

Plan for Scientific Geophysical Surveys and Excavations
at the Collier Lodge Site (12 Pr 36)

Submitted to the
Indiana Department of Natural Resources,
Division of Historic Preservation and Archaeology

by

Mark R. Schurr
Associate Professor
Department of Anthropology
University of Notre Dame
Notre Dame, IN 46556
(574) 631-7638
Email: Mark.R.Schurr.1@nd.edu

April 18, 2006

Archaeological Background

Prior Field Work at the Collier Lodge Site

The Collier Lodge site (12 Pr 36), also known as Baum's Bridge, is located on the southern border of Porter County, Indiana on the northern edge of the former Kankakee Marsh. This location was first described as an archaeological site by McAllister (1932) as Porter County site number 36. At the time of McAllister's visit to the site, it was only one of two prehistoric sites in Porter County known to have produced pottery. From McAllister's description of sherds from the site, it is clear that they included grit-tempered Woodland period pottery (1,000 B.C. to A.D. 1100) and a few examples of shell-tempered sherds, an artifact type characteristic of the Upper Mississippian period (ca. A.D. 1100 to historic contact) in northwestern Indiana (Faulkner 1972; Schurr 2003).

The site was used throughout the historic period. Its original historic name was Potawattomie Ford. In 1836, Eaton established a ferry across the Kankakee near the site. He later attempted to establish a toll bridge in 1849 but it soon burned down and he reverted back to the ferry. Sawyer bought the property in 1857 and also attempted to maintain a bridge, but it was quickly swept away by drift. In 1863, the site was purchased by Baum, who built the first successful bridge across the Kankakee at this location, and the site has since been best known as Baum's Bridge. In 1865, the bridge was taken over by the county. The first hunting club was established in the vicinity in 1878. In 1898, the Collier Lodge was built at the site, and that building, although very deteriorated, is still standing. After Jim Collier's death in 1952, the site passed through the hands of several owners until it was purchased by John Hodson in 2001.

Today the site consists of a grassy lawn containing the Collier Lodge building and several small outbuildings. The site is located on a sandy ridge adjacent to a short segment of the original Kankakee River. A short portion of the channel was isolated as a sort of bayou or slough when the marsh was drained and this segment was bypassed by a drainage ditch to the south. Today, the borders of the old channel segment look much like they must have when the lodge was in use.

Prior Archaeological Field Work at the Site

The site has been the location of an on-going archaeological project by the University of Notre Dame and the Kankakee Valley Historical Society. The results to the 2003 and 2004 investigations were detailed in the permit application submitted in 2005 for the 2005 investigations that were supported in part by a Survey and Planning Grant from the Division of Historic Preservation and Archaeology. Prior investigations have combined geophysical surveys with excavation.

Results of the 2005 Season

The 2005 season consisted of three weeks on field work at the site from mid-June to early July in the summer of 2005. The project was directed by Mark R. Schurr, University of Notre Dame with the labor provided by members of the Kankakee Valley Historical Society. Students enrolled in Notre Dame's archaeology field school also participated.

The archaeological goals for the 2005 season, and the end results, were:

1. Conduct soil resistivity surveys with a 1 m probe spacing (instead of the 0.5 m spacing used in 2004) to try and detect deeper features that lie beneath the midden zone. Also evaluate the use of a Geonics EM38 conductivity meter as an alternative to the magnetic survey on magnetically noisy historic sites. The 1 m resistivity survey was completed. The results were basically similar to those obtained for the 0.5 m probe spacing so the survey provided little new information about the site. The test of the conductivity meter was completely unsuccessful because the data recorder was so old that it could not communicate with a PC running anything more recent than Windows 3.0.

2. Completely expose and document Feature 1, an intact layer of bricks that appears to represent part of the foundation or a hearth from a previously undocumented structure that once stood at the site.

The feature was completely exposed and found to consist of a hearth made of a rectangular box of bricks filled with marly clay. The northern end of the feature was badly disturbed, probably in the late 1900s, based on the artifacts found in the disturbed area. Two large square post molds were found to the east of the feature. The results of the 2005 excavations are consistent with the theory that the feature was part of a post-Removal (post 1840) cabin that was demolished in the 1890s when the Collier Lodge building was constructed. It appears that the cabin was oriented roughly perpendicular to the existing lodge building and extended to the east from the hearth. The unit that contained most of Feature 1 was also found to contain a prehistoric feature composed almost entirely of a dense deposit of fire cracked rock and oak charcoal. It appears to have been a prehistoric roasting pit of some type. Most of the FCR feature extended out of the unit to the northwest. A unit opened to the east to expose the southwest quadrant of this feature was not completed due to lack of time.

3. Complete Feature 3, an Upper Mississippian storage pit. In 2004, the feature was cross-sectioned and profiled but approximately 30 percent of it was covered and backfilled. The remaining portions of this stratified feature were removed and sampled for water screening and flotation. A key goal was to determine what was

stored in the pit. The shovel probe from 2003 that produced the Fifield Bold sherd was placed into this pit, dating the feature between A.D. 1300 – 1450.

