An Early Woodland Burial from Greene County, Indiana

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Introduction

The subject of this paper is a discussion of an Early Woodland burial from Greene County, Indiana. Greene County is located along the West Fork of the White River in southwestern Indiana.

While surface collecting, two individuals found a large flint blade with red ochre on it on the surface of a plowed field. This indicated to them that a deposit of archaeological materials might be buried there. They excavated and cleaned the immediate area, uncovering a deposit of human bone and artifacts just below the plow line. They left the deposit in place and called one of the authors (CHT) late one afternoon and invited him to assist in its removal that day.

The Site

The burial was located on an archaeological site that is situated on the edge of upland immediately adjacent to a former marshland. This site had previously been surveyed by one of the authors (CHT). A light scatter of material occurs over an area of about 1 acre. The material recovered indicates that the site is multicomponent, having been occupied by various Archaic and Woodland peoples.

The Burial Feature

The intact burial deposit consisted of a mass of cremated human bone, red ochre, 14 blades, 1 drill, and 1 grooved sandstone "tablet" (Fig. 1). The deposit was about 4 inches thick, 13 inches in east-west diameter, and 18 inches in north-south diameter. It was about 13 inches below ground surface. The matrix was dark in color and contrasted with the yellowish clay subsoil.

There was no evidence of burning in the burial pit, indicating that the cremation had occurred elsewhere. After cremation the bone and red ochre were placed in the pit. Four of the blades, the drill, and the grooved stone were positioned just above some of the bone and just south of the main concentration of bone. The drill was lying upon the grooved stone, and the rest of the blades were placed more or less horizontally on top of the bone and the above-mentioned artifacts. Eight of the overlying blades were irregularly grouped with most having an approximate east-west orientation. This group was bounded on the northwest and the southeast by a blade oriented northeast-southwest. Red

ochre was on the blades, drill, grooved stone, and bone and in the surrounding matrix. The artifacts had not been burned.

FIGURE 1: *Top: 6 of the 15 blades from the burial deposit. Bottom: Grooved stone tablet from the burial deposit, point from the burial pit, drill from the burial deposit.*

About 9 inches west of the burial deposit and within the burial pit was a stemmed point (Fig. 1). The point was in undisturbed context at about the same elevation as the top of the burial deposit. Upon screening the fill of the pit, 1 red chert flake and 5 gray chert fragments from a bifacial object(s) were found. This object(s) had been shattered by heat, presumably in the crematory fire.

Artifact Descriptions

The blades are elongated "leaf shaped" artifacts. They are widest in their midsection or their proximal portion and taper to a pointed to rounded basal edge. They are well chipped, and most of them exhibit terminal cortex and have had at least some of their lateral edges dulled. They are made from a blue-gray flint probably obtained from deposits in the vicinity of Harrison County, Indiana. Length varies from 137 to 155 mm., with 11 of them being 146 to 154 mm. long. Maximum width varies from 36 to 47 mm. However, 10 of them are 44 to 46 mm. wide. Midpoint thickness ranges from about 7 to 10 mm.

The drill has a rounded stem which is 32 mm. long and 21 mm. wide. The lateral edges of the stem are ground smooth. The bit is inset somewhat from the stem and is 60 mm. long. Thickness varies from about 6 to 8 mm. This artifact is made from what appears to be Harrison County flint.

The grooved stone consists of a tabular piece of fine grained sandstone more or less rectanguloid in outline with 1 corner missing. It has a maximum

length of 76 mm., a maximum width of 60 mm., and is 13 to 23 mm. thick. The longest edge has been smoothed and has a narrow "pencil line" groove along its midline. The other edges are broken and irregular. The concave edge has 2 narrow pencil line grooves. One face has a diagnoal groove about 45 mm. long and about 10 mm. wide. The other face exhibits 2 parallel diagonal grooves. One is about 45 mm long and about 10 mm. wide, and the other is about 35 mm. long and about 9 mm. wide. The faces also possess various scratches and narrow grooves.

The point has a blade which is 61 mm. long and a stem which is 19 mm. in length. The stem is inset from the blade by narrow sloping shoulders and tapers somewhat to a rather straight basal edge. The shoulder width is 29 mm., and the blade thickness is about 8 mm. This point is made from Harrison County flint.

Cultural Comparison

The artifactual materials placed in the burial feature are like those occurring with cremations and other forms of burial at some Adena sites in the Ohio Valley as exemplified below.

The Tarlton mound was a small structure located in Fayette County, Kentucky (9). It is reported to have produced a mass of cremated bone and red ochre accompanied by, among other thing, leaf shaped blades and drills (drill form unspecified). In addition, a grooved sandstone tablet and a stemmed point like the Greene County specimen are said to have come from the mound (location unspecified).

The Fisher mound was a small structure located near the Tarlton mound (10). Several deposits of materials were found in it which included artifacts like the Greene County specimens. For example, a group of 8 artifacts in association with red ochre designated as Burial 6 included 2 drills, 2 leaf shaped blades, and 1 sandstone tablet. Burial 1 consisted of cremated bones accompanied by, among other things, red ochre, drills, stemmed points, a leaf shaped blade, and stone tablets. The close similarity between the Kentucky and Indiana artifacts is quite apparent.

