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A DIACHRONIC MODEL OF CHERT USE FOR POINT PRODUCTION IN SOUTHWESTERN INDIANA

The selection and use of cherts varied through time among groups which occupied the Wabash Lowlands physiographic province of southwestern Indiana. The data base consists of some 1300 culturally and temporally diagnostic projectile points collected from 20 "data centers" within the area. Results indicate a recurrent cultural-historical pattern of variability in the selection of cherts and suggest the observed variability is a reflection of an array of complex cultural systems.

Because Paleo-Indian and Early Archaic groups were highly mobile, a "curated" technology was practiced to extend tool longevity. Wyandotte Chert, a high-quality "foreign" type was overwhelmingly selected for properties amenable to such a technology. Middle and Late Archaic groups utilized more locally available cherts, reflecting a more spatially restricted settlement pattern. Although projectile points of this period seem to have "devolved," such a decline in apparent quality is probably more a function of the cherts that were readily available. During the Transitional Archaic through Middle Woodland periods increased sedentism and a need for high-quality cherts to satisfy technological demand created a situation in which Wyandodtte chert was traded widely. This trade of high-quality chert may be seen as a response to user-lithic source incongruities created by sedentism. Bow and arrow technology, which had been developed in the Late Woodland and continued in the Mississippian period, used local gravel cherts for projectile points. Other cherts were imported for hoe production, suggesting a greater emphasis on horticulture.
