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WILLIAM M. CREMIN

ARCHAEOBOTANICAL ANALYSIS OF CARBONIZED RESIDUES
FROM SITE 13MA387, LAKE RED ROCK, IOWA

1988

REPORT OF INVESTIGATIONS NO. 79

DEPARTMENT OF ANTHROPOLOGY
WESTERN MICHIGAN UNIVERSITY



Western Michigan University
Kalamazoo, Michigan 49008

21 Dec 87

Department of Anthropology

Mr. Michael J. McNeerney
President

American Resources Group, Ltd.
127 N. Washington

Carbondale, Illinois 62901

Dear Mike:

I have completed examination of the carbonized plant remains in 33 samples (12 collected from screens; 21 flotation samples) from site 13MA387, Lake Red Rock, Iowa. Although they constitute a small assemblage, these residues are nevertheless quite interesting. In aggregate, the 274 specimens qualified and quantified and totaling 89.9 g by weight include the following: several species of fuel wood; five species of edible nuts; two fleshy fruits; one starchy weed; the ground nut; and kernels of the tropical cultigen, *Z. mays*.

The nuts, albeit typically occurring only in trace quantities, are very ubiquitous, having been observed in 29 of 33 samples. *Carya* spp. are the most common, but both species of Juglans are present in the assemblage as well. I have also noted one occurrence of *C. americana*, hazelnut.

There are no surprises in the wood charcoal spectrum which, with a frequency of occurrence of 23 in the sample, is almost as common as nut residues. While the wood charcoal count is smaller than that recorded for nutshell, by weight this material is more than three times as abundant as nutshell in the assemblage.

Prunus spp., wild black cherry and American plum, occur in three samples, but are represented by only a single specimen in each. A seed of *Polygonum* sp. (knotweed) has also been observed in one sample. *Apios americana* (ground nut) is represented by four specimens occurring in a single sample. Finally, seven kernels of corn are present in four different samples from this site.

The accompanying table summarizes the distribution of all plant remains included in the 33 samples examined from 13MA387.

Sincerely,

William M. Cremin

Associate Professor

Table 1: Carbonized Plant Residues from Site 13MA397, Red Rock Lake, Iowa.

<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	AS2	Unit 4, Level 3 (Feature 1)	5	1.65 .05 .04	307 3 1	-unid. wood charcoal -nut charcoal - <u>Zea mays</u> Kernel
2	AS3	Unit 6, Level 4 (Feature 2)	5	.20 .62 .06	6 150 2	-unid. wood charcoal -nut charcoal - <u>Juglans</u> spp.
3	AS4	Unit 10, Level 3 (Feature 3)	5	.35 .20 .40 .20	40 1 2 1	-nut charcoal - <u>Carya</u> sp. - <u>J. cinerea</u> - <u>Prunus serotina</u>
4	AS5	Unit 15, Level 3 (Feature 4)	5	.05 .05	4 17	-unid. wood charcoal -nut charcoal
5	AS6	Unit 18, Level 4 (Feature 18)	5	.33 .50	80 6	-unid. wood charcoal - <u>J. nigra</u>
6	AS7	Unit 20, Level 4 (Feature 5)	5	.05 .15	20 51	-unid. wood charcoal -nut charcoal
7	AS8	Unit 25, Level 3 (Feature 7A)	5	.35 .10	98 2	-nut charcoal - <u>Carya</u> spp.
8	AS9	Unit 25, Level 3 (Feature 7B)	5	.15 .05	39 1	-nut charcoal - <u>Carya</u> sp.
9	AS10	Unit 28, Level 3 (Feature 10)	5	.30 .15	105 25	-unid. wood charcoal -nut charcoal
10	AS11	Units 25 & 27 Level 3 (Feature 9)	5	.20 .01	36 1	-nut charcoal - <u>Polygonum</u> sp.
11	AS12	Unit 25, Level 3 (Feature 8)	5	.05 .05	4 17	-unid. wood charcoal -nut charcoal

