per se in such systems. Hierarchy is usually only manisfested in the internal social status ranking of individuals in the kin group. While these groups, such as those of the Northwest Coast, may be considered "mini-ramages", they also characteristically perceive of their society as stratified into relative more-status/less-status groupings.

What has been described above is a form of ranked system in which status positions are comparatively non-institutionalized. By this is meant that there is no formal, recognized system of chiefs, sub-chiefs, administrators, or other status persons that function in specified, specialized political or political-economic roles. Their "positions" are formal, but can be recognized as political only to the extent that political behaviors were necessary to get them there in the first place, and to maintain them in the face of competition and status rivalry. The relative lack of institutionalization of status positions has important archaeological implications which will be explored below.

Settlement patterns in these petty chiefdoms typically involve localized descent groups or descent group segments, such as single clans or clan segments. These settlments constitute the population that is internally ranked, and in many cases there are as many chiefs as there are localized descent groups. Descent groups are usually not ranked relative to

one another, though this has been observed to occur. Some ethnographic examples demonstrate that, usually through competition for status, a particularly successful chief may become dominant over several descent groups; such a condition may logically be expected to either evolve into a more complex structural form, or perhaps to be temporary and dissolve upon the event of the success of a rival chieftain (cf. Friedman 1971, 1975).

A paper of particular import for the present endeavor is Befu and Plotnicovs' (1968) study of the nature and functions of corporate UDGs. Based on an examination of empirical ethnographic data, these authors observed a strong correlation between the degree of corporate function of a UDG and its arrangement over the landscape:

> The argument presented here rests upon the assumption that the corporate functions of a unilineal descent group - economic, political, and religious - and the strength of its corporateness are determined by structural factors, namely, by the spatial arrangement (settlement pattern) and size of the group.... Roughly, our hypotheses are as follows: given a group whose members regard themselves as related by descent, the smallest segments will tend to emphasize economic activities, the median segments, political activities, and the largest segments, religious activities (Befu and Plotnicov 1968:383; parens in original).

These findings have implications for the assessment of political functions of UDGs and their relationships to settlement patterning. For Befu and Plotnicov, spatial patterning of UDGs can be subdivided into three kinds of groups: minimal, local, and dispersed (1968:389-391). The minimal group is typically a descent group segment in which other like

segments occupy the same settlement. A local group is defined as the largest unit of unilineally related individuals within a single settlement; thus a local group can consist of several minimal groups, e.g. a local lineage with several recognized lineage segments or extended families, or a local clan or clan segment with several lineages. The dispersed group is simply a UDG that does not live together, such as a dispersed clan.

As suggested in the quote provided above, the results of this study strongly indicated that the nature of corporate activity was dependent upon the nature of settlement. Economic activities were most frequently conducted by minimal groups, while political action was most often carried out by local groups. The reasoning for this is straightforward, since for economic or political action to be at all effective, localization of the group undertaking it is a necessity. By contrast, any UDG that is dispersed cannot effectively engage in such behavior. Rather, Befu and Plotnicov found that dispersed UDGs manifested religious or ritual corporateness that typically functioned to promote the solidarity and cohesiveness of the group.

Within the "Basic Ranked" form, then, the political role of the localized UDGs can be considerable. The UDG - and not the society at large - provides the "support base" for the chief's political aspirations, and in this regard may have considerable influence on the chief's course of action. It might be observed that competition between

chiefs is in fact competiton between chiefly groups. In a situation whereby the continued acquisition of status (or the maintenance of status) involves the tactical exchange of marriage partners, then the UDG is politically important because it provides the "pool" of potentially exchangeable marriage partners, and it is this group that will do the arranging. Finally, the descent group can be considered politically important from the internal perspective, if the condition obtains of status rivalry within the group itself.

As one moves to a consideration of more complex forms of ranking, one can observe that the exercise of real power and authority becomes increasingly invested in individuals of high rank. The chief and his sub-chiefs or advisors become increasingly important as regulators of the political-economic system (cf. Peebles and Kus 1977). In the former, "Basic Ranked" society, claims of status are legitimized through stipulated direct lineal descent from the ancestors and/or gods; this process intensifies in more complex systems, probably in linear relationship with the extent to which status personnel possess political authority and control of the system. In brief, as one moves closer to complex ranking, political roles and positions become increasingly institutionalized and individuated. A true hierarchy of political offices is formed, with two or more levels. Such positions tend to proliferate as the system grows, they become specialized and, in large measure, permanent. This is social ranking and political ranking; the former gives

rise to the latter (Goldman 1970:22, 420).

One recurring form of complex ranking can be characterized using Kirchoff's (1968) concept of the conical clan. This form will be referred to as "Complex I" ranking. The conical clan construct has been used in the literature to describe just about any form of ranking (e.g. Sahlins 1958, Peebles and Kus 1977). The present use of it will be more restricted and, it would appear, closer to that which Kirchoff seems to have intended. Kirchoff describes the conical clan system as

> a type of society which may be likened to a cone, the whole tribe being one such cone.., within it are a larger or smaller number of similar cones (1968:378-379).

Thus, in this formulation everybody and every group can theoretically trace geneological connections to the paramount, though certainly this ability would be affected by practical considerations, such as size of the population and perhaps passage of time.

Kirchoff's conical clan specifies a type of spatial arrangement of the system. Regarding spatial patterning of chiefdoms in general, many anthropologists have pointed out that this level of socio-political complexity is often characterized by marked territoriality, relative sedentism, and often localization of descent groups.

> It follows that to the extent a chiefdom comes to have a permanent office of paramount chief, then to that extent his following will be known and discernable "on the ground".... The society itself is named, its membership known, and it occupies a

> specific space at any given time (Service 1975:101).

Further, within the territory of the chiefdom, descent groups can tend to be localized into spatially distinct districts.

> People of the same clan may be scattered in different parts of the tribal territory. But where extensive chiefdoms are constructed on conical clan lines, each clan usually has a regional appanage, a district in which it is supreme and over which the clan chief presides. Subdivisions of the district are similarly associated with branches of this clan and are headed by the lineage chieftains. So empowered in the district... the conical clan presents itself as a descent group and a unit of political order (Sahlins 1968: 49-50).

Based on the foregoing, then, one form of complex ranking can be fairly characterized as a conical clan-type system. These descent groups - be they clans, clan segments, or lineages - are ranked relative to one another, and occupy defined territories; some examples from the present data are Kachin Gumsa, Tanala, and Easter Island. The settlement pattern is thus of localized UDGs and single UDG settlements. This recurring structural pattern has been noted by many and in many areas, for example, by Sahlins in Polynesia. Sahlins has termed these structures "descent line systems" (1958: 181ff) and stresses the localized nature of UDGs. Friedman (1975) discusses similar systems in South Asia.

In complex chiefdoms, the political importance of UDGs can be varied. The UDGs of the conical clan-type system, being localized into discrete territories, can function as effective political entities. Such groups remain the support

base for their chief or sub-chief and continue to underwrite his (actually, their) political machinations. Descent groups tend to be ranked one to another vis a vis their chief's geneological relationship to the paramount. It can be suggested that this kind of arrangement would tend to encourage consolidated group action, rather than individual action by the status person or his immediate family. Indeed, such collective group action sometimes results in endogamy within the group (or at least greatly restricting the range of potential marriage alliances) for the purpose of retaining or ramifying the political power the group does possess (Friedman 1975).

The relatively high degree of cohesiveness and political importance of UDGs in "Complex I" systems is further illustrated by the fact that whole UDGs or descent group segments often "bud-off" and move into new territory, usually at the expense of less powerful societies. Status rivalry is often the cause of such a move (Goldman 1970), as well as a simple desire (or need) to expand the chiefdom's domain. Should descent group movement be the result of status rivalry or some other kind of intra-systemic enmity, the group may claim its independence and thereby form a new chiefdom. On the other hand, if territorial acquisition is the motive, then the budded-off descent group may remain politically allied with the larger system.

It can be argued, then, that UDGs in conical clan-type chiefdoms form the effective political units of the

system. At the same time, however, one must remain cognizant of the fact that if/as the system continues to expand, then the necessity for regulation and control of the system will concommitantly increase. That is, political authority and power will increasingly become invested in ranking individuals, at the eventual expense of the various UDGs. As Peebles and Kus (1977) have shown, complex societies must have effective and expedient mechanisms by which system-threatening factors can be dealt with and mitigated; individuals or small groups are far more effective as system "homeostats" than are larger societal groupings. It is clear, then, that as a ranked society expands and/or becomes increasingly complex, political authority, power, and decision-making capacity becomes increasingly institutionalized in status individuals. It is also important to note that this process is self-ramifying or, in Goldman's terms, "self-motivating" (1970:17). That is, as a chiefly system becomes institutionalized, complex, and imbued with decision-making powers, the complexity of the system itself will create the need for even greater regulatory control; complex political systems tend to create their own problems to which they must eventually respond, in addition to dealing with problems originating from the outside.

While conical clan-type systems can be very large and quite complex, perusal of the pertinent literature reveals that ranked systems that are usually considered to be the "most complex" are often organized somewhat differently.

This form is best exemplified by the very complex systems of Africa and Polynesia; these systems shall be dubbed "Complex II". Examples would include Tonga, Samoa, Marshall Islands, and Ashanti. Here, high social rank entails as much true political authority and power as is ever found in a chiefdom. Power is typically manifested in the presence of a military force at the disposal of the paramount - who is often referred to as "king" - and the power of life and death of the paramount over his subjects.

These chiefdoms are usually described as being very centralized and polity and political-economy are complex. The status hierarchy contains three or more levels; paramounts are considered divine or semi-divine. Status/political positions are fully institutionalized and the chiefs exercise considerable control of the political-economy as "homeostats" in the regulatory system. It should be mentioned that in the present opinion, Peebles and Kus' correlates would seem to best characterize this form of system.

Societies at this level of organization tend to be quite large, though population need not be particularly dense (cf. Richards 1940, Stevenson 1968). Sahlins (1958: 139ff) has labled such societies in Polynesia "ramage systems" of social organization, though it is clear that a chiefdom can possess the qualities of a "ramage system" without actually having ramage organization. In a ramage, relative rank is based on primogeniture, so that first sons of first sons will rank higher than second sons of first

sons, etc. Theoretically, there are as many ranks as there are people. Importantly, however, these societies recognize themselves to be stratified into hierarchically arranged categories based on relative rank, e.g. "royalty", "nobles", "commoners", "slaves". Relationships of individuals both within and between strata can be convoluted with, say, the highest status people in a lower rank category "technically" ranking higher than the lowest status people in the stratum immediately above. Thus, the assignation of some persons into a particular rank may be somewhat arbitrary, and may depend upon whom one asks.

The form of ranking may also be organized like Sahlins' "descent line" system. Like the conical clan, inheritance is based on primogeniture but within the descent group, or certain ranking descent groups; there are not, then, as many ranks as there are people. Also like ramages, people tend to divide themselves into relative more-status/less-status groups.

Goldman has stressed the stratified nature of these systems as an important defining attribute (1970:20ff). He has also stressed that as systemic complexity increases, the possession of authority and power increasingly gains an economic basis, i.e., the possession of land: "High ranks hold the rule and possess the land titles; the commoners are subjects and are landless" (1970:20). This observation points out an important distinction between "Complex II" chiefdoms and those that have been described as a conical

clan or "Complex I", i.e., that this form of system entails a shift in the nature of land ownership and tenure. As this process unfolds, it in turn has a marked effect on settlement patterning and the spatial arrangement of UDGs.

Ownership or "custodianship" of all land and/or resources by status groups is characteristic of the apex of ranked society. As Goldman indicates, powerful versus powerless directly correlates with landed versus landless. Division of the chiefdom's domain into administrative districts is a recurring phenomenon, perhaps best exemplified by Earle's (1978) detailed study of one such district in Hawaii. The ability to so subdivide the landscape and the peoples' willingness to go along with it reflects both the high degree of real power and authority enjoyed by the chiefs, and their increasing functions as system regulators; restructuring one's domain in such a fashion greatly facilitates one's ability to effectively administer and monitor the domain. This process also reflects something else: the replacement of kin-based territories with political territories, and the concommitant decline in political importance of UDGs.

Many scholars have commented on the relationship between kinship and polity in complex societies. Maine originally proposed a distinction between administrative or civil versus kinship-based territories as exemplifying the distinction between the civilized and the primitive. In their studies of complex African societies, Fortes and

Evans-Pritchard (1940:6) and Lloyd (1965:101) remark that there is a fundamental incompatibility between strong centralized government and kinship. For Polynesia, Goldman states that "...kinship and politics are in the long run inherently incompatible" (1970:548). Specifically, political power continually disrupts kinship unity, particularly in the event of the establishment of political districts at the expense of kin group territories (1970:544ff).

All of the above facts - the recognized right of ownership of all land by the paramount, and his formation of administrative districts - indicate the continuing decline in the political importance of UDGs as the theoretical apex of ranking is approached. Unlike conical clans, descent groups may not be localized, but even if they are, they may no longer own or control their territory, and in any case, their power continues to be usurped by the paramount. A recurring practice is the appointment by the paramount of an administrator to oversee the particular districts or territories of the domain. If the district is a former kin group territory, then the group head is no longer chief of his realm, but rather the appointee is. The individual is commonly a relative of the paramount or otherwise will be of high ranking group or family; by moving this person into the district a de facto local status lineage is formed, which will, of course, always outrank the original inhabitants. Effective political action at the local level, then, is no longer in the hands of the descent groups. What eventually

emerges is a non-kin based bureaucracy which is hierarchical in structure, and is well adapted to the regulation and maintenance of the system.

UDG dispersal and even eventual dissolution is a recurring pattern resulting from the inexorable institutionalization of chiefly power. As commoner UDGs become landless and powerless, they no longer constitute a support base for their own chief; indeed, they would no longer have a chief. Sahlins has pointed out that in "ramage-type" systems, descent group segments characteristically bud-off and inter-mingle and there is considerable personal mobility and shifting residence (1958:146-147; also Goldman 1970: 431). Goldman remarks that in highly stratified systems, geneologies and indeed, unilineality remain important only for the nobility, for the purpose of legitimizing claims of status. Commoners, on the other hand, need not for such things, and in fact, tend to develop a trend toward bilateral kinship reckoning (1970:424-425). It might be added that this process would certainly intensify with the passage of time. Finally, that this phenomenon is not unique to Polynesia has been demonstrated by Fortes and Evans-Pritchard (1940:23) and, especially, Lloyd (1965:98-100), who point out that with some notable exceptions (e.g. Ashanti), African Kingdoms also display a declining importance of localized UDGs.

It should be stressed that this phenomenon clearly does not happen overnight. That is, within the "Complex II"

category can be expected the continual decline of UDGs, given the known processes of the institutionalization of power, but not necessarily an absolute lack. It bears repeating that descent group power declines as chiefly power increases; the increasing role of the chief or chiefly group as system regulators precipitates UDG decline. The event of a paramount claiming all land as his own represents an end state in his continued accrual of power. It is evident that this end is reached only gradually and with considerable tact, in order to avoid mass revolt.

The implications for settlement patterning are clear. The expected pattern is UDG dispersal, at least of larger groupings such as clans or maximal lineages. As political corporateness is increasingly obviated, there is no longer a need to remain concentrated for this purpose. Settlements consisting of persons from many UDGs would be common. These minimal groups (in Befu and Plotnicovs' sense) will remain economically corporate, and tend to the day-to-day tasks of living.

It should be added that the picture of politically decapitated commoners painted above may not be quite as bleak as it initially appears. That is, local level politics may not be totally absent, only that such behavior is no longer under the control of UDGs. Several cases are known in which local level political behavior, when manifested, revolves around aspiring individuals or non-kin politically-motivated factions, who work within the limits of the

larger system, and who further usurp the influence, prestige, and/or power of the kin groups. An excellent example of this process on Samoa is provided by Mead, who notes that within local villages political infighting and jockeying for favorable position at the expense of kin groups is rampant.

> So the present structure of Manuan society suggests very vividly the way in which the political unit (i.e., factions) has usurped, borrowed, readapted, or paralyzed the functions of the different members of the descent groups and of the descent groups themselves. The gradual accretion of power has followed two main lines: the ever increasing control exercised by the fono (i.e., non-kin village council) over the choice and behavior of matais (i.e., traditional lineage heads), and the arrogation by the village organization of the role of descent group of the highest chief (Mead 1930:26; parens added).

This passage nicely illustrates how, in this particular complex system at least, the political clout of descent groups has almost completely evaporated.

Finally, some comments on the general nature of subsistence economics in ranked societies are in order. Up to this point, political factors or motivation has been stressed as instrumental in structuring the spatial arrangement of most chiefdoms, rather than subsistence factors. It would appear that this becomes increasingly possible as the overall level of socio-political complexity increases. That is, there seems to be a hypothetical point beyond which subsistence necessities give way to political exigencies as the primary motivation for structuring settlement. This process involves 1) the attainment of an efficient, relatively stable subsistence base, and 2) the increasing effectiveness of

the chiefly system as a "homeostatic" regulatory mechanism.

The first factor, a generally secure subsistence base, would depend largely on technological development, i.e., the technical ability to effectively exploit an environment. An effective social organization of production would be important too. Systemic control would be even more significant. Unlike most of their tribal counterparts, chiefly systems can greatly increase the relative subsistence security of their domains, and can function as a buffer against ecosystemic perturbations or general unpredictability. For example, chiefs are known to keep storehouses of foodstuffs as a hedge against shortage, or to force the delay of harvests to keep food stored in the ground (Sahlins 1972). As noted, in very complex systems a chief may subdivide the domain into districts and empower individuals as administrators over them, thus insuring efficient operation and quick notification of any problems (Earle 1978). Greatly facilitating this operation - and its resulting effectiveness - is the fact that groups in such areas tend to be subsistence self-sufficient (Peebles and Kus 1977; Earle 1978), thus obviating any need by a chief to regularly distribute foodstuffs from haves to have-nots in non-crisis times. In many complex chiefdoms, the chief(s) further stimulates production by organizing corvée labor for the tasks of clearing new lands for agriculture, and/or building irrigation works (Earle 1978).

It is evident that the spatial arrangement of people

and settlements in a ranked society tends to be dictated, to a greater or lesser degree, by non-subsistence related factors, though other kinds of economic variables are usually involved. Control of trade comes to mind: powerful chiefdoms can control trade in a number of ways, such as situating a settlement(s) in a location so as to control important water or land trade routes, or even control the source of the traded commodity. In a similar context, settlements can be situated to control not only water or land trade, but general transportation and communication routes as well. Warfare is a common fact of life for complex chiefdoms, whether internecine or with other systems. In the case of the latter, chiefly regulatory systems have responded by raising armies and building defensive works. Settlements are often located so as to maximize military advantage, typically defense.

