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104-Preliminary Assessment of Archaeobotanical Remains from the Phase II Testing of Sites in the New Lenox Park District Archaeological Project, New Lenox, Illinois (Midwest Archaeological Research Services)

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DEPARTMENT OF ANTHROPOLOGY
WESTERN MICHIGAN UNIVERSITY

REPORT OF INVESTIGATIONS NO. 104
1994

PRELIMINARY ASSESSMENT OF ARCHAEOBOTANICAL REMAINS FROM THE
PHASE II TESTING OF SITES IN THE NEW LENOX PARK DISTRICT
ARCHAEOLOGICAL PROJECT, NEW LENOX, ILLINOIS
(MIDWEST ARCHAEOLOGICAL RESEARCH SERVICES)

William M. Cremin

Prepared for:

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President

In late 1993, Midwest Archaeological Research Services (MARS) conducted limited test excavations at a series of sites recorded earlier during Phase I reconnaissance survey of a 200 acre parcel for the New Lenox Park District in Will County, Illinois. The study area (located in the NE 1/4 of Section 15; the NW 1/4, NW 1/4 of Section 14; and the SW 1/4, SE 1/4, SW 1/4, SE 1/4 of Section 10, New Lenox Township (T35N, R11E), for the most part, lies south and on the inside of a sweeping bend in the course of Hickory Creek, a tributary of the Des Plaines River, and includes both stream floodplain and low kame terrace and knoll topography within project limits. The Government Land Office survey fieldnotes and plats further reveal that the project area formerly occupied the forest/prairie transition. A transition zone or ecotone is an especially favorable setting for human occupation, typically characterized by a diverse and often dense mix of plant and animal resources of both adjoining communities (Lurie and Bird 1993).

Sample Selection and Analytic Procedures

MARS submitted a total of 128 samples of botanical material from 49 features on five sites for analysis. Seventy-nine samples were collected by hand during excavation of features. The remaining 49 samples consisted of residues retrieved through floating 145 liters of feature fill. In aggregate, this assemblage of plant remains weighed almost one kilogram.

All plant residues were initially separated according to apparent type by MARS personnel prior to our having received them. The categories recognized during gross sorting included wood charcoal, bark, nutshell, seeds, grass stem fragments, maize or corn, and "other". Counts and weights assigned to each sample were necessarily recalculated during qualification and quantification of these data in our laboratory using 10X-20X magnification and reference to standard wood and seed identification manuals, as well as synoptic sets consisting of both fresh and carbonized plant specimens prepared by us. This task was undertaken by myself, together with Mr. Arthur DesJardins, Graduate Laboratory Supervisor, and several competent undergraduate students working under his direction.

Data Presentation

Table 1, appended to the text of this report, summarizes all plant remains according to reported contexts. Our initial task was to extract the "best" wood charcoal specimens from nine features on four sites selected by MARS on the basis of associated cultural

items having diagnostic value and prepare them for submission to the Illinois State Geological Survey for radiocarbon determination. In some instances this necessitated combining specimens from more than one recorded provenience within a single feature so as to create a sample of sufficient gram weight for the assay. The "Comments" column in the table provides information with respect to the composition of 14C samples.

Table 1 further indicates that of 997.72g of plant material sent to us for study, 866.53g (86.9%) remained following removal of all contaminants (i.e. fresh or uncarbonized plant specimens). Of this quantity, 718.76g (numbering 17,939 individual specimens) were thoroughly sorted and examined, with the remaining 147.77g (15,600+ specimens) being scanned but remaining largely unsorted. The results of our analysis presented below are derived from a sample weighing 742.68g and totaling 14,858 specimens.

Wood Charcoal (and Bark)

Specimens of wood charcoal and/or bark were observed in 125 samples collected from 47 features on five sites. This component of the botanical assemblage aggregates 682.93g (92%) by weight and 11,158 specimens (75%) by count. Although the vast majority (93% by weight; 77% by count) of this material is too fragmentary and/or distorted for positive identification, the remainder consists of ring-porous (5.9%; 19.4%), semi-ring-porous (0.3%; 1.8%), and diffuse-porous (0.4%; 2.1%) woods representing 11 genera and 9 species. Ring-porous woods include: Quercus spp.-oak; Q. alba-white oak; Fraxinus spp.-ash; F. nigra-black ash; Carya spp.-hickory; Ulmus rubra-slippery elm; Celtis occidentalis-hackberry; and Sassafras albidum-sassafras. Semi-ring-porous woods in the assemblage consist of: Carya illinoensis-pecan; Juglans spp.-walnut; J. nigra-black walnut; and Populus deltoides-cottonwood (Parenthetically, all 167 fragments of bark found in three samples obtained from three different features on 11Wi654 are most probably of this species.). Finally, diffuse-porous woods are represented by: Acer spp.-maple; Platanus occidentalis-sycamore; and Cornus florida-dogwood.

