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CONTROLLED SURFACE COLLECTIONS FROM THE STEPHAN-STEINKAMP SITE (12 PO 33)

The Stephan-Steinkamp Site (12 Po 33) is the product of one or more Mississippian occupations of a ridge on the floodplain of the Ohio River in Posey County, Indiana. Indiana University Archaeological field schools made controlled surface collections of the site in 1986 and 1987 using 6.1 m square surface collection units. All objects larger than 1 cm were collected from each unit.

Materials from three transects were analyzed. One transect (collected in 1986) ran north-south on the western edge of the Stephan property. A second north-south transect was located between the first one and the eastern edge of the site. An east-west transect extended from the property line to the site's eastern border. Each transect was three units (18.3 m) wide. The transect collections were sorted into shell tempered pottery, cordmarked shell tempered pottery, chert, faunal remains, coal, sandstone, all other rock, daub, and "other" materials.

Pearson's product moment coefficients (x) were calculated to test for correlations between the weights of the material classes. The strongest correlation of shell tempered pottery with other materials was that of shell tempered pottery with the total weight of material with $r = 0.59$. The only other material correlated with shell tempered pottery where r was greater than 0.50 was faunal material ($r = 0.53$). The next best correlation was with chert ($r = 0.23$). The other sorted material types showed weaker correlations yet. It is clear that site limits or intensity of occupation defined using a single class of material like shell tempered pottery will not necessarily correspond with other materials and will therefore fail to produce a clear picture of the spatial location of the full range of prehistoric activities.

The amount of cordmarked shell tempered pottery, when compared to that of the plain pottery, is relatively high at 12 Po 33. Cordmarked body sherds made up 3.4% by weight of the total weight of shell tempered sherds from the sorted transects; by comparison, only 0.28 of the shell tempered pottery from the Angel Site was cordmarked. Cordmarked pottery is poorly correlated with all shell tempered pottery ($r = 0.20$). The distribution of cordmarked shell tempered pottery was uneven. The eastern end of the site produced less cordmarked pottery than expected, while the western end produced more than expected ([Figure 4](#)). This distribution could be the product of at least two different Mississippian occupations characterized by different proportions of cordmarking. An uneven distribution in the area where cordmarked pottery was more abundant than expected suggests that the two occupations overlap.

The use of the gridded surface collection at the Stephan-Steinkamp Site shows how this technique can be used to identify multiple occupations at "village-sized" sites and produce data which are useful, even when a site has been intensively plowed and collected.