That any of the above is possible is due to the effectiveness of the chiefly regulatory system. It is therefore posited that as systemic control and relative subsistence security increases, then the role of subsistence economy in structuring the domain decreases. "Man-land" relationships give way to "man-man" considerations. Political or political-economic factors such as those described above assume a greater importance in structuring the settlement system.

Archaeological Implications

The political role of UDGs

A brief summary of the discussion of the political role of UDGs in different forms of ranked society is in order. It was shown how political functions or corporateness can vary; it can be observed that, given the three structural forms of ranked system, the political import of UDGs tends to be curvilinear. That is, political corporateness can be substantial in "Basic" forms, can increase in "Complex I", but tends to decrease in "Complex II". UDG localization is a principle factor that facilitates political action, yet this does not "cause" UDGs to function in a political manner. Rather, the curvilinear phenomenon is the direct result of the rise of an institutionalized chiefly hierarchy; this process also seems to be curvilinear, and is the mirror image of the UDG curve.

Stated differently, the continued arrogation of power and authority by the chief or the chiefly group(s) causes the political abrogation of non-ranking or commoner UDGs. Their dispersed spatial arrangement in "Complex II" systems, then, can be understood to be an effect or result of this process. It might be added in passing that this phenomenon continues with the advent or attainment of state-level organization (Service 1975).

It is further expectable that this process would have an effect on the nature of UDG symboling in mortuary

context. It was discussed earlier that if any UDG is symboled, it is usually the one that is considered most important to the people; one measure of "importance" is political corporateness or action, and the extent to which a UDG can engage in (or is allowed to engage in) effective political behavior that can have a direct bearing on peoples' lives, and/or on people in other like groups. It can be argued that, unlike economic or religious corporateness, political behavior is, in a sense, "optional" behavior, to the extent that political machinations, infighting, status rivalry, and general maneuvering for individual or group gain is not mandatory for the group's physical survival or spiritual well-being. Politics is one arena of human behavior over which people have some measure of control and initiative. A group or individual can plan a course of political action, weigh its potential gains and losses, and then set it in motion, modify it, postpone it, or abandon it. Such a degree of personal option and freedom of choice is not possible in the economic or religious realms; by contrast, these tend to be behaviors that people must engage in, like it or not, lest they invite certain disaster, whether real or imagined.

To the extent that the above argument has merit, it will be posited that the degree of political import of a UDG can be a powerful motivating factor in UDG symboling, at least within the ranked category, and doubtless in other systems as well. People tend to symbol that which is

important to them. Political power and the option to undertake such action or not can be transitory, or can otherwise tend to wax and wane, and as such should provide an important "need" to symbol the UDG. Symboling the UDG in mortuary context demonstrates and reinforces to all others the fact that this is a discrete unit of political action, and must always be taken seriously.

Given the above, then, it is expectable that the incidence of UDG symboling should co-vary with the relative political importance and concentration/dispersal of the group. Specifically, as UDG import and indeed the necessity for its being decline, then so should the incidence of symboling in the mortuary domain.

Institutionalization and the symboling of status

It has been discussed that in the three forms of ranked society, the degree of institutionalization of ranking personnel tends to increase as one moves up the general scale of complexity. By institutionalization is meant that the positions held by ranking individuals become true offices. These offices in complex ranked (and state) systems are formal and defined and - importantly - are necessary for the continued functioning of the whole system. This is, of course, directly related to the degree of chiefly "homeostatic" control of the system. To the extent that a system comes to depend on status personnel for the regulation, control, and indeed viability of the system, then the status

positions will become specialized, institutionalized, necessary, and permanent status offices. In short, without them the system would fail.

This phenomenon should have a direct effect on the symboling of high rank in mortuary context. Basically, it would appear that the extent to which high rank is consistently and redundantly symboled is proportional to the degree of institutionalization of the status positions. In a complex chiefdom, where high status entails the holding of a necessary and permanent office, the symboling of that status does not involve the holding of an office. In large measure, it is the office, or position, that is represented at death, regardless of whom was occupying it when he died. The individual personality of this person is less important than the fact that he was a holder of high office. Upon death, even an individual generally considered unpopular should still receive a funeral commensurate with the office he held.

By contrast, in "lower level" or "Basic" ranked systems, where high social status does not necessarily entail political status or office, one would expect status mortuary treatments to vary, or in any case to be less redundant than in more complex systems. By way of example, consider the situation in which a society is organized into "petty chiefdoms" as described above. Each petty chiefdom, often a localized UDG, has its own hereditary chief who holds high status but not a political office in the present sense of

the term; the chief's role as a system "homeostat" is thus negligible. Rival chieftains typically vie for status with one another. This is also frequent in complex chiefdoms, of course, but with an important distinction: in complex systems, status rivalry involves a struggle for status and an office; in less complex systems, status rivalry involves competition for relative status only. It might be generalized that in complex systems, individuals compete for permanent offices, and in petty chiefdoms people compete for a transitory role. Given this, a petty chieftain's mortuary treatment should depend to a great degree on his success as a competitor for status. If, throughout his career, he was recognized as a worthy competitor, was extremely generous with his wealth, gave marvelous feasts, and generally never let the status of his small domain decline, then it is expectable that this could be reflected in his mortuary treatment. The converse is also expectable, that a chieftain with a reputation for being routinely bested by his rivals might also have this fact reflected after his death. In the same context, a chief's mortuary treatment might also reflect his status vis a vis his rivals' at the time of his death.

A related expectation regarding vertical symboling can be suggested. Perhaps the most often invoked mortuary correlate of ranked society is the fact that in ascribed status systems, subadults and females of the ranking group(s) should receive funerary treatment commensurate with their

rank. In particular, male subadults of the ranking lineage(s) form a pool of heirs-apparent to the chieftainship, and thus are important people from birth. This kind of mortuary symboling should be consistent and redundant within complex systems, since any heir-apparent already holds high social status and is heir to an existing political office. In less complex systems, the symboling of an heir who died prematurely might be expected to vary with the relative status of the chief at the time the child died. The same might be said of females.

The preceding argument is very similar to one advanced by Brown (1981), and indeed, should be considered an elaboration upon it. Brown recognized that variability in different levels of complexity in ranked systems can have an effect on mortuary symboling in the vertical dimension. Thus, he proposed that the symboling of status will increase as the degree of system hierarchy increases, and with the accrual of real power and authority by the status group (1981:29). The above statements are parallel, but stress not power and authority per se, but rather the institutionalization of status offices in the chiefly regulatory system. It is herein suggested that institutionalization is the critical variable and in fact confers power and authority, at least to the extent that the effective use of power and authority will depend upon the relative permanence of a status position and its necessity for being (i.e., as a system regulator). Further, it has been suggested that not only

will higher status be commensurately symboled in complex systems, but that this symboling will be more consistent and redundant with institutionalized status political offices; the funerary procedures for any particular status position can be expected to be relatively consistent regardless of whom happened to have died in office. Again, the position in the hierarchical system seems to be symboled and less the individual personality of the deceased.

Brown has observed that as power and authority increase, greater effort expenditure on status deceased is expectable, as is the use of space to separate status from non-status dead (ibid.). Conversely, in less complex systems such is not expectable, and indeed, status should reflect to some degree the personal qualities of the deceased, i.e., age, sex, and personal ability (ibid.). To this can be added that considerable variation could theoretically occur in mortuary treatments in these "Basic" ranked systems; the competition for relative social status between structurally equivalent chiefs, and the non-institutionalization of their positions, can all lead to variability. In a society organized into several localized, UDG-based petty chiefdoms, consistency in status mortuary treatments is not necessarily expectable since the society as a whole is not politically integrated. Thus, differences in mortuary treatment between the petty chiefdoms could be considerable, and reflect the chief's personal achievements more than his ascribed status. Other implications of this situation will

be considered below.

"Complex II" Chiefdoms

This discussion will now turn to specific archaeological correlates of the three heuristic devices. Consideration will begin with "Complex II", since this structural form evidences the greatest degree of structure and is hence the most straightforward.

Peebles and Kus' (1977) archaeological correlates are appropriate here. Briefly, one would expect 1) two "dimensions" of vertical status, one being smaller and displaying indicators of status ascription, the other much larger and not showing ascription; 2) a settlement pattern of a hierarchical nature, reflecting the settlements' positions in the regulatory network (but see below); 3) local subsistence autonomy; 4) evidence of organized labor, e.g. monumental architecture, perhaps craft specialization; and 5) evidence of the "homeostatic" system's ability to cope with uncertainty, e.g. control of trade, warfare, irrigation, storage of foodstuffs.

It has been shown above how as institutionalized systemic control by status personnel increases, political power in UDGs correspondingly declines; in complex ranked systems, UDGs - other than the high ranking group(s) - have minimal to no political importance. This fact should be reflected in the mortuary domain. First, it is expectable that the symboling of UDG affiliation should be rare, particularly

regarding artifactual representations. Secondly, UDG dispersal should be common. In the present formulation, this is the critical factor distinguishing this form from all others. Such dispersal should be indicated in a number of ways: if disposal areas are used, they should be multiple or divided, reflecting the presence of multiple UDGs in any one settlement or area. If disposal areas are not used, then any number of alternative modes could be utilized. One would not expect single, discrete disposal areas either isolated or near settlements.

Other spatial patterning can indicate a "Complex II" system. Major settlements divided into wards would suggest a highly structured utilization of space and considerable control over site planning by some individual or group; such wards could represent UDG residential areas or could be non-kin based. It is problematical whether the phenomenon of subdividing the domain into districts could be discerned archaeologically. However, even if actual districts (the boundaries of which could be wholly arbitrary) are not discerned, evidence of this high level of systemic control could be. For example, the settlement pattern could indicate control of trade, transportation, and/or communication routes (cf. Steponaitis 1978), or may otherwise be structured so as to enhance system regulation. Deviation from Peebles and Kus' ideal hierarchical pattern might be expected in very complex forms, i.e., from the expectation that "minor centers" will cluster around "major centers", and

that smaller villages and hamlets will cluster around the former. Chiefly systemic control could result in settlements in "unusual" locations, such as settlements in areas of poor agricultural potential or otherwise in less than ideal physical and environmental conditions. Such a situation would indicate the importance of political over subsistence factors in determining settlement structure. Pushing this argument to its logical extreme, it can be further suggested that atypical settlement locations could also involve atypical settlements, e.g. military outposts, garrisons, or staging areas; isolated settlements in "foreign" territory representing colonization efforts. Regarding the structure of the chiefly domain in general, it can be posited - for systems at the theoretical apex of ranking at least - that a considerable degree of intra-systemic homogeneity would be expected. That is, as chiefly control increases and UDG power declines, one would expect greater systemic integration and less regional variability to be manisfested; very complex chiefdoms tend to be defined and politically and geographically circumscribed into a known territory. At this level, the archaeologist would expect greater variability between two contemporaneous and adjacent chiefdoms than within either one.

"Complex I" Chiefdoms

The general category "Complex I" has been defined using a rather strict interpretation of Kirchoff's (op cit.)

conical clan concept. These systems differ from the former in that the territory of the chiefdom is divided into kin-based sub-territories, the occupants of which are predominantly concentrated UDGs, typically clans. Clans are ranked one to another; lineages within clans can be similarly ranked, and may also have their own lineage territories.

This is a markedly different structural form from that labeled "Complex II". Here, UDGs enjoy a goodly measure of political power, which is a direct reflection of (probably a direct result of) the relative lack of institutionalized systemic control of the domain by the paramount or his group. "Relative" lack of control means relative to "Complex II" systems.

To the extent that the paramount is clearly considered to hold the highest socio-political status position in the society, and the various other UDG chieftains are comparatively lower in status, then this fact could be reflected in vertical symboling. Peebles and Kus' two "dimensions" of status may not be so clear cut; rather, something approaching Brown's (1981) gradations of relative status would probably obtain. Relative vertical status should have a spatial reflection, i.e., status interments should occur within the chieftains' settlements in each UDG territory. A generally hierarchical settlement pattern and site types would probably obtain, reflecting in this case not so much "homeostatic" system control but the spatial representation of the social status hierarchy. Local subsistence autonomy would

also be expected, and each settlement or minimally each UDG territory would be subsistence self-sufficient. The extent to which monumental architecture, craft specialization, and organized labor would be present is problematical, but should all increase as overall complexity increases. Likewise problematical is evidence of chiefly control of the system; such should also increase with complexity but should not approach that seen in "Complex II" systems without a radical system transformation.

As Sahlins (1968) remarked, conical clan chiefdoms can be discerned on the ground. UDG territories should be inferable from settlement patterning and from relationships between sites and the environment. If a hierarchical pattern obtains, then the settlements of the local chieftains should be roughly comparable in size and configuration, with only one such in each territory. Minimally, some kind of spacing between these sites should occur, though such spacing need not be regular; environmental variables must be considered. Smaller villages and hamlets should associate with these chiefly sites.

In the mortuary domain, clear evidence of UDG concentration should be found. If disposal areas are used, then they should be single, with no internal divisions or differential artifactual patterning suggesting multiple UDGs. Logically, either settlement-specific disposal areas could be used, or disposal areas used by entire UDGs. If the latter obtains, the facility should occur within the UDG

territory. It could be added that in either case, the UDG chief and his immediate following can be expected to be treated differently, and perhaps disposed in a separate location, which most likely would be his own settlement.

"Basic" ranking

This category presents sizeable problems to which there may be no solutions. Variability in such minimal ranked systems can be marked, principally because 1) ascribed status is not institutionalized, and 2) such systems have usually been observed to exist in a state of flux, i.e., where structurally equivalent chiefs compete for status, and where through time any chief's relative status can be expected to rise or fall with shifts in the political winds. Further contributing to the lack of symbolic consistency in the mortuary domain is the fact that, in the case of localized UDGs, variability could involve programming specific and unique to a particular UDG.

It was suggested above that symboling of a chief's vertical status might depend upon the nature of his career, and his relative status at the time of his death. This observation follows Brown (1981) who states that such chiefs will receive funerary treatments reflecting their age, sex, and personal achievement. Further, it has been suggested that the symboling of a chief's heir after a premature death may be expected to reflect the chief's relative status at that time.

The basic problem is straightforward: if a petty chieftain's ascribed status is symboled on the basis of his age, sex, and personal achievements, then how can this treatment be distinguished from the symboling of simply achieved status? No solutions can be offered at this point. Further complicating matters is the fact that no necessary consistency can be expected in the symboling of other members of the chiefly group; one clearly cannot anticipate the presence of two "dimensions" of status as are found in more complex systems.

In the horizontal dimension, UDG localization might be demonstratable. An intra-UDG settlement hierarchy would not be expected, and if the condition of many chiefs but no paramount obtains, then no society-wide hierarchy would occur. Also absent would be any indication of chiefly systemic control.

In the event that one chieftain did become paramount over the entire society, and if this condition lasted over time, then archaeologically demonstratable patterning might emerge. Such a system would constitute a conical clan if the paramount and the lesser chieftains were products of the same ranking group; if not, the system would represent another - albeit hypothetical - structural form of ranked society.

To conclude, then, "Basic" ranking may not be consistently inferred from the archaeological record, given the current state of method and theory. Future research might

be directed toward distinguishing between mortuary status distinctions reflecting age, sex, and personal achievement that denote ascribed versus strictly achieved status. A detailed study of ethnological data on such societies could be profitable.

CHAPTER 5

AN ARCHAEOLOGICAL APPLICATION

Introduction

It is the purpose of this chapter to apply the formal correlates of structural form in ranked societies to a body of archaeological data. With this, this study seeks to "bridge" theory and data; it should be recalled at this juncture, O'Shea's comments provided earlier, that much recent archaeological theory has not been adequately "translated" into archaeological expectations, and is hence of dubious value. The following analysis will demonstrate that the theoretical postulates and formal correlates presented above can indeed be successfully used in the analysis of archaeological data.

The data to be considered are various Mississippian Period manifestations in the Central Mississippi River Valley (see Figure 1). This data set has been chosen for a number of reasons. First is the fact that, until fairly recently, this region has been incompletely understood. That is, it has been known for some time that the Central Mississippi Valley, particularly in the northern areas, saw a substantial and impressive occupation by Mississippian

systems, but the nature and relationships between manifestations and phases has only recently been worked out. Phillips' (1970) ceramic studies have greatly contributed to improved spatial-temporal control, and a more recent synthesis of the archaeology of the region by Morse and Morse (1983) further places these data into a coherent cultural-historic framework. Significantly, the extant data - particularly mortuary data - are now of sufficient quality and quantity to allow an exploratory application of the approach.

Secondly, and of greater consequence, this data set will illustrate the utility of the method and demonstrate the kinds of insights that can be gained from the study of structural form; Mississippian in the Eastern United States constitutes a nearly ideal test case. To explain, climax Mississippian throughout the East has been recognized for some time as a cultural entity with a considerable degree of homogeneity or similarity over space. The term "Mississippian Pattern", to employ older terminology, was used in reference to this areal homogeneity, reflecting similarities in material culture, settlement types and patterns, subsistence economy, and esoteric iconography. Simultaneously, however, archaeologists have also recognized that a tremendous range of regional or local variability exists in Mississippian systems, despite the surficial homogeneity. It is this regional variability that has proven difficult to account for or explain. Regional phases have been worked

out, and it is often assumed that these phases represent independent chiefdoms, but beyond that, little has been suggested to explain within-phase structure; clearly it is easier to demonstrate regional variability than to explain it.

The following discussion will attempt to show how this approach can be used to address and explain this variability through an analysis of structural form in Mississippian systems. This examination of structure is based on the derived formal correlates of chiefdoms, which are in turn based primarily on the ability to infer horizontal group structure and configuration from mortuary patterning. Therefore, this chapter and application of method to data is intended to address the formal variability extant in one region of Mississippian development, and to offer hypotheses to explain this variability in terms of differences in structural form. Also, and just as importantly, this chapter will illustrate the method employed in the study of structural form, because the approach is intended to be applicable generally, and is not specific to any particular data set.

It should be pointed out that the discussion that follows will be, to a degree, selective in the phases chosen for examination. All known or suggested phases in this area cannot be considered; such would be well beyond the present scope, and in any case, the data - particularly mortuary data - are insufficient for most known phases. Analysis will focus, then, on Mississippian systems for which

acceptable mortuary and settlement data exist. These phases tend to be the better known in the region.

