

ANTHROPOLOGY

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Abstracts

Summer Archaeological Field Excavations at the Worl and Bersch Sites, Wayne County, Indiana. WILLIAM RESEIGH, KELLY COX and B. K. SWARTZ, JR.——Excavations at the Worl Site, Wy-165 (IAS-BSU), an Archaic occupation, and Earthwork 7, Bertsch Site, Wy-45 (IAS-BSU), a Woodland ceremonial complex, both located near Cambridge City, Wayne County, Indiana were conducted by the 12th Ball State University Archaeological Field School. An assemblage of 40 diagnostic artifacts, including 28 points was recovered within the plow zone at the Worl locality. The commonest point type was McWhinney, though Early Archaic forms were also present. No floor surface was found within Earthwork 7 at Bertsch indicating, despite previous reports, it may be a natural formation.

A Havana Tradition Component at the Cooke Site, Parke County, Indiana. CHARLES M. ANSLINGER and Robert E. PACE, Department of Anthropology, Indiana State University, Terre Haute, Indiana 47809.——Test excavations were conducted at the multi-component Cooke Site (12-P-5) in southwest Parke County during August of 1978. The site is located on a sand ridge near the Wabash River, and is known to have been occupied by Middle and Late Woodland, and Mississippian peoples. A series of 12 five by five foot excavation units were spaced to test for midden and subsurface features on the sides and crest of the ridge. A thin midden and 15 pits of varying sizes were encountered. These produced projectile points, scrapers, lamellar flake blades, bifacial blades, milling stones and other lithic tools, along with 2886 pieces of chert debitage, some heat-cracked stone, 874 potsherds, 3 galena cubes, and a rolled copper bead. One burial disturbed by historic activities was encountered. Carbonized fragments of corn were recovered in water separation of floral/faunal material from 2 pits.

The bulk of sherds, cordmarked with coarse crushed stone and sand temper, have limited diagnostic usefulness. However, 14 decorated sherds are similar to Middle Woodland Havana wares of the Illinois River Valley. Neteler Crescent Stamped and Naples Dentate Stamped are best represented, and these are associated primarily with the Fulton Phase, between B.C. 200 and B.C.-A.D. in the Middle Illinois River Valley. A late woodland component is represented by 2 pits containing carbonized corn kernels. One has produced a C-14 date of A.D. 1170 $\pm$ 105 (UGa-2529) and the other a date of A.D. 1325 $\pm$ 50 (UGa-2528).

Survey of the Big Raccoon Creek Valley, Parke County, Indiana. KRISTINA BUTTER and ROBERT E. PACE, Department of Anthropology, Indiana State

University, Terre Haute, Indiana 47809.——A survey of the lower and central Big Raccoon Creek Valley identified 95 sites and 52 cultural components. Twenty one components were Late Archaic, 10 Middle Archaic, 8 each were Early Archaic and Late Woodland, 4 Middle Woodland and 1 Early Woodland. Early Archaic components were represented by Kirk, Thebes and bifurcated clusters of projectile points, with Kirk being most numerous. Bristol Diagonal Notched and Barbee Corner Notched identified Middle Archaic components. Most Late Archaic points were similar to the Faulkner and Matanzas types. Terminal Archaic Riverton points, common along similar streams to the south, were rare.

Early Woodland and Middle Woodland components, few in numbers, are represented by rounded base Adena points, Snyders, and Lowe Flared Base points. Late Woodland triangular points, but not the pentagonal Albee points, were recovered. Most of the points that were recovered are associated with types concentrated south to the Ohio River and beyond. Tools and debitage are of Attica chert, available in the local region. However, small amounts of chert similar to that generally identified as Harrison County, Harrodsburg, Cataract and Burlington, were recovered.