Of the aforementioned woods, only three genera (oak, hickory, and walnut) are present on all four sites (11Wi213A, 11Wi213B, 11Wi213C, and 11Wi654) from which positively identified specimens were obtained. Oak has been observed in 22 samples from 14 feature contexts; hickory-17 and 12; and walnut-a single sample from eight different features. Ash has been identified in seven samples of wood charcoal from five features on three sites; maple and sycamore occur in single samples from three features on two sites; and pecan has been observed in one sample from each of two features on two sites. The remaining identified woods are represented by single occurrences in the wood charcoal spectrum.

It only remains to say that nothing identified in the wood charcoal and bark residues is out of place in the immediate environs of the

Hickory Creek sites.

Carbonized Nutshell

Nutshell residues were observed in only 29 samples from 15 features on the same four sites and constitute a mere 161 specimens weighing 19.08g. They aggregate 1.1% by count and 2.6% by weight of the entire botanical component. Only hickory nutshell (totaling 86 pieces weighing 6.56g) was obtained from each of these sites, occurring in 14 samples from seven different features. Pecan shell (4 specimens; 0.25g) was recovered from a single sample, and hazelnut (Corylus americana), numbering 9 pieces weighing 0.58g, was found in two samples from a single feature. Only black walnut, found in six samples from four features on two sites, exhibits any concentration. Of 68 specimens weighing 11.69g, more than 80% by both count and weight were observed in two samples from F-32 on 11Wi213A.

The very low frequency of occurrence, absolute count and weight of nutshell in the assemblage, especially in light of the desirability of thick-shelled hickories and walnuts as a fuel source, as well as their ability to withstand complete combustion, often resulting in the preservation of charred nutshell in quantities exceeding the remains of wood charcoal in features, make it doubtful that the availability of this resource in the immediate environs of the sites significantly influenced occupation of the project area.

Seeds

A rather diverse group of late summer/early fall ripening fleshy fruits are represented by 107 specimens weighing 1.81g. They are present in 19 samples from 12 features on these same four sites. Smooth sumac (Rhus glabra), noted for its use in the making of a false lemonade, has been identified in six samples from two features on two sites. It is the only fruit seed that exhibits a concentrated distribution, with 70 of 76 specimens being observed in three samples from F-2 on 11Wi213A. All 13 seeds or nutlets of hackberry (C. occidentalis) occur in a single sample from F-3 on this same site. The only other fruits having a frequency of occurrence greater than one are American plum and/or wild black cherry (Prunus spp.) and hawthorn (Crataegus spp.). Represented by single occurrences are elderberry (Sambucus canadensis), black haw (Viburnum prunifolium), and hophornbeam (Ostrya virginiana).

A total of 157 small starchy seeds, aggregating 0.96g by weight, have been observed in 9 samples from six features on 11Wi213A and 11Wi213C. These include a knotweed, probably Polygonum erectum, a goosefoot (Chenopodium berlandieri), and little barley (Hordeum pusillum). It is noteworthy that these seeds do occasionally co-occur. Two flotation samples from F-5 on 11Wi213A, aggregating a mere four liters of pit fill, have yielded 33 little barley seeds, 11 goosefoot seeds, and two specimens of knotweed. Five liters of

sediment comprising two flotation samples from F-14 on 11Wi213C contained 45 little barley seeds and 20 seeds of knotweed. Furthermore, a concentration of knotweed seeds numbering 26 was observed in a two liter flotation sample collected from F-12 on this same site.

While 157 specimens may not seem an impressive number, the starchy seeds do constitute 56% of all seed remains in this assemblage. Moreover, the 137 specimens comprising the three concentrations noted above were obtained from just 11 liters of feature fill processed by flotation! This hardly exceeds the 10 liter volume by which a standard sampling unit is usually measured.

I believe it also noteworthy that the robust presence of the goosefoot-knotweed-little barley starchy-seed complex in this assemblage is not the first documented occurrence for the Huber Phase of northeastern Illinois. Asch and Sidell (1990:256-257) have recently reported this small starchy-seed group at the nearby Oak Forest site, where it comprises fully 80% of all identified seeds. Be that as it may, they question whether the presence of these same three seeds should be attributed to cultivation by the late prehistoric Huber folk. They caution that use of these seeds appears to have ended several centuries earlier among Middle Mississippian cultivators to the south and that the Upper Mississippians of northeastern Illinois seem not to have ever relied on them. Of course, they do point out that earlier archaeobotanical research in the area had not benefitted from the incorporation of flotation in the recovery of plant remains!

Now, with support for their observation deriving from the Hickory Creek sites, perhaps the issue of collecting seeds in naturally disturbed settings where these plants might thrive in harvestable quantities or, alternatively, within the disturbed area of human occupation so attractive to these "camp followers" versus Huber establishment and maintenance of cultivated stands should be revisited.

Finally, 17 seeds could not be assigned to either of the above groups. A single seed of bulrush (Scripus sp.) and one of bedstraw or cleavers (Galium sp.), together with 15 unidentified specimens, round out the seed spectrum.

