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RADIOCARBON AND ARTIFACT CHRONOLOGY OF THE PROTOHISTORIC CABORN SITE (12 PO 32), POSEY COUNTY, INDIANA

The Caborn site (12 Po 32) is one of the two type sites of the protohistoric Mississippian Caborn-Welborn phase, which has been generally dated AD 1400-1700 on the basis of C14 dates and small numbers of European trade goods at some sites of the phase. The site is a small village located on the Ohio River floodplain. Intensive surveys followed by test excavations in 1988 delineated the Mississippian occupation and recognized a minor Late Woodland (Yankeetown Phase) component at the site. The goals of the test excavations included collection of artifact and C14 samples for comparison with other Mississippian sites.

Three C14 samples from the Caborn site excavations were run following paleobotanical analyses to detect contamination of samples by coal, a material which is common in the site's deposits. Each sample was collected from deposits containing ceramics having incised and punctated decorations and "thumbnail" endscrapers that are diagnostic of the phase. The sample from pit Feature 17 is also associated with a fragmentary disk pipe, another artifact type that occurs on many sites of the phase. None of the dated deposits produced certain evidence of European trade goods in association with Caborn-Welborn phase materials, though surface surveys identified brass gorget with a plow-disturbed burial and another fragmentary brass artifact.

Results of the initial C14 assays for the Caborn site and comparative information for other Caborn-Welborn phase sites are:

Site		Calibrated Age Range		
Sample No.	Location	¹⁴ C	Age BP	(intercept/intercepts)
B-38382	Caborn Fea. 18, small pit	380+/-50		AD 1440 (1476) 1625
1416	B-38381 Caborn Fea. 17, lens in stratified pit	570+/-50		AD 1311 (1332, 1343, 1394)
1411	B-39278 Caborn Buried Midden	580+/40		AD 1310(1330, 1347, 1393)
	RL-82 Leonard	460+/-125*		AD 1328 (1435) 1621
1615) 1955	RL-83 Leonard	345+/190*		AD 1410 (1513), 1602,
	DIC-2360 Hovey Lake	250+/-60*		AD 1619 (1644) 1667

*not corrected for isotopic fractionation C13/ C14 Calibrations for 1 Sigma from CALIB

computer program following M. Stuiver and B. Becker, 1986 Radiocarbon.

Although the age range for Caborn site Feature 18 does not overlap those for Feature 17, and the buried midden, it fits well with the tight age range for the Hovey lake site and the two long ranges for the Leonard site. The similar age ranges for Feature 17 and the buried midden overlap the long ranges for the Leonard site but also overlap some age ranges for the Mississippian Angel phase, which generally dates AD 1100 to 1400. Significantly, no Angel phase materials were found in excavation or survey, despite the extensive Caborn site collections.

Preliminary analysis of Caborn site ceramic samples indicates minor percentages of grog or grit tempered Late Woodland pottery throughout the midden and in Feature 17, suggesting the possibility that the carbon in the oldest samples derived in part from this earlier occupation. The use of aged trees (from field clearing or driftwood) as firewood is another potential source of dating error for the lens of charred wood fragments in Feature 17. Except for temper, ceramic comparisons indicate little consistency among the three age ranges. Feature 18 ceramics have more (15.0%) body decoration (incised, punctated, incised/punctated, engraved, or red filmed) than the shell tempered pottery in Feature 17 (9.2% to 12.3% by stratum) and the midden samples (2.89% to 4.6% by level). The proportions of various types of decorations show a different pattern, with Feature 17 contrasting markedly with the other two dated contexts.

Assuming all three C14 assays for Caborn site correctly apply to some portion of the occupation span, the beginning of the Mississippian occupation would have occurred sometime between the early 1300s and the early 1400s. The trade goods from the site, which fit well with the age range for one sample, extend the Mississippian occupation at least to the end of the 1500s or early 1600s. Such a long occupation span is not consistent with artifact and features densities, however. This discrepancy highlights the occurrence in the two oldest samples of Late Woodland pottery and the lack of internal consistency between age ranges and Mississippian ceramic attributes.

Additional C14 dates from Caborn site are planned to more precisely date the Mississippian occupation span, once flotation samples are analyzed and carbonized maize can be utilized for chronometric assays. A suite of dates on maize from its and various midden levels should eliminate the problem of dating "old wood" and minimize the possibility of incorporating carbon from the Late Woodland component.

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