The feature was completed in 2005, except the portions that lay under Feature 1, which could not be excavated. As noted above, it was originally thought that the feature was a storage pit lined with marly clay. The 2005 excavations showed that the clay was probably deposited in the upper portion of Feature 3 when it was disturbed by the construction of Feature 1. Instead of a storage pit, Feature 1 was probably used to roast water lily tubers, based its similarity to features used for that purpose at the Griesmer site (Faulkner 1972).

4. Expose and excavate Feature 7, a prehistoric feature located at the midden/subsoil junction. The feature was defined but not excavated in 2004 because it extended in the unit wall at a depth of 1 m below surface.

The feature was completed. It was a relatively small basin-shaped pit that produced few artifactual remains and appears to have been badly disturbed by roots or rodent activity. Its function is unknown. A flotation sample was taken from the feature fill and will eventually be analyzed to see what information it can provide.

5. Open at least one unit in the portion of the site south of the “tin shed”, where the magnetic survey indicates that there is a complex pattern of magnetic anomalies. These could be produced by relatively recent artifacts or could date to the Hunting Lodge era, one of the primary interpretive focuses at the site.

The tin shed was removed prior to the field season. A magnetic survey over the area suggested that the anomalies south of the shed represented historic debris that might have been deposited behind the shed because that area was hidden from the road. No excavations were conducted in this area for that reason.

6. Open one excavation unit under an area that was formerly covered by a concrete pad (the floor of a former garage). This area of the site had been inaccessible because of the concrete covering. After the concrete was removed in the spring of 2005, a patch of charcoal-stained soil was noted in the area.

A test unit placed over the charcoal patch located a prehistoric feature (Feature 10). By good fortune, the unit was placed so that the northwest corner removed the southwest quadrant of the feature and provided an excellent profile of it. Feature 10 is another Upper Mississippian roasting pit that was filled with midden debris after use. It produced prehistoric artifacts and faunal remains.

7. In addition to these goals, enough volunteer assistance was available to open a unit to the north of Feature 1 that defined the eastern limit of the historic disturbance to the feature. However, this unit was not completed in 2005 because of a lack of

time. Two units were also opened in the northeastern part of the site in an area that had produced artifacts dating to the late Removal period. One of the units was completed and revealed a relatively shallow soil profile and no evidence for features. The second unit was opened to the south of the first one to expand the search for features, but the season ended before it could be completed. A shovel probe survey was also conducted to the southeast of the core area of the site. The eastern end of the shovel probe area appeared to have been largely disturbed, but a small area about 15 m in diameter on the western end (nearest to the core of the site) might have a limited potential for intact features.

A complete report of the 2005 (and prior) investigations is now being prepared and draft will be submitted to the DHPA on May 15, 2006.

Proposed Investigations

1. Complete all three units that were left unfinished in 2005.
2. Conduct geophysical surveys with two new instruments to evaluate their effectiveness on a site containing a complex mix of prehistoric, historic, and modern deposits. The new surveys will include ground penetrating radar (GPR) surveys to be done with a Mala Ramac GPR equipped with 200 and 500 mHz antennas. A Bartington G601 gradiometer will also be evaluated. This instrument offers a slightly wider sensor spacing than the Geoscan FM36 that has been used at the site in the past. The wider sensor spacing may slightly increase the effective depth of the survey. The instrument should be capable of operating with a sensitivity of 0.1 nT, in comparison with a sensitivity of 1 nT, which is the best that can be achieved with the Geoscan instrument (the FM36 is theoretically capable of operating with a sensitivity of 0.1 nT but the sensor balancing configuration in Notre Dame's version of the instrument has never been up to the job).
3. Complete the excavation of Feature 10, the second Upper Mississippian roasting pit.
4. Expose the full extent of the prehistoric roasting pit northwest of Feature 1 to facilitate comparison of this feature with similar ones described from the Oak Forest site (Brown 1990:192-193).
5. Open additional units to the east and south of Feature 1 to search for additional postmolds and features associated with the cabin. An important goal in the cabin investigation is to determine its size and any additional details of its construction. This may ultimately require several seasons of work, so it probably will not be completely accomplished in 2006.

6. Place shovel probes to the east of the site core area to determine the eastern border of the artifact scatter associate with the site.
7. Train qualified members of the Kankakee Valley Historical Society to serve as unit leaders in future investigations.

Excavation Procedures

Investigation at the site will begin with the re-establishment of a metric site grid defined in 2003 by reference to several local benchmarks. Horizontal and vertical control of the excavations will be maintained by reference to the grid coordinate system.