Stems

Feature 5 on 11Wi213A contained minute carbonized stem fragments of an unidentified reed or marshgrass. These numbered more than 100 and weighed 1.11g. Excavators have suggested that these specimens might represent either thatch or some kind of woven mat-like material. I am unable to offer an alternative identification.

Tropical Cultigens

The carbonized remains of corn (Zea mays), the common bean (Phaseolus vulgaris), and squash (Cucurbita pepo) occur on four, two, and two sites, respectively, and total an estimated 3158 specimens weighing 36.41g. This constitutes 21.3% by count and 4.9% by weight of the entire plant assemblage.

Corn, observed in 28 samples from 15 features on 11Wi213A, 11Wi213B, 11Wi213C, and 11Wi654, is represented by 70 kernels or kernel fragments weighing 3.82g and 3073 cupule and cob fragments weighing 31.98g. These totals are greatly skewed by the very large quantity of charred corn found in a single sample and feature, Post Hole B, on 11Wi213C. This two liter flotation sample produced 79.98g of identified plant remains which, when passed through a graded stack of geologic sieves, revealed 186 complete corn cupules and three whole kernels in the larger size fractions. The fraction which passed through 2mm mesh and collected in the bottom pan of the stack consisted of a charcoal mass (50.79g) that was not sorted in its entirety, but rather sampled (30% by weight) and estimated to contain 2482 very small cupule and cob fragments aggregating 24.66g by weight. The remainder consisted of minute fragments of wood charcoal. Both the general appearance (small circular charcoal stain of very shallow depth) and contents of this feature strongly suggest that it is a smudge pit rather than post hole.

If the aforementioned feature and its contents are ignored, samples containing the remaining corn specimens show a somewhat more even distribution in the assemblage; albeit corn is much more prevalent on 11Wi213A and 11Wi213C than the other two sites where it occurs only in trace quantities. Moreover, with the exception of 11Wi654, where corn remains other than kernels have not been observed, kernel and cupule/cob remains commonly co-occur in samples. This, together with the frequency of occurrence and absolute abundance of cupule/cob fragments in samples from features on two sites, the smudge pit notwithstanding, argue strongly for corn having been grown and shelled on site, not merely transported in shelled form from fields located at some distance from the Hickory Creek sites.

Finally, although corn remains have not on this occasion been systematically subjected to metrical observations, both visual examination and measurements derived from a few especially well preserved kernels and cupules argue strongly for assignment to Eastern Complex (and predominantly 8-rowed) corn. Even in those instances when the strongly crescent-shaped kernels appeared too small for the range of measurements published for developed Eastern Complex corn (for example, see Wagner 1986), the possibility that they are derived from undeveloped and nubbin ears is a very real one.

Specimens of the common bean have been found on the same two sites which provided the majority of corn remains. Five samples from four features on 11Wi213A and a single sample from one feature on 11Wi213C have revealed seven and 14 beans, respectively, with an

aggregate weight of 1.14g. In each instance, beans occur in association with corn remains.

Minute squash rind fragments, numbering 11 pieces and totaling a mere 0.17g in weight, were found among wood charcoal specimens during my reexamination of several largely scanned and unsorted fractions from the bottom pan of the graded screen stack. These specimens were obtained from four samples collected from three features on these same two sites. In one instance, squash rind co-occurred with corn. In another, rind fragments were associated with a sizeable concentration of seeds of little barley and knotweed, numbering 75 specimens. The last occurrence is without meaningful association.

Conclusions

It is too early in the New Lenox archaeobotanical research to offer far-reaching interpretations of these data. Be that as it may, several conclusions appear warranted at this time. First, the late prehistoric Huber Phase inhabitants of this area along Hickory Creek were engaged in cultivation of the "triad"--corn, beans, and squash are amply represented in the plant remains. Furthermore, it is also probable that they were being grown on site; one or more of the sites is the former location of a farming community (i.e. a summer agricultural village, most likely resembling that of the historic Miami pattern).

Secondly, whether these farmers were also cultivating indigenous plants of the starchy-seed group is problematic. However, I am inclined to believe that future research with more robust samples of feature fill processed by flotation might just establish this to be the case.

Finally, the sites' residents certainly did collect various late summer/early fall ripening fruits and nuts available in their immediate neighborhood. While nut remains are somewhat scant, I am impressed with both the density and diversity of fleshy fruit seeds in the botanical assemblage. Clearly, autumn harvesting of field crops did not take place entirely at the expense of the "edible wild".