A Mississippian Test Case

Early Mississippian Period, c.a. AD 700-1000

The earliest Mississippian manifestations in the Central Mississippi Valley are among the poorest known with regard to mortuary practices. Because of this, no firm statements regarding socio-political structural form can be offered for this period. A discussion of these data is in order, however, to provide background for the succeeding phases.

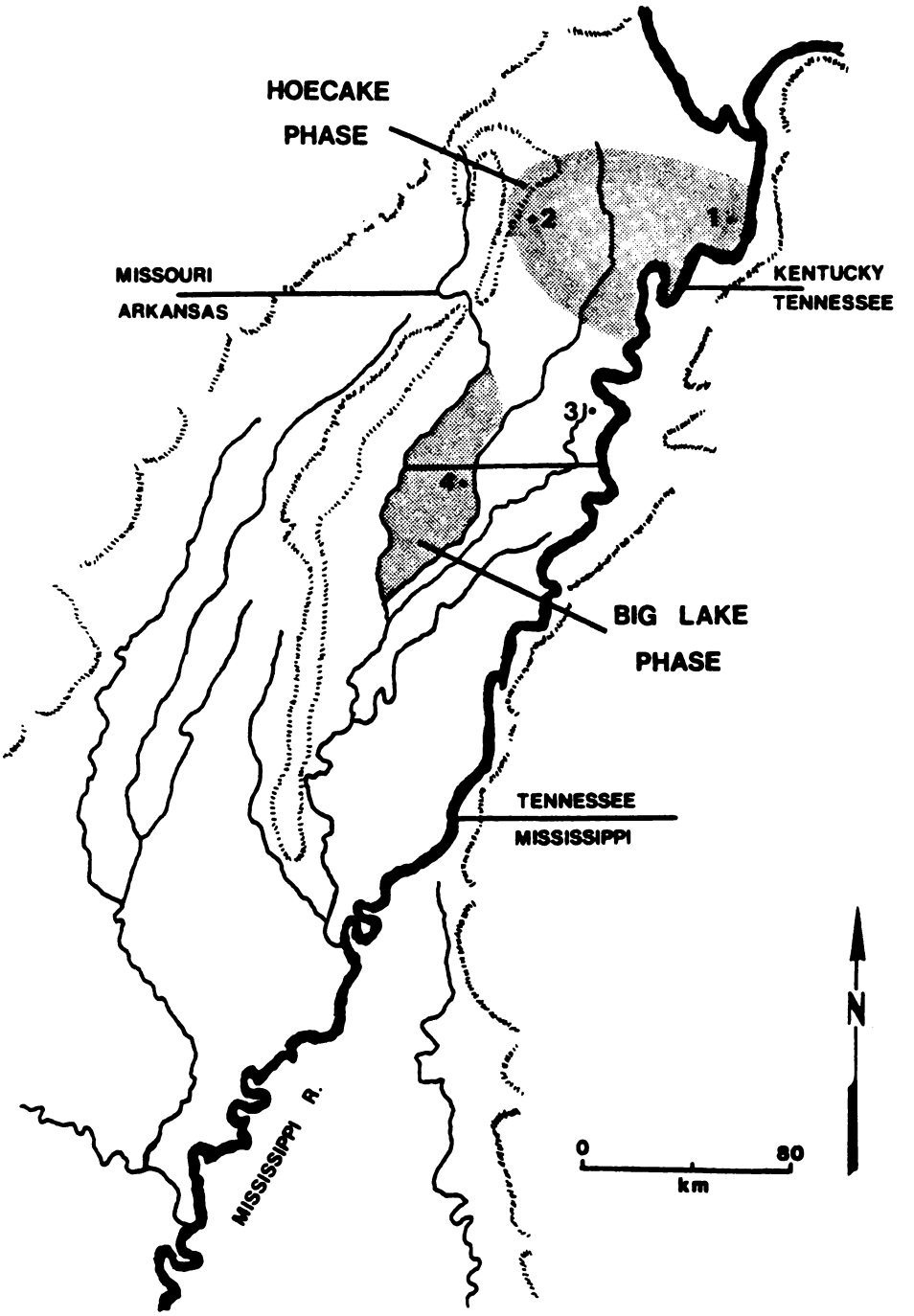
By AD 700, socio-cultural systems that have been identified as Mississippian were evolving in the Mississippi River Valley, particularly in the American Bottoms area in the vicinity of the Cahokia site, and further to the south in the Cairo Lowland region. The emergence of Mississippian is not yet completely understood, though it is clear that it was largely an in situ evolution of resident Late Woodland societies into a more complex systemic form. As this process continued, various Mississippian groups seem to have moved into adjacent regions, intruding upon other less complex societies.

The evolution of Mississippian systems probably corresponds to the evolution of ascriptive ranking and chiefdom-type socio-political organization, or at least the

development of what has been referred to as complex ranking. It has been argued by some archaeologists that status ascription was present in earlier systems (e.g. Hopewell), but it is obvious that, if such does in fact prove to be the case, these earlier systems were of a very different structural form than most Mississippian systems, and never developed to comparable complexity.

In the Cairo Lowlands, emergent Mississippian is referred to as the Hoecake phase (Phillips 1970:902-903), which temporally bridges the transition from late Baytown Period manifestations into early Mississippian (Morse and Morse 1983:190). The Hoecake site (see Figure 1) is the type site for the phase, containing anywhere from 31 to 54 mounds and covering some 80 ha (Morse and Morse 1983:215). The site is clearly multi-component and was occupied/utilized over a considerable span of time, which greatly hampers interpretation of individual components. Morse and Morse interpret the early Mississippian component at Hoecake as a dispersed community made up of mounds and residential areas (ibid.). The relationship between mounds and residences is not known; there is, however, some evidence that the site layout was planned, minimally with regard to certain mound alignments, which foreshadows later planned sites in the Cairo Lowland. Very little of this large site has been excavated, so the extent and scope of community planning remains uncertain.

Mortuary remains were excavated at Hoecake (J.



SITES: 1 - Hoecake, 2 - Rich Woods, 3 - Kersey, 4 - Zebree

Figure 1. Early Mississippian Period phases and sites discussed in text. (Adapted from Morse and Morse 1983:Figure 10.1).

Williams 1974) but they were few and difficult to interpret. At least one burial, with a copper artifact, suggests some degree of status differentiation. Burial occurred in mounds. Fourteen individuals were discovered in three log-lined tombs beneath one excavated mound; no artifacts were associated (ibid.).

Other sites that appear to be similar to Hoecake are known. One is the Rich Woods site, located 65 km to the west. This site reportedly contains 33 mounds (Morse and Morse 1983:215) in a dispersed pattern like Hoecake.

Regarding Mississippian development in the Cairo Lowland, similarities in various artifact types suggest ties with Cahokia. The overall settlement structure of the Hoecake site (except for the mounds) resembles that of the Range site in the American Bottoms (Morse and Morse 1983: 192). While the precise relationships between the early Mississippian Hoecake phase and American Bottoms Fairmount phase are not yet known, it seems clear that the two regions were in some process of parallel development.

Further to the south in the Central Mississippi Valley, the Big Lake phase has been defined by Morse and Morse (1983:217ff), and is largely based on their excavations at the Zebree site. The Big Lake phase is interpreted to be the earliest Mississippian system in this area, and is the probable result of a direct intrusion of Mississippian people into the Baytown Tradition (Morse and Morse 1983: 233). This phase appears to be rather different than the

Hoecake phase to the north, and there are no multi-mound sites comparable to Hoecake and Rich Woods. Zebree was a planned village covering about one ha, and included a central cypress post pit; apparent residential sub-areas were defined, but structures were not oriented into rows as is common in later periods. A ditch surrounded much of the site, but its function could not be positively ascertained, and no evidence of a palisade was found (Morse and Morse 1983:298-300). It is not clear if this feature was intended for defense or was simply used for borrow. While Zebree seems to have been a fairly nucleated village, related dispersed hamlets also occurred nearby.

Few burials were found at the site, but those that were deserve mention, since minimally they may indicate differences in mortuary programming. Most interments were house-related, occurring in the general midden near residential structures. One grave with multiple interments was found: four male and four female primary burials were discovered in this grave in one residential sub-area (Morse and Morse 1983:231-232). This area was found to contain the highest percentages of mammal bone on the site and most of the exotic artifacts, and Morse and Morse (ibid.) tentatively suggest that this may have been the ranking group in the village. In any case, some distinction in mortuary treatment is indicated. It is further interesting to note that 26 locations of isolated human bones were found in the village, which also suggests differential treatment of

certain dead. It has been suggested (ibid.) that charnelling may have been conducted, particularly by the status group, though the primary interments in the grave do not support this.

Charnelling does seem to be the case at a related site. Marshall (1965) describes 10 bundle burials within a circular structure at the Kersey site in Missouri. Morse and Morse (1983:232) note that the size of this structure is close to that of the Zebree grave. However, only at the Kersey site is charnelling definitely indicated. While a more precise estimation of mortuary practices of the Big Lake phase must await additional data, one can offer the general observation that in this early Mississippian phase, they seem to be rather varied. The general lack of data precludes any meaningful statements regarding structural form.

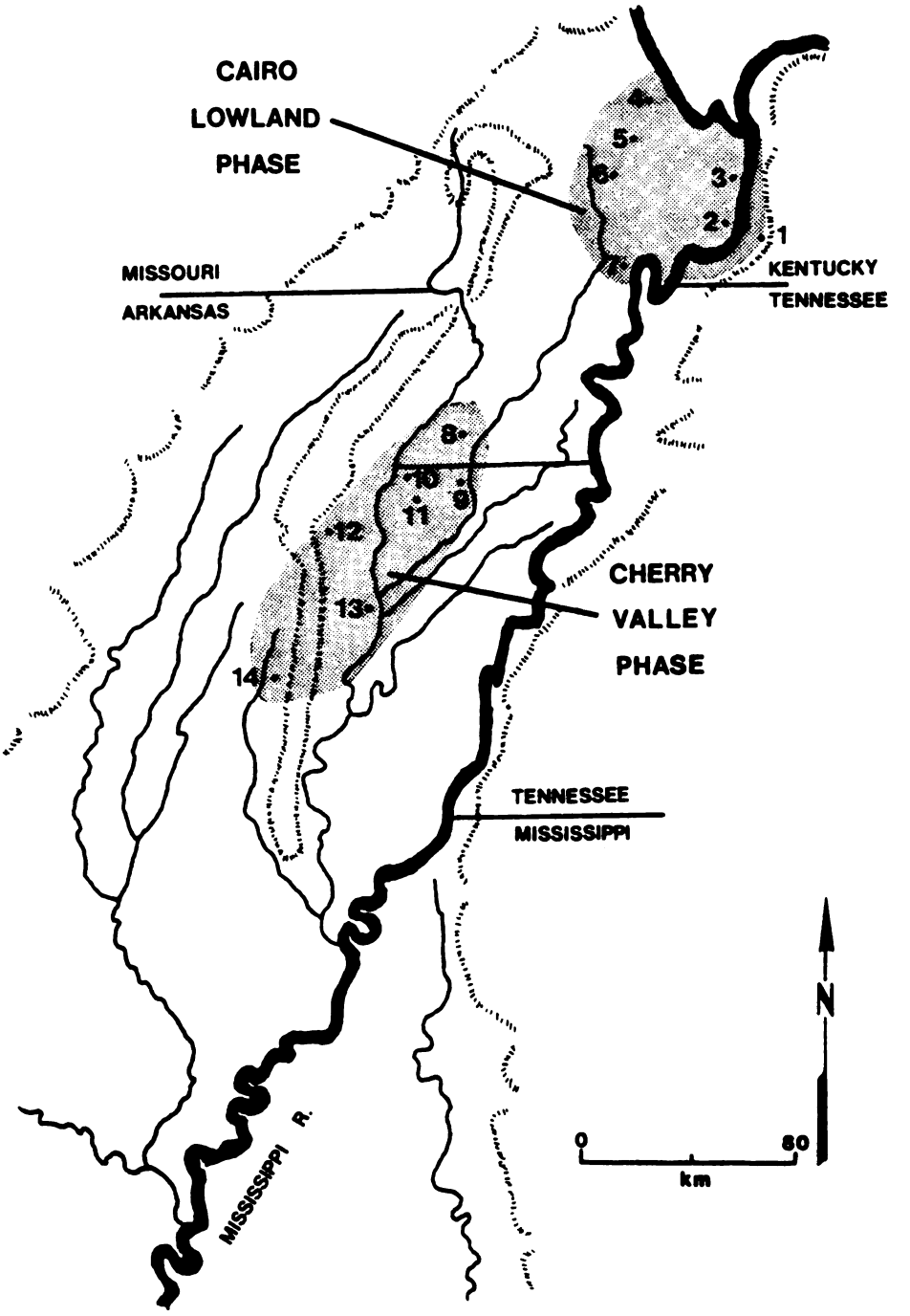
Middle Mississippian Period, c.a. AD 1000-1350

By AD 1000, fully developed Mississippian systems were occupying the Central Mississippi Valley. The end of this period represents a climax of sorts for Mississippian in the Cairo Lowland; after AD 1350, this area seems to have been abandoned after a long and vigorous occupation (S. Williams 1977). Further to the south, abandonment did not occur, but rather dramatic system transformations took place. Importantly for the present endeavor, the mature Mississippian systems of this period lend themselves to an examination of

structural variability in chiefdom societies.

Beginning in the Cairo Lowland, this period has been referred to as the Cairo Lowland phase (Phillips 1970:925-926). It has for long been recognized that the Cairo Lowland phase manifestations parallel the Stirling and Moorehead phase developments in the American Bottoms but as yet, the nature of any relationship between these regions is not known, though trade certainly occured.

The Cairo Lowland phase (see Figure 2) is marked by an increase in population density in the region and an increase in the number of sites attributable to the phase; Morse and Morse (1983:237) describe this area as the population and cultural center of the Central Mississippi Valley. As will be shown, this system clearly demonstrates greater overall socio-political complexity than systems adjacent to the south. It is this writer's contention that the Cairo Lowland phase represents a distinct socio-political system, probably a single chiefdom, structurally equivalent to the Cahokia and Kincaid systems to the north and northeast. The Powers phase to the east would appear to be a politically autonomous system (Price 1978, Price and Griffin 1979). It might be mentioned that other investigators would further divide the Cairo Lowland phase. Chapman (1980), for example, considers the major centers and associated sites in the area to be phases in their own right. The present study prefers to view these sites as elements in a single hierarchical socio-political system.



SITES: 1 - McLeod Bluff, 2 - Towosahgy, 3 - Crosno, 4 - Sandy Woods, 5 - Sikeston, 6 - Matthews, 7 - Lilbourn, 8 - Langdom, 9 - Zebree, 10 - Lawhorn, 11 - Old Town Ridge, 12 - Webb, 13 - unnamed, 14 - Cherry Valley

Figure 2. Middle Mississippian Period phases and sites discussed in text. (Adapted from Morse and Morse 1983:Figure 11.1).

The transition from the Hoecake phase to Cairo Lowland obviously involved many things. One important event seems to have been the abandonment of the Hoecake site and the establishment of the Towosaghy site nearby. The latter would evolve in time from a dispersed settlement (like Hoecake) into a planned, fortified town that can be justly called a civic-ceremonial center (Morse and Morse 1983:264). Towosaghy appears to be the largest and most complex site in an obviously hierarchical settlement system. Other large sites in the hierarchy include Mathews, Sikeston, Sandy Woods, Crosno, Lilbourn, and McLeod Bluff. These latter sites form a hierarchical settlement pattern generally clustering around Towosaghy; apparently all sites were fortified with a surrounding palisade. The land between these centers is dotted with small hamlets and farmsteads of a typical Mississippian dispersed settlement system. Evidently, the fortified centers offered a place of refuge for the dispersed population when needed.

All of these centers display considerable evidence of pre-planning. Multiple mounds and plaza areas in regular relationships are characteristic. A controlled surface collection of Towosaghy revealed a non-random distribution of finely-made ceramics; these materials were found in a limited area associated with structures surrounding a plaza, and may indicate the dwellings of high status people (Chapman 1976:132). These major sites are all located within or adjacent to a meander belt zone and generally within areas

of environmental diversity (Morse and Morse 1983:265), which would facilitate a secure subsistence economy.

Mortuary data from the Cairo Lowland phase can be best described as uneven. Good data sets exist from one site, but in general, mortuary practices are as yet poorly known. Fortunately, some of the known data are significant.

Few burials were discovered at Towosaghy. Twelve burials were recovered representing extended, flexed, and bundled interments. Interestingly, of the twelve, eleven were adolescents and one an infant (Chapman et al. 1977). None was noted to occur under a structure floor (Chapman 1976:143), and all seem to have occurred in the general midden (Chapman et al. 1977). At the nearby Bryant site, a similar demographic phenomenon was noted: one mound contained 16 infant burials, and a cemetery area had 23 infants and seven adults. It seems obvious that the relatively limited excavations at Towosaghy and nearby sites have revealed only a small portion of the overall mortuary program. No formal cemeteries were discovered at Towosaghy; a cemetery is known to exist immediately to the north of the site, but its relationship to Towosaghy is uncertain (ibid.). Chapman et al. (ibid.) states that the presence of cemeteries at Towosaghy is expectable, and have heretofore been simply missed.

The Lilbourn site has yielded the best mortuary data from a Cairo Lowland phase site. Here, four discrete cemetery areas were discovered, at least three of which are

clearly contemporaneous; the fourth may date somewhat earlier. The former three were located adjacent to and within the palisade walls, suggesting a planned arrangement (Chapman 1976:140). Only adults and subadults were interred in cemeteries; infants were buried under house floors (Chapman et al. 1977).

A few evidently high status burials were recovered at Lilbourn. Interestingly, these occurred not in a cemetery but on and under the floor of a house that had burned. Most notable was an adult male with a large, chipped stone mace lying on his chest (Chapman 1976:140-142). Three adult females were associated with him. These individuals were laid out on the burned floor of the structure. Prior to the burning, an infant had been buried below the floor.

Some time subsequently, a grave was dug through the burned floor and an old adult female was buried; Chapman (ibid.) interprets this woman as a shaman, since her grave associations suggest a shaman's paraphenalia.

The Lilbourn site shows differences in the mortuary programs for different individuals at the site. It would appear that most people are buried in a cemetery; infants are interred under house floors. Status personae are spatially segregated from the rest of the population, and are also buried under (or on) structure floors.

The Matthews site is a smaller center than Lilbourn, but probably occupies a similar niche in the settlement system. Of importance is the fact that four separate

burial areas are known from this site (Chapman 1980:200), though the details concerning them are not clear. Also found were over 300 burials in a mound (ibid.). The relationship between the mound and cemetery burials is not known.