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>
12	AS13	Unit 26, Level 3 (Feature 11)	5	.24 .85 .53	8 185 5 -unid. wood charcoal -nut charcoal -thickshelled <u>Carya</u> spp.
13	AS14	Unit 27, Level 3 (Feature 12)	5	.45 .40 .05 .07	26 104 1 2 -unid. wood charcoal -nut charcoal - <u>Z. mays</u> kernel -unid. fragmentary nutlets
14	AS15	Unit 27, Level 3 (Feature 12)	5	1.29 1.75 .50	97 556 10 -unid. wood charcoal -nut charcoal -thickshelled <u>Carya</u> spp.
				.20 .35 .20	2 4 1 - <u>C. ovata</u> - <u>J. nigra</u> - <u>Prunus americana</u>
15	AS17	Trench B (Feature 13)	5	.02 .01	1 4 -unid. wood charcoal -nut charcoal
16	AS18	Trench B (Feature 14)	5	.40 .32 .11	11 13 2 -unid. wood charcoal -nut charcoal - <u>Juglans</u> spp.
17	AS19	Trench B (Feature 15)	5	.10	10 -nut charcoal
18	AS20	Trench B (Feature 16)	5	.04	5 -nut charcoal
19	AS21	Trench B (Feature 18)	5	.05 .10	8 45 -unid. wood charcoal -nut charcoal
20	AS22	Trench B (Feature 17)	5	.05 .15	15 47 -unid. wood charcoal -nutcharcoal

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>
21	AS23	Unit 31, Level 3 (Feature 19)	5	.01 .10	2 18 -unid. wood charcoal -nut charcoal
22	C10	Unit 1, Level 3	screen	.15 .16 .45	4 2 16 -unid. wood charcoal - <u>Juglans</u> spp. - <u>Carya</u> spp.
23	C14	Unit 5, Level 1	screen	.30	2 -unid. wood charcoal
24	C18	Units 4 S 5 Levels 3-4 (Feature 1)	screen	19.10	83 - <u>Carya</u> spp. charcoal
25	C20	Unit 4, Level 2 (Feature 1)	screen	23.35	54 -probably <u>Carya</u> and <u>Quercus</u> spp. charcoal
26	C24	Unit 6, Level 4 (Feature 2)	screen	.16	2 - <u>Juglans</u> spp.
27	C39	Unit 11, Level 2	screen	.19	4 - <u>J. nigra</u>
28	C65	Unit 18, Level 3	screen	.20	9 - <u>Juglans</u> spp.
29	C107	Unit 22, Level 4 (Feature 7)	screen	1.50 .55 .75	11 8 5 - <u>Quercus</u> spp., white oak group charcoal -thickshelled <u>Carya</u> spp. - <u>C. ovata</u>
30	C120	Unit 26, Level 3 (Feature 8)	screen	.74	4 -thinshelled <u>Carya</u> spp.
31	C130	Unit 27, Level 3 (Feature 12)	screen	3.09 .25 1.85	24 3 22 -thickshelled <u>Carya</u> spp. -thinshelled <u>Carya</u> spp. - <u>C. ovata</u> and <u>C.</u> <u>laciniosa</u>

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>	
				.40	- <u>J. nigra</u>	
				.20	- <u>Corylus americana</u> ,	
				2.88	hazelnut	
				.30	- <u>Apios americana</u> ,	
					ground nut	
					- <u>Z. mays</u> kernels	
32	C136	Unit 29, Level 3	screen	2.95	20	-unid. wood charcoal, distorted knotwood
				.10	1	- <u>Carya</u> sp.
33	?	"not reported"	screen	12.35	165	-probably all <u>Quercus</u> spp., white oak group
				1.08	4	- <u>C. ovata</u>
				1.10	2	- <u>J. nigra</u>
				.10	1	- <u>Z. mays</u> kernel