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NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
 PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	Identified Contents		Comments
					Wt. /	Ct.	
11Wi-213A							
2	075	N 1/2	g	9.45	8.82	16 ✓	-ring-porous, mostly oak or ash charcoal
					.25	①	-hickory nutshell
					.15	②	-hazelnut shell
	086	S 1/2, L-1	g	1.55	1.47	18 ✓	-ring-porous charcoal (oak?)
	087	S 1/2, L-2	g	4.25	.11	2 ✓	-unid. wood charcoal
	088	S 1/2, L-3	g	4.58	.30	1 ✓	-ring-porous charcoal
4.21					25 ✓	-unid. wood charcoal	
.07					①	-hickory nutshell	
	073	S 1/2, L-4	g	4.30	.70	1 ✓	-ring-porous charcoal
					3.27	24 ✓	-unid. wood charcoal
	070	S 1/2, L-5	g	5.40	5.20	20 ✓	-ring-porous charcoal (mostly white oak)
					.15	①	-black walnut shell
	074	S 1/2, L-6	g	45.45	2.05	4 ✓	-semi-ring-porous, <u>Juglans</u> charcoal
					.59	1 ✓	-ring-porous charcoal (oak)
					1.41	2 ✓	-diffuse-porous wood charcoal
					37.29	267 ✓	-unid. wood charcoal (30.50 g-14C sample)
					.63	②	-corn cob fragments
					.25	②	-hickory (pecan?) nutshell
					.80	③	-black walnut shell
	.08	①	-American plum stone				

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Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	----- Identified Contents -----		Comments
					Wt. /	Ct.	
	028	N 1/2, top 20cm	F(6)	11.85	8.00 2.65 .13 .14 .02 .01 .02 .02	400+ 64 ✓ 11 3 2 1 1 2	-unsorted charcoal -unid. wood charcoal -corn cupules -corn kernels -squash rind pieces -seed of smooth sumac -goosefoot seed -unid. seeds
	029	N 1/2, middle	F(8)	18.50	11.35 5.65 .05 .05 .04 .04 .05 .05	1000+ 115 ✓ 1 2 1 1 2 3	-unsorted charcoal -unid. wood charcoal -corn cupule -pieces of squash rind -hickory nutshell - <u>Prunus</u> sp., plum or cherry stone -unid. corms -unid. plant pieces
	032	N 1/2, bottom	F(8)	13.00	8.08 4.60 .05 .07 .04 .02	800+ 184 ✓ 2 3 1 3	-unsorted charcoal -unid. wood charcoal -hazelnut shell -seeds of smooth sumac -hawthorn seed -little barley seeds
	114	S 1/2, L-6	F(1)	12.85	4.85 7.17 .04 .12 .16 .03	400+ 174 ✓ 1 1 30 1	-unsorted charcoal -unid. wood charcoal -corn cupule -bean(<u>P. vulgaris</u>) -sumac seeds, mostly <u>R. glabra</u> -unid. seed fragment

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Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	Identified Contents		Comments
					Wt. /	Ct.	
	117	S 1/2, L-6	F(2)	4.90	2.02 2.85 .03	200+ 71 1	-unsorted charcoal -unid. wood charcoal -hawthorn seed
	112	S 1/2, L-6	F(2)	17.20	3.47 13.20 .12 .01 .01	1000+ 229 24 1 1	-unsorted charcoal -unid. wood charcoal -smooth sumac seeds -hawthorn seed -unid. seed
	115	S 1/2, L-6	F(2)	12.10	5.80 5.41 .11 .14 .09 .05 .11	400+ 135 2 1 16 1 3	-unsorted charcoal -unid. wood charcoal -corn cupules -common bean (<u>P. vulgaris</u>) -seeds of smooth sumac -hawthorn seed -unid. seeds
3	092	N 1/2, 0-50cm	g	36.20	4.35 .45	10 1	-oak charcoal - <u>Platanus</u> (sycamore)/ diffuse-porous
					22.49 .10	410 2	-unid. wood charcoal -corn kernels
	093	N 1/2, 50-90cm	g	15.40	4.15 9.81	5 103	-ring-porous, most probably <u>Carya</u> -unid. wood charcoal
	076	S 1/2, L-1	g	6.10	.90 5.15	4 34	-ring-porous, most probably <u>Carya</u> -unid. wood charcoal
	077	S 1/2, L-2	g	5.45	.45 3.50 .10	3 30 2	- <u>Quercus</u> , oak wood -unid. wood charcoal -hickory nutshell

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PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	----- Identified Contents -----		
					Wt. /	Ct. / Comments	
	078	S 1/2, L-3	g	8.60	.50 .25 .85 6.90	1 1 2 63	-oak charcoal -ring-porous wood charcoal -ash charcoal -unid. wood charcoal
	091	S 1/2, L-4	g	12.85	.35 2.65 .15 8.85 .25	1 4 1 84 1	-oak charcoal -ash charcoal -semi-ring-porous, probably <u>Juglens</u> , charcoal -unid. wood charcoal -unid. plant material
	089	S 1/2, L-5	g	10.30	1.05 1.15 4.45 .10	3 4 33 1	-oak charcoal -hickory (<u>Carya</u>) wood -unid. wood charcoal -corn kernel
	090	S 1/2, L-6	g	20.70	1.25 .70 .95 15.68 .65 .25	4 1 4 337 4 5	-oak charcoal -ash charcoal -unid. bark charcoal -unid. wood charcoal -black walnut shell -corn kernel
	022	N 1/2, top	F(8)	23.25	15.60 1.95 4.38 .14 .01 .20 .01	2000+ 37 411 5 4 13 1	-unsorted charcoal -unid. wood charcoal -corn cob and cupule fragments -corn kernels -little barley seeds -hackberry (<u>Celtis</u>) seeds or nutlets -fragment of huckleberry? seed