The Natrium mound (7) and the Cresap mound (3) were sizable and rather complicated tumuli located along the Ohio River near Moundsville, West Virginia. Both contained numerous burials and deposits of materials. Artifacts such as those from Greene County were well represented at these sites. By way of example, Feature 40 at Natrium contained cremated and uncremated human remains deposited with, among other things, red ochre, grooved stone tablets, leaf shaped blades, stemmed points, and a drill. Burial 42 and Cresap consisted of an extended uncremated burial (minus skull) and portions of a cremated skull in association with red ochre, grooved stone tablets, a stemmed point, and leaf shaped blades, in addition to a couple of other items.

Dragoo (3) utilized the stratified nature of the Cresap mound to formulate a sequence of Adena cultural development. He divided the sequence into early to middle Adena and late Adena. Included among the attributes of his early to middle division are: burned and unburned artifacts placed with cremated remains; extensive use of red ochre; grooved stone tablets; and drills with

slightly expanded or stemmed bases, leaf shaped blades, and stemmed points like the Greenee County specimens. Cresap, Natrium, and Fisher are listed as typical early to middle Adena sites.

Typologically the Green County burial would not have been out of place at the Kentucky and West Virginia sites referred to herein, and it conforms quite well to what Dragoo terms early to middle Adena. Disregarding the appropriateness or the desirability of referring to the local burial as Adena and notwithstanding the observation that it occurred somewhat west of what is generally considered as "Adenaland", the fact remains that the Greene County burial is very much like ones termed Adena in the central and upper Ohio Valley.

Chronological Placement

The Greene County burial deposit is very much like ones Dragoo (3, 4) refers to as early to middle Adena. In those same publications Dragoo, utilizing a variety of considerations (radiocarbon dates for Adena and other cultural manifestations, typology, stratigraphy, cultural distributions, and anthropological theory) places the entire Ohio Valley Adena sequence in the first millenium B.C.

Another way to approximate the date of the local occupation is to consider its place within the local cultural sequence.

An attempt at elucidating the cultural sequence for the Greene County area has been made (8). The latest Late Archaic occupation recognized is one utilizing "Riverton" points which are common in the Greene County area. The Riverton culture has been defined by Winters (12) from sites in the Wabash Valley just west of the Greene County area. Radiocarbon dates for Riverton in that portion of the Wabash Valley indicate a time span of approximately 1500 to 1000 B.C. (12). The local "Riverton" occupation is thought to date about the same and to immediately predate the occupation under consideration.

There is evidence of a Middle Woodland Havana-like or influenced occupation in Greene County (8). This occupation is evidenced by ceramics, Snyders-like points, and the Worthington mound. Based upon a variety of considerations, this occupation is thought to begin no sooner than late in the first millenium B.C. and to postdate the one under consideration.

The foregoing indicate to the writers that the burial deposit which is the subject of this paper probably dates sometime in the first millenium B.C.

Occurrence and Associations

The writers know of no other burial from the Greene County area which can with certainty be associated with the one under consideration. Other cremated bone-red ochre deposits are known from the area, but they were unaccompanied by artifacts or they do pertain or could pertain to other occupations.

Several caches of leaf shaped blades like those placed with the burial have been found in Greene County and the immediately adjacent area. These caches range in size from 3 to over 600. Such caches have been reported for other sections of southwestern Indiana (personal communications).

The style of stemmed point found in the burial pit and related stemmed variants from the Greene County area have been termed Category P points in a recent study (8). Category P points are common in Greene County. They occur on many sites, and some sites produce numerous examples. Some scrapers and drills have a stem like that of Category P points. The drill from the burial deposit has such a basal configuration.

Stone celts are common in Greene County, and boatstones and rectaguloid two-holed gorgets with concave sides and drilled from one face are occasionally found. It is quite probable that some of the celts and possible that the boatstones and gorgets pertain to the occupation in question. Such or similar artifacts occurred at the Adena sites mentioned previously.

A thick, generally coarse grit tempered pottery which may have cord impressions on both the exterior and the interior surfaces occurs in Greene County. For the area this kind of ceramic is included in Category A pottery (8). It is similar to such Early Woodland types as Marion Thick and Fayette Thick and may be associated with the occupation under consideration. Dragoo (3, 4) associates Fayette Thick with his early to middle Adena division.

TABLE 1: *Weights and numbers of fragments identified.*

	wt. in grams	%of total wt.	% of identified total wt.	# of fragments
vault bones	22.7	20.6	26.0	31
facial bones	1.8	1.6	2.1	4
mandible	3.4	3.1	3.9	4
teeth	0.3	0.3	0.3	2
ribs	2.5	2.3	2.9	4
innominate	3.9	3.5	4.5	3
upper long bones	18.0	16.3	20.6	18
lower long bones	8.0	7.3	9.2	7
unclassified long bones	26.8	24.3	30.7	111
unidentified	22.9	20.8		214
Total	110.3			398
Total identified	87.4			184

Skeletal Remains

The human skeletal remains from the burial consist of the approximately 400 bone fragments considered in this analysis and possibly of a few other minute fragments which were not removed from the soil matrix. All of the bone fragments are small, most being under 20 mm., the largest being only 35 mm. in length. All of the bone has been cremated and nearly all is chalky white in color. Red ochre occurs on a large proportion of the fragments. Information concerning the types of fragments identified and their collective weights and numbers is to be found in Table 1.