One additional site has yielded mortuary data of reasonable quality. At the Hearnes site (Klippel 1969), two mounds were excavated and over 70 burials recovered, most of which were secondary bundles. At the base of one mound, a circular post mold pattern was found, and Morse and Morse (1983:263) speculate that this may have been a charnel structure. Mortuary patterning at the Hearnes site does not resemble that at other Cairo Lowland phase locations. Importantly, Hearnes is probably earlier in time than the major centers (ibid.), and thus could reflect changing mortuary practices; the Hearnes situation more resembles Hoecake mound burial programs than the later forms.

Turning to the region to the south of the Cairo Lowlands, a rather different system can be observed. The Middle Period Mississippian manifestations in this area are referred to as the Cherry Valley phase (Phillips 1970:929-930), which succeeds the Big Lake phase. Settlements and the culture in general in the Cherry Valley phase do not seem to reflect the degree of development seen in the Cairo Lowland, though this could partly be due to the fact that Cherry Valley is less well known (cf. ibid.). A hierarchical settlement pattern is only suggested, and only for the

latter portions of the phase at that. The Morses' excavations at the Zebree site revealed a small hamlet-type site, in contrast to the earlier larger village. They suggest (1983:253) that Zebree may be part of a hierarchical system, as a hamlet associated with the Langdom mound and village, the Lawhorn small village, and the Old Town Ridge large village. The latter appears from aerial photographs to be a rectangular fortified town with houses organized into rows. Similar patterns may be represented elsewhere (Morse and Morse 1983:250).

The situation at the beginning of the phase is different. The Cherry Valley site, type site for the phase, is a mortuary site with no associated village. Cherry Valley was excavated by Perino (1967), and consisted of five mounds. Three of these were salvaged after considerable previous pothunting. Mound 2 was flanked on the north, west and south by other mounds, and is thus considered the central mound of the group; it measured about 17 feet by 68 feet. An impressive structure was found at the base: it was round and about 33 feet in diameter, with a 20 foot long entryway extending to the east (Perino 1967). Large and numerous post molds indicate that the structure, including the entryway, had been roofed over. A rectangular fire basin was found in the center. This original structure had burned; the area was then covered with a layer of clean soil and the structure rebuilt, but without the long entryway (ibid.).

Burials were found arranged around the wall posts, and most were bundles or otherwise fragmentary. Numerous other burials were found in the mound cap, indicating continued use after the structure was finally capped.

Mound 1 occurred immediately to the south of Mound 2. Its dimensions were estimated at 13 feet by 60 feet. Two distinct stages of construction are evident. Three large post molds oriented east-west were found at the base (apparently not part of a structure), as were a large number of bundle burials with few associated artifacts. Burials continued to occur up into the secondary cap (ibid.).

Mound 3, 13 feet by 65 feet, was adjacent and west of Mound 2. On the mound floor, three large post molds similar to those in Mound 1 were excavated, as was a small sub-floor burial pit that had been dug through an edge of a small circular post pattern, evidently a small structure. In the pit were found five bundled and one extended child burials. Twenty-eight more bundles occurred on the ground surface. Like Mound 1, primary and secondary construction stages were noted, with burials occurring throughout. On the top of the primary mound a large basin interpreted as a possible crematorium was found (ibid.).

All told, some 467 burials were recovered from the three excavated mounds. In addition, a local pothunter told Perino that he estimated that at least 100 more burials had been taken out of the upper levels of Mound 1 alone, prior to Perino's arrival at the site (ibid.). While the exact

number of individuals at Cherry Valley will never be known, there were obviously a lot of people buried here.

The nature of vertical status at Cherry Valley is difficult to assess from Perino's report, since every burial is not discussed, and bone preservation was extremely poor. The most common artifacts were ceramics, and exotic artifacts of any kind were not abundant (ibid.).

Morse and Morse (1983:242-243) interpret the large structure under Mound 2 as a charnel house, which seems a reasonable conclusion. Problematic are the three east-west post molds at bases of Mounds 1 and 3 (also, the charnel structure incorporated three similar posts in its construction), as is the small circular post pattern under Mound 3. It is tempting to consider the charnel house in the central mound as the source for the hundreds of bundle burials in the adjacent mounds, and in the charnel house itself. If such is the case, however, then Mound 2 continued to be used for burial even after the charnel house was covered over.

Cherry Valley represents the best known site of the phase. Other mound sites are known, however, but are poorly reported. One group of five, known as the Webb Mounds, was reported by Thomas (1894:200-203); preservation was poor, few burials were found, but pottery was abundant. The abundance of pottery and dearth of skeletal remains suggests total or nearly total decomposition, such as was sometimes observed at Cherry Valley. Morse and Morse (1983:246) mention an unnamed site containing five mounds, one of which

was salvaged. This mound covered a circular structure with central hearths and associated bundle burials. Burials also occurred in the mound cap. Charnelling is the inferred function of this structure (ibid.), and parallels with Cherry Valley are obvious.

Habitation sites contemporaneous with the Cherry Valley site are apparently not known, and none was found anywhere near the Cherry Valley mounds. It is somewhat paradoxical that this phase is known from mortuary sites only, or at least the earlier portion of it. As mentioned, the period after Cherry Valley is better known (though not in terms of mortuary data), and would seem to represent an evolution from whatever kind of system that is indicated by the Cherry Valley and related sites to a hierarchical pattern reminiscent of that of the Cairo Lowland (Morse and Morse 1983:247). Site sizes increased through time, and structures became oriented in rows; a consolidation of sorts was occurring, with the large civic-ceremonial center and associated dispersed hamlet pattern emerging (ibid.). Morse and Morse argue that this latter portion of the Cherry Valley phase may be an "...indication that chiefdoms in the Central Valley were evolving politically into more complex entities and that conflict between independent chiefdoms was intensifying" (1983:249). In any event, the isolated mortuary sites such as Cherry Valley seem to disappear, with burial evidently occurring near or within habitation sites.

The information presented in the preceding pages can

be used to hypothesize the nature of socio-political structural form in these societies. Mortuary data are not overabundant, but will allow a preliminary estimation and the formulation of hypotheses.

Beginning with the Cairo Lowland phase, it was noted that considerable structure exists at these sites, with considerable evidence of planning and structured utilization of space; ascribed status seems a certainty, though this has not yet been empirically demonstrated. Regarding Peebles and Kus' correlates, all would seem to obtain, with the assumption that two "dimensions" of vertical status probably existed. A hierarchical settlement pattern is clearly indicated, as is the potential for local subsistence autonomy. Organized labor, monumental architecture, and craft specialization are present, and strong institutionalized control can be inferred from the presence of fortifications. This is, then, a bona fide ranked society.

Other kinds of data have been specified above that might be sought to elaborate upon the simple ranked classification. Of first importance is the fact that two Cairo Lowlands phase sites have been demonstrated to have discrete cemetery areas. At Lilbourn, these (three of four) are exclusive and contemporaneous; at Matthews, this cannot be demonstrated from the published report. According to ethnographic research, this pattern would strongly suggest the presence of multiple UDGs at these sites. In turn, multiple, dispersed UDGs can be correlated with a certain complex form

of ranked society, that which has been called "Complex II". In these complex chiefdoms, chiefly political control tends to override the political power of UDGs, and UDGs tend not to localize into discrete territories. If a hierarchical settlement system and military works are taken to represent such institutionalized control, as Peebles and Kus would have it, then there is a sound correlation between mortuary data and expected patterning observed in chiefdom societies in the contemporary world.

In addition, Brown's postulate that status personae should be spatially segregated from the non-status masses is borne out. At Lilbourn, persons of apparent high status were not interred in cemeteries, but on house floors. It is reasonable to hypothesize that if the site could be totally excavated, additional status burials would be discovered in non-cemetery locations. This pattern should be repeated at similar, contemporaneous sites.

The situation in the early Cherry Valley phase is obviously different. Here, at least three sites are known, all burial mound sites containing five mounds apiece. No village site was associated with Cherry Valley, and evidently not with the other two either (Morse and Morse 1983:266). Habitation sites have not been isolated or reported for this phase, which suggests that, wherever they are, they do not have associated mounds. If the interpretation of the Cherry Valley site is correct, that a central charnel facility was maintained that supplied burials for the surrounding mounds,

then this would constitute a situation similar to one of the ethnographically-derived programs, that of "single disposal area, one per UDG per society". It was pointed out that this pattern was observed to occur only with single UDGs; no other societal grouping used group disposal areas spatially removed from habitation sites.

The Morses have commented that

> The large number of burials at the Cherry Valley type site is unusual in that interment at the ceremonial center apparently was widely available. Other Cherry Valley phase mounds seem to have been more restrictive but still contain numerous burials. Death is apparently this society's major excuse for ceremonial gathering (1983:246).

The large number of burials at these sites supports the inference that entire UDGs - or at any rate a sizeable portion of the society - were interred at these facilities. Also, with this interpretation one need not assume some kind of unusual preoccupation with death, only that the society's dead are disposed in a few, rather than many, disposal areas.

If this inference is correct, then the structural form indicated should approximate a "Complex I", or conical clan-type structure. Each of the three known mound sites should associate with a discrete UDG territory. There is no way to assess this possibility at present, except to note that the three sites are geographically separated by some distance (see Figure 2).

It might be speculated that a conical clan-type system in the Cherry Valley phase is not unexpectable given the

nature of Mississippian occupation in this area. Mississippian seems to have been an intrusion into this area during the preceding Big Lake phase. It has been observed (e.g. Sahlins 1961) that territorial expansion often occurs along kin group lines, through descent group fission where a UDG or UDG segment buds-off and moves into new territory. While the extant data do not allow an assessment of this possibility during the Big Lake phase, the configuration during Cherry Valley is consistent with this model. That is, the hypothesized conical clan-type structure could reflect colonization processes by Mississippian UDGs at the expense of less complex Baytown peoples. By Cherry Valley times, Mississippian peoples had consolidated their occupation into UDG territories and have begun processing their dead in central facilities. While these ideas are clearly speculative, they are nonetheless consistent with ethnographically known cultural dynamics and processes. As such, they could form the basis for further investigation.

In a similar context, it has been noted that the late Cherry Valley phase (or perhaps after) witnesses a transformation to a hierarchical settlement pattern more like that of the Cairo Lowland. Again, the data do not allow an evaluation of this situation in terms of structural expectations, but obviously some kind of changes took place. As additional data - particularly mortuary data - accrue, it should be possible to determine whether the hypothesized conical clan-type system is retained, or whether the transformation

reflects UDG dispersal. Should the former prove to be the case, then it can be observed that two adjacent Mississippian phases are organized into very different structural forms; if the latter obtains, then an evolutionary sequence from "Complex I" to "Complex II" structures is in evidence. The demonstration of either would form the basis for an interesting study of Mississippian adaptations, political organization, and cultural dynamics.

Late Mississippian Period, c.a. AD 1350-1650

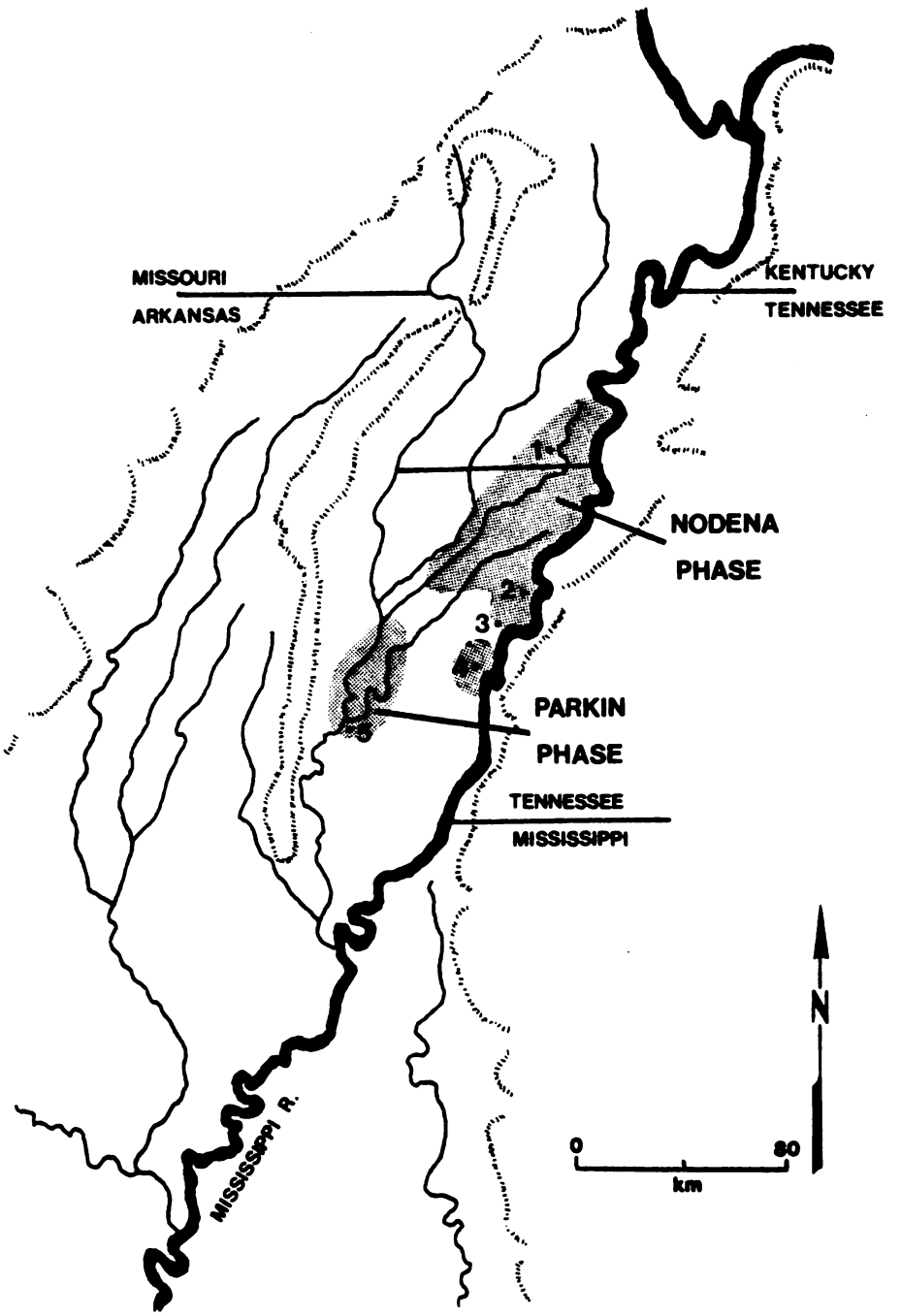
At or slightly after AD 1350, a dramatic transformation can be observed in the Mississippian systems of the Central Valley. Prior to this date several recognized phases/systems were extant, each or most evidently representing an independent chiefdom. After AD 1350, independent chiefdoms are also evident, but are of a markedly different nature.

The entire Cairo Lowland region seems to have been abandoned by this date (S. Williams 1977). The area was not altogether devoid of people, but the Cairo Lowland phase chiefdom was no longer in operation, and the major centers were no longer occupied. The same thing occurred in the Powers phase area. Morse and Morse (1983:282-283) have suggested that the Cairo Lowland population, or some portion of it, moved to the south and formed the Nodena phase. This is a reasonable assumption, and at any rate the Nodena and adjacent Parkin phases are both an apparent in-movement of

people from somewhere (see Figure 3). The reasons for this population shift are not certain, but various aspects of the Nodena and Parkin systems are suggestive.

Discussion will begin with the Nodena phase. Nodena sites occur in three geographical clusters of unequal size. Many sites are known; most contain mounds and fortifications and were obviously pre-planned. In contrast to previous phases (and indeed to most Mississippian systems in general), dispersed hamlets or farmsteads appear to be rare, indicating a heretofore unheard of population nucleation into or very near the large towns (Morse and Morse 1983:280-284). Important sites include Pecan Point, which was probably the "capital" of the system (Morse and Morse 1983:285), Upper Nodena, Banks Village, Bradley, and others.

Ecological factors seem to have played a role in the southward population shift that formed the Nodena phase, and hence partly structures its settlement system. The Morses explain that important differences exist in the configuration of productive soils within the Central Valley. All locations could support a hierarchical, dispersed system, "But only the Meander Stream Surface (configuration) can accommodate the nucleated populations in fortified villages thought to be characteristic of the Late period Mississippian sites" (1983:283). Both Nodena and Parkin phases are situated within the Meander Stream Surface. Thus, whatever prompted the population shift and subsequent nucleated settlement pattern, it seems clear that these people selected



SITES: 1 - Campbell, 2 - Upper Nodena, 3 - Pecan Point, 4 - Banks Village, 5 - Parkin

Figure 3. Late Mississippian Period phases and sites discussed in text. (Adapted from Morse and Morse 1983:Figure 12.1).

the appropriate environments in which to accomplish this. It should be added that this highly nucleated settlement pattern with a relative paucity of dispersed or "satellite" sites is not a typical Mississippian pattern.

Mortuary data from the Nodena phase is abundant, but not all is well reported. One of the earliest known Nodena sites is Banks Village, which was excavated and reported by Perino (1966). This was a sizeable village, about 4 ha; no mounds were known from the site, but a plaza area was discovered. It is not known whether the site was palisaded. Perino excavated some 385 burials, which indicate two separate burial programs. The vast majority of interments were of the house-related type. Precisely where one was buried relative to the house depended upon one's age and possibly sex: adults of both sexes were buried outside, between and generally parallel to the walls; children over about six years of age could be buried either outside with the adults or inside; children aged one to six were buried in the house, either under the central hearth, in a corner, or under a bench along a wall; and infants under one year were buried under or near the hearth. Age is clearly a discriminator of location. The apparent option for children over six to be buried in or out might suggest a sex distinction as well.

The other form of programming involved group burial in pits. Four such pits were discovered, two in the central area of the village, and two in the northeastern sector.

All were about four feet deep and 15 feet in diameter. Bodies were deposited in levels, each separated by about six inches of soil (ibid.). These pits were evidently not within structures.

The writer did not undertake a detailed examination of Perino's data for the purpose of determining the nature of vertical status. However, the importance of status ascription is probably reflected by the fact that "The finest and greatest number of artifacts were found with children between two and ten years of age" (Perino 1966:9).

The Upper Nodena site covered about 6.2 ha; the site was palisaded and contained rectangular mounds and plazas, and one of the latter may be a chunky field (Morse and Morse 1983:287-288). Residential structures filled the rest of the area. A mortuary pattern very similar to Banks Village was discovered, in which numerous burials occurred near the structures, possibly in family plots (ibid.). One fascinating discovery at Upper Nodena was a mound containing 314 male and two female burials with few associated grave goods (ibid.). This writer will not hazard an explanation for this, and it clearly contrasts with the house-related program in the village area.

