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# Deciphering the Grand Village of the Illinois: A Preliminary Assessment of the Grand Village Research Project

Lenville J. Stelle, James A. Brown, Charles L. Rohrbaugh, Thomas E. Emerson, and Robert Jeske

On April 24, 1987, Thomas Emerson at the State Historic Preservation Office received a telephone call from a Chicago lawyer who wanted an answer to a simple question: "Are there any laws that protect old Indian villages and graves that are on the National Register?" Unfortunately, the answer was a simple "no." At the time, Emerson did not suspect that this question would initiate a more than four-year struggle to save one of the most important historic sites in the country. The site, known variously as the Zimmerman site, the Grand Village of the Kaskaskia, Old Kaskaskia Village, the Grand Village of the Illinois, or simply 11LS13, was purchased by developers who planned to build vacation homes on it. Eventually, after a private and public campaign that reached an international level, Governor James Thompson authorized the Illinois Historic Preservation Agency (IHPA) to seek condemnation of the property to bring it into public ownership. In April 1991, a final settlement was reached and the site was purchased by the state. It is currently under the administration of the IHPA and has been renamed the Grand Village of the Illinois State Historic Site.

The Grand Village is the most important surviving village and burial site of the seventeenth-century Illinois Confederacy. In addition, it is the location of the initial French-Illinois contact and of the first Catholic mission in the Illinois Country. The site also contains materials that represent an unbroken sequence of late prehistoric, protohistoric, and Historic Indian cultural development from the ninth to the last quarter of the eighteenth century.

The 90-acre portion of the site owned by the state was the location of Ken Orr's 1947 excavations for the University of Chicago, summarized by James Brown (1961), and of Margaret Brown's 1970–1972 excavations for the La Salle County Historical Society (Brown 1975). In addition to the prehistoric and early Historic components at the site, the residence on the site is a mid-nineteenth-century tavern (Old Sulphur Springs Hotel) erected in the 1850s to serve the Illinois and Michigan Canal trade that flourished at its front door.

In the summer of 1992, the Illinois Historic Preservation Agency initiated the Grand Village Research Project (GVRP) under the direction of Thomas Emerson, IHPA, and in conjunction with Dr. James Brown, Northwestern University; Dr. Charles Rohrbaugh, Archaeological Consultants, Inc.; Prof. Lenville Stelle, Parkland College; and Dr. Robert Jeske, Indiana University—Purdue University at Fort Wayne. Project funding has been generously provided by private donations from Mr. and Mrs. James Gallop. This long-term project is directed toward a fuller understanding of late-prehistoric cultural development and the impact of seventeenth-century French-Indian interaction on those cultures reflected at the Grand Village site. Although previous excavations demonstrate the presence of a long, unbroken sequence of Indian cultures culminating in the seventeenth-century Grand Village of the Illinois, no systematic investigations have ever been undertaken to understand the site's spatial dimensions, feature distribution, or material density. Consequently, these topics form a significant part of the current work at the site.

# The Grand Village Research Project (GVRP)

As the likely location of the Grand Village of the Kaskaskia described by Marquette, La Salle, and others, the site provides an unusual opportunity to examine archaeological questions focusing on the Contact period of North American history. It had also become abundantly clear over the four-year legal battle that little information of the type that would help IHPA manage

and protect the site was available. The specific site boundaries are uncertain but clearly exceed the property currently owned by the state. Almost nothing was known about the relative distribution and density of prehistoric and Historic period remains within the site area. It is also evident that shoreline erosion is affecting the integrity of the deposits, but to what degree was not clear. While LS13 was the object of several studies in the twentieth century, to date no systematic surface collection has been described nor, we believe, has one been undertaken. Controlled surface collections may not always be a necessary first step in guiding research (Redman 1987:251), but, in this case, it is warranted. It is one goal of the GVRP to collect such baseline data.

The objectives of the GVRP spatial analysis are essentially concerned with descriptive aspects of the site, culture history, and issues related to cultural resource management. The specific questions guiding the work are: (1) determine the extent to which site boundaries can be thought of as falling within the state's property; (2) locate and interpret activity areas by both function and component; (3) demonstrate both the synchronic and diachronic nature of village spatial segmentation; (4) address issues of population density and variability throughout the archaeological sequence; and (5) investigate questions of lithic-resource exploitation.