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Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	Identified Contents		Comments
					Wt. /	Ct.	
	031	N 1/2, 10-25cm	F(6)	9.70	3.48 6.05 .11 .01	300+ 126 2 1	-unsorted charcoal -unid. wood charcoal -corn kernels -corn cupule fragment
	030	N 1/2, 45cm	F(6)	11.65	10.26 .05 .20 .01 .03	346 5 3 1 2	-unid. wood charcoal -corn cupules -common beans -smooth sumac seed -unid. seeds
	023	N 1/2, 52cm	F(6)	6.00	2.24 2.80 .08	150+ 104 3	-unsorted charcoal -unid. wood charcoal -unid. seeds
4	095	N 1/2	g	6.30	1.03 .46 3.39 .06 .04	6 3 33 1 1	-ring-porous wood -diffuse-porous wood -unid. wood charcoal -squash rind fragment -unid. nutshell
	081	S 1/2	g	3.65	1.08 1.20 1.37	4 3 14	-ring-porous wood, probably hickory -diffuse-porous, probably maple (<u>Acer</u>) -unid. wood charcoal
	026	W 1/2 (ash deposit)	F(2)	6.05	3.17 .14 .21	300+ 2 1	-unsorted charcoal -hickory nutshell -hophornbeam nutlet (<u>Ostrya virginiana</u>)
5	111	N 1/2	g	3.96	2.85 1.11	16 100+	-unid. wood charcoal -fragments of reed or marshgrass

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Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	Identified Contents		Comments
					Wt. /	Ct.	
	096	N 1/2, L-1	g	0.70	.70	8 ✓	-unid. wood charcoal (0.56 g-14C sample)
	097	N & S, L-3	g	12.05	2.61 7.99	3 ✓ 47 ✓	-oak charcoal -unid. wood charcoal (7.69 g-14C sample)
	024	N 1/2	F(2)	2.10	1.96 .05 .09 .01	200+ ✓ 14 31 1	-unid. wood charcoal -corn cupules -little barley seeds -bulrush (<u>Scirpus</u>)
	021	S 1/2	F(2)	9.00	4.77 2.20 1.14 .01 .11 .01	1000+ 281 ✓ 129 2 11 2	-unsorted charcoal -unid. wood charcoal -corn cupules -little barley seeds -goosefoot seeds -knotweed seeds
6	072	surface to 5cm	g	3.60	.83 .82 1.45	6 ✓ 2 ✓ 27 ✓	-diffuse-porous wood, probably maple -ring-porous wood -unid. wood charcoal
	080	N 1/2	g	4.00	.06 .50 2.31	2 ✓ 9 ✓ 15 ✓	-probably <u>Juglans</u> charcoal -ring-porous charcoal -unid. wood charcoal
	079	S 1/2	g	1.20	.48 .62 .15	3 ✓ 5 ✓ 1	-ring-porous charcoal -diffuse-porous wood -hickory nutshell
	027	N 1/2, 0-5cm	F(4)	30.10	16.07 12.42 .01	3000+ 357 ✓ 1	-unsorted charcoal -unid. wood charcoal -hickory nutshell

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<u>Site/ Feature</u>	<u>Sample ID No.</u>	<u>Sample Context</u>	<u>Grab/ Float(1)</u>	<u>Total Wt.</u>	<u>Identified Contents</u>		<u>Comments</u>
					<u>Wt. /</u>	<u>Ct.</u>	
7	071	post-hole	g	.10	.10	1	-unid. wood charcoal
8	107	24-30cm	g	3.35	2.40	36	-unid. wood charcoal (2.40 g-14C sample)
					.31	3	-hickory nutshell
					.05	1	-corn kernel
					.38	1	-blackhaw (<i>Viburnum</i>)
					.05	1	-black cherry stone
	082	25-45cm	g	2.05	1.65	33	-unid. wood charcoal (1.65 g-14C sample)
					.30	3	-hickory nutshell
					.08	1	-common bean
	084	45-55cm	g	.50	.45	7	-unid. wood charcoal (0.45 g-14C sample)
	083	55-65cm	g	.35	.19	5	- <i>Carya</i> charcoal
					.03	2	-unid. wood charcoal (wood totaling 0.15 gram weight for 14C)
	085	65-80cm	g	.85	.70	12	-unid. wood charcoal (0.65 g-14C sample)
					.11	1	-hickory nutshell
9	106	S 1/2	g	16.80	.40	3	-ring-porous, most probably hickory
					6.23	121	-unid. wood charcoal
					3.07	42	-hickory nutshell
					.87	12	-corn kernels
	105	(wall scrapings)	g	2.70	.25	1	-ring-porous wood, probably hickory
					.95	10	-unid. wood charcoal