House-related disposal programs were noted at Pecan Point by Thomas (1894:219-222), but these are not well described. Also noted at Pecan Point were burial in mounds and apparently in cemeteries as well. The House-related burials occurred in clusters, perhaps similar to Upper Nodena. It

can be speculated that at Pecan Point, different locations and programming probably reflect status differences.

What may be an exception to the house-related norm occurs at the Campbell site, where Chapman and Anderson (1955) report two cemetery areas to the north and southeast of a central mound and plaza. One contained 18 burials, the other 15. A probable shaman was buried in the plaza. It is difficult to comment on this apparent deviation, except to note that the cemeteries do not contain numerous burials, at any rate not comparable to the hundreds found in house-related context elsewhere.

Downstream from the Nodena phase along the St. Francis and Tyronza Rivers is the Parkin phase (see Figure 3). A geographical gap seems to exist between the two areas (Morse and Morse 1983:290). Parkin phase settlements are well-known as the "St. Francis-type" sites of Phillips, Ford, and Griffin (1951). These sites are typically rectangular and pre-planned and are almost invariably fortified. The area covered by most sites has been artificially built up by bringing in soil. The settlement pattern is interesting. The Parkin site, largest and type site of the phase, was situated in a strategic location, apparently controlling the mouths of the St. Francis and Tyronza Rivers. Moving upstream, sites are evenly spaced: large sites occur about 8 km from Parkin and from each other; smaller sites occur at regular intervals between these, and almost all are palisaded (Morse and Morse 1983:292). Phillips remarked that

given this close spacing and regularity, "One would think the structures on the highest mounds could easily be seen from one settlement to another" (1970:932). Like Nodena, the settlement pattern appears to diverge from a more typical Mississippian hierarchical arrangement. Further emphasizing this assertion is the fact that absolutely no dispersed hamlets or farmsteads exist in the Parkin phase.

The location of the Parkin site is also unusual with regard to subsistence agriculture. Parkin is a large site, covering about 7 ha, and evidently contained a large, nucleated population. A site catchment analysis by P. Morse (Morse and Morse 1983:293-294) showed that all sites of the phase except Parkin should have theoretically been able to produce enough food to feed their populations. Parkin, on the other hand, could raise only about half of the needed agricultural produce within a 1 km catchment. This phenomenon suggests several things which will be considered momentarily.

Mortuary practices of the Parkin phase are poorly known. According to Phillips, Ford and Griffin (1951:329) and Davis (1966), house-related disposal appears to be the dominant mode, including all ages and both sexes. Davis' excavations at Parkin recovered five burials, but preservation was poor and relationships to structures could not be ascertained (1966:32-34).

It is obvious that the Nodena and Parkin phases represent complex societies; the presence of ranking seems

certain, though this has yet to be empirically demonstrated. It is interesting and important that all of Peebles and Kus' correlates of ranking do not obtain. Minimally, local subsistence autonomy is indicated for all but the Parkin site. Organized labor and monumental works are certainly in evidence. Chiefly control of the system is indicated by fortifications and, at the Upper Nodena site at least, corncribs for the storage of foodstuffs. A truly hierarchical settlement pattern, however, is not indicated.

It is suggested that these systems evidence a level of chiefly control beyond that indicated by Peebles and Kus' model. For example, the Parkin settlement pattern seems obviously designed for defense: sites are regularly spaced, and can even be seen one from another, greatly facilitating, one would think, intra-system communication. Dispersed, undefended hamlets are absent. Parkin, most certainly the chiefdom "capital", was located in an area where the inhabitants probably could not produce enough food to feed themselves, indicating both non-subsistence related motivation in the selection of site location as well as some kind of economic subsidization of this site by the rest of the system (e.g. Steponaitis 1978). Parkin was probably located where it was in order to control access to and/or transportation on the St. Francis and Tyronza Rivers. An identical phenomenon has been reported by Brain (1978) for Plaquemine/Mississippian occupations in the lower Mississippi Valley. It may also be significant that Parkin's location is

furthest away (by river transport) from Nodena territory, with the rest of the settlements intervening. Finally, it was noted that an unoccupied area exists between the Parkin and Nodena phases. This is probably not accidental, but most likely represents a planned buffer zone between Nodena and Parkin and other phases to the south (Morse and Morse 1983).

The Nodena settlement pattern, from what is known, does not seem to be nearly so regular, but is still obviously defensive in nature. It is interesting to note that if Morse's three geographical site clusters are accurate and not the result of incomplete sampling, then the number of sites in each cluster decreases as one moves south, closer to foreign (e.g. Parkin and Walls phases) territory. This pattern may reflect Nodena expansion to the south. In this regard, Morse and Morse (1983:284) state that Nodena seems to be the dominant system in the Central Valley, and was expanding at the expense of the others. Further, they suggest that this fact was probably the motivation behind other phases' nucleation and defensive posture.

According to the present construct, a "Complex II"-type system is indicated. Importantly, however, dramatic differences are evident between Nodena and Parkin and the "Complex II" Cairo Lowland phase. It would appear that in the later phases, chiefly control has probably become nearly absolute. Not only sites, but entire settlement systems (Parkin) were pre-planned and politically

motivated. Virtually no political power or import of UDGs would be expected and the mortuary data bear this out. There is not a trace of UDG symboling in the spatial dimension, and it is predictable that none would be evident in the artifactual. Doubtless the occupants of the major towns consisted of members of many UDGs, and the family or extended family had probably become the important kin-based unit. The normative mode of disposal for commoners is house-related, in family or extended family groups. Spatial differentiation probably reflects differences in vertical status.

In any event, systems of "Complex II"-type were extant in the Cairo Lowland, and at a later date further to the south. Their structural differences demonstrate a far greater level of systemic control in the latter than in the former.

Summary

Discussion

With presentation of an assessment of structural form in the Mississippian of the Central Mississippi Valley concluded, it remains to review these findings and point out the utility as well as shortcomings of the approach. Suggestions for further research into structure in this region will also be provided.

It has been posited that the climax Cairo Lowland phase manifestations are characteristic of "Complex II" ranked systems, where settlements are typically comprised of

multiple UDGs. At one and possibly two sites, discrete UDG cemeteries are present, where UDG affiliation was spatially symboled by interment in planned, exclusive disposal areas within the settlement. Further study could involve the search for artifactual patterning in the data that might support the spatial inference. More importantly, future excavation at other Cairo Lowland phase sites might be directed toward the discovery of similar discrete cemeteries, since they should be present. It will be recalled that the best confirmation of a perceived UDG pattern at one site is the discovery of the same at other related sites.

No statements can be made regarding the development of Cairo Lowland out of the Hoecake phase, primarily due to poor data from the latter. However, this situation may exemplify the greatest shortcoming of this approach: its inability to discriminate horizontal groups from multicomponent data sets. Hoecake is a complex, large site with multiple burial mounds. The present method involves the recognition of spatial or artifactual patterning in mortuary context that could signify horizontal groups. It is difficult to be conclusive in this regard, but it is likely that such pattern recognition might be impossible at a site like Hoecake, even if it were completely excavated. Pattern recognition would depend upon the precise temporal and spatial control of individual components; if a burial site was in fact utilized over several hundred years' time, and if cultural changes were taking place during that time (as seems

to be the case at Hoecake), then one might not be able to read any patterns at all. Stated differently, this approach seems best employed with data sets representing discrete mortuary events of fairly limited duration, and in relatively "stable" systems. Systems in transformation may not display regularized mortuary behaviors, and may in fact, produce behaviors that obfuscate mortuary patterning. This approach to socio-political structural form, then, does not in itself elucidate cultural processes or evolution (but see below).

Mississippian in the central portions of the Central Valley has been posited to be the result of a population movement into the region; the source of this movement is not known, but north is a logical choice. The data from the Big Lake phase was not amenable to analysis, but the succeeding Cherry Valley phase has produced an interesting phenomenon. Based on what appear to be localized, isolated disposal areas, it has been posited that single UDGs are the likely users of these facilities. In turn, such a situation suggests localized, concentrated UDGs that, in a ranked society would resemble a conical clan system. This estimation was based on data from three mortuary sites, and the implications for future research are obvious, that habitation sites must be located and studied, and major mortuary facilities must not occur here. In order to test this hypothesis, evidence suggesting UDG localization should be found in settlement patterning. Further, if a hierarchical pattern was

extant, then this should be observable. An analysis of the vertical status dimension would also be desirable.

It was further suggested that the hypothesized conical clan system for Cherry Valley is consistent with known ethnographic processes of system expansion. To further evaluate this observation, data from the Big Lake phase should be sought to determine whether UDGs are in fact localized at this earlier time, when they presumably would have recently moved in. Scant mortuary data from Zebree and Kersey indicate charnelling at the latter, and possibly a house-related and status grave pattern at the former. Neither site confirms or rejects the hypothesis, but does suggest that mortuary practices were different at this time. In short, if Mississippian in this area was the result of the movement of discrete UDGs, then this pattern should be consistent over time. Should Big Lake mortuary and settlement data indicate something else, then the hypothesized Cherry Valley conical clan might be in jeopardy, or at least the population movement aspect of it.

The late Cherry Valley manifestations are poorly known, but resemble more "typical" Mississippian patterns, with fortified sites and hierarchical settlement pattern. A system transformation of some significance has evidently taken place and, based on expectations of structural form, a shift to multiple UDG settlement organization could be hypothesized. This hypothesis would be straightforward to test.

It was stated earlier that one of the limitations of

this approach is that it cannot, by itself, elucidate dynamics and cultural evolution. It is, rather, an evaluation of structural form at discrete evolutionary moments. With this, it will be proposed that the method can in fact lead to the explication of processes and dynamics through the study of change in structural form through time. Cherry Valley is a case in point. A particular socio-political configuration for this phase has been proposed which must be further tested and evaluated in the field. If it stands, then hypotheses can be advanced regarding expected structure in the preceding Big Lake phase, viz., that localized UDGs representing immigrant Mississippian groups are expectable. Thus, this form can be linked to known cultural dynamics of population movements in an hypothesis testing framework. Similarly, the configuration after Cherry Valley suggests dispersed UDGs and greater chiefly systemic control. If mortuary data confirm this, then one can observe a transformation from concentrated, single UDGs to dispersed, multiple UDGs, which is consistent with known processes regarding the accumulation of chiefly power and the evolution of complex chiefdoms. It is equally important to point out that if any of the preceding hypotheses are not borne out, then other processes or dynamics were evidently operating.

The Nodena and Parkin phases represent the zenith of ranked society in the Central Mississippi Valley. Further study here should involve research into contemporaneous phases located to the south, in order to better assess their

relationships to Parkin and Nodena. For the latter, an evaluation of intra-site mortuary patterning would prove fruitful; a detailed study of vertical and perhaps horizontal structure, as reflected in spatial and artifactual variability in the mortuary domain, would certainly lead to a better understanding of the ranked systems in operation here. It is noteworthy that these nucleated sites contain the remains of everybody who lived there (i.e., nobody seems to have been buried anywhere else), and thus, the full range of vertical and horizontal variability should be present.

Conclusion

This chapter has attempted to show how the recognition of potential horizontal groups in archaeological context can be integrated into a study of socio-political structural form in an extinct society. As stated in chapter 4, the three forms of ranked society developed here are considered as heuristic devices only, and are based on known configurations and dynamics observed in ranked systems. It must be stressed that the three forms have been developed to illustrate how the horizontal and vertical dimensions of mortuary variability may be integrated and thus yield a more coherent picture of systemic complexity. The three forms probably cover most of the range of structural variability in ranked systems but certainly do not exhaust it; the development of other formal expectations or modifications of these should be done. Indeed, it might be desirable to divide "Complex

II" into relatively more versus less complex forms, based on the nature of system control and UDG symboling. The "Basic" category can stand further scrutiny and refinement as well.

Stated more generally, the above approach is advocated as an alternative to mortuary studies of the vertical dimension only, and as an alternative to the pigeonholing phenomenon. It has been shown quite clearly that this study of Mississippian phases goes far beyond simply labeling them as ranked. The study has been multidimensional, with horizontal mortuary patterning being used as one datum in conjunction with other lines of inquiry. With this, this analysis has attempted to introduce a "sociological perspective" to mortuary, settlement, and other analyses. As was stated at the close of chapter 2, it is this writer's belief that the recognition that spatial patterning of material remains reflects the socially significant groups of the users can lead to important insights into the structure of past social systems.

Finally, it was noted that the attempted elucidation of structural forms is essentially a study of statics, or of static regularities in the archaeological record. In this respect, the forms are nothing more than refined, detailed pigeonholes. But unlike pigeonholing, this approach can lead an investigator to the discovery of dynamics and evolutionary processes. The present approach is a study of structure in discrete system states; this knowledge can form

the data base for processual studies examining continuity or change between states. It has been shown how certain structural forms of ranking correlate with known cultural dynamics, such as system expansion, the competition for status, the institutionalization of power, and the decline of UDGs. Similar correlations of formal structure, material patterning, and cultural dynamics can be undertaken. The application of this approach to the tribal domain might prove interesting, and could lead to a more precise understanding of the variability within these systems.

CHAPTER 6

DISCUSSION AND SUMMARY

The preceding study has attempted to expand the current state of mortuary method and theory to incorporate the horizontal dimension of mortuary variability. This has been done to provide an adjunct to studies of the vertical dimension which have heretofore dominated in mortuary analysis. The two perspectives are complimentary of course, but with a distinction: the vertical dimension focuses attention toward the treatment of individuals, while the horizontal concentrates on the behavior of social groups. It is the latter that have been a traditional emphasis of social anthropology, but have proven difficult to deal with in archaeological context.

This study has been based on a body of ethnographic mortuary and social anthropological data. In the present opinion, the ethnographic record has been overly neglected in mortuary studies, and the present analysis demonstrates that the use of ethnographic data can be highly profitable. With this, this study has incorporated uniformitarian principles and assumptions in order to render the results relevant to the past. It has been pointed out that regular, prescribed procedures for the disposal of the dead must have

existed in the past, and that horizontal groups must have also; based on an examination of cultures in the contemporary world, both are sound uniformitarian assumptions.

It has been shown that horizontal groups are symboled more often and more consistently in mortuary context than has previously been believed or suspected. Of greater import is the fact that within the present sample at least, over 75% of this symboling is archaeologically visible and interpretable. Most visible patterning is spatial and involves the use of formal disposal areas of differing configurations. From the various analyses conducted in chapter 2, two theoretical postulates with three corollaries have been derived that will allow the archaeologist to make inferences of high probability regarding the presence of horizontal groups in a mortuary context:

Postulate 1: When a horizontal group is symboled in mortuary context, it will usually be the one(s) that people consider dominant in their social structure relative to and at the expense of other such groups.

Postulate 2: Where unilineal descent groups are present in a society, they will with few exceptions consistently segregate their dead, usually on the basis of membership in one of these groups.

Corollary 2a: The presence of a more or less formal, exclusive disposal area indicates with high probability the presence of a discrete unilineal descent group.

Corollary 2b: Where disposal areas are divided into formal divisions, or where multiple disposal areas occur around/near a settlement, they will invariably contain members of the respective multiple unilineal descent groups inhabiting the settlement.

Corollary 2c: If a disposal area is present, probability favors the presence of a clan, but lineages can be similarly represented.

As indicated, clans and lineages dominate in the spatial representation of horizontal groups; phratries, moieties, and sodalities are nearly invisible.

The above results have been incorporated into a multidimensional research program designed to examine variability in socio-political structural form in archaeological context. A large part of this variability involves the spatial arrangement of UDGs within a system, and this research has shown how these patterns can be detected. This ability, coupled with data drawn from theoretical and synthetic anthropological literature, forms the basis for the development of three models of alternative socio-political structural form within one socio-political category, ranked society. These forms were called "Basic", "Complex I", and "Complex

II", and it has been stressed that they are heuristic devices designed to enable the archaeologist to assess variability in structure in ranked systems. It is clear that these constructs, particularly "Basic" and "Complex II", can be further refined and expanded. While the present focus has been on ranking, the procedure can be applied to any kind of system; the application of this approach to the tribal domain might help explain some of the myriad variability extant within this category.

As an illustration of this approach, a test case involving various Mississippian Period systems in the Central Mississippi Valley was selected. It was shown how variability in mortuary practices, settlement patterning, and other cultural factors can be understood in terms of variability in formal structure. That is, it has been known or assumed that most or all cultural systems recognized as Mississippian were chiefdoms, but that they manifest considerable variability between systems; the present study has illustrated how such variability can be explained, and thus allows the archaeologist to make inferences that go far beyond the pigeonholing of these systems as "ranked".

It was also discussed how this approach is a detailed study of static patterning in archaeological context: it is the attempt to elucidate structure in discrete system states. Importantly, this detailed study of static patterning can lead to the study and discovery of cultural dynamics. The Mississippian example attempted to correlate variability

in structural form with cultural processes known from ethnographic ranked systems. Thus, while the present method itself is concerned with archaeological statics, the results can lead to the fruitful study of dynamics and processes.

The results presented in chapter 2 regarding the association of formal disposal areas with lineages and clans naturally led to the examination of a previous explanatory construct: Saxe's Hypothesis 8. This test of the hypothesis has shown that formal, exclusive disposal areas are not the invariable result of corporate group control over crucial but restricted resources. These variables are far too restrictive and based to too great a degree on an economic premise to be of broad applicability. The primary problem with Hypothesis 8 is the attempted isolation of economic corporateness and specifiable economic corporate groups that actually own/control land or resources, since these conditions will not obtain in every case, and it is clear that societies will use disposal areas for other reasons. It has been argued that corporate behavior is but one aspect of socially-defined descent groups. Descent group corporate behavior of any form can vary considerably from society to society; there is no reason to expect that such behavior or group function should be uniform over time or space. Thus, it is misdirected to utilize variable features, or behaviors, of descent groups as basic analytical units. Rather, the descent group itself should be the analytical unit, since these groups will be far less variable than the wide range

of corporate behaviors that they can potentially engage in (or not engage in). Finally, this test of Hypothesis 8 has demonstrated that one cannot infer intense competition for resources from the presence of formal disposal areas.

To conclude, some brief comments will be offered about certain aspects of this study that, in addition to the substantive results, are believed to be of value and should be employed in future mortuary studies. Following previous investigators, this study has demonstrated the utility of the spatial dimension of mortuary variability as an important indicator of structure. Future mortuary studies should continue this trend; the limitations of artifacts-only analyses have been aptly demonstrated. Similarly, this study has illustrated the value - indeed the necessity - of a multidimensional approach to mortuary studies in particular and archaeological data in general. It is this writer's belief that for the development of an anthropological archaeology to continue will depend in large measure on the use of multiple avenues of inquiry and the testing of hypotheses with multiple data sets.

