

Plan for Scientific Geophysical Surveys and Excavations
at the Collier Lodge Site (12 Pr 36)
2007 Season

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

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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 all prior field investigations from 2003 through 2005 have been reported in a single volume (Schurr 2006). Investigations in 2006, which were designed to follow up on uncompleted units and

unresolved issues from previous seasons, have not yet been reported. A brief synopsis follows. It will quickly be seen that the 2006 investigations discovered features that were too complicated to complete during the typical KVHS project field season.

Results of the 2006 Season

1. One of the units that remained uncompleted from the 2005 season was completed. This unit produced a debris field associated with the late nineteenth century disturbance of the brick fireplace foundation, a feature thought to represent a post mold from the cabin, and an Upper Mississippian roasting pit similar to Feature 10.
2. Geophysical surveys were conducted with the Bartington gradiometer and the Mala GPR system with both antennas. The results obtained with the Bartington gradiometer were not significantly different from those obtained with the Geoscan FM36, probably because the relatively large amount of historic metal at the site tends to dominate the magnetic results and masks weaker types of features that might be detectable on a site without a historic component. The GPR survey with the 250 MHz antenna covered most of the main site area (Figure 1). It revealed several shallow anomalies that could represent archaeological features, but interpretation was limited by a lack of experience with both the instrument and associated software. The 500 MHz antenna effectively located former units, showing that it can be used to document site disturbances. However, lack of operator experience produced very staggered data (Figure 2).
3. Only about an additional third of Feature 10, the Upper Mississippian roasting pit, was completed. The slow pace of work required by the emphasis on training members of the KVHS in field techniques limited the excavation volume. However, that training was an important part of the 2006 season and took priority over excavation. An Early Archaic projectile point was discovered adjacent to the pit, extending the site occupation to about 8,000 B.C.
4. A unit was opened to provide a cross-section of the rock-lined roasting pit (Feature 23) found in 2005. The full diameter of the feature was determined to be 1.1 m but the unit was not completed because a high density of bone fragments in the feature fill required many piece plots.
5. Personnel were available to open only one unit south of Feature 1 (the fireplace foundation). The unit identified what appears to be another large postmold to the south of those previously identified. The unit was not completed, although the postmold feature was well-defined against subsoil at the end of the season.

6. Shovel probes placed to the east of the site core area determined that prehistoric materials (especially Late Woodland ones) and historic artifacts extended 15 m to the east of the previously defined eastern limits of the site.
7. The 2006 season was conducted as a joint project between the University of Notre Dame Archaeology Field School and the KVHS. Four KVHS members volunteered to be trained as future unit leaders and participated in all activities of the field school. One of the most important accomplishments of the 2006 season was the creation of a small cadre of highly qualified team leaders for future projects.
8. One unit was opened to the southwest of the “deep test unit” to further explore horizontal patterning in this portion of the site. This unit identified a late Removal period refuse features (Features 17 and 20) that appears to represent animal bones left over from processing fur-bearing animals. Both features were only partially exposed because they extended into the walls of the unit.
9. A unit was opened near the river bank to document the soil stratigraphy in a previously unexplored portion of the site. The unit identified a buried A horizon at almost one meter below the surface. It is not known how this horizon relates to the surface of most of the site.
10. All artifacts collected in 2006 were processed and catalogued. Inventories by material type are attached as appendices to the accompanying site form.

Goals of the 2007 Season

The goals of the 2007 season are relatively modest and the number that will be accomplished will be determined primarily by the number of trained unit leaders available.

1. Repeat the GPR survey with the 250 MHz antenna to gain more experience in the application of GPR at the site and repeat the 500 MHz survey to produce well-referenced data.
2. Continue the excavation of Feature 10, the Upper Mississippian pit.
3. Complete the unit located to the south of the cabin and extend it further to the south if time permits to search for additional post molds.
4. Determine the limits of the fur-processing feature.

5. Place additional test units between the river bank and the core of the site to better define the stratigraphy in this portion of the site.
6. Continue with the excavation of the rock-lined roasting pit (Feature 23).
7. If any of these tasks are completed, additional units may be opened to search for postmolds associated with the cabin.

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 July 23 and August 15, 2007. Personnel for the project will consist of 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 serve as unit leaders. 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.

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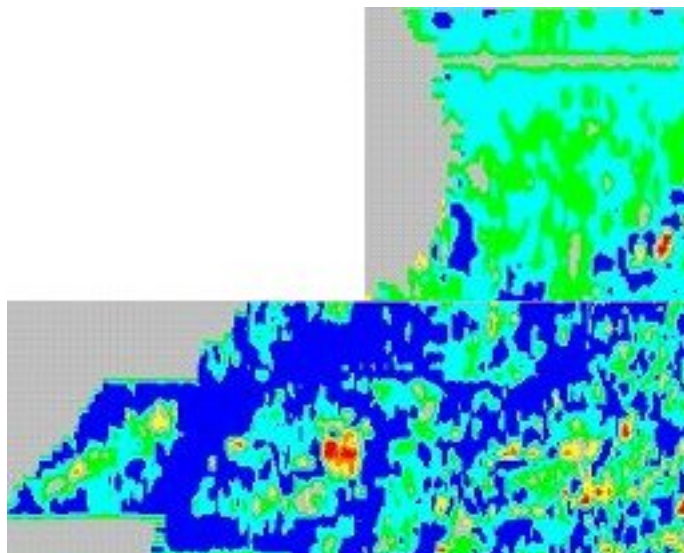


Figure 1: 250 MHz GPR Survey (15 ns slice)

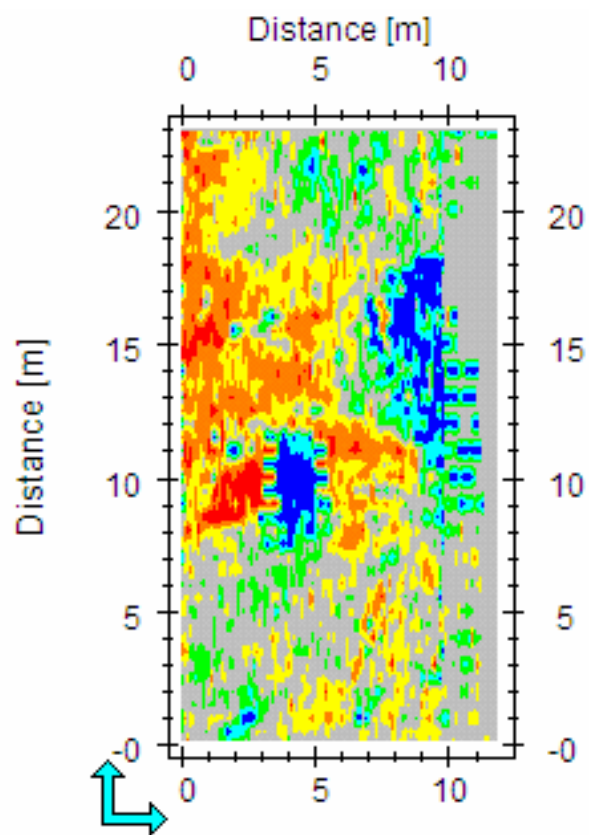


Figure 2: 500 MHz GPR Survey