#### The Historical Record

Fortunately, as well as being a critical source of extant archaeological information about the seventeenth-century Illinois Indian Confederacy and the early French explorers and missionaries, the site is also blessed with a rich documentary record. These French sources have been ably summarized by Tucker (1946), James Brown (1961), and Margaret Brown (1975, 1979). The site first appears in the documentary sources in 1673 when it was visited by Joliet and Father Marquette in their ascent of the Illinois River. At the time it was occupied by the Kaskaskia (a subdivision of the Illinois Confederacy) and contained about 70 "cabins." In 1675, Father Marquette returned to found the first Roman Catholic mission in Illinois, the Mission of the Immaculate Conception. By 1677, the French missionary Father Allouez reported over 351 "cabins" and a population that numbered between 6,000 and 9,000. This increase in population was apparently caused by a number of other Illinois subdivisions joining the Kaskaskia. It is with some justification that the French referred to this site as the Grand Village of the Illinois.

The village was abandoned in 1680 because of an Iroquois raid that resulted in its being burned and many graves descrated. The Illinois returned to the site in 1682 after La Salle and Tonti built Fort St. Louis on Starved Rock. The village then included at least 300 "cabins," and portions of all the Illinois Confederacy subdivisions appear to have been present. The protection Fort St. Louis afforded from the Iroquois attracted a great number of other tribes to the area. Historical accounts indicate that both the Miami and the Shawnee occupied villages on the north side of the Illinois River in the vicinity of the Grand Village. By 1691, most of these Indian groups had moved from the area, with the Illinois going to the vicinity of present-day Peoria. During the period from 1700 to their final expulsion in 1769, the Peoria subdivision sporadically utilized the area.

#### Previous Research

LS13 has been the object of recurrent archaeological investigations since at least the 1940s. The first significant studies were the product of work done by the Ethnohistorical Laboratory of the University of Chicago. Under the direction of Sara Jones Tucker, the location of the Grand Village was, on the basis of historical documentation, tentatively established on the Zimmerman farm. The location was confirmed as an archaeological site with the promising potential of containing late-seventeenth-century European goods with aboriginal artifacts by two 1945 surface reconnaissances by Scotty MacNeish from the University of Chicago and Donald Wray on his own initiative.

As a consequence, Kenneth G. Orr and John C. McGregor of the University of Chicago and the Illinois State Museum joined forces in 1947 to follow through on this potential as part of new initiatives to connect archaeological manifestation with Historic period tribal entities. Although only one season was spent at the site, considerable material was recovered. The reports that were compiled on various topics by graduate students participating in the University of Chicago field school were intended to be part of a field report. Because the next two years shifted

attention solely to Starved Rock and nearby sites in the state park, the Zimmerman project was placed on hold although the basic lab analysis, map making, and art work had already been completed.

After Kenneth Orr left archaeology in 1950, Thorne Deuel resumed direction by hiring J. Joe Bauxer to bring together all of the manuscripts for publication. Although the 1947 work benefitted by this editorial effort, the project was left unfinished. The only result was a refinement of the earlier reporting. The project was resumed by James Brown in 1960, who assembled a unified report from the separate manuscripts prepared earlier. The publication that eventually resulted represented essentially Orr's ideas. The report was organized according to the original plan with refinements necessary to clarify his thesis of multicultural occupation at the site in the La Salle period. Donald Wray's collections were used to amplify the 1947 work. As a consequence, the 1961 report (Brown [1961], A Report on Excavations at the Grand Village of Kaskaskia) brought together the results of a research project conceived and executed in the late 1940s. The report established several parameters that are of significance to an understanding of the site.

In her review of the historical literature, Sara Tucker concluded that the village was located one-half league (1.5 to 2 km) upstream of Starved Rock and on the north bank of the river. She accepted La Salle's description of the pre-1680 village as displaying a linear configuration a quarter of a league wide (1 km) and a league long (3.2 to 4 km) (Brown 1961:11). Lastly, she allowed for a population peak of 6,000–9,000 people.

