

WESTERN ILLINOIS UNIVERSITY

"COMPARISON OF HOLOCENE CLIMATIC PERIODS AND
ARCHAEOLOGICAL MATERIALS:
A STUDY IN LIMA LAKE GEOARCHAEOLOGY"

A THESIS SUBMITTED TO THE FACULTY OF THE COLLEGE
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MASTER OF ARTS

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BY

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MAP
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17
.5
.074
1988
c.2

ABSTRACT

The object of this research is to determine if there is a viable cause and effect relationship between changing Holocene precipitation trends and mean Indian population within a selective area on the Mississippi River floodplain known as Lima Lake. Since it is impossible to create a "census" for Indian population for that period, the number of recovered diagnostic lithic artifacts are used as an index for approximating population. The artifacts were collected during four surface surveys encompassing 11,520 square acres over a five year span, 1984-1988. The 140 recovered diagnostic artifacts represent 32 sites, although there were an additional 25 sites that produced no diagnostic lithic artifacts. The recovered artifacts were dated and a graph was created to show frequency of points over time. A second graph was constructed by comparing the results of nine Holocene climatic studies. A comparison of the two graphs reveals that three major periods of high point frequency correspond with climatic episodes classified as moist. The periods of low point frequency correspond to dry episodes, indicating that the Lima Lake area was inhabited during moist episodes.