## R. Whallon, Ann Arbor Unconstrained Clustering (Abstract)

Most approaches to intrasite spatial analysis in archaeology are limited or "constrained" in one or more ways. That is, these analyses only can detect, or they assume, or they create as a result of the analytical procedures themselves, spatial distributions in which artefact clusters are either: 1) of roughly the same size, 2) of a specific, limited range of shapes, 3) of approximately the same density, 4) of discrete composition, or 5) based on uniform relations of association or correlation among artifact types. However, in terms of our present understanding of the processes that may have created such spatial distributions, we can expect them to vary in terms of all five of these characteristics. A statistically simple approach to spatial analysis is presented, in which none of these characteristics are held constant, but in which all five may vary freely and thus serve as bases for describing spatial distributions in such a way as to facilitate interpretation. The approach is applicable to data in the form of counts per grid square as well as exact coordinate information on each item. Data from an ethnoarchaeological study of an Eskimo hunting camp is used to test and demonstrate this approach.