This study advocates that ethnographic data can be successfully used to generate expected material correlates of mortuary behavior. It is clear that the Human Relations Area Files contain a large quantity of excellent data on mortuary practices: unlike many other aspects of culture, the fact of death must be dealt with by all societies, and is always an area of interest to anthropological

fieldworkers. It is heartily suggested that future mortuary studies employ a more ambitious use of these data.

Finally, this presentation has advocated the adoption of a "social perspective" in archaeological studies. Emphasis has been placed on the anthropological principle that all human societies configure themselves into socially significant groups based on the recognition of kinship relationships between people. Further, it was demonstrated that these groups leave material traces in the archaeological record that have heretofore been only poorly elucidated. To be sure, the problem is partly based on the fact that such traces can be ephemeral or otherwise difficult to interpret; simultaneously, however, the current state of method and theory does not direct the archaeologist toward the discovery of these groups, nor provides the necessary analytical tools with which to do so. Hopefully, some of these shortcomings have been rectified with the present study. Kin groups can be strongly inferred from archaeological remains, and the recognition of these groups should be integrated into a systems approach. It is in this context that the aforementioned factors - a concern with spatial phenomena, a multidimensional approach, and use of the ethnographic data base - can all be brought to bear on the problem. The present sutdy is intended to be an initial step in this direction.

APPENDICES

APPENDIX A

MASTER DATA LIST

Key to abbreviations

LOC - location: O- Oceania; AF - Africa; NA - North America; SA - South America; ME - Middle East; A - Asia.

DISP MODE/UDG SYM - disposal modes/unilineal descent group symboling:

R - ritual	F - family
A - artifactual	L - lineage
cem - cemetery (incl. tomb, crypt, scaffolds)	C - clan
	P - phratry
crem - crematory (no burial)	M - moiety
cr/cem - crematory, w/burial	S - sodality
H-R - house-related	b - "band"
NP - no pattern	v - "village"
	sg - "segment"

DES - descent: Pa - patrilineal; Ma - matrilineal; D - double; Bi - bilateral

UDG/S - unilineal descent group and/or sodality present (see symbols above); underlined: "dominant" UDG(s); Slash(/): "very weak"; n-UD - non-unilineal descent

UDG SET - unilineal descent group (lineage or clan) settlement pattern: Si - single UDG settlements; Mu - multiple UDG settlements; → - "transition"; seas - seasonal

CONC/DISP - concentrated settlements (e.g. "villages", "towns") versus dispersed settlements (e.g. "hamlets")

DIV SET - divided settlement: settlement subdivided into recognized residential areas

APPENDIX A (cont'd)

SUB - subsistence practices: A - agriculture; P- pastoralism; F - fishing; H - hunting; G - gathering; underlined: dominant subsistence mode

APPENDIX A (cont'd)

CASE #/SOCIETY	LOC	DISP MODE/ UDG SYM	DES	UDG/S	UDG SET L	UDG SET C	CONC/ DISP	DIV SET	DIV SUB
STATE n=10									
1. Java	O	v cem	Bi	n-UD	-	-	C	-	AP
2. Ganda	Af	C cem	Pa	LC	Si	Si	C	-	APFH
3. Nupe	Af	H-R	Pa	LS	Mu	-	D	+	APFG
4. Edo	Af	H-R	?	C	-	Mu	C	+	APHG
5. Yoruba	Af	H-R; S-R	Pa	LCS	Mu	Mu	C	+	APF
6. Mossi	Af	F cem	Pa	LCS	Mu	Mu	D	+	APHG
7. Ngoni	Af	H-R	Pa?	LCS	Mu	Mu	C	+	AFPH
8. Zulu	Af	H-R	Pa	LC	Mu	Mu	D	?	APH
9. Swazi	Af	H-R	Pa	LC	Mu	Mu	D	+	APHG
10. Lozi	Af	v cem	Bi	n-UD	-	-	C	-	APHFG
RANKED n=28									
11. Tongaeses	O	H-R	D	L	Mu	-	D	+	AFP
12. Samoa	O	H-R	D	LS	Mu	-	C	+	AFP
13. Mbundu	Af	Lsg cem	D	LS	Mu	-	C	+	APFHG
14. Khasi	A	C cem	Ma	C	-	Mu	C	+	APFHG
15. Ashanti	Af	L cem	Ma	LC	Mu	Mu	C	-	AFH
16. Azande	Af	H-R	Pa	LC	Mu	Mu	D	-	APFH
17. Tikopia	O	H-R	Pa	LC	Mu	Mu	D	-	AF
18. Marshall Islands	O	C cem	Ma	LC	Mu	Mu	C	+	AFP
19. Rundi	Af	H-R	Pa	LCS	(Si→Mu)		D	+	APH
20. Flores	O	C cem	D	C	-	Si	C	+	AFPH
21. Monguor	A	C cem	Pa	CS	-	Si	D	+	APF

APPENDIX A (cont'd)

22.	Kurd	ME	Lsg cem	Pa	L∅	Si	sg	Si	CD	-	APF
23.	Easter Island	O	L cem	Pa	LC		Si	Si	C	-	AFH
24.	Bemba	Af	L cem; C-R	Ma	LC		Si	Si	C	-	AFHG
25.	Tanala	Af	C cem	Pa	LC		Mu	Si	C	+	AFP
26.	Thonga	Af	C cem(♂); C-A,R	Pa	LC		Mu	Si	C	-	APFH
27.	Ambon	O	C cem	Pa	LCS		Mu	Si	C	+	AFP
28.	Kachin (Gumsa)	A	H-R	Pa	LC		Mu	Si	C	+	APHG
29.	Bella Coola	NA	C cem; S-R	D	CS		-	Si	C	-	FHG
30.	Lolo	A	C cr/cem	Pa	LC		Mu	Si	C	-	APH
31.	Tlingit	NA	C cr/cem; C-A	Ma	LCPMS		Mu	Si	C	-	FHG
32.	Puka Puka	O	L cem	Pa	LS		Mu	-	D	+	AFP
33.	Siwans	A	C cem	Pa	CMS		-	Mu	C	+	AP
34.	Shilluk	Af	H-R	Pa	LC		Mu	Mu	D	+	APFHG
35.	Hottentot	Af	NP	Pa	C		(seas)		D	-	PHGF
36.	Nootka	NA	F cem	D	LCS		(seas)		C	-	FGH
37.	Pawnee	NA	b cem; S-A	Ma	LMS		bands		C	-	AHG
38.	Nyakyusa	Af	H-R; L-A	Pa	LMS		-	-	C	-	APFH

TRIBAL n=57

39.	Kapauku	O	NP	Pa	L		Si	-	C	-	APFH
40.	Yokut	NA	L cem	Pa	LM		Si	-	CD	+	GHF
41.	Mapuche	SA	L cem	Pa	L		Si	-	D	+	APGF
42.	Mongo	Af	C cem	Pa	C		-	Si	D	+	AFHG
43.	Ifugao	O	NP	Bi	C		-	Si	D	-	AHFP
44.	Orokaiva	O	H-R	Pa	C		-	Si	C	+	AGHFP
45.	Toda	A	C crem; C-R	Pa	CM		-	Si	C	-	PG
46.	Goajiro	SA	C cem	Ma	C		-	Si	D	-	PAHF
47.	Lugbara	Af	H-R	Pa	LC		Si	Si	D	-	APG

APPENDIX A (cont'd)

48.	Tiv	Af	L	cem		Pa	LCS	Si	Si	D	-	AHGFP
49.	Nuer	Af		H-R		Pa	$\overline{L}$CS	Si	Si	C	-	$\overline{P}$AF
50.	Dinka	Af		H-R		Pa	$\overline{L}$CS	Si	Si	C	+	$\overline{P}$AFH
51.	Fulani	Af		H-R		Pa	$\overline{L}$C	Si	?	D	-	P$\overline{A}$
52.	Kwoma	O		H-R		Pa	$\overline{L}$CPMS	Si	Si	D	+	$\overline{A}$GHP
53.	Mundurucu	SA		H-R;	C-R	Pa	$\overline{L}$CPMS	Si	Si	C	-	$\overline{A}$$\overline{H}$GF
54.	Dorobo	Af		NP		Pa	LCS	Mu	Si	D	-	$\overline{HG}$
55.	Tallensi	Af	c	cem;	C-A,R	Pa	L$\overline{C}$	Mu	Si	D	-	$\overline{A}$PG
56.	Dogon	Af	Lsg	cem		Pa	$\overline{L}$$\overline{C}$S	Mu sg	Si	C	+	$\overline{A}$PG
57.	Luo	Af		H-R		Pa	$\overline{L}$C	Mu	Si	D	+	$\overline{A}$PFH
58.	Mae Enga	O	C	cem(♂)		Pa	LCP	Mu	Si	D	+	$\overline{A}$PH
59.	Tucano	SA	C	cem;	C-A	Pa	L$\overline{C}$P	Mu	Si	C	-	$\overline{A}$FHG
60.	Vedda	A		NP		Ma	$\overline{C}$	-	Mu	C	-	$\overline{G}$HF
61.	Kaoka	O		NP;	C-R	Ma	C	-	Mu	D	+	$\overline{AFP}$
62.	Wogeo	O		H-R		D	$\overline{C}$MS	-	Mu	C	+	$\overline{A}$GFP
63.	New Ireland	O	C	cem;	C-R,M-R	Ma	$\overline{C}$M	-	Mu	D	+	$\overline{A}$FHP
64.	Tiwi	O		NP		Ma	$\overline{C}$	-	Mu	D	-	$\overline{GHF}$
65.	Omaha	NA	v	cem;	c-A,R	Pa	LCMS	-	Mu	C	+	$\overline{A}$HGF
66.	Ojibwa	NA	v	cem;	C-A,R	Pa/Bi	C$\overline{S}$	-	Mu	C	-	$\overline{HGF}$
67.	Navaho	NA		NP		Ma	$\overline{C}$	-	Mu	C	-	$\overline{APGH}$
68.	Igbo	Af		H-R		Pa	LCS	Mu	Mu	D	+	$\overline{A}$PH
69.	Ila	Af		H-R		Ma	$\overline{L}$C	Mu	Mu	C	-	$\overline{A}$PG
70.	Herero	Af		H-R		D	L$\overline{C}$P	Mu	Mu	D	-	$\overline{P}$HG
71.	Fang	Af		H-R;	C-A	Pa	$\overline{L}$CS	Mu	Mu	C	+	$\overline{A}$FHGP
72.	Yao	Af	L	cem		Ma	L$\overline{C}$	Mu	Mu	D	+	$\overline{A}$FHP
73.	Masai	Af		NP		Pa	$\overline{L}$CM	Mu	Mu	D	-	$\overline{P}$H
74.	Santal	A		NP		Pa	L$\overline{C}$M	Mu	Mu	C	-	$\overline{A}$PFH
75.	Fellahin	ME	L	cem		Pa	L$\overline{C}$M	Mu	Mu	D	-	$\overline{P}$HG
76.	Truk	O	L	cem		Ma	LC	Mu	Mu	D	+	$\overline{A}$F
77.	Iroquois	NA	C	cem;	M-R	Ma	$\overline{L}$CMS	Mu	Mu	C	+	$\overline{AH}$FG
78.	Fox	NA	v	cem;	C-A,R	Pa	L$\overline{C}$PMS	Mu	Mu	C	-	$\overline{A}$$\overline{H}$GF

APPENDIX A (cont'd)

79.	Mandan	NA	v cem	Ma	LCMS	Mu Mu	C	-	AHF
80.	Crow	NA	NP; S-R	Ma	LCS	Mu Mu	C	-	HG
81.	Zuni	NA	v cem; C/S-A,R	Ma	LCS	Mu Mu	C	+	AHG
82.	Hopi	NA	v cem; S-A	Ma	LCPMS	Mu Mu	C	-	APHG
83.	W. Apache	NA	C cem; C-R, P-R	Ma	LCP	Mu Mu	C	+	HGA
84.	Bororo	SA	NP; C-A,R;M-R	Ma	LCMS	Mu Mu	C	+	HGF
85.	Kikuyu	Af	NP	Pa	LCMS	(Si→Mu)	C	-	AP
86.	Garo	A	H-R	Ma	LCMS	(both)	C	-	APF
87.	Talamanca	SA	C cem; S-R	Ma	CMS	(both)	D	-	AFHGP
88.	Tapirape	SA	H-R	Bi	MS	- -	C	-	AFGH
89.	Pomo	NA	v cr/cem	?	n-UD,S	- -	C	-	GHF
90.	Klamath	NA	v crem	?	n-UD	- -	C	-	FHG
91.	Yurok	NA	H-R	Bi	n-UD	- -	C	-	FGH
92.	Arapaho	NA	v cem	Bi	n-UD,S	- -	C	-	HG
93.	Gros Ventre	NA	NP	?	n-UD,S	- -	D	-	HG
94.	Comanche	NA	NP	?	n-UD,S	- -	D	-	HG
95.	Iban	A	v cem	Bi	n-UD	- -	C	-	APF

BAND n=20

96.	Murngin	O	NP; C-A	D	LCM	(seas)	D	-	GHF
97.	Aranda	O	NP	D	M	- -	D	-	GH
98.	Walbiri	O	NP	D	LM	Mu -	D	-	GH
99.	Andamanese	A	H-R/NP	?	-	- -	C	-	GFH
100.	Ainu	A	v cem	D	-	- -	C	-	FHGA
101.	SE. Salish	NA	v cem	Bi	-	- -	C	-	FGH
102.	Washo	NA	NP	Bi	-	- -	C	-	GHF
103.	Ute	NA	NP	?	-	- -	C	-	HGF
104.	Copper Eskimo	NA	NP	Bi	-	- -	C	-	FH

APPENDIX A (cont'd)

105.	Wichita	NA	v cem	Bi	-	-	-	C	-	$\overline{A}$HG
106.	Mescalero	NA	NP	Bi	-	-	-	C	-	$\overline{HG}$FA
107.	Chiricahua	NA	NP	Bi	-	-	-	D	-	$\overline{GH}$
108.	Papago	NA	NP	?	-	-	-	C	-	$\overline{A}$HG
109.	Karankawa	NA	H-R	?	-	-	-	D	-	$\overline{F}$HG
110.	Jivaro	SA	H-R	?	-	-	-	D	-	$\overline{A}$HFG
111.	Carib	SA	H-R	Bi	-	-	-	D	-	$\overline{A}$HGF
112.	Ona	SA	NP	?	-	-	-	D	-	$\overline{H}$FG
113.	Calinago	SA	H-R	?	-	-	-	D	+?	$\overline{F}$AH
114.	Mbuti	AF	H-R	Bi	-	-	-	D	-	$\overline{GH}$F
115.	!Kung	AF	NP	Bi	-	-	-	D	-	$\overline{G}$H

APPENDIX B

REFERENCES FOR SOCIETIES IN APPENDIX A

1. Java (Jay 1969; Nakamura 1982)
2. Ganda (Roscoe 1911; Fallers 1960)
3. Nupe (Nadel 1942; Forde 1955)
4. Edo (Goldstein 1976)
5. Yoruba (Ajisafe 1924; Forde 1951)
6. Mossi (Mangin 1921; Delobson 1932)
7. Ngoni (Barnes 1954; Read 1956)
8. Zulu (Raum 1973; Service 1975)
9. Swazi (Kuper 1963)
10. Lozi (Gluckman 1941)
11. Tongaeses (Beaglehole and Beaglehole 1941; Gifford 1929)
12. Samoa (Mead 1930)
13. Mbundu (Hambly 1934; McCulloch 1952)
14. Khasi (Gurdon 1907)
15. Ashanti (Rattray 1932; Saxe 1970)
16. Azande (Evans-Pritchard 1971)
17. Tikopia (Firth 1936, 1959)
18. Marshall Islands (Wedgewood 1942; Mason 1954)
19. Rundi (Meyer 1916; Roscoe 1924)
20. Flores (Kennedy 1955)
21. Monguor (Schram 1954, 1957)
22. Kurd (Masters 1953; Barth 1954)
23. Easter Island (Cooke 1899; Metraux 1940; Sahlins 1958)
24. Bemba (Richards 1939, 1940)
25. Tanala (Linton 1933)
26. Thonga (Junod 1927)
27. Ambon (Haar 1948; Kennedy 1955)
28. Kachin (Leach 1954)
29. Bella Coola (McIlwraith 1948)
30. Lolo (Lei 1944)
31. Tlingit (Jones 1914; Oberg 1937, Krause 1956)
32. Puka Puka (Beaglehole and Beaglehole 1938)
33. Siwans (Cline 1936)
34. Shilluk (Westerman 1912; Dempsey 1955)
35. Hottentot (Schapera 1930)
36. Nootka (Sapir 1921; Drucker 1951)
37. Pawnee (Wedel 1936; O'Shea 1981, 1984)
38. Nyakyusa (Wilson 1951, 1957)
39. Kapauku (Saxe 1970)

APPENDIX B (cont'd)

40. Yokut (Gayton 1948; Kroeber 1953)
41. Mapuche (Cooper 1946)
42. Mongo (Maes 1924)
43. Ifugao (Lambrecht 1932)
44. Orokaiva (Williams 1930)
45. Toda (Rivers 1906)
46. Goajiro (Gutierrez de Pineda 1950)
47. Lugbara (Middleton 1965)
48. Tiv (Bohannon and Bohannon 1953)
49. Nuer (Huffman 1931)
50. Dinka (Deng 1972)
51. Fulani (Goldstein 1976)
52. Kwoma (Whiting 1941)
53. Mundurucu (Murphy 1960)
54. Dorobo (Huntingford 1954)
55. Tallensi (Rattray 1932; Fortes 1945)
56. Dogon (Palau Marti 1957)
57. Luo (Hartmann 1928)
58. Mae Enga (Saxe 1970; Goldstein 1976)
59. Tucano (Goldman 1963)
60. Vedda (Seligman and Seligman 1911)
61. Kaoka (Hogbin 1964)
62. Wogeo (Hogbin 1970)
63. New Ireland (Powdermaker 1931)
64. Tiwi (Hart and Pilling 1960)
65. Omaha (O'Shea 1981, 1984)
66. Ojibwa (Jenness 1935; Kinietz 1947)
67. Navaho (Kluckhohn and Leighton 1946)
68. Igbo (Leith-Ross 1939; Ottenberg 1971)
69. Ila (Smith and Dale 1920)
70. Herero (Vivelo 1977)
71. Fang (Trilles 1912; Trezenem 1936)
72. Yao (Stannus 1922)
73. Masai (Hollis 1905)
74. Santal (Culshaw 1949)
75. Fellahin (Blackman 1927; Ayrout 1945)
76. Truk (Gladwin and Sarason 1953)
77. Iroquois (Morgan 1901; Fenton 1936)
78. Fox (Tax 1955; Gearing 1960)
79. Mandan (Deland 1908; Bowers 1950)
80. Crow (Lowie 1935)
81. Zuni (Cushing 1896; Bunzel 1932)
82. Hopi (Voth 1912)
83. W. Apache (Kaut 1957; Basso 1970)
84. Bororo (Lowie 1946)
85. Kikuyu (Middleton 1953)
86. Garo (Playfair 1909)
87. Talamanca (Stone 1962)
88. Tapirape (Baldus 1944)