Magnetic Exploration of Indiana Archaeological Sites. RALPH R. B. VON FRESE, Purdue University, West Lafayette, Indiana 47907.——When the magnetization of artifacts contrasts sufficiently with the magnetization of their soil environment, the magnetic method can provide a rapid overview of their distribution which can help optimize the time consuming and expensive effort of excavation. Frequently magnetic artifacts which are encountered at Indiana archaeological sites include iron objects, baked-clay features (hearths, pottery, roof tiles, bricks, burned daub, etc.), wells, pits (fire, refuse, cache, burials, etc.), and structural trenches (building foundations, canals, ditches, stockade trenches, etc.). Iron objects and baked-clay features normally yield strong and readily detectable anomalies in the near-surface geomagnetic field. Hence, the application of magnetometry is routinely warranted when the location and distribution of these artifacts are of archaeological interest. The magnetic detectability of such soil artifacts as wells, pits and trenches, however, is ultimately a direct function of the iron oxide content of the site's soil environment. Thus, the glaciated terrane of the northern two-thirds of Indiana generally is most suitable to magnetic explorations for soil artifacts, because these soils normally exhibit relatively high iron oxide fractions. Magnetic anomaly data affiliated with artifacts can be processed to yield the lateral and vertical distributions, as well as the magnetic susceptibility, volumetric and mass characteristics of the archaeological features. This information, furthermore, is made available without alteration or destruction of the site. A few examples from a magnetic survey of the Ft. Ouiatenon site (12-T-9) illustrate the potential of the method. In general, its major limitation is the lack of ground truth necessary to unravel the often complex anomaly fields which characterize Indiana archaeological occupations. Thus, the collaboration of the archaeologist is the most essential factor in expanding the further usefulness and scope of the method in applications to Indiana sites.

Archaeology without Excavation. HAROLD L. LINKOUS, Department of Sociology and Anthropology, Indiana University-Purdue University at Fort Wayne, Indiana 46805.——This paper reports on a program of research initiated during the spring of 1978 by the Anthropology Department of Indiana University-Purdue University at Fort Wayne. The research focuses on the archaeological resources in northeastern Indiana, a region about which little is known when compared with the rest of the state. The program is in its preliminary stages. It attempts to record archaeological information in a systematic manner, so that in the future, archaeologists will be able to evaluate the nature of archaeological remains in the area.

Data has been collected in two basic ways. First, surface collections have been made during the physical inspection of sites. These have been segregated and stored according to site, with each site being numbered and located on a topographic map. Secondly, private collections found in the area have been photographed, their places of origin being noted on maps. In addition to these sources of data, historical records and previous archaeological works have been examined.

Excavation is neither necessary or desirable in this initial stage of the archaeological program. Eventually we hope to have accumulated enough information to be of real aid in selecting the most important sites for subsequent archaeological excavation. While evidence produced by this research is certainly less precise than that from excavation, it does show the distribution of different types of sites and their relation to natural surface features.

The Role of the Physical Anthropologist in the Central Identification Laboratory. CHARLES P. WARREN, Department of Anthropology, University of Illinois at Chicago Circle, Chicago, Illinois 60680.——As an example of applied anthropology, this is an account of a twenty-one month period of employment as a physical anthropologist with the U.S. Army Central Identification Laboratory in Sattahip, Thailand, subsequent to the ending of the major recent military activities in Southeast Asia. In the laboratory setting, the physical anthropologist is a member of a team of identification specialists, and the assigned duties are numerous and varied. However, the real duties and responsibilities which are demanded of the anthropologist engaged in the identification of human remains during times of disaster are frequently without precedent in the academic and professional experiences of the anthropologist.

Consanguinity in an Indiana Mennonite and Amish Community.¹ JULANNE MCCARTHY, College of Health Related Professions, Wichita State University, Wichita, Kansas.——Calculation of the inbreeding coefficient according to the Sewell Wright procedure requires that all the founding ancestors of a population are known and the relationships of all descendants are traced exactly. When complete geneologies are not available, consanguinity (inbreeding) can be revealed by the study of isonymy (identical surnames). Crow and Mange have shown how this form of demographic data may be used to estimate the

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inbreeding coefficient of a population. A study of the history of the Mennonites and Amish of Daviess County, Indiana, show that they are one gene pool. They were grouped together for purposes of this study of consanguinity.

Daviess County marriage records dating back 90 years were analyzed for isonymy. They showed an inbreeding coefficient of .0241 for the Mennonites and Amish. This means the average marriage during this time occurred between first cousins once removed and second cousins. Data derived from published church membership lists showed the Daviess County Amish to have an inbreeding coefficient of .0302. Other researchers have published inbreeding coefficients for the Daviess County Amish ranging from .0625 to .0078¹. The present study and the published data show the Mennonites and Amish in Daviess County are one of the most inbred human populations in the world.