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<u>Site/ Feature</u>	<u>Sample ID No.</u>	<u>Sample Context</u>	<u>Grab/ Float(1)</u>	<u>Total Wt.</u>	<u>Identified Contents</u>		<u>Comments</u>
					<u>Wt. /</u>	<u>Ct.</u>	
					.20	5	-hickory nutshell
					.30	5	-corn kernels
	116	N 1/2	F(3)	8.90	4.60	138	-unid. wood charcoal
					.25	4	-hickory, probably pecan, nutshell
					.04	1	-corn kernel
					.15	1	-common bean
32	104	N & S	g	11.80	.50	5	-ring-porous, either hickory or walnut
					.15	1	-sycamore wood
					1.35	23	-unid. wood charcoal
					8.49	51	-black walnut shell
					.07	1	-corn kernel
	119	N 1/2	F(3)	13.15	8.29	237	-unid. wood charcoal
					1.25	9	-black walnut shell
34	103	N 1/2	g	.05	.05	1	-unid. wood charcoal
53	102	N 1/2	g	1.20	.85	3	-oak wood charcoal
					.25	9	-unid. wood charcoal
					.10	1	-corn kernel
54	101	S 1/2	g	1.90	.75	4	-oak wood charcoal
					1.15	10	-unid. wood charcoal
	118	N 1/2	F(3)	4.95	3.45	50	-unid. wood charcoal
55	099	N 1/2	g	1.35	.70	3	-oak wood charcoal
					.55	6	-unid. wood charcoal
	100	S 1/2	g	1.85	1.00	5	-unid. wood charcoal

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
 PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	Identified Contents		Comments
					Wt. /	Ct.	
56	108	N 1/2	g	4.30	1.20	4 ✓	-oak wood charcoal
					2.75	25 ✓	-unid. wood charcoal
	098	S 1/2	g	4.30	2.00	5 ✓	-ring-porous, either hickory or walnut
					2.15	17 ✓	-unid. wood charcoal
	113	N 1/2	F(3)	3.12	3.05	127 ✓	-unid. wood charcoal
					.05	1	-unid. seed fragment
57	110	N 1/2	g	1.80	.20	2 ✓	-oak wood charcoal
					1.20	9 ✓	-unid. wood charcoal
	109	S 1/2	g	4.05	.40	3 ✓	-ring-porous, either hickory or walnut
					2.55	18 ✓	-unid. wood charcoal
					.20	2	-black walnut shell
	025	N 1/2, 0-55cm	F(2)	1.00	.70	19 ✓	-unid. wood charcoal
					.10	1	-hickory nutshell
11Wi-213B							
16	062	N 1/2, 0-40cm	g	10.75	4.70	15 ✓	-oak charcoal
					5.60	36 ✓	-unid. wood charcoal (combined 14C-8.25 g)
					.05	1	-hazelnut shell
	063	N 1/2, 40-80cm	g	.25	.25	1 ✓	-unid. wood charcoal
	061	S 1/2	g	11.85	5.15	15 ✓	-oak charcoal (5.15 g-14C sample)
					2.65	4 ✓	-ash wood charcoal
					.15	1 ✓	-ring-porous (<u>Juglans</u>)

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	-----Identified Contents-----		
					Wt. /	Ct. Comments	
					1.90	(33) ✓	-unid. wood charcoal
					.05	2	-corn kernels
	120	N 1/2	F(2)	.70	.20	(10) ✓	-unid. wood charcoal
	020	N 1/2, 0-40cm	F(2)	5.25	1.65	(67) ✓	-unid. wood charcoal
					.05	1	-corn kernel
	018	N 1/2, 40-80cm	F(3)	2.30	1.50	(12) ✓	-unid. wood charcoal
					.01	1	-corn cupule
26	060	all	g	14.15	2.10	(6) ✓	-oak wood charcoal
					11.20	(96) ✓	-unid. wood charcoal
					.30	3	-hickory nutshell
	017	0-10cm	F(2)	4.25	2.48	100+	-unsorted charcoal
					1.65	(54) ✓	-unid. wood charcoal
					.05	1	-corn kernel
					.01	1	-smooth sumac seed
	019	10cm	F(2)	2.35	.40	(16) ✓	-unid. wood charcoal
26A	064	Trench, L-1	g	3.11	2.93	(187) ✓	-unid. wood charcoal
27	065	Trench, L-1	g	5.80	1.55	(3) ✓	-oak wood charcoal
					.35	(1) ✓	-hickory charcoal
					3.90	(20) ✓	-unid. wood charcoal
	066	N 1/2	g	9.80	4.70	(6) ✓	-semi-ring-porous, probably hickory or walnut charcoal
					2.35	(12) ✓	-unid. wood charcoal
Pit 1	067		g	.05	.05	(1) ✓	-unid. wood charcoal

