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## 103-Report of the April 1993 Archaeological Survey of the Little John Site (20AE344) in Allegan Township, Allegan County, Michigan

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DEPARTMENT OF ANTHROPOLOGY  
WESTERN MICHIGAN UNIVERSITY

REPORT OF INVESTIGATIONS NO. 103

1993

REPORT OF THE APRIL 1993 ARCHAEOLOGICAL SURVEY OF THE LITTLE JOHN  
SITE (20AE344) IN ALLEGAN TOWNSHIP, ALLEGAN COUNTY, MICHIGAN

ARTHUR L. DESJARDINS

## ACKNOWLEDGEMENTS

The author would like to thank Mr. Mark Horn, property owner of the Little John Site, for his enthusiasm and active participation during the conduct of this survey. Mr. Horn's interest in pursuing a formalized investigation of this site is greatly appreciated. Mr. Dan Kaylor, next door neighbor and previous landowner, provided invaluable information on the history of the area and artifact collections from the site. Researchers in the Anthropology Department, Western Michigan University look forward to further archaeological investigations of the Little John site. The author acted as principal investigator for the April 1993 survey of the Little John site. A field crew from the Department of Anthropology, Western Michigan University consisted of Mark Steeby, Joseph Sinda, Renee Lutes, and the author. Technical assistance, field equipment, and consultation were provided by Dr. William Crenin, Department of Anthropology, Western Michigan University.

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## SECTION 1: INTRODUCTION

In the Fall of 1992, Mr. Mark Horn contacted the Anthropology Department at Western Michigan University regarding property he owns in Allegan County, Michigan. In his assessment, this property exhibited a significant amount of prehistoric cultural material on the surface, and he felt that it might warrant formalized archaeological investigation. Additionally, Mr. Horn, a school teacher in Allegan, asked about the possibility of including his students in any future fieldwork that might be conducted on his property. This information was received by Dr. William Cremen of the Anthropology Department, who took the matter under consideration as a potential undertaking for the future.

During the latter part of February 1993, Dr. Cremen and the author discussed the possibility of undertaking this activity during the 1993 WMU Archaeological Field School. It was decided that a preliminary examination and documentation of the site, itself, would therefore be necessary. Shortly thereafter, I contacted Mr. Horn to discuss this matter further and to make plans for a site visit sometime during the month of April. This report describes the results of the site survey, along with preliminary assessment of the information recovered and recommendations for further investigations.

Based on information provided by Mr. Horn, preliminary mapping of the site area was accomplished prior to site visitation. The actual site survey was conducted on 9 April 1993 by student researchers from Western Michigan University, under my direction. Processing and initial analysis of recovered cultural materials was completed the following day. Throughout the course of the investigation, efforts were made to collect all pertinent information related to the site area. As a result, it was discovered that this site had already been registered with the

Michigan Bureau of History during an earlier Western Michigan University archaeological survey of the Kalamazoo River Basin (Cremien and Merek 1978). At that time, information regarding the presence of a prehistoric site at this location was obtained from a local informant. A survey party then proceeded with documenting the site location and determining the extent of cultural materials on the surface. However, to the best of my knowledge, a thorough archaeological investigation of the Little John site has never been conducted.

