Spatial Expressions of Traditional Behavior: An Ethnoarchaeological Study

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INTRODUCTION

This report summarizes research undertaken in the settlement of Wiae in the Kete-Krachi district of the Volta Region in Ghana, West Africa. It concerns an attempt to use current spatial behavior within the residential area of the modern village to predict spatial behavior at the prehistoric sites. Two kinds of data are used: ethnographic and archaeological, and the availability of both is one of the reasons for selecting this area for the study.

Wiae is located at 8°16' N, longitude, and 5°38' W latitude, and about nine kilometers west of the town of Banda (see map). The settlement is one of the few tradit-
ional Nchumuru settlements still threatened by the expanding inundation of the Volta Lake. The Nchumuru constitute one group of the Guang speaking peoples, who came to inhabit large parts of Ghana in prehistoric times. Nchumuru is a linguistic term described as a dialect of North-Guang, one of the major language groups of the Akan group of the Kwa branch of the Niger-Congo in Africa. The name of the language has been the most common written designation for the whole ethnic group. The center of the Nchumuru society in the Northern Volta region is Banda, but the primary traditional village is Wiae. This area has received a great deal of attention in colonial travelers' reports and archaeological surveys.

PILOT RESEARCH

My doctoral dissertation research, coded WEP/81 (Wiae Ethnoarchaeological Project 1981), developed from a pilot study (WEP/72) undertaken as part of my M.A. requirement in archaeology at the University of Ghana. The study has attempted to discover general rules concerning the ethnographically observed human behavior which would yield observable regularities of the manner in which structural features and objects are spatially arranged within Nchumuru villages. These observed regularities were then used to predict the spatial location and distribution of features within and among archaeological sites. The cultural and natural transformation processes which have affected the disposition of cultural materials in an archaeological context formed part of the analysis.

GENERAL METHOD

The general orientation of this study has been based on the conviction that the relationship between human behavior and the cultural materials resulting from that behavior can be observed archaeologically for any given place or period of time, irrespective of the problems of preservation and uneven distribution. People are stereotyped by the kinds of places they occupy and, conversely, places are stereotyped by the kind of people found in them. Social identities and geographical locations are thus integrally linked. To demonstrate these convictions, the hypothesis testing method of social science was applied, and a synthetic model of archaeological inference formed the framework for this approach.

On the practical side, three basic questions were addressed: 1) What environmental factors and resources were exploited by the Nchumuru society in the area of study? 2) What are the implications of the distribution patterns of structural features in the settlement of Wiae in relation to the behavior of the Nchumuru? 3) How can the observed spatial patterns be used to predict and explain Nchumuru behavior patterns at a prehistoric site? The practical questions were organized into five parts, each of which constituted one stage of research.

GENERAL STUDY OF THE AREA

This consisted of the collection of information on the natural and social resources of the area. Most of these data were collected during my pilot study in the area and needed to be rechecked. They included the study of various natural resources (e.g., hydrographic patterns, pedological, botanical, zoological and aquatic resources).

The study of social resources included data already available but which had to be updated to include the social organization of the Nchumuru, population, clan system, religion, customs, and rites. All of these, and the data on natural resources, were considered important background information for an understanding of settlement in its environmental context.
The primary objective was to observe and record in detail how structural features and objects are arranged in the settlement. The study included: 1) collection of traditions about the origin of the settlement and its location, the effect of the clan system on spatial arrangements, religion, ritual and practices associated with them; 2) drawing a general plan of the village showing clan or family group division, compounds, shrines, resting platforms, footpaths, special trees, rubbish dumps, borrow pits, latrine pits and similar features with other activity areas defined by questioning local informants; 3) the use of a stratified random sample (a number of households were selected from each clan area) to provide detailed plans of divisions in the household, allocation of rooms to occupants and the reasons for these divisions and allocations; 4) the recording of daily, weekly and monthly activities for each household and for individuals. Those studies were related to subsistence, housing and manufacturing. All locations were measured relative to central points in the courtyard of each house.

OBSERVED REGULARITIES

The household, its location, and the distribution of structural features and objects within it were the main focus of study because the positioning of other features was related to the processes of the physical growth of the house itself. Two basic patterns were observed, either L- or U-shapes, are the two characteristic house forms in the village of Wiae.

In modern Wiae, dwelling units and their individual parts are located in order to maximize the degree of resource utilization and information flow for the maintenance of social distance between family groups. Structural features are also distributed in order to minimize energy and material used in processing acquired resources. Owing to this mini-maxi behavior which is basic to most human societies, some activity areas appeared to be more critical to the system than others. In order to explain how some areas grow to be more important than others, a model, termed "model of critical activity and distribution of structural features," was used. This explanatory model was operated on the basic assumption that Sahlins' Law of Cultural Dominance was applicable to the Wiae situation.

PREDICTIONS

Some predictions about the archaeological site based on observed modern regularities are as follows: 1) Old Wiae would consist of a settlement of houses and structural features arranged in groups of clusters, with each a separate but an integral part of the settlement. 2) The clusters so observed archaeologically should be considered as representing family groups (the nucleus of the later social identity known among the Nchumurus as Kahanu). 3) The locational distribution of critical activity areas within individual family group areas should be uniform. 4) Increase in population or social interaction between family groups should lead to increased social complexity. 5) An increase in social complexity should lead to increased differentiation in the design and functions of buildings and structural features, particularly in the peripheral areas of the settlement. 6) An increase in social interaction and complexity should lead to the tendency to build more community oriented structural features such as community shrines, storage and resting platforms.

Each of these propositions was divided into sub-propositions which then deal with specific details of the predictions.
Archaeological Observations

From the archaeological survey and excavation of Old Wiae, it was observed that the forms and distributions of house structures were different from that which obtains in the modern village. There are divisions within the settlement, obviously representing family groups, but there are no clear physical boundaries between the areas. Hearths at Old Wiae were located in rooms and in courtyards, and there were no kitchen structures as had been predicted. The courtyards of houses were not walled or enclosed, except in the homes of the clan heads. At the western and northern outskirts of the settlement, circular house forms seem to give way to rectangular forms. In addition to the structural features uncovered, thousands of potsherds, a brass bowl, metal bracelets, glass and shell beads, bone pendants, grinding stones, a coin (a British colonial farthing or quarter penny), polished stone axe (*nyame akuma*), and cowrie shells were found. Some hearth floors and post holes were also recorded.

Generally, it may be observed that the spatial locations of structural features and objects within the Old Wiae settlement seem to reflect non-random distributions. Therefore it may be generalized that space had a great influence on Nchumuru behavior, and that spatial components exhibit distinct manifestations at different stages in the dynamic development of the cultural tradition. Given the conditions and assumptions outlined in this study, the pattern of development explained in the proposition should be considered as applicable to Old Wiae. Looking beyond the particular case of Wiae, it may be suggested that without an explanation of the dynamics of the development of spatial patterning in archaeological settlements or units, the spatial form can disguise social, and other forms. That is, spatial form can represent a society, but may not reflect its structure.

This study is still in progress, and, at this time, only a haphazard picture can be developed. The emphasis on the theoretical frame of reference and the extensive use of assumptions and the explanatory models is deliberate. It is intended to make the factual information, or data, of this research relevant to the question being considered. This study is only one test case. However, its contribution in terms of method of approach and orientation are already apparent in the results obtained.

Funding for this research was provided by the UCLA Friends of Archaeology with matching funds from the Regents of the University of California, The Ghana Museums and Monuments Board and the Volta River Authority, Ghana. The research is being carried out under the supervision of Prof. Merrick Posnansky, Depts. of Anthropology and History, UCLA.