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# 43-Carbonized Plant Residues from Five Sites in the White Walnut Creek Research Area, Consolidation Coal Company's Burning Star Mine No. 2, Perry County, IL

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DEPARTMENT OF ANTHROPOLOGY  
WESTERN MICHIGAN UNIVERSITY

REPORT OF INVESTIGATIONS NO. 43

1980

CARBONIZED PLANT RESIDUES FROM FIVE SITES  
IN THE WHITE WALNUT CREEK RESEARCH AREA, CONSOLIDATION  
COAL COMPANY'S BURNING STAR MINE NO. 2, PERRY COUNTY, IL

William M. Cremin

The White Walnut Creek research area consists of approximately 1437 ha in eight sections of T5S, R2W, Perry County, Illinois. Physiographically speaking, the study area lies within the southern portion of the till plains region known as the Mt. Vernon Hill Country and is characterized by mature topography as reflected in gently rolling hills and broad alluvial valleys. Floristically, this drainage is part of the Oak-Hickory Forest Region of the Western Mesophytic Forest as defined by Braun (1950).

Botanical samples collected from 11 proveniences on five sites occurring within the White Walnut Creek drainage and tested by American Resources Group, Ltd. in 1979 were submitted to this specialist for study. While the precise whereabouts of the sites in question are not known to the author, it seems quite clear from the contents of the samples that the inhabitants of each site had access to virtually the same plant resources; these being those food species most concentrated or abundantly available in the slope woodland zone.

Briefly, the slope woodland zone comprises the majority (51%) of the research area. According to presettlement forest data provided this analyst by ARG, the general environmental setting of the five sites may be described as one of moderately well drained hilly or rolling terrain supporting a thin forest cover of oaks and hickories. The forest of the slope woodland zone is dominated by white oak and black oak, with red oak and pignut hickory being important species throughout. The typical ground

cover or undergrowth at the time of Euro-American settlement consisted of shrub oak and hickory, hazel, grapevines, and briars.

The plant food residues summarized in Table 1 below are very fragmentary, making positive identification to the species level difficult at best. Be that as it may, these data do afford a preliminary basis for making some statements about prehistoric resource procurement in the valley. The ubiquity, if not abundance, of nutshell in the 11 samples examined does clearly document the seasonal scheduling of the local nut crop by the inhabitants of these sites, suggesting that the oil and fat-rich hickory nut and walnut constituted an important aspect of the economic strategy.

As a final comment, it is certainly anticipated that as planned intensification of excavation efforts associated with the Phase III mitigation of at least some of these sites is undertaken, that larger samples of carbonized plant material will become available for study. And with an increase in the quality and quantity of surviving residues in botanical samples, the interpretations which might be derived from the analysis of these data will be more meaningful with respect to our understanding and modeling of both site functions and seasons of occupation.

#### References Cited

Braun, E.L.

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

Table 1: Carbonized Plant Remains from Five Sites.

<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	<u>79-177.52</u> 9	Unit 8, Fea. 4 (21C4-29)	--	.18	11	<u>Carya</u> sp.-residues are too fragmentary for species identification
2	<u>79-234.47</u> 9	Unit 3 (21C4-27)	--	.51	3	<u>Carya glabra</u> : pignut hickory
3	<u>79-234.49</u> 8	Unit 4 (21C4-27)	--	.15	4	<u>Carya</u> sp.
4	<u>79-235.46</u> 8	Unit 3 (21C4-97)	--	.30	8	<u>Carya</u> sp.
5	<u>79-236.411</u> 14	Unit 5 (21C4-98)	--	.30	4	<u>Carya glabra</u> : pignut hickory
6	<u>79-180.52</u> 12	Unit 8, Fea. 2 (21C4-14)	--	.45	82	A fragment of wood charcoal, one piece of <u>Juglans</u> sp., and the remainder, <u>Carya</u> sp.
7	<u>79-180.53</u> 8	Unit 8 (21C4-14)	--	.17	13	<u>Carya</u> sp.
8	<u>79-177.52</u> 8	Unit 8, Fea. 4 (21C4-29)	--	.29	81	A piece of <u>Juglans</u> sp. and the remainder, <u>Carya</u> sp.
9	<u>79-177.51</u> 10	Unit 8, Fea. 4 (21C4-29)	--	.48	72	<u>Carya</u> sp.
10	<u>79-177.430</u> 12	(21C4-29)	--	.05	2	<u>Carya</u> sp.

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>
11	$\frac{79-180.44}{14}$	(21C4-14)	--	.11 12	<u>Carya sp.</u>
<hr/>					
TOTALS					
11 lots				2.99 / 292 specimens	