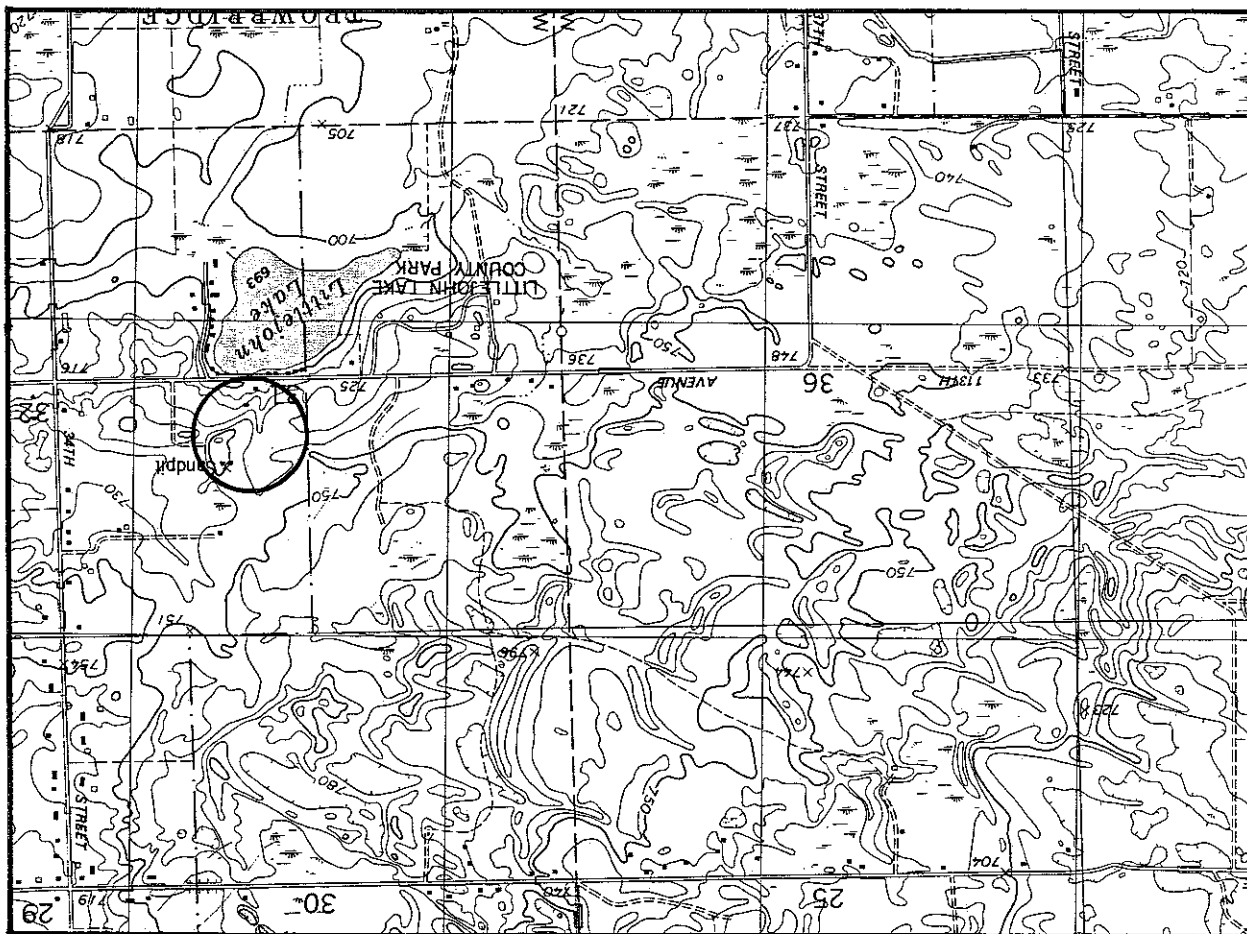
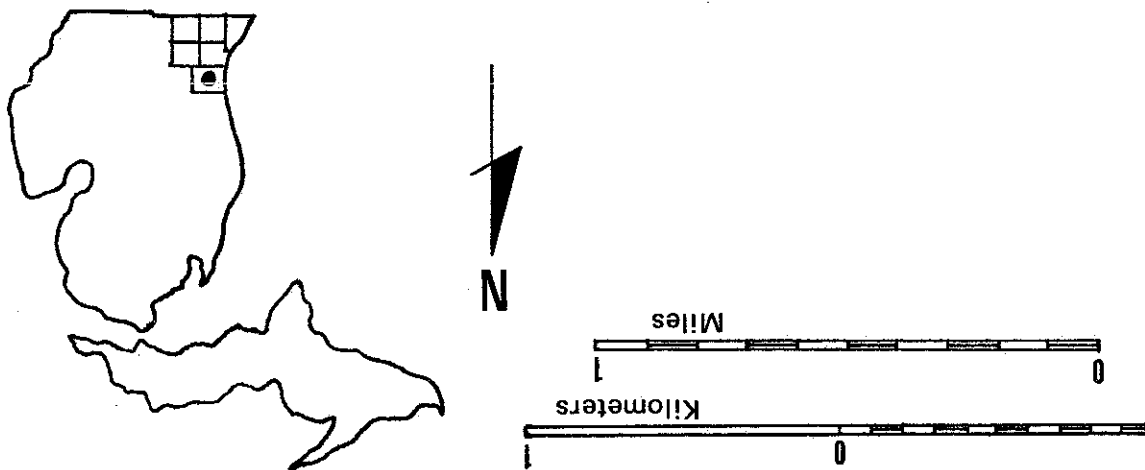
## SECTION 2: SITE DESCRIPTION AND HISTORICAL BACKGROUND

