

1975

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### Recommended Citation

Klinger, Timothy C. (1975) "Mississippian Communities in the St. Francis Basin: A Central Place Model," *Journal of the Arkansas Academy of Science*: Vol. 29 , Article 17.

Available at: <http://scholarworks.uark.edu/jaas/vol29/iss1/17>

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# Mississippian Communities in the St. Francis Basin: A Central Place Model

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## ABSTRACT

The development of Mississippian settlement models for northeast Arkansas is reviewed. It is argued that a five-tier central place hierarchy best accounts for the variability currently known to exist among Mississippian communities in the St. Francis basin.

## INTRODUCTION

Why human settlements are located where they are and what the relationships between sites and physiographic areas are have long been of interest to archeologists (Chang, 1968; Fitting, 1969; Gummerman, 1971; Plog, 1968; Price, 1974; Willey, 1953). Geographic models, general systems theory and the use of an ecological orientation in the interpretation of settlement patterns have contributed most significantly to the current general methodology of settlement archeology.

The development of a settlement model for a chiefdom level of sociopolitical integration during late Mississippian times in northeast Arkansas is not without precedent. Most notably, Morse (1973, p. 73-76) has proposed a model for the Nodena phase, outlining three clusters of potentially related sites in the region east of the Tyronza River and west of the Mississippi River. The "sub-districts" are broken down into three types of component habitation sites. Farmsteads or hamlets are included under "Type I" sites. These range from single to multiple houses and are generally no larger than ¼ acre in extent. "Type II" sites usually occupy from 2 to 7 acres and have no evidence of public works (i.e., mounds). "Type III" sites can be as large as 15 acres, and have at least one pyramidal mound and an associated village.

## THE SETTLEMENT MODEL: A CENTRAL PLACE HIERARCHY

Morse's general scheme is very similar to what is suspected in the St. Francis basin; however, a few modifications and additions appear to be in order. In the first place, if one believes that contemporaneous settlements of differing sizes and functions are interacting, then one must view these settlements analytically in terms of how each is functionally related to another. In this regard, the central place theory developed by Christaller (1966), which is based on the regular lattice model of settlement distribution, is an important interpretive framework from which to work. Christaller offered the central place model as a general deductive theory to explain the "size, number and distribution of towns" on the basis of the belief that "there is some ordering principle governing the distribution" (Berry and Pred, 1961, p. 15). Central places are ranked according to the number of goods and services they can provide. Size of the settlement and number of goods and services potentially provided are related directly in this regard. By definition, then, hamlets are of a lower order than are towns. According to the model, settlements can be organized hierarchically in several various geometrical arrangements of central places. This organization is based on Christaller's marketing principle whereby the hierarchy and location of sites (nesting pattern) theoretically result in the maximum number of central places necessary to supply goods and services to the

consumer in accordance with the principle of movement-minimization (Garner, 1967, p. 308). With this, one can further view the settlement patterns of the St. Francis basin during the late Mississippian period as a total system or systems of sociocultural interaction.

Sanders and Price (1968, p. 116) outlined several potential settlement patterns which could be characteristic of a chiefdom social structure, including the following generalized model.

Ceremonial centers with a civic precinct and very small residential groups made up of the chiefly lineage, plus perhaps a small group of service personnel. The other lineages would be scattered over the countryside in nuclear family, extended family or lineage settlements. These settlements would support the chiefly lineage by food tribute and themselves consist of full-time farmers or farmers-part-time-craftsmen with specializations based upon local resources.

A second proposed model would have the entire chiefdom residing at a single central place. The third model suggests that a majority of the chiefdom population would live at the highest order center and the rest of the population would be distributed in smaller settlements. Generally, the second and third patterns occur only under circumstances where factors such as warfare or the uneven distribution of crucial resources (i.e., land or water) are present (Sanders and Price, 1968, p. 116).

