

UNIVERSITY OF WISCONSIN RADIOCARBON DATES VIII

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Radiocarbon dates obtained since August 1969 are included in this report. The procedures followed and equipment used have been described previously (Radiocarbon, 1966, v. 8, p. 522-533).

The dates reported have been calculated using 5568 as the half-life of C^{14} , 1950 as the reference year. The standard deviation quoted is the 1σ limit based on the counting statistics of background, sample, and standard counts. Since C^{12}/C^{13} ratios of only a few samples were measured, the dates as listed are not corrected for fractionation. Corrections are, however, included in the text for those samples for which the ratios were obtained.

ACKNOWLEDGMENTS

This research is supported by the National Science Foundation, Atmospheric Sciences Division, Grant GA-10651X. We are indebted to the Chemistry Department for the use of the Nuclide RMS-660 mass spectrometer.

SAMPLE DESCRIPTIONS

I. ARCHAEOLOGIC SAMPLES

A. Iowa

Jackson County, Iowa (13JK20)

Charcoal samples from Henry Schnoor Rock Shelter on Maquoketa R. in Jackson Co., Iowa (42° 10' N Lat, 90° 48' W Long) coll. 1969 by M. Jaehnig, Univ. of Wisconsin-Madison; subm. by D. A. Baerreis. Two earlier dates, WIS-344 and WIS-345 (Radiocarbon, 1970, v. 12, p. 335-345) were 170 (28 to 30 in. deep) and 970 A.D. (8 to 12 in. deep), respectively.

WIS-395. Jackson County, Iowa (13JK20) **1140 ± 60**
A.D. 810
Sample from Sq. N7B, Level 4, 14 to 16.5 in. deep.

WIS-396. Jackson County, Iowa (13JK20) **1830 ± 55**
A.D. 120
Sample from Sq. S4B, Level 4, 14 to 16 in. deep.

WIS-407. Jackson County, Iowa (13JK20) **3680 ± 70**
1730 B.C.

Charcoal from Sq. S5A, Levels 26 to 29, 52 to 58 in. deep. Levels are 2.5 ft below culture-bearing horizons but are at beginning of snail fauna sequence to be used in micro-habitat reconstruction.

Robert Battey Rock Shelter site (13JK21)

Charcoal samples from midden accumulation beneath overhang of rock shelter in town of South Fork, Jackson Co., Iowa (42° 07' N Lat, 90° 47' W Long). Coll. 1969, by M. Jaehnig; subm. by D. A. Baerreis.

WIS-400. Robert Battey Rock Shelter site **1400 ± 55**
(13JK21) **A.D. 550**

Sample from Sq. G1, 0 to 5 ft from shelter wall, Level 4, 12 to 16 in. deep.

WIS-399. Robert Battey Rock Shelter site **1470 ± 55**
(13JK21) **A.D. 480**

Sample from Sq. G1, Level 6, 20 to 24 in. deep.

WIS-401. Robert Battey Rock Shelter site **1360 ± 50**
(13JK21) **A.D. 590**

Sample from Sq. F2, 5 to 10 ft from shelter wall, Levels 4 and 5, 14 to 18 in. deep. Artifacts from levels indicate Late Woodland to Early Late Woodland occupation.

WIS-398. Robert Battey Rock Shelter site **7240 ± 80**
(13JK21) **5290 B.C.**

Sample from Sq. G3 and H3, 14 to 15 ft from shelter wall, Levels 11 and 12, 34 to 38 in. deep.

WIS-392. Rock Run Shelter series (13CD10) **4730 ± 50**
2780 B.C.

Charcoal from 64 to 72 in. depth of Rock Run Shelter site in Cedar Co., Iowa (41° 42' N Lat, 91° 11' W Long) coll. 1968 by R. Alex, State Univ. of Iowa; subm. by D. A. Baerreis. Other dates from this site were reported previously (Radiocarbon, 1969, v. 11, p. 229) and (Radiocarbon, 1970, v. 12, p. 335-345).

B. Illinois

Cahokia site, Mound 51

Uncharred bone of white-tailed deer (*Odocoileus virginianus vir.*) from 6 natural zones of aboriginal deposition in large refuse-filled pit below base of Mound 51 of Illinois Archaeol. Survey Site S-34-2 (38° 39' 30" N Lat, 90° 03' 34" W Long), St. Clair Co., Illinois. Coll. 1967 by C. J. Bareis; subm. by W. W. Chmurny, both Univ. of Illinois, Urbana-Champaign. The C^{12}/C^{13} ratios of these samples were measured with a precision of $\pm 0.2\%$ and were calculated relative to the Chicago PDB standard. The radiocarbon dates are corrected in the text for C^{12}/C^{13} ratio deviations from the accepted average of -25% for wood (based on the PDB standard). *Comments* (C.J.B. and W.W.C.): close agreement of all dates except WIS-355 substantiates hypothesis that pit was filled within short time. Hypothesis is also supported by homogeneity of ceramic sample, absence of weathering between zones, and presence in all zones of faunal and plant remains of same, limited range of species. Omitting WIS-355, mean of other uncorrected dates, A.D. 1200, is 200 yr later than that expected for ceramic assemblage recovered from pit.