The Little John site is located in the S 2/3 of the NE 1/4 of Section 31, Allegan Township, Allegan County, Michigan (Figure 1). A more precise site provenience can only be derived from further archaeological survey. Current information indicates the potential for multiple cultural components or periodic reoccupation over a fairly large area and span of time. The original site survey records, on file at the WMU Department of Anthropology, detail three distinct areas: (1) the SW 1/4 of the NE 1/4 of Section 31; (2) the NE 1/4 of the NE 1/4 of Section 31; and (3) the middle of the SE 1/4 of the NE 1/4 of Section 31. Additional reference to a prehistoric site location in this area was reported in an earlier study of fluted projectile point distributions in Allegan County (Perru 1965:4) and is described as being in the SE 1/4 of the NE 1/4 of this section.

Information provided by Mr. Horn is somewhat more precise, in terms of areas that exhibit surface scatters of cultural material and understandably reflects present property lines. Specifically, two primary areas of prehistoric cultural materials were noted by members of the current survey party, which are defined as: (1) the center of the SW 1/4, SW 1/4 of the NE 1/4 of Section 31; and (2) the N 2/3 of the E 1/2 of the SW 1/4 of Section 31.

Location of the Little John site within the surrounding environs.  
 (Ref: USGS Milgrove 7.5 minute series quadrangle)

Figure 1



Over the course of several decades, this area has seen many changes of ownership and lines of property division, more than likely resulting in contextual changes in how the presence of prehistoric activity in the area has been viewed. Given the occurrence of cultural materials over a large area, and the relationship of topography to changing lines of property ownership through time, the location of the Little John site might best be characterized as largely belonging to the aforementioned S 2/3 of the NE 1/4 of this section. This presents a situation where the site actually transects several privately owned parcels of land. Consequently, the remainder of this report will deal with only those areas visited during the current survey (Figure 2).

**Site description**

The Little John site is situated on the fringes of a glacial end moraine system that represents a former stillstand of the ice-sheet margin (Farrand 1982). The surrounding environs are characterized by glacial tills, ground moraine, pitted outwash plains, kames, and numerous marshes that are probably the remnants of post-glacial kettle holes (Dorr and Eschman 1970:147-154; Fitting 1970:10-14). Site elevations are highly variable, ranging from approximately 218 to 234 meters above sea level.