The 1940s explorations of the site had established four "grids" (A through D). Grid D was not located on the Zimmerman farm; it was across the fence to the west on what was historically the Leopold (then Heally and now the Connerton) property. The placement of the four grids in 1947 was not done on the basis of a controlled surface collection but rather, to an unknown extent, "by the farmer's wishes to protect his crop" (Brown 1975:3). Their placement appears to have been determined by property limits, with Grid A and B being separated by a pasture. The isolation of Grid C from A was never explained, but experience in the area during 1992 reveals that the two are separated by a low-lying fringe of woods with little material in evidence. The four grids employed three different datum points, one of which was a hackberry tree and all of which are gone. The initial survey of 1945 had focused on an area in what was later defined as Grid A. It is also possible that the area that became Grid C was visited as well. No observations were recorded respecting the distribution of occupations. These 1945 surface collections and a visit by Elaine Bluhm and Gloria Fenner in 1959 were essentially opportunistic grab samples.

The property identified as Grid D was excavated briefly during the summer of 1947. The eastern half of the Zimmerman farm (Grid B) could only be excavated the following fall after the harvest. Excavation was the sole means for tracing the distribution of occupation. Despite the intensive work of 1947, no observations were recorded concerning the site limits or occupational differences within the site.

The University of Chicago work identified five components for the site: Heally, Swanson, Danner, Historic Heally (Hitt), and Zimmerman (Orr 1949). Heally and Swanson were identified as prehistoric; Danner was thought to be associated with the Shawnee and Historic Heally with the Kaskaskia. Zimmerman was an unassigned Historic period component. Subsequent work at the site has shown Historic Heally to be a mixture of historic and prehistoric components, the ethnic affiliation of Danner to be open to question, and the separate integrity of the Zimmerman component is also open to question (Brown 1975).

The second important study of the Zimmerman site was conducted by Margaret Kimball Brown in 1970 and 1971. Building upon the 1947 excavations, she (Brown 1975:5) examined Grids A and B in a more thorough fashion. Brown's only observations regarding the nature of the surface distribution was that the:

Surface scatter indicated that occupation in Grid A extended 200 to 250 feet back from the river and originally 30 to 40 feet more to the south into the present river bed. The village stretched in a fairly narrow band along the river from close to the small inlet separating Grids A and B (J. Brown 1961:Fig. 1) nearly to the present wooded area on the west. A portion of the area on the west between the presently designated Grids A and C appears not to have been utilized, at least for subsurface features [Brown 1975:68].

Table 1. <sup>14</sup>C Assays from the Grand Village of the Illinois State Historic Site.

Provenience	Lab Number	Date	
Fisher phase			
Feature 18	ISGS-2471	$940 \pm 70 \text{ B.P.}$	
Heally phase			
Feature 1	Beta-23517	$790 \pm 90$ B.P.	
Feature 2	Beta-23518	$710 \pm 80 \text{ B.P.}$	
Feature 6	Beta-23519	$1080 \pm 90$ B.P.	
Feature 13	ISGS-2470	$760 \pm 70 \text{ B.P.}$	
Feature 13	ISGS-2474	$750 \pm 90 \text{ B.P.}$	
Feature 17	ISGS-2476	$720 \pm 70$ B.P.	
Feature 23	ISGS-2475	$760 \pm 70$ B.P.	
Feature 25	ISGS-2467	$730 \pm 70$ B.P.	
Uncertain context			
Feature 12	ISGS-2466	$730 \pm 70 \text{ B.P.}$	

Note: The dates from Beta Analytical are reported in Jeske and Hart (1988).

This is a substantially smaller village area than that indicated in the French accounts cited in the 1961 publication.

Brown (1975:72) concluded that there were only four components at the site: two prehistoric, Heally and Swanson, and two Historic, Huber (Miami?) and Danner (Illinois). Of special relevance for the planned surface collections and spatial analysis was her (Brown 1975:43) observation, "as was noted in 1947, the Zimmerman Site does not exhibit significant vertical

stratigraphy, the components present being distributed horizontally over the site."

In 1987 Robert Jeske conducted test excavations at the Grand Village as part a National Park Service project (Jeske and Hart 1988:83–118). Two units were placed in Orr's Grid D and four north of Grid A. As in much of the other work conducted at the site, a number of subsurface features were exposed. In addition to providing information on areas of the site previously untested, the efforts yielded the first set of radiocarbon assays from good context. The dates, all associated with Langford assemblages, were  $1080 \pm 90$  B.P.:A.D. 981 (Beta-23519),  $710 \pm 80$  B.P.:A.D. 1280 (Beta-23518), and  $790 \pm 90$  B.P.:A.D. 1257 (Beta-23517) (Table 1).

