Illinois State Archaeological Survey Research Reports

Archaic Occupations at White Bend: Helton, Falling Springs, and Hemphill Horizons

edited by
Richard L. Fishel

Richard L. Fishel, Michael F. Kolb, Steven R. Kuehn, David J. Nolan, and Mary L. Simon

ILLINOIS STATE ARCHAEOLOGICAL SURVEY
PRAIRIE RESEARCH INSTITUTE

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Research Report 29

Archaic Occupations at White Bend: Helton, Falling Springs, and Hemphill Horizons of the LaMoine Valley, Hancock County, Illinois

edited by Richard L. Fishel

with contributions by

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FAP 315 (IL 336) project proposed expansion of an approximately 27.5 mile-long section of US Route 136

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Investigations Conducted by:

Illinois State Archaeological Survey
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The State of Illinois
Department of Transportation

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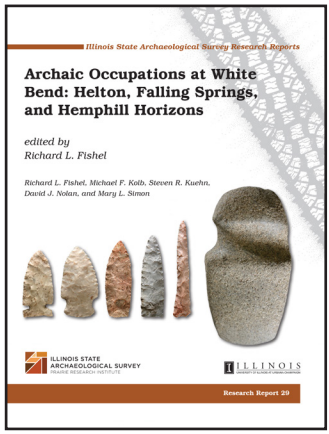
Contents



Archaic Occupations at White Bend: Helton, Falling Springs, and Hemphill Horizons

Edited by Richard L. Fishel with contributions by Richard L. Fishel, Michael F. Kolb, Steven R. Kuehn, David J. Nolan, and Mary L. Simon. 2013. Illinois State Archaeological Survey, Research Report 29. xi+201 pp., 52 figures, 35 tables, URL links to 17 appendices ($20.50 paper).

Reviewed by Steven R. Ahler, University of Kentucky Program for Archaeological Research, Lexington.

This volume is a valuable contribution to regional understanding of Middle to Late Archaic cultural expressions. In general, the La Moine River drainage has been under-studied compared to other areas within Illinois, and once again, an Illinois Department of Transportation project has provided an opportunity to expand our knowledge. Because the Archaic occupations of the White Bend site were preserved unplowed within alluvial fan sediments, the investigations are even more critical. Nearly complete hand-excavation of the midden (*98 m*^{2}) coupled with piece-plotting of formal tools made maximum use of these intact contexts. These fan deposits contained two paleosols with accumulations of midden debris. The lower paleosol is associated with a 40-cm-thick Middle Archaic Helton component with five associated pit features, while the upper paleosol contains a 20-cm-thick Late Archaic Hemphill component with two large rock-filled cooking pits. The Falling Springs component is poorly expressed stratigraphically and is limited to two pit features found at the base of the upper paleosol. Project personnel are to be commended for taking full advantage of the well-preserved site stratigraphy through the excavation methods employed (Chapter 1) and through detailed geomorphic studies conducted by Michael Kolb (Chapter 3).

These excavations produced abundant cultural remains from three primary components, with the vast majority of artifacts comprising chipped-stone tools and debitage. About 53,592 flakes, 851 cores, 328 hafted bifaces, 658 biface fragments, 99 intentionally retouched tools, and 896 utilized flakes were recovered. Combined with the contextual control afforded by the hand-excavation, these assemblages are tremendously important for understanding cultural patterns for the relevant time periods. In addition, these deposits are well dated, with conventional radiocarbon assays obtained from all nine pit features.

However, the bulk of the report—the lithic analyses presented in Chapter 6 (David J. Nolan)—did not take full advantage of the temporal and stratigraphic control. There was very little use made of the stratigraphic separation of the two middens, and there are several statements (e.g., "…there are relatively few unmixed contexts… [p. 57]) which imply that the contexts are severely mixed through bioturbation or anthropogenic activities. As a consequence, the data-base of artifacts and contextual data is under-used in the lithic analyses. These analyses focus strongly on formal tools, particularly hafted bifaces, with little distributional or stratigraphic data discussed. Even the excellent technological and morphological analyses conducted on the hafted bifaces makes little if any use of

stratigraphic contextual information to address site function or identify the range of activities associated with the various occupations. Instead, the hafted-biface analyses have a primary grounding in typology, with all typologically identified point groups (Karnak, Matanzas, Bold Side-notched, McLean) analyzed together, regardless of their provenience. The stratigraphic contextual data are available, as a review of the on-line appendices showed, but these data were not utilized. This presents interpretive problems. For example, perusal of Appendix C (material inventory) showed that of the 86 piece-plotted artifacts within the levels attributed to the Hemphill horizon, 14 are identified as one of the Bold Side-Notched types (Hemphill, Raddatz, Godar, Osceola) associated with this temporal period. Another 16 items are identified as Karnak or Matanzas points that are ostensible hallmarks of the earlier Helton horizon. One McLean point is also listed. While biotrubation or anthropogenic mixing might account for this situation, it is also possible that these different point types were in use during both the Helton and Hemphill occupations. This possibility is not discussed. By ignoring the stratigraphic context of the materials, the authors imply that there is much greater uniformity in point typology for each of the paleosols/occupation episodes. This has major implications for the interpretations drawn from the assemblages, extending to the use of the term "horizon" and the inference—repeated several times throughout the report—that different cultural groups are represented by each of the different point types. Obviously, this reviewer diverges from the authors' interpretive framework, but regardless, the variability within stratigraphic contexts should be explained, not dismissed.

My final comment relates to under-use of the spatial data available from the careful hand-excavations, discussed in Chapter 9 (Richard L. Fishel). In spite of having $1m^2$ horizontal control for all excavation contexts and stratigraphic control by level and soil horizon, there are no artifact-density data presented that would help identify activity areas within either of the two middens. These data could be derived from the appendices, but this aspect of the analyses should have been an obvious topic of comparison between the two middens, especially when it is clear from the features that very different types of activities were being conducted at the site during the Helton and Hemphill occupations. Many aspects of spatial distributions could have shed additional light on these activities and served to contrast the two periods of site use. Instead, the author employs a specious "trend line" analysis that is nothing more than a visual representation of a least-squares regression line overlaid onto the excavation grid. This is an inappropriate use of this statistic, and the interpretations derived from it are not supportable.

In spite of the under-use of the available stratigraphic and distributional data, the work conducted at White Bend, and the resulting research report, constitute valuable contributions to our growing understanding of the Middle to Late Archaic time period in this region. Though there are serious criticisms that can be applied to the underlying interpretive framework, the quality of the work and the great effort that has been invested in this project are readily evident. As always when conducting a review, I hope that these comments foster additional discussion.