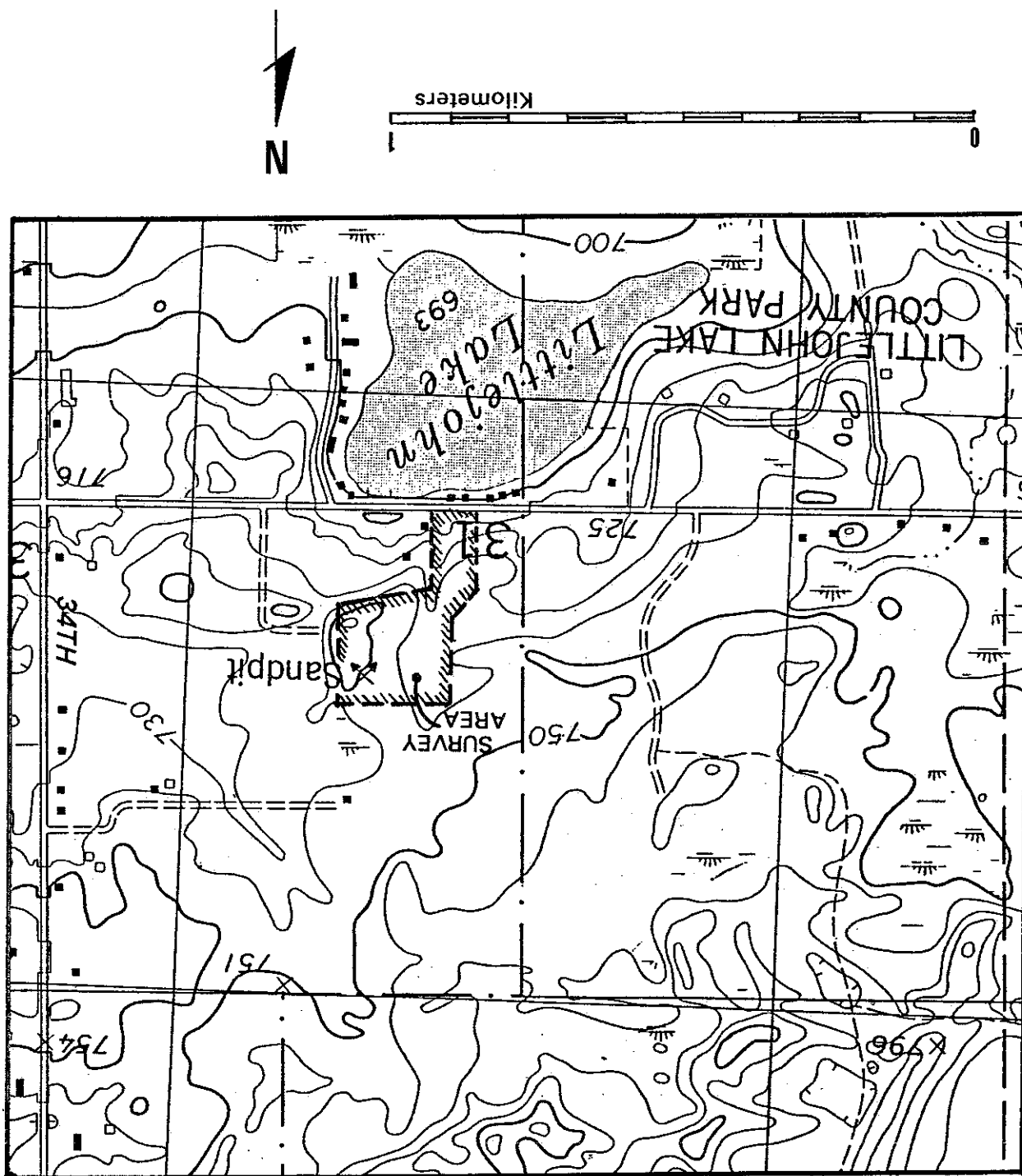
*Soil Association.* The soil survey of Allegan County (Knapp 1987:17-18 and map sheet #86) describes this area as Oakville fine sand with 6-18% slopes. The Oakville association consists of gently rolling and well drained soils that are characteristic of knolls, ridges, and side sloping terrain. Typical soil profiles noted for this soil association consist of the following: (1) a 7-8 cm. top layer of dark brown fine sand; (2) approximately 50-60 cm. of yellowish brown fine sand; and (3) a subsoil of brownish yellow fine sand to a depth of about 1-1/2 meters. These same soil conditions were generally encountered during the course of test excavations and observations of exposed surfaces.



(Ref: USGS Milgrove 7.5 minute series quadrangle)

Map of the April 1993 survey area.

Figure 2



*Vegetation.* A fairly open woodland of oaks, ranging in size from 10-40 cm. diameter, covers nearly all of the site area. There is also a very sparse distribution of pines towards the north end of the site area. Undergrowth is thin and mostly confined to bases of slopes, or in the lower elevations bordering a marsh area at the north end of the site. Surface vegetation consists of short, wild grasses and upland varieties of thick mosses.

