

## Supplemental Text 1.

### Morton Village Excavations

Morton Village and Norris Farms 36 are located on the western bluffs of the Illinois River directly overlooking a backwater wetland complex in Fulton County, Illinois. First documented by University of Chicago researchers as part of the Morton Complex, a much larger expanse of Archaic to Mississippian habitations and mounds (Cole and Deuel 1937; Harn 1990), Morton Village is primarily associated with its Oneota and Mississippian occupation. Covering an area of approximately 9 ha on a broad, relatively flat stretch of the main bluff, the village extends onto several narrower ridges radiating from this central area. The greatest concentration of structures and pits is in the north part of the site covering an area of about 4 ha. The cemetery, Norris Farms 36, positioned at the end of one narrow ridge extending to the southeast of the village, was discovered in 1984 (Harn 1990). Investigations in the 1980s related to compliance and salvage work included excavation of the cemetery and limited areas within the village (see Santure et al. 1990). Michigan State University with Dickson Mounds Museum conducted excavations with field schools and/or graduate students and volunteers each summer from 2008 through 2017.

After initial exploratory transects, remote sensing surveys carried out by Tim Horsley and Matt Pike informed excavations. In three sessions between 2010 and 2014, an area of 7.38 ha was surveyed with a magnetometer, and in 2014 1,500 m<sup>2</sup> was investigated with ground-penetrating radar (Horsley 2010; Horsley et al. 2015; Pike 2013). Structure basins and pit features were easily identified in the remote sensing data, although historic disturbance from razed farm buildings precluded collecting data from an area about 1,500 m<sup>2</sup>. Our excavations covered 843 m<sup>2</sup> and were designed to sample a broad spatial area.

Our excavations and those from the 1980s identified 329 prehistoric features, primarily pits. The remote sensing surveys and recent excavations identified 146 possible or likely structure locations. Forty-eight structures were excavated and only six of these completely. We partially excavated or sampled, with a 2-x-2-m unit along one of the walls, the remaining 42 to identify wall type and recover a limited sample of floor artifacts.

#### *Chronology*

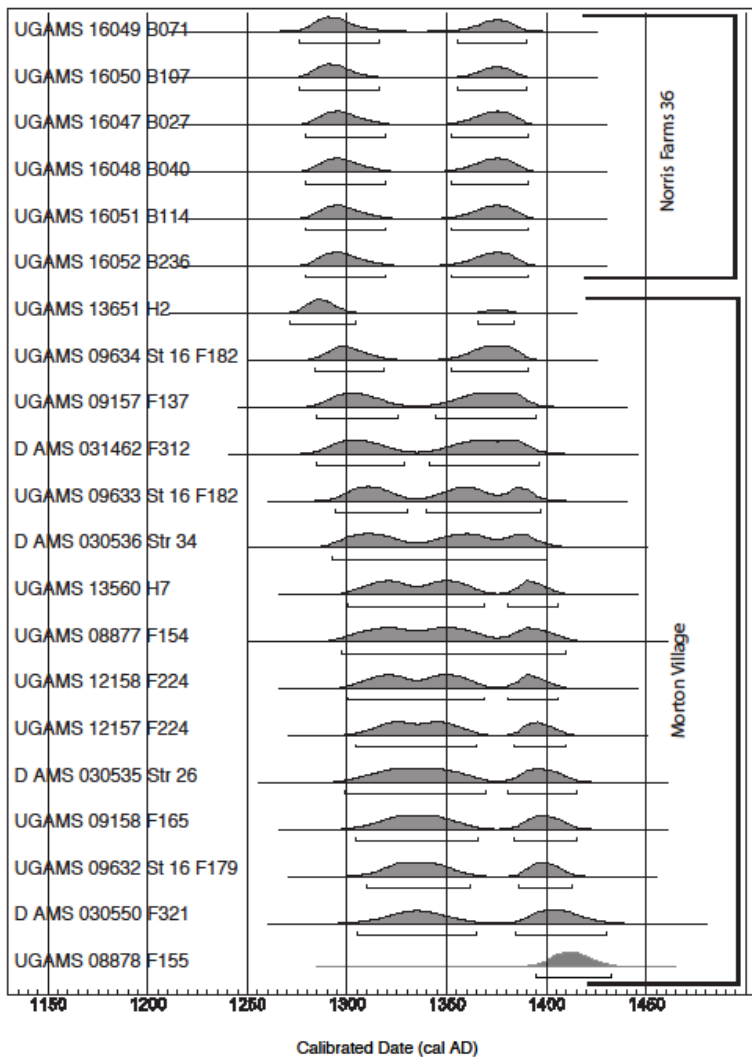
The current project expanded standard radiocarbon data obtained in the 1980s (Esarey and Santure 1990:164) and recalibrated by Esarey and Conrad (1998:51) that dated the cemetery and village to calibrated A.D. 1275 and 1390.