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
 PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	Identified Contents		Comments
					Wt. /	Ct.	
PH 5	068	Area A, basin	g	.35	.30	8 ✓	-unid. wood charcoal
11Wi-213C							
1	048	N 1/2, 0-40cm	g	4.05	1.05 2.75	5 ✓ 24 ✓	-oak wood charcoal -unid. wood charcoal
	047	S 1/2	g	.05	.05	2 ✓	-unid. wood charcoal
	012	N 1/2, 10-20cm	F(2)	.40	.08 .02	2 1	-elderberry seeds (<u>Sambucus</u>) -unid. seed
	008	N 1/2, 55cm	F(2)	2.95	.90 .01	40 ✓ 1	-unid. wood charcoal -bedstraw seed (<u>Galium</u>)
	013	S 1/2, 60cm	F(2)	2.00	1.64	81 ✓	-unid. wood charcoal
4	049	N & S	g	1.75	.65 .25 .80	3 ✓ 3 ✓ 6 ✓	-oak wood charcoal -semi-ring-porous wood charcoal -unid. wood charcoal
	007	basin	F(2)	.90	.35	7 ✓	-unid. wood charcoal
8	050	N & S	g	2.30	.80 .30 1.20	1 ✓ 2 ✓ 7 ✓	-sycamore charcoal -semi-ring-porous, probably <u>Juglans</u> -unid. wood charcoal
	010	N 1/2, 0-5cm	F(2)				-nothing in sample

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	-----Identified Contents-----		
					Wt. /	Ct. <u>Comments</u>	
10	052	N 1/2, lower	g	10.25	1.38 .25 7.80	(2) ✓ (6) ✓ (59) ✓	-hickory charcoal -unid. stem wood -unid. wood charcoal (all used for 14C)
	051	S 1/2	g	10.20	2.20 7.75	(2) ✓ (36) ✓	-hickory charcoal -unid. wood charcoal
	122	25cm	F(2)	2.70	1.74 .85	100+ (46) ✓	-unsorted charcoal -unid. wood charcoal
	011	N 1/2, upper	F(3)	.30	.01	1	-goosefoot seed
	015	N 1/2, lower	F(3)	7.60	1.35 .01 .35 .10	(21) ✓ 1 4 10	-unid. wood charcoal -corn cupule -common beans -unid. fragments, probably beans
11	121	W 1/2, 10cm	F(3)	3.40	2.90	(26) ✓	-unid. wood charcoal
					.02	2	-corn kernel pieces
					.01	1	-corn cupule
					.01	1	-smooth sumac seed
12	054	trench	g	5.90	1.65 4.25	(2) ✓ (21) ✓	-semi-ring-porous, probably <u>Juglans</u> -unid. wood charcoal (4.25 g for 14C)
	046	N 1/2, Area A	g	20.85	19.51 .23	(196) ✓ 4	-all ring-porous, <u>Carya</u> and/or <u>Juglans</u> -hickory nutshell
	055	N 1/2, Area D	g	12.35	8.64	(96) ✓	-ring-porous, either hickory or walnut

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
 PHASE II ARCHAEOBOTANICAL REMAINS

<u>Site/ Feature</u>	<u>Sample ID No.</u>	<u>Sample Context</u>	<u>Grab/ Float(1)</u>	<u>Total Wt.</u>	<u>Identified Contents</u>		<u>Comments</u>
					<u>Wt. /</u>	<u>Ct.</u>	
					2.31	6	-diffuse-porous wood (10.95 g of both ring- and diffuse- porous wood for 14C)
	053	S 1/2	g	8.65	.75	8	-corn kernels
					1.20	4	-black ash charcoal
					6.70	211	-unid. wood charcoal (6.70 g for 14C)
	009	N 1/2, Area D	F(2)	5.85	2.50	69	-unid. wood charcoal
					.16	26	-knotweed seeds
14	056	S 1/2	g	.20	.20	4	-unid. wood charcoal
	006	S 1/2	F(2)	16.85	2.64	62	-unid. wood charcoal
					.32	45	-little barley seeds
					.11	20	-knotweed seeds
	123	basin	F(3)	24.00	17.80	186	-unid. wood charcoal
					4.18	200+	-unsorted charcoal
					.04	6	-squash rind pieces
					.09	10	-little barley seeds
					.01	1	-unid. seed
15	057	all	g	2.80	1.40	6	-oak wood charcoal
					1.40	21	-unid. wood charcoal
	014		F(4)	1.20	.20	4	-unid. wood charcoal
					.01	1	-hickory nutshell
16	094	N & S	g	.05	.05	3	-unid. wood charcoal