*Water Resources.* The south end of the site is located roughly 70 meters north of Little John Lake. A water-logged marsh lies along the north side of the site area. Beginning at this marsh, a deeply cut and steep-sided ravine transects the entire central area on a north-south axis. An active stream runs through this ravine, draining the marsh area into Little John Lake. This marsh is most likely spring fed as the present velocity of water in the stream is fairly rapid and clear. Near the midpoint in the ravine the stream disappears underground, which may indicate the presence of a subsurface channel to the lake. The depth of the ravine varies in relation to the variable surface topography, being nearly 3-1/2 meters deep in places. Several very old white oaks (60-90 cm. diameter) are located no more than 35 cm. above the present water line, suggesting that down-cutting of the ravine from drainage activity has probably occurred over a long period of time. However, it should be noted that this is dependent on fluctuating environmental conditions taking place on a much broader scale and depth of time (Larsen 1985). In any case, the presence of springs, streams, and a lake -- especially during the prehistoric period -- is invaluable to assessing past cultural activity. Reliable sources of water were undoubtedly important considerations in settlement decisions.

### Site condition

With the exception of two raw surface exposures, all areas surveyed are wooded and presently undeveloped. The two surface exposures, located at the south end and northeast side

of the site (figure 3), are the result of near recent sand quarrying activity (USGS Milgrove quadrangle 1981). Outside of discussions with the landowner and neighbors, no accurate information regarding the nature of this activity was available at the time of this report. Most of the quarrying activity appears to have been concentrated on the sides of the higher elevations. As a result, natural wind and surface sheet wash erosion has occurred, producing several localized sand blowouts. This process seems to be stabilizing somewhat as irregular surfaces are smoothed over; however, wind erosion of the exposed sand surfaces will more than likely continue. The root structure of trees at the higher elevations is holding the surrounding soils intact, thereby prohibiting further erosion.

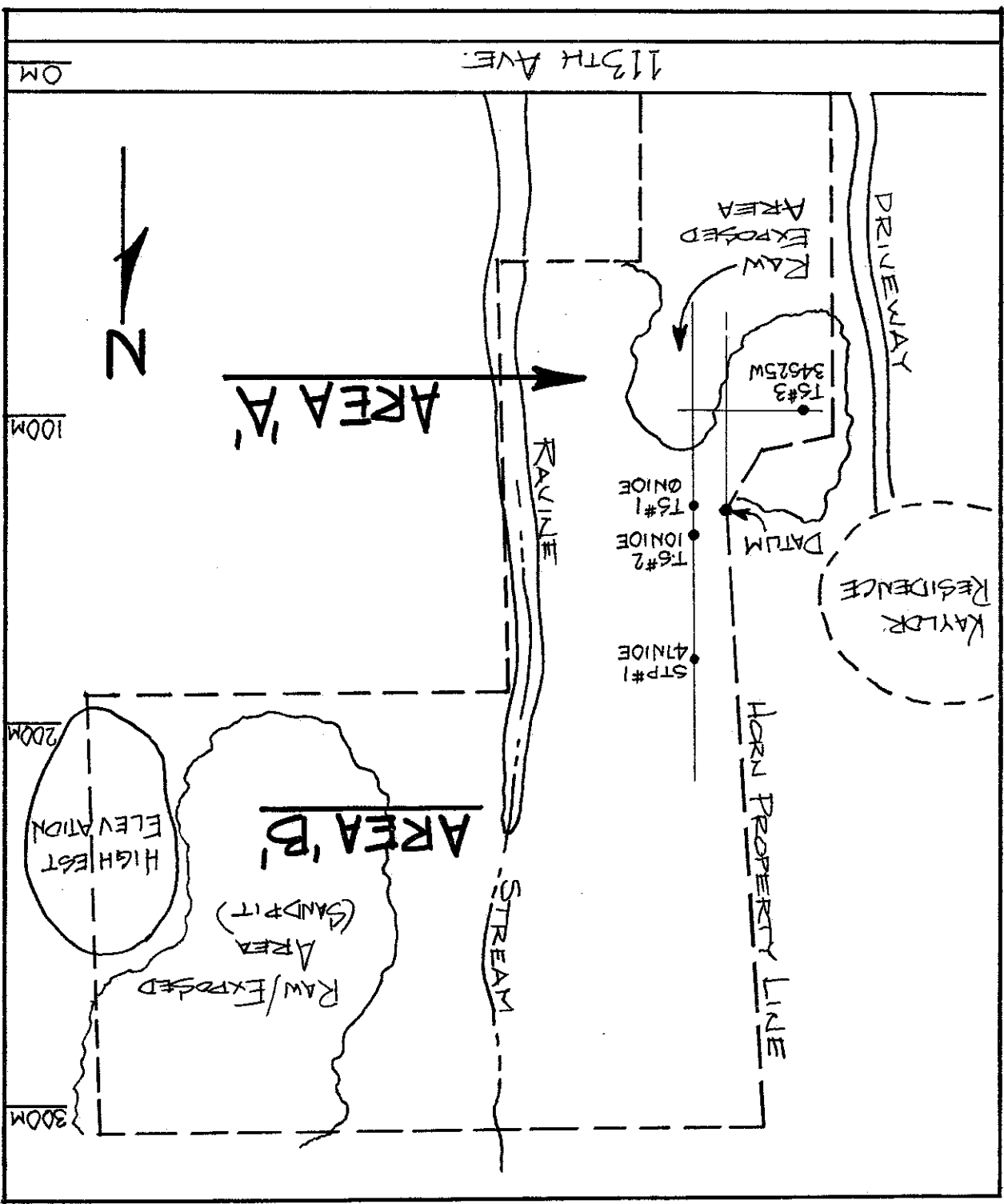
A scatter of firecracked rock and lithic debris is readily observable on the exposed downslope surfaces. Close inspection revealed that much of this cultural material has been transported from the surrounding higher elevations. The present surface conditions are prohibitive to ascertaining their original association. Consequently, it is my opinion that any cultural materials in these exposed surfaces should be treated as out of context.