The most recent research was actually initiated as part of this project. In early 1991, it appeared that the state would have access to the site for the upcoming field season and encouraged James Brown to conduct a field school (Brown et al. 1991). When access to the site was not possible, Brown gained permission to test the Connerton (or Heally) property immediately to the west of the state-owned land where the University of Chicago's Grid D had been located. Although the excavations only involved a 2-x-2-m square, over one dozen archaeological features were exposed and sampled. This work provided new insight into the complexity of the prehistoric occupations present at the Grand Village. A series of radiocarbon dates were returned on samples submitted to the Illinois State Geological Survey Radiocarbon Laboratory. They support the identification of two and possibly three separate prehistoric archaeological components. Five of the dates are on materials from pit features containing classic Heally phase (Langford tradition) ceramics (Table 1).

The five dates are reasonably close to two (790 B.P. [Beta-23517] and 710 B.P. [Beta-23518]) of the three dates run on pit feature material recovered in 1987 and can be regarded as representing the same component. A calibrated average of the five ISGS dates is A.D. 1276 (1  $\sigma$  range from 1259 to 1280). The calibrated average of these together with the two Beta Analytic dates is the same. Altogether the assemblage and  $^{14}\mathrm{C}$  assays indicate a tightly dated occupation.

A second and earlier component was defined by shell-tempered Fisher pottery from a single pit feature (Feature 18). It dated to a significantly earlier ( $940 \pm 70$  B.P. [ISGS-2471]) period.

The calibrated conversion has three intercepts: A.D. 1037, 1142, and 1149 (1  $\sigma$  range from 1001 to 1189), all measurably earlier than the Heally phase dates.

A third component may be indicated by a date of intermediate age from a pit feature containing some Langford ceramics and a single rim sherd of the Starved Rock Collared type (Feature 12, 830  $\pm$  80 B.P. [ISGS-2466]). Unfortunately, the latter rim sherd is rather small and may be an accidental inclusion within what was otherwise an impoverished feature of later date. A calibrated date of A.D. 1215 (1  $\sigma$  range from 1068 to 1276) places this feature very close to the beginning of the Heally phase.

In addition to these prehistoric features, four pits contained abundant evidence from the Historic period aboriginal component at the site. They contained Danner pottery, seed beads, brass scrap, and tinklers.

In conclusion, the revised component assignments of the 1991 season's operation at 11LS13 were: (1) an unnamed phase of the Fisher-Huber tradition (1100s, Feature 18); (2) the Heally phase of the Langford tradition (1250–1290, Features 13, 14, 17, 21, 23/24, 25, and 26; possible earlier phase of the Langford tradition, Feature 12); and (3) the Danner phase of the Middle Historic period (1680s, Features 11, 16, 19, and 22).

## Reconstruction of Site Physiography

An important aspect of our current research has been to increase our understanding of the site's topographic and physical evolution. Exploring the historical records has been central to this effort. The GLO survey of the section lines defining the north and west margins of the Grand Village was completed by William Rector on October 9, 1821. His field notes indicate that the original line between Sections 22 and 23, the west margin of the property, intersected the shore of the river 200 m south of its modern location. In recording this position Rector observes that it was situated at "the head of the rapids." (Rector 1822:14). The field notes make no mention of preexisting cultural features. At the time of the survey, the entire site and the surrounding river bottom supported an extensive prairie. Along the property lines of the Zimmerman farm, Rector's description is "level sandy prairie." This floristic community also pertained to the several Leopold Islands as well as Delbridge Island.

Further clarification of the river's features are offered by the navigational charts in the "Hydrographic Notes of the Illinois River from East Ottawa to the Confluence with Canal at Lasalle. Book No. 2," Illinois River Series A, for November 1874 on file at the Rock Island U.S. Corps of Engineers (courtesy of Mr. Ron Deiss). The rapids, caused by a submerged boulder field at the aforementioned section lines, is the first of several extending down to Starved Rock in the main channel. In the inner channel, the uppermost lies at the east tip of Delbridge Island. Thus, most of the river frontage contained swift, moving water prior to the dam construction raising the water level. These rapids could be negotiated by steamboats during high water but were effective blocks to traffic at low water. Far more significant for native cultures was the enhanced fishing potential offered by the chain of rapids.