APPENDIX B (cont'd)

89. Pomo (Loeb 1926)
90. Klamath (Spier 1930)
91. Yurok (Heizer and Mills 1952)
92. Arapaho (Kroeber 1902; Higler 1952)
93. Gros Ventre (Kroeber 1908)
94. Comanche (Jackson 1972)
95. Iban (Roth 1892; Freeman 1955)
96. Murngin (Warner 1937)
97. Aranda (Schulze 1891)
98. Walbiri (Meggitt 1962)
99. Andamanese (Radcliffe-Brown 1922)
100. Ainu (Landor 1893)
101. SE. Salish (Ray 1932)
102. Washo (Lowie 1939)
103. Ute (Lowie 1924)
104. Copper Eskimo (Jenness 1922)
105. Wichita (Goldstein 1976)
106. Mescalero (Opler 1969)
107. Chiricahua (Opler 1941)
108. Papago (Underhill 1939)
109. Karankawa (Newcombe 1961)
110. Jivaro (Karsten 1935)
111. Carib (Gillin 1936)
112. Ona (Gusinde 1931)
113. Calinago (Rouse 1948)
114. Mbuti (Goldstein 1976)
115. !Kung (Lebzelter 1934)

APPENDIX C

AN ETHNOGRAPHIC TEST OF HYPOTHESIS 8 (CHAPTER 5):

DATA SUMMARY

CASE	DISP A	ECON CG	ANCS TIES	RES PRES	LAND/RESOURCE OWNERSHIP/CONTROL; TENURE/INHERITANCE
Puka Puka	L	L	+	+	Lineages own land w/in villages, including cemeteries, gardens, houses; land inherited patri, w/in families
Mae Enga	C	C	+	+	Clans own scarce land; inheritance w/in clan
Mongo	C	C	+	?	Clans own land, water; each member gets parcel; patri-inheritance, w/in families
Ashanti	L	L	+	?	Matri-lineages own land; matri-inherited
Tallensi	C	L/C	+	?	Patri-lineages own land; patri-inherited
Easter Island	L	F/L	+	-	Lineages own estates, but land is parceled out to and controlled by families
Ganda	C	C	+	-	Clans own land, but will parcel it out to anyone, not just clan members; land is also rented

APPENDIX C (cont'd)

Tiv	L	min L	+	-	Local minimal lineages control land; patri-inherited w/in families
Mbundu	L	min L	+	-	Local minimal lineage controls land; patri-inherited
Mapauche	L	min L	+	-	Minimal lineages of related families lay claim to contiguous parcels of land; family owned and inherited
Iroquois	C	L	?	-	Usufructs to land transmitted through matri-lineage
Tanala	C	L	+	-	Lineages hold land, not really ever inherited, but stays w/in the lineage; families own crops
Flores	C	F/L	+	?	Families or lineages own/inherit land; patri-inheritance
Ambon	C	F/L	+	+	Dati owns land, is a "branch of extended family or clan"; Dati is not a local group, but is dispersed; patri-inheritance
Lolo	C	F	+	?	Families own/inherit land
Thonga	C	F	?	?	Families own/inherit land
Hopi	Mu UDG	C	+	?	Matri-clan owns land; matri-inherited
Zuni	Mu UDG	min L	+	?	Minimal matri-lineages and sometimes individuals own land

APPENDIX C (Cont'd)

Iban	n-UDG	F	±	-	Families own/inherit land
Java	n-UDG	F	-	?	Family owns/inherits land
Goajiro	C	F/C	+	+	Clan controls land along riverbanks, families own agri parcels; matri-avuncular inheritance; clan owns communally used grazing land
Khasi	C	F/C	+	-	Clans, families, individuals all own land, usually matri-inheritance; much buying and selling of land
Dogon	min L	min L/F	+	-	Minimal lineages, families, individuals all own land; system moving to individual buying and selling
Fellahin	L	F	+	±	Families (i.e., men) own land, patri-inheritance; some large landowners rent parcels
Siwans	C	F	+	+	Clans own cemeteries; families own garden plots, can buy and sell them; inheritance through Moslem law, father to anyone
Monguor	C	F/C	+	±	Clan lands, but are family/individually owned and inherited; system moving from clan owned to individual owned
New Ireland	C	F	+	-	Clans own non-economic land; families own agri parcels; family inheritance

APPENDIX C (Cont'd)

Toda	C	F/C	?	?	Clans own pasturage, communally used; families own buffalo; also some individual ownership
Mossi	F	L	?	?	Lineages own/transmit land
Truk	L	**	+	?	**Complex ownership and tenure; lineages, families, individuals can all own land, resources, moveables, etc.; can be situational
Marshall Islands	C	**	+	+	**Chiefs own all land, grant usufructs to commoner families; families transmit the usufruct
Kurd	min L	**	+	-	**Complex ownership and tenure: state, chieftains, common people all own land; much renting, usurpation of state land
Bemba	L	**	+	-	**Chiefs own land and allocate it; inheritance w/in chiefly group
Lozi	n-UDG	**	-	-	**Complicated "hierarchy of estates", variously owned; families usually own some land
Nootka	F	**	?	-	**Chiefs own everything: land, beaches, houses, etc.; grant usufructs to commoners; inheritance w/in chiefly group
Western Apache	C	F/C	+	-	Clans have territory, families use/control it; matri-inheritance

APPENDIX C (Cont'd)

Talamanca	C	C	±	-	Clans have territories, but are not owned or inherited
Tucano	C	C	?	-	Tribal territories, phratry river bank segments, clan agri parcels; no real ownership, no fixed inheritance
Bella Coola	C	F/C	+	-	Local families w/in clan villages own usufructs to hunting territories; no real inheritance, usufruct will dissolve through lack of continual use of territory
Ojibwa	Mu UDG	B*	-	-	*Bands hold usufructs over territories; no real ownership or inheritance
Pawnee	Mu UDG	**	+	=	**Chiefs controlled lands near villages; land parceled out, no real ownership or inheritance
Pomo	n- UDG	F	-	-	Families owned parcels, trees, resources; no fixed system, ownership varies from group to group
Tlingit	C	**	+	-	**No ownership of land or resources
Klamath	n- UDG	**	-	-	**No ownership of land or resources
Yokut	L	**	±	-	**No ownership of land or resources
Mandan	Mu UDG	**	±	-	**No ownership of land or resources

APPENDIX C (Cont'd)

S.E. Salish	n-UDG	**	-	-	**No ownership of land or resources
Ainu	n-UDG	**	+	-	**No ownership of land or resources

BIBLIOGRAPHY

BIBLIOGRAPHY

Ajisafe, A.K.
1924 The laws and customs of the Yoruba People. Routledge and Sons, Ltd. London.

Ayrout, Henry Habib
1945 The Fellahin. R. Schindler. Cairo.

Baldus, Herbert
1944 Os Tapirape, Tribu Tupi uo Brasil Central. Revisto do Arquivo Municipal, Vols. 96-105, 107-124, 127. Sao Paulo. (Translation by HRAF).

Barnes, J.A.
1954 Politics in a changing society; a political history of the Fort Jameson Ngoni. Oxford University Press. London.

Barth, Fredrik
1954 Father's Brother's daughter marriage in Kurdistan. Southwestern journal of anthropology, Vol. 10, pp. 164-171.

Basso, Kieth H.
1970 The Cibecue Apache. Holt, Rinehart, and Winston. New York.

Beaglehole, Ernest and Pearl Beaglehole
1941 Pangai; village in Tonga. The Polynesian Society. Wellington.

1938 Ethnology of Puka Puka. Bernice P. Bishop Museum, Bulletin 150. Honolulu.

Befu, Harumi and Leonard Plotnicov
1968 Types of corporate unilineal descent groups. In M. Fried (ed.), Readings in anthropology, Volume II. Crowell. New York.

Binford, Lewis R.
1981 Bones: ancient men and modern myths. Academic Press. New York

1971 Mortuary practices: their study and their potential. In J.A. Brown (ed.), Approaches to the social dimensions of mortuary practices, Society for American Archaeology, Memoir No. 25.

Blackman, Winifred S.
1927 The Fellahin of Upper Egypt. Harrap and Company, Ltd. London.

Bohannon, Laura and Paul Bohannon
1953 The Tiv of central Nigeria. Ethnographic Survey of Africa, Western Africa, pt. 8. International African institute. London.

Bowers, Alfred W.
1950 Mandan social and ceremonial organization. University of Chicago Press. Chicago.

Brain, Jeffrey
1978 Late prehistoric settlement patterns in the Yazoo Basin and Natchez Bluffs regions of the lower Mississippi Valley. In B. Smith (ed.), Mississippian Settlement patterns. Academic Press. New York.

Braun, David
1981 A critique of some recent North American mortuary studies. American Antiquity, 40(2):398-415.

1979 Illinois Hopewell burial practices and social organization: a reexamination of the Klunk-Gibson mound group. In D. Brose and N. Greber (eds.), Hopewell archaeology: the Chillicothe conference. Midcontinental journal of archaeology, special paper No. 3.

Brown, James A.
1981 The search for rank in prehistoric burials. In R. Chapman, K. Randsborg, and I. Kinnes (eds.), The archaeology of death. Cambridge University Press. Cambridge.

1971 The dimensions of status in the burials at Spiro. In J.A. Brown (ed.), Approaches to the social dimensions of mortuary practices. Society for American Archaeology, Memoir, No. 25.

Buikstra, Jane E.
1976 Hopewell in the lower Illinois valley: a regional approach to the study of human biological variability and prehistoric behavior. Northwestern

University Archaeological Program, Scientific Papers, No. 2. Evanston.

Bunzel, Ruth L.
1932 Introduction to Zuni ceremonialism. Forty-seventh annual report of the Bureau of American Ethnology, pp. 467-544. Washington

Chapman, Carl H.
1980 The archaeology of Missouri II. University of Missouri Press. Columbia.

1976 Internal settlement designs of two Mississippian Tradition ceremonial centers in southeast Missouri. In C.E. Cleland (ed.), Cultural change and continuity. Academic Press. New York.

Chapman, Carl H. and Leo O. Anderson
1955 The Campbell site: a late Mississippian town site and cemetery in southeast Missouri. Missouri Archaeologist, 17.

Chapman, Carl H. et al.
1977 Investigation and comparison of two fortified Mississippian Tradition archaeological sites in southeastern Missouri. Missouri Archaeologist 38.

Chapman, Robert and Klavs Randsborg
1981 Approaches to the archaeology of death. In R. Chapman, K. Randsborg and I. Kinnes (eds.), The archaeology of death. Cambridge University Press. Cambridge.

Charles, Douglas K. and Jane E. Buikstra
1983 Archaic mortuary sites in the central Mississippi drainage: distribution, structure, and behavioral implications. In J. Phillips and J. Brown (eds.), Archaic hunters and gatherers in the American Midwest. Academic Press. New York.

Cline, Walter
1936 Notes on the people of Siwah and El Garah in the Libyan desert. Banta Publishing Company. Menasha.

Cooke, George H.
1899 Te Pito Te Henna, known as Rapa Nui; commonly called Easter Island, South Pacific ocean. Annual report of the Smithsonian Institution for 1897. Washington.

Cooper, John M.
1946 The Araucanians. Bureau of American Ethnology, Bulletin 143, vol. 2, pp. 687-760. Washington.

Culshaw, U.J.
1949 Tribal heritage: a study of the Santals. Lutterworth Press. London.

Cushing, Frank
1896 Outline of the Zuni creation myths. Thirteenth Annual report of the Bureau of American Ethnology, pp. 321-447. Washington.

Davis, Hester
1966 An introduction to Parkin prehistory. Arkansas Archaeologist, 7.

DeLand, Charles E.
1908 The aboriginies of South Dakota, part II, the Mandan Indians. South Dakota Historical Collections, vol. IV, pp. 273-748. Pierre.

Delobsom, A.A. Dim
1932 L'Empire du Mogho-Naba, coutumes des Mossi de la haute-Volta. Institut de d'Ethnologie Juridiques, Vol. II. Les Editions Domat-Montchrestien. Paris. (Translation by HRAF)

Dempsey, James
1955 Mission on the Nile. Burns and Oates. London.

Deng, Francis M.
1972 The Dinka of the Sudan. Holt, Rinehart, and Winston. New York.

Droessler, Judith
1981 Craniometry and biological distance: bio-cultural continuity and change at the Late Woodland-Mississippian interface. Center for American Archaeology, Northwestern University. Evanston.

Drucker, Philip
1951 The northern and central Nootkan tribes. Bureau of American Ethnology, Bulletin 114. Washington.

Earle, Timothy
1978 Economic and social organization in a complex chiefdom: the Halelea District, Kauai, Hawaii. Anthropological Papers, Museum of Anthropology, University of Michigan, No. 63. Ann Arbor.

Evans-Pritchard, E.E.
1971 The Azande: history and political institutions. Oxford University Press. London.

1940 The Nuer. Oxford University Press. London.

Fallers, Margaret C.
1960 The eastern lacustrine Bantu (Ganda and Soga). Ethnographic Survey of Africa, east-central Africa, pt. 11, International African Institute. London.

Fenton, William N.
1936 An outline of Seneca ceremonies at Cold Spring Longhouse. Yale University Publications in Anthropology, no. 9. New Haven.

Firth, Raymond
1959 Social change in Tikopia. MacMillian and Company. New York.

1936 We the Tikopia. Allen and Unwin Ltd. London.

Forde, Daryll
1955 The Nupe. In D. Forde (ed.), Peoples of the Niger-Benue confluence. Ethnographic Survey of Africa, western Africa, pt. 10, pp. 17-52. International African Institute. London.

1951 The Yoruba-speaking peoples of southwest Nigeria. Ethnographic Survey of Africa, western Africa, pt. 4, International African Institute. London.

Fortes, Meyer
1969 Kinship and the social order. Aldine. Chicago.

1945 The dynamics of clanship among the Tallensi. Oxford University Press. London.

Fortes, Meyer and E.E. Evans-Pritchard
1940 African political systems. International African Institute. London.

Freeman, J. Derek
1955 Iban agriculture: a report on the shifting cultivation of hill rice by the Iban of Sarawak. Colonial Research Studies, no. 18. London.

Fried, Morton H.
1967 The evolution of political society. Random House. New York.

1960 On the evolution of social stratification and the state. In S. Diamond (ed.), Culture and history: essays in honor of Paul Radin. Columbia University Press. New York.

Friedman, Jonathan
1982 Catastrophe and continuity in social evolution. In C. Renfrew, M. Rowlands, and B. Seagraves (eds.), Theory and Explanation in Archaeology: the Southampton conference. Academic Press.

1975 Tribes, states, and transformations. In M. Bloch (ed.), Marxist analyses and social anthropology. Association of Social Anthropologists Studies No. 3. Halstead Press. New York.

1971 Marxism, structuralism, and vulgar materialism. Man, 9:444-469.

Gayton, Anna H.
1948 Yokuts and Western Mono ethnography. University of California Press. Berkeley.

Gearing, Fredrick O.
1960 Documentary history of the Fox project, 1948-1959. University of Chicago Press. Chicago.

Gifford, Edward W.
1929 Tongan society. Bernice P. Bishop Museum, Bulletin 61. Honolulu.

Gillin, John
1936 The Barama River Caribs of British Guiana. Papers of the Peabody Museum of American Archaeology and Ethnology, Vol. 14, no. 2. Cambridge.

Gladwin, Thomas and Seymour B. Sarason
1953 Truk: man in paradise. Viking Fund Publications in Anthropology, No. 20. Wenner-Gren Foundation.

Gluckman, Max
1941 Economy of the central Barotse Plain. Rhodes-Livingstone Papers 7, The Rhodes-Livingstone Institute. Livingstone.

Goldman, Irving
1970 Ancient Polynesian society. University of Chicago Press. Chicago.

1963 The Cubeo: Indians of the northwest Amazon. Illinois Studies in Anthropology, No. 2. University of Illinois Press. Urbana.

Goldstein, Lynne G.
1981 One dimensional archaeology and multidimensional people: Spatial organization and mortuary analysis. In R. Chapman, K. Randsborg, and I. Kinnes (eds.), The archaeology of death. Cambridge University Press. Cambridge.

1980 Mississippian mortuary practices: a case study of two cemeteries in the lower Illinois valley. Northwestern University Archaeology Program. Evanston.

1976 Spatial structure and social organization: regional manifestations of Mississippian society. Ph.D dissertation, Northwestern University.

Goodenough, Ward H.
1965 Rethinking 'status' and 'role': toward a general model of the cultural organization of social relationships. In M. Banton (ed.), The relevance of models for social anthropology. Association of Social Anthropologists Monograph No. 1, pp. 1-24.

Gould, Richard
1978 Beyond analogy in ethnoarchaeology. In R. Gould (ed.), Explorations in ethnoarchaeology. University of New Mexico Press. Albuquerque.

Gurdon, Philip R.T.
1907 The Khasis. David Nutt. London.

Gusinde, Martin
1931 Die Feuerland Indianer, Band 1. Anthropos. (Translation by HRAF).

Gutierrez de Pineda, Virginia
1950 Organizacion social en la Guajira. Revista del Instituto Ethnologico Nacional, Vol 3, no. 2. Bogota. (Translation by HRAF).

Haar, B. ter
1948 Adat law in Indonesia. Institute of Pacific Relations. New York.

Hambly, Wilfrid D.
1934 The Ovimbundu of Angola. Field Museum of Natural History, Anthropological Series, 21(2):87-362. Chicago.

Hart, C.W.M. and Arnold R. Pilling
1960 The Tiwi of northern Australia. Henry Holt and Company. New York.

Hartmann, H.
1928 Some customs of the Luwo (or Nilotic Kavirondo) living in south Kavirondo. Anthropos, vol. 23, pp. 263-275.