The wall profiles of three test pit excavations in Area A (Figure 3) indicate the possible presence of an old plowzone. In all cases, a 20-22 cm. A Horizon (see Appendix I for a description of geoaarchaeological soil horizon types) of dark yellowish brown sandy loam was found to overlie a Sub-A Horizon of yellowish brown fine sand. Although no plowscars were encountered in the floors of the test units, the definition between the two zones in the wall

profiles is rather distinct. The top surface of each test unit revealed a 3-5 cm. deep O horizon, consisting of forest floor organics and very dark brown loamy soils. This horizon grades fairly quickly into the underlying A horizon, indicating that there has been recent undisturbed soil

Sketch of site and survey work conducted.

Figure 3



development. Additionally, most of the cultural materials recovered came from a zone of approximately 12-22 cm. below the surface. It has been my experience that this is not atypical of many places in Allegan County, in situations of primary context, or where agricultural activity has been minimal and/or attributable to past decades.

### **Historical Background**

For many years this area was part of an 80 acre parcel of farmland dating back to the 1870's (Allegan County Atlas 1873). Beyond this, precise information regarding the extent of farming practices in the immediate area is currently not available. It was noted during the survey that the surface is fairly undulating and variable in terms of relief, again raising the question of past plowing activity. A single piece of old barbed wire was recovered from one of the test units. This suggests that at one time or another there was a fenced field or pasture in the immediate area.

Information obtained through conversations with Mr. Dan Kaylor points to logging activity having taken place around the turn of the century. The present second growth of oaks and pines area is listed as oak-pine forest (Brewer 1980). The present second growth of forest cover more might affirm an earlier clearing of the land, with the resulting regeneration of forest cover more closely mirroring primary presettlement vegetation. However, more background investigation is required to shed light on this situation.