The GLO and navigational data suggest several points of discussion. The first is the location of the rapids and village. The Marquette narrative of the ascent of the Illinois River in mid-summer 1673 indicates that the rapids referred to by Rector were the first to be encountered as one traveled upstream. Marquette observes that the rapids required a "portage of half a league" (Thwaites 1900:161). The relation states that, "we found on it a village of Illinois called Kaskaskia, consisting of 74 Cabins" (Thwaites 1900:161). The rapids, with the associated portage, appear to be the critical environmental determinant for the village's location, at least at the time of Marquette's initial contact. (These rapids were likely also a factor in the site's importance in prehistoric times.) Secondly, the main channel of the river now follows the bed of the rapids. Missing from the Grand Village property is a wedge of land 200 m along its base and 320 m in length (32,000 m2). Consequently, some or all of the village of Marquette's time and later may have been destroyed with the construction of the lock and dam. Lastly, the best preservation of the original river front would be to the east of what was referred to in the 1947 excavations as Grid A1. Even this stretch of river bank had features, including burials (Brown 1961:63), eroding from it prior to 1947. Margaret Brown speculated in 1975 "that probably thirty feet of the bank have now been lost" (Brown 1975:10).

#### Results of the 1992 Field Season

The Controlled Surface Collection

Stelle (1992) was responsible for conducting the controlled surface collection in 1992. IHPA made available the fields to the west (West Field) and south (Spring Pasture) of the house (Figure 1). The Spring Pasture was not only topographically unique but held the promise of having never been cultivated. Erosional features and disturbed areas were surface collected. A line of 13 shovel probes were excavated to either bedrock or a depth of 1 m. The disappointing results of this work indicated that there were few intact deposits in this area,

The West Field amounts to the western one-third (ca. 30 acres) of the property. The field was plowed and disked approximately two weeks prior to the surface collection, producing a surface visibility that was always greater than 95%. The area was gridded into 5-x-5-m squares creating 5,798 discrete collection units. Each collection unit received a minimum five-minute pedestrian survey with a goal of 100% recovery. All material was collected except large rock (over one-half fist size), which was counted and left in the field. A crew of 21 students, under Stelle's supervision, completed the field work in a period of three weeks. A systematic limitation on the recovery was that no measurable precipitation fell on this field from the time it was plowed until the collection was completed some five weeks later.

As debris bags were logged through the cataloging process, frequency counts of debris categories were made and recorded. The total recovery numbered 16,155 objects: 4,610 rough and fire-cracked rocks, 36 chert bifaces, 8,162 other stone artifacts and debitage, 527 aboriginal sherds, eight artifacts of the Contact period, 1,253 other Historic period artifacts, and 1,559 faunal items. The analysis that follows is based upon those field counts and ought to be

understood as very preliminary.

Several observations regarding the surface distribution of rough rock are possible. Rocks are nonrandomly distributed in the field. Much or all of it along the northern edge of the field may have been imported as road-bed material. The concentration in the center of the field is in a low spot that may be an artifact of erosion or fluvial activity. Lastly, there are relevant concentrations along the east, south, and west field margins. Particularly intriguing is the prospect that the northeast corner of the field holds a previously unidentified, pre-eighteen-century activity area that extends to the east into the barnyard and to the north beyond Dee Bennett Road.

Hafted bifaces are undoubtedly underrepresented due to field-recognition bias and past removal by collectors. Forms recovered, in order of decreasing frequency, include Madison-type small projectile points, Humpback bifaces, and Dickson Contracting Stemmed points. The surface distribution closely parallels that of the fire-cracked rock, including the measurable presence of material along the eastern margin of the field.

Over 500 aboriginal ceramic sherds were recovered. Most were thumbnail sized or smaller. Impressionistically, 80% to 85% are grit tempered; they encompass a number of wares ranging from Early Woodland Marion Thick to Langford. The highest concentration of ceramics was at

the west end of the field with another cluster in the southwest corner.

The field classification of trade goods potentially attributable to the Contact/Early Historic period was conservative. For instance, we do not here include the several olive-brown body sherds of bottle glass, nondescript "mystery" iron, nor lead musket balls. Even so, the surface distribution of glass beads, brass, and a French spall-type gunflint is distinct and approximates that associated with the aboriginal ceramics. The four beads, light blue in color, are identical to those described from previous excavations. One of the three objects of sheet brass is a tinkling cone. The gunflint is classically French. While we expected a low frequency of Early Historic period trade goods, the actual meagerness was surprising (0.05%), a circumstance that Brown (1975:29) had earlier remarked upon. To conclude that the Contact period material represents a minor element of the subsurface remains, however, is probably to overstate the representative importance of the surface materials.