Heizer, Robert F. and John E. Mills
1952 The four ages of Tsurai: a documentary history of the Indian village on Trinidad Bay. University of California Press. Berkeley.

Higler, M. Inez
1952 Arapaho child life and its cultural background. Bureau of American Ethnology, Bulletin 148. Washington.

Hodder, Ian
1982 Symbols in action: ethnoarchaeological studies of material culture. Cambridge University Press. Cambridge.

Hogbin, H. Ian
1970 The island of menstruating men: religion in Wogeo, New Guinea. Chandler Publishing Company. Scranton.

1964 A Guadalcanal society; the Kaoka speakers. Holt, Rinehart, and Winston. New York.

Hollis, A.C.
1905 The Masai: their languages and folklore. Clarendon Press. Oxford.

Huffman, Ray
1931 Nuer customs and folklore. International Institute of African Languages and culture. London.

Huntingford, F.W.B.
1954 The political organization of the Dorobo. Anthropos, 49:123-148.

Jackson, J. Brantley
1972 The Jared site: a Comanche burial at Fort Sill, Oklahoma. Plains Anthropologist 17:316-325.

Jay, Robert
1969 Javanese villagers; social relations in rural Modjokuto. M.I.T. Press. Cambridge

Jenness, Diamond
1935 The Ojibwa Indians of Parry Island; their social and religious life. Bulletin of the Canada Department of Mines, No. 78. Ottawa.

1922 The life of the Copper Eskimos. Report of the Canadian Arctic Expedition, 1913-1918, Vol. 12, pt. A. Acland. Ottawa.

Jones, Livingston F.
1914 A study of the Thlingets of Alaska. Revell Company. New York.

Junod, Henri A.
1927 The life of a South African tribe. MacMillian and Company. London.

Karsten, Rafael
1935 The head-hunters of the western Amazonas: the life and culture of the Jibaro Indians of eastern Ecuador and Peru. Societas Scienizrum Fennica: Commentationes Humanarum Litterarium, Vol. VII, no. 1. Helsingfors.

Kaut, Charles R.
1957 The Western Apache clan system: its origins and development. University of New Mexico Publications in Anthropology 9. Albuquerque.

Keesing, Roger
1975 Kinship and social structure. Holt, Rinehart, and Winston. New York.

Kennedy, Raymond
1955 Field notes on Indonesia: Ambon and Ceram 1949-50, Flores 1949-50. Human Relations Area Files. New Haven.

Kingsley, Robert G.
1984 An analysis of the mortuary practices at the Norton Mounds site. Wisconsin Archaeologist 65(2): 99-115.

Kinietz, W. Vernon
1947 Chippewa village: the story of Katikitegon. Cranbrook Institute of Science, Bulletin No. 25. Bloomfield Hills.

Kirchoff, Paul
1968 The principles of clanship in human society. In M. Fried (ed.), Readings in Anthropology, Vol. II. Crowell. New York.

Klippel, Walter
1969 The Hearnes site: a multicomponent occupation site and cemetery in the Cairo Lowland region of southeast Missouri. Missouri Archaeologist 31.

Kluckhohn, Clyde and Dorothea Cross Leighton
1946 The Navaho. Harvard University Press. Cambridge.

Krause, Aurel
1956 The Tlingit Indians. University of Washington Press. Seattle.

Kroeber, Alfred L.
1953 Handbook of the Indians of California. California Book Company Ltd. Berkeley.

1908 Ethnology of the Gros Ventre. Anthropological Papers of the American Museum of Natural History, Vol. 1, pp. 141-281. New York.

1902 The Arapaho. American Museum of Natural History, Bulletin 18. New York.

Kuper, Hidla
1963 The Swazi, a South African kingdom. Holt, Rinehart, and Winston. New York.

Lambrecht, Francis
1932 The Mayawyaw ritual, parts 1-5. Catholic Anthropological Conference, Publications, 4, no. 1-5. Washington.

Landor, Arnold H. Savage
1893 Alone with the hairy Ainu. John Murray. London.

Leach, Edmund R.
1954 Political systems of highland Burma. Beacon Press. Boston.

Lebzelter, Viktor
1934 Eingeborenenkulturen in Sudwest und Sudafrika, Vol. 2. Karl W. Hiersemann. Liepzig. (Translation by HRAF).

Lei, Chin-liu
1944 Ancestor worship of the Lolo in Ch'eng-chiang, Yunnan. Pien-cheng Kung-lun (Frontier Affairs), Vol. III, no. 9, pp. 31-36. Chungking.

Leith-Ross, Sylvia
1939 African women; a study of the Igbo of Nigeria. Faber and Faber Ltd. London.

Linton, Ralph
1933 The Tanala: a hill tribe of Madagascar. Field Museum of Natural History, Anthropological Series, Vol. 22. Chicago.

Lloyd, Peter C.
1965 The political structure of African Kingdoms: an exploratory model. In M. Banton (ed.), Political systems and the distribution of power. Association of Social Anthropologists Monograph 2.

Loeb, Edwin M.
1926 Pomo folkways. University of California Press. Berkeley.

Lowie, Robert H.
1946 The Bororo. Bureau of American Ethnology, Bulletin 143, vol. 1, pp. 419-434. Washington.

1939 Ethnographic notes on the Washo. University of California Press. Berkeley.

1935 The Crow Indians. Farrar and Rinehart. New York.

1924 Notes on Shoshonean ethnography. American Museum of Natural History, Anthropological Papers 20, pt. III. New York.

Maes, J.
1924 Notes sur les populations des bassins du kasai, de la Lukenie, et di Lac Leopold II. Annales du Musee du Congo Belge, Nouvelle Serie, Miscellanees, Vol. 1, Fasciculo 1. Brussels. (Translation by HRAF).

Mainfort, Robert
1979 Indian social dynamics in the period of European contact. Museum Anthropological Series, Michigan State University, Vol. 1, no. 4. East Lansing.

Mangin, Eugene
1921 Les Mossi. Essai sur les us et coutumes du peuple Mossi an Soudan occidental. Augustin Challamel. Paris. (Translation by HRAF).

Marshall, Richard A.
1965 An archaeological investigation of Interstate Route 55 through New Madrid and Pemiscot Counties, Missouri. University of Missouri Highway Archaeological Report 1. Columbia.

Mason, Leonard
1954 Relocation of the Bikini Marshallese: a study in group migration. Ph.D. dissertation, Yale University. New Haven.

Masters, William M.
1953 Rowanduz: a Kurdish administrative and mercantile center. Ph.D. dissertation, University of Michigan. Ann Arbor.

McCulloch, Merran
1952 The Ovimbundu of Angola. Ethnographic Survey of Africa, west-central Africa, pt. 2. International African Institute. London.

McIlwraith, Thomas F.
1948 The Bella Coola Indians, Vol. 1. University of Toronto Press. Toronto

Mead, Margaret
1930 Social organization of Manua. Bernice P. Bishop Museum, Bulletin 76. Honolulu.

Metraux, Alfred
1940 Ethnology of Easter Island. Bernice P. Bishop Museum, Bulletin 160. Honolulu.

Meyer, Hans
1916 Die Barundi: eine volkerkundliche studie aus Deutsch-Ostafrika. Ott Spamer. Liepzig. (Translation by HRAF).

Middleton, John
1965 The Lugbara of Uganda. Holt, Rinehart, and Winston. New York.

1953 The central tribes of the northeastern Bantu. Ethnographic Survey of Africa, east-central Africa, pt. 5. International African Institute. London.

Milner, George R.
1984 Social and temporal implications of variation among American Bottoms Mississippian cemeteries. American Antiquity 49(3):468-488.

Morgan, Lewis Henry
1901 League of the Ho-de-no-sau-nee, or Iroquois. Dodd, Mead. New York.

Morse, Dan F. and Phyllis Morse
1983 The archaeology of the Central Mississippi Valley. Academic Press. New York.

Murdock, George Peter
1967 Ethnographic Atlas. University of Pittsburgh Press. Pittsburgh.

1949 Social structure. The Free Press. New York.

Murphy, Robert F.
1960 Headhunters' heritage. University of California Press. Berkeley.

Nadel, S.F.
1942 A black Byzantium: the kingdom of Nupe in Nigeria. Oxford University Press. London.

Nakamura, Mitsuo
1982 The cresent arises over the Banvan tree: a study of the Muhammadijah movement in a central Javanese town. Ph.D. dissertation, Cornell University, University Microfilms. Ann Arbor.

Newcomb, William W.
1961 The Indians of Texas. University of Texas Press. Austin.

Oberg, Kalervo
1937 The social economy of the Tlingit Indians. Ph.D. dissertation, University of Chicago. Chicago.

Opler, Morris E.
1969 Apache Odyessey: a journey between two worlds. Holt, Rinehart, and Winston. New York.

1941 An Apache life-way; the economic, social, and religious institutions of the Chiricahua Indians. University of Chicago Press. Chicago.

O'Shea, John
1984 Mortuary variability: an archaeological investigation. Academic Press. New York.

1981 Social configurations and the study of mortuary practices: a case study. In R. Chapman, K. Randsborg, and I. Kinnes (eds.), The archaeology of death. Cambridge University Press. Cambridge.

O'Shea, John and Marek Zvelibil
1984 Olenostrovski mogilnik: reconstructing the social and economic organization of prehistoric foragers in northern Russia. Journal of Anthropological Archaeology, 3:1-40.

Ottenberg, Simon
1971 Leadership and authority in an African society; the Afikpo village-group. American Ethnological Society, Monographs 52. University of Washington Press. Seattle.

Palau, Marti, Montserrat
1957 Les Dogon. Presses Universitaires de France. Paris. (Translation by HRAF).

Peebles, Christopher S. and Susan M. Kus
1977 Some archaeological correlates of ranked societies. American Antiquity 42(3):421-448.

Perino, Gregory
1967 The Cherry Valley mounds and Banks Mound 3. Central States' Archaeological Society, Memoir 1.

1966 The Banks Village site, Crittenden County, Arkansas. Missouri Archaeological Society, Memoir 4.

Phillips, Philip
1970 Archaeological survey in the lower Yazoo basin, Mississippi, 1949-1955. Papers of the Peabody Museum of Archaeology and Ethnology 60. Cambridge.

Phillips, Philip, James A. Ford, and James B. Griffin
1951 Archaeological survey in the lower Mississippi valley, 1940-1947. Papers of the Peabody Museum of Archaeology and Ethnology 25. Cambridge.

Playfair, A.
1909 The Garos. David Nutt. London.

Powdermaker, Hortense
1931 Mortuary rites in New Ireland. Oceania 2:26-43.

Price, James E.
1978 The settlement pattern of the Powers phase. In B. Smith (ed.), Mississippian Settlement Patterns. Academic Press. New York.

Price, James E. and James B. Griffin
1979 The Snodgrass site of the Powers phase of southeast Missouri. Anthropological Papers, Museum of Anthropology, University of Michigan, No. 66. Ann Arbor.

Radcliffe-Brown, A.R.
1922 The Andaman Islanders: a study in social change. Cambridge University Press. Cambridge.

Rappaport, Roy A.
1971a Ritual, sanctity, and cybernetics. American Anthropologist 73:59-76.

1971b The sacred in human evolution. Annual Review of Ecology and Systematics 2:23-44.

Rattray, Robert S.
1932 The tribes of the Ashanti hinterland, Vol. 2. Clarendon Press. Oxford.

Raum, Otto Friedrich
1973 The social functions of avoidances and taboos among the Zulu. Hamburgische Museum fur Volkerkunde, Monographien zur Volkerkunde 6. Berlin.

Ray, Verne F.
1932 The Sanspoil and Nespelem: Salishan peoples of northeast Washington. University of Washington publications in Anthropology, Vol. 5. Seattle.

Read, Margaret
1956 The Ngoni of Nyasaland. Oxford University Press. London.

Renfrew, Colin
1973 Monuments and social organization in Neolithic Wessex. In C. Renfrew (ed.), The explanation of culture change. Duckworth. London.

Renfrew, Colin (ed.)
1981 Ranking, Resource, and Exchange. Cambridge University Press. Cambridge.

Richards, Audrey I.
1940 The political system of the Bemba tribe - north-east Rhodesia. In M. Fortes and E.E. Evans-Pritchard (eds.), African political systems. International African Institute. London.

1939 Land, Labour, and diet in northern Rhodesia: an economic study of the Bemba tribe. Oxford University Press. London.

Rivers, W.H.R.
1906 The Todas. MacMillian and Company. London.

Robertson, James A.
n.d. Social status and the fur trade. Unpublished manuscript in possession of the author.

Roscoe, John
1924 The Bagesu and other tribes of the Uganda Protectorate. Cambridge University Press. Cambridge.

1911 The Baganda. MacMillian and Company. London.

Roth, H. Ling (ed.)
1892 The natives of Borneo. Journal of the Anthropological Institute of Great Britian and Ireland, Vol. XXI, pp. 110-137.

Rouse, Irving
1948 The Carib. Bureau of American Ethnology, Bulletin 143, vol. 4, pp. 547-565.

Sahlins, Marshall D.
1972 Stone age economics. Aldine. Chicago.

1968 Tribesmen. Prentice-Hall. Englewood Cliffs.

1961 The segmentary lineage: an organization of predatory expansion. American Anthropologist, 63:322-345.

1958 Social stratification in Polynesia. University of Washington Press. Seattle.

Salmon, Merrilee
1982 Philosophy and archaeology. Academic Press. New York.

Salmon, Wesley C.
1984 Logic (third edition). Prentice-Hall. Englewood Cliffs.

Sapir, Edward
1921 The life of a Nootka Indian. Queen's Quarterly, Vol. 28, pp. 232-243, 351-367. Kingston, Ontario.

Saxe, Arthur A.
1970 Social dimensions of mortuary practices. Ph.D. dissertation, University of Michigan. University Microfilms. Ann Arbor.

Saxe, Arthur A. and Patricia L. Gall
1977 Ecological determinants of mortuary practices: the Temuan of Malaysia. In W. Wood (ed.), Cultural-ecological perspectives on Southeast Asia. Ohio University center for International Studies. Athens.

Schram, Louis M.J.
1957 The Monguor of the Kansu-Tibetan border, Part II, the political life. Transactions of the American Philosophical Society, n.s., Vol. 47, pt. 1. Philadelphia.

1954 The Monguor of the Kansu-Tibetan frontier: their origin, history, and social organization. Transactions of the American Philosophical Society, n.s., Vol. 44, pt. 1, pp. 1-138. Philadelphia.

Schulze, Louis
1891 The aboriginies of the lower and middle Finke River... Transactions and Proceedings and Report of the Royal Society of South Australia, Vol. XIV, pp. 212-246. Adelaide.

Seligmann, C.G. and Brenda Z. Seligmann
1911 The Veddas. Cambridge University Press. Cambridge.

Service, Elman R.
1978 Profiles in ethnology (third edition). Harper and Row. New York.

1975 Origins of the state and civilization. Norton. New York.

1962 Primitive social organization. Random House. New York.

Smith, Edwin W. and A.M. Dale
1920 The Ila-speaking peoples of northern Rhodesia, Vol. 1. MacMillian and Company. London.

Spier, Leslie
1930 Klamath ethnography. University of California Press. Berkeley.

Stannus, H.S.
1922 The Wayao of Nyasaland. Harvard African Studies, No. 3, pp. 229-372. African Department of the Peabody Museum. Cambridge.

Steponaitis, Vincas
1978 Location theory and complex chiefdoms; a Mississippian example. In B. Smith (ed.), Mississippian Settlement Patterns. Academic Press. New York.

Stevenson, Robert F.
1968 Population and political systems in tropical Africa. Columbia University Press. New York.

Stone, Doris
1962 The Talamancan tribes of Costa Rica. Papers of the Peabody Museum of Archaeology and Ethnology 43, no. 2. Cambridge.

Tainter, Joseph A.
1977a Modeling change in prehistoric social systems. In L. Binford (ed.), For theory building in archaeology. Academic Press. New York.

1977b Woodland social change in west-central Illinois. Midcontinental journal of archaeology 2(1):67-98.

Tax, Sol
1955 The Social organization of the Fox Indians. In F. Eggan (ed.), Social anthropology of North American tribes. University of Chicago Press. Chicago.

Thomas, Cyrus
1894 Report on the mound explorations of the Bureau of Ethnology. Twelfth Annual Report of the Bureau of American Ethnology for 1890-1891. Washington.

Trezenam, Edouard
1936 Notes ethnographiques sur les Tribus Fan du Moyen Ogoome. Journal de la Societe des Africanistes, Vol. 6, pp. 65-93. Paris. (Translation by HRAF).

Trilles, R.P.H.
1912 Le totemisme chez les Fan. Bibliotheque-Anthropos, Vol. 1. Aschendorffsche Verlagsbuchhandlung. Munster. (Translation by HRAF).

Ucko, Peter
1969 Ethnography and archaeological interpretation of funerary remains. World Archaeology 1:262-280.

Underhill, Ruth M.
1939 Social organization of the Papago Indians. Columbia University Contributions to Anthropology, Vol. 30. New York.

Vivelo, Frank R.
1977 The Herero of western Botswana. American Ethnological Society, Monograph 61.

Voth, Henry R.
1912 Brief miscellaneous Hopi papers. Field Museum of Natural History, Publication 157, Anthropological Series 11, No. 2. Chicago.

Warner, W. Lloyd
1937 A black civilization: a social study of an Australian tribe. Harper and Brothers. New York.

Watson, Patty Jo
1979 Archaeological ethnography in western Iran. Viking Fund Publications in Anthropology, No. 57. University of Arizona Press. Tuscon.

Wedel, Waldo R.
1936 An introduction to Plains archaeology. Bureau of American Ethnology, Bulletin 112. Washington.

Wedgewood, Camilla H.
1942 Notes on the Marshall Islands. Oceania 13:1-23.

Westerman, Diedrich
1912 The Shilluk people: their language and folklore. United Presbyterian Church. Philadelphia.

Whiting, John
1941 Becoming a Kwoma; teaching and learning in a New Guinea tribe. Yale University Press. New Haven.

Williams, Francis E.
1930 Orokaiva society. Oxford University Press. London.

Williams, J. Raymond
1974 The Baytown phases in the Cairo Lowland of south-east Missouri. Missouri Archaeologist 36.

Williams, Stephen
1977 Some ruminations on the current strategy of archaeology in the Southeast. Paper presented at the Southeastern Archaeology Conference, Lafayette, Louisiana.

Wilson, Monica
1957 Rituals and kinship among the Nyakyusa. Oxford University Press. London.

1951 Good company. Oxford University Press. London.