The first chiefdom settlement pattern presented by Sanders and Price appears best to fit the archeological and historical documentation at hand. If one agrees that the nature of activity loci is hierarchical, and if the size of the loci and the number of potential activities offered are directly related, then one should be able to rank known settlements and predict possible additional settlement orders. At present, the settlement model for the Parkin phase would include at least a five-order hierarchy (Table I). Just as the chiefdom is a ranked society based on status differentiation centered on a single status position, that of the chief, so too are the patterns of settlement

Table I. Hierarchical Arrangement of Settlements in the Parkin Phase

First order	Specialized ceremonial centers
Second order	Combined village ceremonial centers (not including small house mounds)
Third order	Large (7-15 acres) villages
Fourth order	Intermediate (1-7 acres) villages
Fifth order	Hamlets or farmsteads

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associated with it. Here the hierarchically defined "status" differentiation is based on specialization or the relative importance and varied quantity of goods and services provided by a specific order of central place. The focal point of the hierarchy is the first order settlement or specialized ceremonial center. The redistribution of surplus local resources (e.g., food surpluses or exceptional raw materials) is an important aspect of the chiefdom and it is at these first order sites that this redistributive process takes place (Service, 1962). These large first order settlements may include "not only the resident chief, but also a greater or lesser number of administrative assistants...., service personnel, and even full-time craftsmen" (Sanders and Price, 1968, p. 44). Good examples of first order central places in the St. Francis basin are the Parkin site (3CS29) and the Togo or Neeley's Ferry site (3CS24). From the limited excavation at Parkin, it appears that the site did not serve as a long-occupied village, but rather as a major center for a large number of people while being occupied by only a very few. Both the "village" and ceremonial mounds are artificial constructions resulting from massive public work projects, a common characteristic of the chiefdom (Klinger, in press).

Large villages with associated mounds or mound groups are characteristic of second order settlements. At least six sites are known which show these general characteristics, including the Richard Bridge Place (3CT22), Vernon Paul (3CS25), the Turnbow Place (3CS61), the Williamson site (3CS26), the Cummings site (3POS) and the Big Eddy site (3SF9). It is difficult to say what specific activities may have taken place at these settlements. However, on the assumption that house mounds are associated with high ranking individuals and thus relatively important activities, these sites are grouped as second order central places.

Some of the most striking examples of Phillips et al.'s (1951, p. 329) "St. Francis-type" sites are indicative of third order settlements according to the present hierarchical arrangement. The Barton Ranch site (3CT18), the Fortune Mound (3CS71), the Rose Mound (3CS27) and the Castile site (3SF12) are the most outstanding examples. All are large rectangular elevated villages (village mounds) with no ceremonial structures in apparent association. These sites represent the major population centers of the chiefdom. Stratigraphic tests at the Rose Mound (Phillips et al., 1951, p. 284-292) indicate that intensive occupation of these centers contributed to the 2 m or so buildup of the village mounds. Although the Parkin site is very similar in size and village mound height, the village mound itself appears to be the result of artificial building zones and not long-term occupation. Possibly, then, other similar sites such as Barton Ranch, Fortune and Castile may represent stages of construction toward the first order centers. Stated another way, these may be the result of the demand for additional first order redistribution centers because of increased population, but were not finished (i.e., large temple mounds were not built) before the sites were abandoned.

Intermediate, nonelevated, villages often located on natural ridges or levees are representative of fourth order settlements. Very few of these sites have been reported; however, the Manly site (3SF25) serves as a good example. These settlements are essentially the same as third order centers only they are smaller and had considerably fewer residences. The fifth order of settlement is composed of small hamlets or farmsteads probably containing fewer than five houses at any one time. These are the sites that are closest to the cultivated fields and the individuals residing at them were essentially tenants or caretakers of the fields. Other activity loci such as quarry sites, butchering stations or overnight campsites would be included

in this order. Unfortunately, no fifth order sites have been recognized to date in the St. Francis basin.

So far as is known, the De Soto journals of the 1541 expedition contain first hand descriptions of the St. Francis area during approximately the time period the settlements discussed were occupied. There are unquestionably a number of problems involved in using data such as contained in the journals; however, a general overall picture of the cultural organization does emerge. The settlement system outlined is, in most respects, consistent with the De Soto descriptions.

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