At this point several salient observations can be rendered. First, a significant portion of the site has been lost to the dam construction and subsequent erosion of the surviving river bank. Second, the surface distribution of artifacts, debris, activity areas, and components is nonrandom. Third, the great mass of the recovered material seems associated with prehistoric cultures. Fourth, the nineteenth-century Old Sulphur Springs Hotel represents an archaeologically inter-

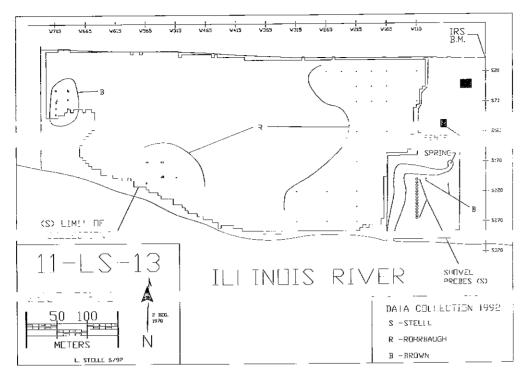


Figure 1. Map of 1992 research areas at the Grand Village of the Illinois.

esting component as yet undescribed. Fifth, the 1650–1700 component appears measurably, but thinly, at the surface, with the greatest concentrations in the west and south portions of the field. (Subsurface testing [Rohrbaugh et al. 1992] now confirms the presence of this component in the northeast corner of the field.) Finally, let us observe that the impression of the Grand Village now emerging is one in which there were small clusters of cabins separated by spaces of some distance. The location of the clusters may display physiographic correlates. That such a pattern might have extended for 3 km upstream would be consistent with the French records, as would the prospect that in places it crossed to the north of Dee Bennett Road. Refining this model will be an important goal in our continuing exploration of the Grand Village.

#### Testing the Surface Distribution Model

Stelle's preliminary findings suggested that there were concentrations of debris along the river bank and north toward the highway at the west end of the property. There was both prehistoric and historic material in these contexts. The few Contact period artifacts recovered in the surface collection were found in these areas. There was another concentration of material in the northeast corner of the field, near the nineteenth-century tavern. There was considerable cut bone and nineteenth-century trash in this area, and there was much fire-cracked rock. Other debris was not diagnostic, and no native pottery was found on the surface.

With these data in hand Rohrbaugh et al. (1992), with a crew of four, began investigations at the site. While time was lost during an extremely wet July, the goal of testing the areas of surface concentration to determine the relationship to subsurface remains was accomplished. This was performed by excavating 1-m test squares in transects across the West Field (Figure 1). All materials were to be water-screened. Unfortunately, wet weather prevented the full achievement of this goal.

During these tests, six aboriginal features were encountered. The first of these was an oblong feature measuring about 85 by 45 cm. Both the feature and the levels above contained seed beads but little else. However, a nearly complete set of human deciduous teeth (child past infancy) was recovered.

The second feature was a round, shallow mass of charcoal just below the plow zone in a

series of units excavated north of the first block. Two seed beads were found nearby but their association with the charcoal may be incidental.

The third feature was one of two in the northeast corner of the field. It was apparently a midden area containing a bovid mandible, several canid teeth, and other bone. The context appears to be Early Historic and not coeval with the hotel. Most of the debris was between 40 and 50 cm below the surface. The feature contained four seed beads, much shell-tempered pottery, a single ball of lead shot, various lithics, and other debris.

The fourth feature was 50 m west of the third. It was a deep, refuse-filled pit, over a meter in diameter and 55 to 60 cm deep. The sides contracted slightly to a rounded base. Among the more than 675 lithic items were four Madison points and two Humpback bifaces. There were 201

shell-tempered sherds, seven iron objects, 14 brass objects, and 68 seed beads.

The fifth feature was a rock pile in the center of a unit 175 m south and 75 m west of the fourth feature. It was encountered at a depth of 28 cm and was 50 cm in diameter and about 15 cm deep. The feature was composed of fire-cracked rock that ranged in size up to about 15 cm in diameter.

