



1982

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DEPARTMENT OF ANTHROPOLOGY
WESTERN MICHIGAN UNIVERSITY

REPORT OF INVESTIGATIONS NO. 48

1982

PREHISTORIC PLANT REMAINS FROM SITE
21D3-122, A LATE WOODLAND ENCAMPMENT ALONG
WHITE WALNUT CREEK (DEEP STRIP #3) OF BURNING
STAR MINE #2, PERRY COUNTY, ILLINOIS

William M. Cremin

The research area of this study lies in the prairie-forest ecotone of the Mt. Vernon Hill Country, an area of low relief characterized by gently rolling hills and broad alluvial valleys. Floristically, the area drained by White Walnut Creek is part of the Oak-Hickory Forest Region of the Western Mesophytic Forest (Braun 1950).

Site 21D3-122 occupies a prominent knob at the end of a ridge overlooking a tributary drainage and the bottoms of White Walnut Creek in Section 3, T5S R2W, Perry County, Illinois. The slope woodland zone within which this site lies may be described as an area of moderately well drained hilly or rolling topography supporting a thin forest cover of oaks and hickories and an undergrowth of shrub oak and hickory, hazel, grapevines, and briers at the time of Euro-American settlement of the county.

The site, itself, identified as a Late Woodland encampment with a minor Archaic component, was tested by American Resources Group, Ltd. in 1981. Excavation consisted of 20 systematically placed 2 x 2 m test squares. Six of the 20 excavation units were sampled by means of 10 l floats collected from excavation levels after the soil had first been sifted through 1.3 cm mesh. The feature floats represent a 25 x 25 cm block of soil extracted from the fill without prior screening and more often than not extended to the bottom of the five Late Woodland features which were delineated on the site. All of the flotation samples were processed by means of the tub agitation method, and the plant

an animal residues recovered were then initially sorted in the laboratories of ARG prior to being submitted to a specialist for analysis.

The author received a total of 28 samples (15 containing nut-shell and 13 of seeds) from 16 proveniences. The samples and their contents are summarized in Table 1. Briefly, the samples from excavation unit levels yielded little information. With the exception of several occurrences of carbonized hickory nut-shell, these floats contained only the uncarbonized seeds of weedy annuals and small fungal(?) nodules which can in all probability be regarded as recent contaminants--the byproducts of modern seed rain on the site and archaeological excavation.

However, the Late Woodland features were more interesting in terms of their botanical contents. Features 2, 4 and 5 yielded the carbonized remains of hickory nutshell, albeit in small quantities. In addition, Features 2 and 5 contained a trace of acorn, and Feature 4 produced a single fragment of walnut (Juglans sp.) and a seed of wild grape. Most interesting of the features is Feature 3. The two floats from this feature, aggregating a mere 48.5 l, together with screen sifted fill from level 3 above the pit, yielded in excess of 3,267 pieces (weighing 143.15 g) of carbonized acorn meats and shell and three small fragments of an unidentified seed. The size and general morphology of the more complete meats suggest that identification of the oak species represented as being post oak (Q. stellata) and/or black jack oak (Q. marilandica) is probably appropriate. And this tentative identification is

Table 1: Plant Residues from Site 21D3-122.

<u>Lot no.</u>	<u>ARG no.</u>	<u>Provenience</u>	<u>Sample Volume</u>	<u>Contents wt(g)/ ct</u>		<u>Comments</u>
1	32	U-2, L-5	---	0.28	1	<u>Carya</u> sp.
2	78F	U-8, L-4 (Feature 4)	20 1	0.21	5 1 1	<u>Carya</u> sp. <u>Juglans</u> sp. <u>V. riparia</u> -wild grape (17 minute seeds and fungal nodules that are uncarbonized)
3	88F	U-17, L-2	10 1	0.38	15	<u>Carya</u> sp. (140+ uncarbonized seeds of <u>Chenopodium</u> and <u>Polygonum</u>)
4	98F	U-13, L-3	10 1	0.20	9	<u>Carya</u> sp.
5	101	U-16, L-3 (Feature 2)	---	1.00	6	<u>Carya</u> sp.
6	132	U-15, L-3 (Feature 3)	---	1.20	13 3	<u>Quercus</u> sp. unidentified fragments of a carbonized seed
7	140F	U-16, L-4 (Feature 2)	10 1	1.44	45 1	<u>Carya</u> sp. <u>Quercus</u> sp. (30+ uncarbonized seeds of <u>Chenopodium</u> and <u>Polygonum</u> and some small fungal nodules)

Table 1, cont.

<u>Lot no.</u>	<u>ARG no.</u>	<u>Provenience</u>	<u>Sample Volume</u>	<u>Contents wt(g)/ ct</u>	<u>Comments</u>
8	141F	U-15, L-3/6 (Feature 3)	38.5 1	84.75 2070+	<u>Quercus</u> sp., probably post oak and/or black jack oak (3 uncarbonized seeds of <u>Polygonum</u> and 40+ small fungal nodules)
9	144F	U-15, L-3/6 (Feature 3)	10 1	57.20 1184+	<u>Quercus</u> sp., probably post oak and/or black jack oak (2 uncarbonized seeds of <u>Polygonum</u> and 7 small fungal nodules)
10	212F	U-1/12, L-3	10 1	0.38 12	<u>Carya</u> sp. (4 uncarbonized seeds, 3 of which are <u>Chenopodium</u>)
11	228	U-15/7, L-2/5 (Feature 5)	20 1	1.10 45 3	<u>Carya</u> sp. <u>Quercus</u> sp. (3 fragments of uncharred <u>Chenopodium</u>)
12	229	U-15/7, L-2/5 (Feature 5)	---	1.13 12	<u>Carya</u> sp.
13	42F	U-9, L-2	10 1		(200+ uncarbonized seeds of <u>Phytolacca</u> , <u>Digitaria</u> , <u>Chenopodium</u> , <u>Amaranthus</u> , and small fungal nodules)

Table 1, cont.

<u>Lot no.</u>	<u>ARG no.</u>	<u>Provenience</u>	<u>Sample Volume</u>	<u>Contents wt(g)/ ct</u>	<u>Comments</u>
14	64F	U-10, L-2	10 l		(70+ uncarbonized seeds of <u>Chenopodium</u> , <u>Rumex</u> , <u>Polygonum</u> and small fungal nodules)
15	225	U-8/6, L-4/5 (Feature 4)	20 l		(3 uncarbonized seeds, 1 of which is a species of <u>Chenopodium</u>)
16	50F	U-11, L-2	10 l		(300+ uncarbonized seeds of <u>Chenopodium</u> and <u>Polygonum</u> ; 1 grape seed and unidentified grass)

most certainly in accord with the available paleoenvironmental data; information which clearly indicates that these species (especially the post oak) would have been abundantly present in the immediate site environs during Late Woodland times.

The data recovered from Feature 3 identify this pit as an acorn processing facility and, together with the other plant residues from Late Woodland features, strongly argue for an occupation of this site during late summer-early fall. Assuming that the other archaeological data from 21D3-122 do not contradict the implications of the plant food spectrum, it appears quite reasonable to interpret this site as having functioned, at least in part, as a nut collecting station occupied by a small group of people intent upon harvesting the nut crop in the immediate site environs during August-October of the year.

References Cited

Braun, E.L.

1950 Deciduous forests of eastern North America. Hafner, New York.