New dates obtained by our project include 15 AMS dates on short-lived species or char from pottery vessels (Supplemental Figure 1). Detailed analysis of radiocarbon data will be published elsewhere, but for our purposes here, it is sufficient to say the results are very consistent and suggest use of the village and cemetery primarily in the fourteenth century. Thirteen of the 15 village dates have calibrated 2  $\sigma$  ranges largely within the 1300s and median probabilities between 1345 and 1360 (Supplemental Text 1, Figure 1). Two dates from the village indicate slightly earlier and slightly later use of the site area. Date UGAMS-13651 is from Structure 1-3, a wall-trench building about halfway between the main village area and the cemetery (Santure

and Esarey 1990). The structure and the few nearby pits contained diagnostic Mississippian ceramics but no Oneota material. The  $2\sigma$  range is between 1272 and 1302. It is possible that this represents a Mississippian structure that predates the main village and cemetery. Sample UGAMS-08878 is from Feature 155, a deep storage pit with Oneota and Mississippian ceramics. Its  $2\sigma$  range is cal A.D. 1399 to 1438, placing it after the majority of dates from the village and cemetery, possibly indicating limited use of the site after the main occupation. Calibrations in the figure below were done using OxCal Version 4.3.2 (Bronk 2017; Reimer et al. 2013).

Radiocarbon data reported here support an approximate A.D. 1300 date for migration of Oneota into the central Illinois River valley. The tempo and duration of the migration event or events are not currently known, nor is there enough detailed radiocarbon or other chronological indicators to parse out the sequence of Oneota occupation at regional sites.

Supplemental Text 1, Figure 1. New AMS dates from Morton Village and Norris Farms 36.



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## Supplemental Text 2.

### Evidence for Synchronous Occupation

Here we provide a synopsis of findings that clearly support the interpretation that Morton Village is a place of synchronous Mississippian and Oneota occupation—at least for a time— rather than a location of sequential occupation. We find it likely that there was a small, Mississippian presence at and/or slightly earlier than Oneota arrival. In addition to the dated structure noted above, other lines of evidence for this earlier Mississippian occupation include cemetery graves intrusive to one wall-trench house containing only Mississippian pottery (Santure et al. 1990). And, in the village, special purpose ritual structures are intrusive to three earlier wall-trench structures in what we interpret as a village realignment.

Evidence to support synchronous occupation of the village, following the small initial Mississippian occupation, include the following factors, some of which are detailed in the article:

- 1) A majority of wall-trench and single-post structures have both Oneota and Mississippian ceramics on their floors
- 2) Radiocarbon dates for two wall-trench structures in the main site area with mixed floor ceramics are in the same range as dates from contexts with Oneota ceramics, including those from two single-post structures
- 3) One of these wall-trench structures had four to five rebuilding episodes with a large section of an Oneota jar directly on top of one wall trench; it could only have been deposited when that wall trench was already filled in and a new one excavated nearby
- 4) Complete excavation of a wall-trench structure (Structure 26) destroyed by fire revealed Oneota and Mississippian pots on the floor
- 5) Of external pits with diagnostic ceramics, 48% have both Oneota and Mississippian ceramics, 41% have only Oneota, and just 10% are exclusively Mississippian, even in the central site area where wall-trench structures predominate

Considered together, the data support an interpretation of cohabitation of these two groups during the main occupation of the site.

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### **Supplemental Text 3.**

#### **Summary of the Unique Architecture of Structure 16 and Note on Human Remains**

Construction of Structure 16 began with the excavation of a sloping basin about 9 x 9 m in plan view at the top, larger than the typical domestic structures at the site, and about 40 cm deep. The basin was leveled out in the natural B horizon. A slightly mounded deposit of B horizon soils around the perimeter is referred to as the outer bench, into which individual wall posts were placed. About a meter from the wall posts, an inner basin was excavated with vertical walls; this inner basin extended about 20 cm below the bench and was approximately 6.5 x 6.5 m in plan view. An extension with an upward sloping floor located on the east side of the building extended 70 cm from the main walls. Wall posts were located along the perimeter of the extension suggesting an alcove rather than entryway function. Two features, one in the northeast corner (F203) and one in the southeast corner (F182), were intentionally incorporated into the building. Initially, these pit features were filled with soil and organic matter, and material possibly deposited as part of ritually charged construction activities. The inner basin cut into the features and the portions from the basin floor to the bench were filled with B-horizon soil such that the pit tops blended with the B horizon on the bench. Finally, the outer bench and face of the inner basin were then sealed with clay and this surface was hardened. This treatment was not uniformly preserved, but it is documented on the bench in the northwest corner and on the wall of the inner basin near the northwest and southwest corners. Whether the clay was hardened in some manner or baked during the fire that ultimately destroyed the building is unclear.

The structure was excavated over several field seasons with the human remains noted in the article located near the end of the excavation. Human remains discovered in the shallow basin within Structure 16 were examined by the Illinois Historic Preservation Agency's Human Skeletal Remains Protection Act Coordinator and reburied in situ following documentation (Conner and Cobb 2013).

#### **References Cited**

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