WIS-350. Cahokia site, Mound 51 **710 ± 45**
A.D. 1240

Specimen UI 106 from Zone E, Grid S50-53, E385-388, at depth

126.350 to 125.350 m above sea level. Corrected for δC^{13} of -22.4% , date is 750 ± 50 , A.D. 1200.

WIS-351. Cahokia site, Mound 51 **740 \pm 55**
A.D. 1210

Specimen UI 107 from Zone F, Grid S50-53, E385-388, at depth 126.270 to 125.175 m above sea level. Corrected for δC^{13} of -22.0% , date is 780 ± 60 , A.D. 1170.

WIS-352. Cahokia site, Mound 51 **750 \pm 60**
A.D. 1200

Specimen UI 123 from Zone H, Grid S51-52, E389-392, at depth 124.910 to 124.420 m above sea level. Date corrected for δC^{13} of -22.1% is 800 ± 65 , A.D. 1150.

WIS-355. Cahokia site, Mound 51 **610 \pm 55**
A.D. 1340

Specimen UI 122 from Zone G, Grid S50-53, E389-392, at depth 125.200 to 124.810 m above sea level. Date corrected for δC^{13} of -21.1% is 680 ± 60 , A.D. 1270.

WIS-356. Cahokia site, Mound 51 **770 \pm 45**
A.D. 1180

Specimen UI 116 from Zone D-1, Grid S50-53, E389-392, at depth 126.480 to 125.070 m above sea level. Date corrected for δC^{13} of -22.5% is 810 ± 50 , A.D. 1140.

WIS-360. Cahokia site, Mound 51 **780 \pm 55**
A.D. 1170

Sample from Zone D-2, Grid S47-50, E381-384, at depth 126.782 to 125.422 m above sea level, UI 135. Date corrected for δC^{13} of -22.8% is 815 ± 60 , A.D. 1135.

Three samples of nut hulls of *Carya laciniosa* (Michx. f.) Loud., shellbark hickory, from pit beneath base of Mound 51 were also dated to check dates obtained from bone samples. Coll. 1967 by C. J. Bareis; subm. by W. W. Chmurny. The C^{12}/C^{13} ratios of these samples were measured; dates corrected for C^{12}/C^{13} deviations from -25% are included in the text.

WIS-389. Cahokia site, Mound 51 **940 \pm 45**
A.D. 1010

Specimen UI 123F from Zone H, Grid S51-52, E389-392, 124.910 to 124.420 m above mean sea level. Date corrected for δC^{13} of -27.2% is 900 ± 50 , A.D. 1050.

WIS-390. Cahokia site, Mound 51 **920 \pm 50**
A.D. 1050

Specimen UI 122F from Zone G, Grid S50-53, E389-392, 125.200 to 124.810 m above mean sea level. Corrected for δC^{13} of -27.1% date is 890 ± 55 , A.D. 1060.

WIS-391. Cahokia site, Mound 51 **880 ± 60**
A.D. 1070

Specimen UI 135F, from Zone D2, Grid S47-50, E381-384, 126.782 to 125.422 m above mean sea level. Date corrected for δC^{13} of -27.3% is 850 ± 65 , A.D. 1100.

II. GEOLOGIC SAMPLES

WIS-388. Rock County, Wisconsin **12,680 ± 120**
10,730 B.C.

Spruce at base of 7.5 ft marsh deposits overlying sand. Dates initial vegetation after glaciation. Coll. 1968 in Rock C., Wisconsin ($42^{\circ} 50' N$ Lat, $89^{\circ} 00' W$ Long) by J. H. Elliott; subm. by R. F. Black, Univ. of Wisconsin-Madison.

Lunkaransar Salt Lake, Rajasthan, India

Fine, disseminated carbon concentrated from lacustrine silty clay from pit in bed of Lunkaransar Salt Lake, Dist. Bikaner, Rajasthan, India ($28^{\circ} 50' N$ Lat, $73^{\circ} 80' E$ Long). Coll. 1968 by Gurdip Singh, Birbal Sahni Inst. of Palaeobot., Lucknow, India; subm. by R. A. Bryson. Samples are related to pollen chronology of Rajasthan lake deposits (Singh, 1968) and history of Rajasthan Desert.

WIS-387. Lunkaransar Salt Lake **5060 ± 70**
3110 B.C.

Sample (B.S.I.P. 1023A/RC-14) from 120 to 130 cm depth. Level marks top of lower Cerealia pollen zone.

WIS-386. Lunkaransar Salt Lake **5420 ± 70**
3470 B.C.

Sample (B.S.I.P. 1023A/RC-13) from 130 to 140 cm depth. Level is within lower zone of Cerealia pollen.

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