No duplicate diagnostic skeletal parts were observed in the burial deposit, and there is no evidence that more than one maturational level is represented. Therefore, the remains appear to represent a single individual. Although all of

the bone was highly calcined and broken into small, frequently distorted fragments, several clues as to the probable age and sex of the individual were available. The adult proportions of the rib fragments, the complete epiphyseal union of the distal femur, the robusticity of long bone fragments, and the very marked development of the (right) suprameatal crest suggest that the individual was most likely an adult male.

The only pathological lesion observed on the remains is a slight periosteal reaction on the exterior of 2 of the vault bones. This condition is undiagnostic in character and provides no good evidence for its cause. One cremated molar root is so distorted as to cause some question as to its human origin. However, its dissimilarity to the morphology of other animal forms (William R. Adams, personal communication) and the apparent absence of other cremated non-human faunal remains in the contents of the burial deposit suggest that this distortion is the result of heat damage to a presumably otherwise normal or non-pathological human molar root.

A very hot and/or long-burning fire is demonstrated by the high degree of calcining of all of the bones (11). Vault and long bone fragments which exhibit deep checking, spiral fracturing, and warping all indicate that the cremation took place soon after the death of the individual, presumably while the body was still fleshed (1). Differential degrees of burning of various skeletal parts was not noted, making it impossible to determine the position of the body relative to the crematory fire. Only 1 articular surface (a left mandibular condyle) was present. There was therefore insufficient evidence to determine whether the body had been cremated while articulated or disarticulated (1, 2). The small size of the fragments at least suggests that the bones may have been intentionally broken after burning; it is not clear whether fire damage alone would or would not account for such extensive fracturing (5).

TABLE 2: *observed and expected distributions of various skeletal parts by weight (expected frequencies based on Seale 1959)*

	obs. % of identified total	exp. % of total	obs. weight in grams	exp. weight in grams
skull	32.3	18.5	28.2	16.2
ribs	2.9	16.9	2.5	14.8
limbs	65.0	64.5	56.7	56.4

	observed	expected
superior limbs	20.6%	18.5%
inferior limbs	9.2%	46.0%

Characteristics of the burial feature have been mentioned in the archaeological portion of the paper which suggest that the individual was cremated elsewhere and secondarily buried in the pit. Differential or incomplete secondary burial is suggested by the marked differences between the observed frequencies by weight of skeletal parts recovered and the expected frequencies by weight of those same skeletal parts from a control sample. The expected

frequencies were taken from the work of Raymond Seale (6) which details the weights of the component parts of the dry, fat-free skeletons of 100 adult American Whites and Blacks. His subsample of 25 adult male Caucasians has been used for comparison in the present analysis, it being assumed to be the subsample from his work closest in skeletal characteristics to that of an adult American Indian male. Observed frequencies by weight of the archaeological specimens were calculated under the assumption that the unidentified fragments are distributed as in the identifiable portion of the sample and may thus be disregarded for this purpose. Observed frequencies were therefore calculated in relation to the weight of the total identified portion of the sample. Comparison of observed and expected frequencies shows that in this burial more of the total weight of bone is represented by skull fragments than would be expected. Less is represented by the rest of the axial skeleton and by the lower limb than would be expected, and the upper limb is represented in approximately the expected proportion of the total bone weight (Table 2). These differences were not tested for significance due to the inability to find an acceptable statistical procedure for testing differences in weight in grams. However, visual comparisons of the differences in weight suggest that in the secondary burial process portions of skull were collected and deposited in the grave at the expense of most of the rest of the skeleton.

Summary

This paper discusses a burial feature from Greene County, Indiana. The feature contained cremated human bone, red ochre, and several artifacts. An analysis of the skeltal material indicates that it likely represents the remains of one adult male and that the individual was cremated in a hot and/or long burning fire soon after death. The cremation occurred elsewhere and some of the bones were subsequently deposited in the burial pit along with red ochre and a few heat fractured biface fragments. There appears to have been selection for burial of skull bone at the expense of most of the rest of the skeleton, and there is the possibility that the bone may have been intentionally broken into small fragments prior to burial.

After the skeletal material had been placed in the grave, a group of artifacts with red ochre on them was then added to the deposit. These artifacts had not been burned and consist of 15 leaf shaped blades, a drill, and a grooved sandstone "tablet". A stemmed point was put in the burial pit away from the central deposit.

The artifacts are quite like those associated with early to middle Adena of the Ohio Valley. We think that the burial is Early Woodland, dating in the first millenium B.C.

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