Geophysical surveys will be conducted in grid units indexed to the areas surveyed in previous years. Grids will be shaped and placed as necessary to avoid obstacles. Test excavations will then be conducted to test hypotheses about feature distributions developed from the geophysical data and to assess the depth and integrity of midden deposits. All excavation will be done by hand, using either shovels or trowels. The maximum size of any single excavation unit will be 2 meters square. The units will be excavated in either arbitrary levels with a maximum thickness of 10 cm, or in archaeological levels defined by changes in soil color, texture, or artifactual content. Archaeological levels with a thickness greater than 10 cm will be subdivided into arbitrary 10 cm levels to maintain additional stratigraphic control. Soil colors will be described using the Munsell system (1990 edition). All excavated soil will be screened through 1/4 inch hardware cloth, except for soils which appear to contain high concentrations of microbotanical or microfaunal remains. Soils from these contexts will be processed using flotation recovery techniques. Additional soil samples will also be water screened to test whether very small artifacts (such as seed beads or gunshot) are present). Soil samples will also be collected from each archaeological stratum. Each archaeological level and feature will be documented using the appropriate form and by scaled maps with a resolution of 0.5 cm. Artifacts with significant spatial relations to each other or to other features will be piece-plotted. All artifacts collected will be recorded in a field specimen log to maintain associations between specimens and their archaeological contexts. Color slides and black and white photographs will be taken to document the excavations and a log book of all excavation photographs will be maintained. Standard film photographs will be supplemented with digital images. The completed field records and the photographs will be curated at the Archaeology Laboratory, University of Notre Dame. All artifacts collected during the excavation will be processed, catalogued, and will also be curated at the Archaeology Laboratory along with their associated documentation where they will be used for research and teaching.

It is now estimated that a maximum total area of approximately 10 m² will be excavated over the course of the project. At the conclusion of the excavation, all units will be backfilled and the site contours will be stabilized to prevent erosion. The

methods used in the field investigation will meet or exceed the standards described in Department of Natural Resources 312 IAC 22.

The scientific investigation will be conducted between May 29 and June 15, 2006. Personnel for the project will consist of students enrolled in Notre Dame's archaeology field school and volunteers from the Kankakee Valley Historical Society. The excavations will be directed by Dr. Mark R. Schurr. He has extensive experience in Indiana archaeology and human osteology (vita attached). Experienced and qualified KVHS members will receive intensive training in archaeological methods, especially in the creation of excavation records. Inexperienced KVHS members will be paired with more experienced people. They will begin by assisting with screening, flotation, and artifact processing, and will take on additional tasks as they are trained. All artifacts will be cleaned and receive an initial sorting in the field lab at the site.

A report of the results of the excavation along with an amended copy of the state archaeological inventory form for the site will be submitted to the Division of Historic Preservation and Archaeology one year after the excavations are completed. Further reports describing laboratory analysis of cultural and biological materials from the site will be submitted as these analyses are completed.

Statement on Human Burials

McAllister (1932) reported that several burials were found in the "immediate vicinity" of the site prior to 1931. Their cultural affiliation is unknown but it is assumed they were prehistoric. Local oral history holds that burials were found under the area of a porch on the Lodge. Based on a picture of the Lodge dating to the early twentieth century, the burials may have come from the river bank along the western edge of the lodge. This area is now heavily overgrown with vegetation and will not be investigated during the project.

The collection of human bone is not a goal of the project and all reasonable attempts will be made to avoid disturbing human burials. If human bone is accidentally encountered during excavation, all work in the excavation unit containing the bone will be immediately halted, and the Division of Historic Preservation and Archaeology will be notified within two working days. Any human remains encountered will be treated in accordance with IC 14-21-1 and 312 IAC 22. We would then prefer to conduct the minimum amount of excavation necessary to determine the age and cultural affiliation of the burial (i.e., does it represent a prehistoric burial or a recent forensic case?), to document these findings, and to then cover the burial with soil and preserve it *in situ*. The landowners of each site have also requested that any burials that are accidentally encountered be preserved.

References Cited

Faulkner, C. H.

1972 *The Late Prehistoric Occupation of Northwestern Indiana: A Study of the Upper Mississippi Cultures of the Kankakee Valley*. Prehistory Research Series Vol. 5(1). Indiana Historical Society, Indianapolis, Indiana.

Hall, R. L.

1962 *The Archaeology of Carcajou Point: With an Interpretation of the Development of the Oneota Culture in Wisconsin*. University of Wisconsin Press, Madison, Wisconsin.

Brown, J. A. (ed.)

1990 The Oak Forest Site: Investigations into Oneota Subsistence-Settlement in the Cal-Sag Area of Cook County, Illinois. In *At the Edge of Prehistory: Huber Phase Archaeology in the Chicago Area*. Edited by J. A. Brown and P. J. O'Brien. pp. 123-308. Center for American Archaeology, Kampsville, Illinois.

McAllister, J. G.

1932 The Archaeology of Porter County. *Indiana History Bulletin* 10(1).

Schurr, Mark R.

2003 The Late Prehistory of Northwestern Indiana: New Perspectives on an Old Model. In *Facing the Final Millennium: Studies in the Late Prehistory of Indiana, A.D. 700 to 1700*. Edited by Brian G. Redmond and James R. Jones, III. pp. 4-31. Special issue of *Indiana Archaeology*, Division of Historic Preservation and Archaeology, Department of Natural Resources, Indianapolis.

Secunda, W. B., M. R. Schurr and M. Pribbernow

2002 *Investigations of Historic Potawatomi Villages in Northern Indiana*. Archaeology Laboratory, Report of Investigations 2002-1. Department of Anthropology, University of Notre Dame, Notre Dame, Indiana.