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
 PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	----- Identified Contents -----		Comments	
					Wt. /	Ct.		
PH B	016	E of F-4	f(2)	83.60	4.63	13	-maple or dogwood charcoal	
					18.80	217	-unid. wood charcoal (18.80 g for 14C)	
					.02	1	-hawthorn seed	
					.01	1	-hackberry seed	
					5.70	186	-corn cupules	
					.03	3	-corn kernels	
					50.79	-	<u>NOTE</u> -charcoal unsorted in its entirety, but sampled & estimated to contain:	
					(26.13	2954	-unid. wood charcoal	
					(24.66	2482	-small corn cupule & and cob fragments	
					PH 2	058	S 1/2	g
PH 5	059		g	27.25	26.25	73	-unid. wood that is only partially charred/incompletely combusted	
11Wi-654								
	1	033	all	g	.05	.05	1	-unid. wood charcoal
	2	034	all	g	2.20	.70	6	-diffuse-porous wood
						.94	20	-unid. wood charcoal
						.21	3	-hickory nutshell
						.33	4	-hazelnut shell
						.02	1	-Prunus, cherry pit

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	----- Identified Contents -----		Comments
					Wt. /	Ct.	
4	036	N & S	g	1.35	.56	2	-semi-ring-porous, probably <u>Carya</u> spp.
					.74	8	-unid. wood charcoal
	035	N & S, Area B	g	12.00	.74 11.00	1 70+	-cottonwood bark -unid. wood charcoal (5.60 g for 14C)
	125	N 1/2	F(2)	10.90	.26	4	-hickory nutshell
5	037	N & S	g	17.10	5.15	52	-unid. wood charcoal
	005	basin	F(2)	.40	15.00	91	- <u>Ulmus</u> , probably slippery elm
7	127	S 1/2	F(2)	22.20	.40	10	-unid. wood charcoal
					.05		
					5.45	8	-oak wood charcoal
					1.90	5	-hickory charcoal
				.90	3	-semi-ring-porous, probably <u>Carya</u> spp.	
				10.40	59	-unid. wood charcoal	
				.25	7	-corn kernels	
8	038	N & S	g	2.10	1.10	31	-unid. wood charcoal
					.05	1	-American plum stone
	004	N 1/2	F(2)	.55	.20	10	-unid. wood charcoal
					.10	1	- <u>Prunus</u> stone with flesh attached
10	002	all	F(2)	8.30	4.57	200+	-unsorted charcoal
					3.60	75	-unid. wood charcoal

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
 PHASE II ARCHAEOBOTANICAL REMAINS

Site/ Feature	Sample ID No.	Sample Context	Grab/ Float(1)	Total Wt.	Identified Contents		Comments
					Wt. /	Ct.	
11	039	all	g	4.40	.35	2	- <u>Juglans</u> charcoal
					.70	3	- <u>Fraxinus</u> or ash wood charcoal
					3.25	28	-unid. wood charcoal
	124	N 1/2	F(3)	3.15	1.80	35	-unid. wood charcoal
					.45	10	-corn kernels
12	040	all	g	1.95	.85	3	-ash wood charcoal
					1.00	15	-unid. wood charcoal
15	041	N & S	g	31.20	1.54	2	- <u>Celtis occidentalis</u> or hackberry wood charcoal
					.15	1	- <u>Sassafras albidum</u> wood charcoal
					2.35	5	-ring-porous wood
					.51	2	-diffuse-porous wood
					18.20	82	-unid. wood charcoal (13.00 g for 14C)
					8.48	1500+	-unsorted charcoal
	001	N 1/2	F(2)	2.95	1.30	50	-unid. wood charcoal
16	042	all	g	9.70	9.55	23	-unid. wood charcoal
17	043	all	g	3.00	.65	3	-semi-ring-porous, probably <u>Juglans</u>
					.60	26	-unid. wood charcoal
19	044	all	g	.35	.10	1	-hickory wood
					.25	2	-hickory nutshell

NEW LENOX PARK DISTRICT ARCHAEOLOGICAL PROJECT
 PHASE II ARCHAEOBOTANICAL REMAINS

<u>Site/ Feature</u>	<u>Sample ID No.</u>	<u>Sample Context</u>	<u>Grab/ Float(1)</u>	<u>Total Wt.</u>	<u>Identified Contents</u>		<u>Comments</u>
					<u>Wt. /</u>	<u>Ct.</u>	
	003	N 1/2	F(2)	.15	.10	4	-unid. wood charcoal
21	128	N 1/2, basin	F(2)	8.90	5.40 2.58 .20 .15 .05	144 200+ 3 1 1	-unid. bark charcoal -unsorted charcoal -hickory nutshell - <u>Juglans</u> sp. nutshell -hazelnut shell
PH 1	045	all	g	4.50	.80 2.90	51 22	-unid. wood charcoal -unid. bark charcoal
	126	N 1/2	F(2)	7.25	4.05 3.00	300+ 130	-unsorted charcoal -unid. wood charcoal
11Wi-657							
	1		g	1.90	1.85	19	-unid. wood charcoal

TOTALS							
5/49	128		79 grabs	997.72	866.53	33539+	
			----- 49 Floats (145 1)		718.76 147.77	17939 15600+	(sorted & examined) (unsorted, but scanned)