The sixth feature was another deep, refuse-filled pit located near the river, 50 m south of the rock pile. The test unit apparently intersected less than half of the pit. In profile it measured 90 cm wide and 120 cm deep. The profile was similar to that of the other pit feature. Among other debris it contained two abraders, 225 lithic objects, six iron objects, 13 grit-tempered sherds, 35 shell-tempered sherds, three brass objects, and seven beads.

The test units placed in the areas along the river, i.e., the first and last test areas, contained quite a bit of lead shot and fragments of clay targets. These areas had quite clearly been used by duck hunters, especially the eastern end of the bank where an old trailer and shingle-covered shack now stand. The area in the northeast corner of the field contained neither of these debris categories, except for the one lead ball of shot found in the midden feature. This single item could be of recent age and may have worked its way into a feature of the Contact period.

The units along the river contained shell-tempered Danner series ceramics mixed with the grit-tempered Langford wares of the Upper Mississippian component. There were also a few sherds tempered with larger and less uniformly sized grit, suggesting a Middle Woodland horizon. No grit-tempered pottery was found in the northeastern corner of the field. These contexts contained only shell-tempered Danner series wares that are cordmarked, smoothed-

over cordmarked, and plain.

Material recovered from the 1992 test units indicates partial conformity with data from the surface collection. The surface collection failed to identify the Contact period component in the northeast corner of the field. It did discover a heretofore unknown concentration of lithic debris associated with a Late Archaic context. No Contact period diagnostics were recognized in this area. This is probably due to a number of factors, including the fragility of shell-tempered ceramics exposed to freeze-thaw cycles in surficial contexts; decades of surface collection that has eliminated many durable diagnostic lithic and metal items; and the tiny size of many Historic period diagnostics (e.g., seed beads, tinklers), which hinders their recovery through pedestrian surveys.

We were not able to thoroughly test the areas of the field where the surface collection did not find concentrations of debris, but where these areas were tested we found very little cultural material, and soils more distinctively clayey, less sandy, and lower. Aboriginal domestic uses of

this field are apparently limited to the higher, sandy areas.

Relocation of Past Archaeological Excavations

Two other field schools concentrated on the west end of the West Field. Robert Jeske brought students from Indiana University-Purdue University at Fort Wayne while James Brown brought students from Northwestern University. These crews had four primary goals: (1) to locate and sample historic and late prehistoric structures and features; (2) to use modern recovery and flotation techniques to collect carbonized materials for radiocarbon dates and subsistence information from late prehistoric and historic contexts; (3) to link Jeske and Hart's 1987 and Brown's 1991 excavations in Grid D to the new site grid; and (4) to locate Orr's 1947 grid and tie these excavations to the new site grid established in 1992.

The series of seven 2-x-2-m units established by these crews accomplished these goals. A linear arrangement of post molds flanking a bone- and artifact-rich stratum indicated the

presence of an Upper Mississippian structure similar to those found by Orr earlier. The material dated to the Langford component. Five pit features were found, one of which belonged to the Danner component, the others to the Langford. Bone; charcoal; lithics, including Madison Triangular and Humpback bifaces; ceramics, including Langford and Danner sherds; and trade beads were found. The relationship of Orr's 1947 grid to the 1992 grid was established when the dimensions of his House 3 and House 8/13 excavation areas were established in the modern units. The structure found in 1992 was adjacent to and on the same orientation as the House 8/13 unit of superimposed Upper Mississippian rectangular wall-trench houses.

#### Conclusion

The 1992 season included Stelle's field school conducting a controlled surface collection of 5,798 5-x-5-m units within a 12-ha area of the site. The collection demonstrated the presence of numerous spatially differentiated aboriginal occupations beginning in the Early Woodland and continuing to the French intrusions in the late seventeenth century. The survey also located important mid-nineteenth-century deposits associated with the Old Sulphur Springs Hotel.

Subsequent validation of the surface-distribution data was provided by Rohrbaugh's testing program. The test excavations revealed a number of Upper Mississippian and Historic Indian subsurface features. Further excavation by Brown and Jeske's group in the western site area relocated a number of Upper Mississippian and Historic Indian structures and pits previously discovered and partially excavated by the University of Chicago in 1947. The 1992 work established the basic integrity of the acquired site area, the widespread occurrence of remains from the Upper Mississippian and French-Indian periods, and provided important new materials for subsistence analysis and dating. Subsequent efforts will concentrate on expanding this investigative strategy to other areas of the site.

### Acknowledgments

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