As stated above, archaeological research at the Little John site has been limited. The earliest report of this site comes from Donald Peru's (1965) study of fluted point distributions in Allegan and Kent Counties. Mr. Horn noted that researchers from Michigan State University had planned to conduct fieldwork on the site in the mid-1960's, but this activity never actually occurred. With a significant amount of documented information coming from informant sources,

it seems more than likely that this site has been visited many times in the past by surface collectors and researchers alike. Access to such collections, for purposes of study, would augment any further archaeological research conducted on site.

### SECTION 3: SUMMARY OF SURVEY WORK AND MATERIALS RECOVERED

The main activity of the current survey entailed a walk-over inspection of the site conditions and extent of observable cultural materials. All pertinent observations were documented on survey forms and a site sketch. This was followed by placement of three test excavation units and one shovel test pit in Area A (Figure 3). An existing property survey reference stake was used as datum. A field transit was used to establish a north-south line ten meters east of datum, for purposes of locating the test units. Pin flags were left in the southwest corner of each unit so that they might be relocated in the future. The primary considerations for test unit spacing included the following: (1) an initial test of the spatial distribution of cultural materials; (2) examination of the subsurface conditions; and (3) available time and manpower to complete the testing. The last point is an important consideration; a thorough understanding of the context and distribution of cultural materials at this site will obviously be reflected in the quantity and placement of test units. The goal of this survey was more in line with Phase I inspection versus Phase II investigations, where the nature and extent of cultural activity is more intensively addressed. Therefore, information derived from the current test units should be treated as only providing a small window into this site.

All excavations were conducted in the intact surfaces associated with the sand blowout in Area A, with the exception of the single shovel test pit, which was located approximately 50 meters north of the sand blowout. Time did not permit actual subsurface testing of Area B.

Given the present wooded conditions, and the separation of the two areas by the ravine, a second datum will have to be located in Area B. Careful field surveying will be required to complete this task, with the goal of ensuring a precise relationship between both datum locations.

Processing and preliminary analysis of recovered cultural materials was accomplished the day following fieldwork. This consisted of cleaning and classifying artifacts and identifying distinctive lithic raw materials. All cultural materials examined came from test excavations, survey party surface collections, and a general surface collection obtained by the landowner. Surface collections by the survey party were arbitrarily taken from exposed surfaces, with the intent of obtaining a representative sample.

As a general rule, most of the cultural materials recovered consisted of lithic debitage and fire-cracked rock. No diagnostic artifacts were found (i.e., projectile points, ceramics, etc.). This is not surprising, though, considering the present surface visibility over a large part of the site, and the high probability of past surface collecting by others. The tip of a projectile point, a broken midsection from an untyped biface, and a single flake exhibiting use-wear are the only significant items recovered.

It was noted that fire-cracked rock over much of the site is consistently small and fragmented. With the limited amount of work conducted to date, no fair evaluation of this observation can be offered. Furthermore, finite studies of fire cracked rock have been limited and remain problematic at best (Garland 1984:42-45).

Most of the lithic debitage recovered consists of flat chippage indicative of secondary production, pressure flaking, and general finishing of lithic tools. Several lithic raw material types were identified using comparative type sets at the WMU Department of Anthropology.

These include Upper Mercer from Ohio, Bayport from the Saginaw Bay area, a possible representation of Flint Ridge from Ohio, and a wide variety of glacial till cherts common throughout southwest Michigan. There is the possibility that some of the materials classified as locally derived might actually belong to nonlocal sources; identification of raw material types in small debris assemblages is problematic, as many of the nonlocal materials commonly share visual similarities to the local glacial till cherts (Clark 1990:30). However, for the most part, local glacial till cherts dominate the entire lithic assemblage. As an aside, it was noted that most of the nonlocal raw materials were recovered from Area B. Further investigation is needed to determine if such a relationship between the two areas can be established.

#### SECTION 4: CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the current survey, and information on the historical background, additional archaeological investigation of the Little John site might prove to be productive. Several questions regarding the nature of prehistoric activity could be incorporated into a future research design, mainly along the following lines of inquiry: (1) the spatial distribution and intensity of cultural materials throughout the site; (2) the potential for multiple occupation areas and/or reoccupation of the site through time; (3) the possible presence of a Paleoindian component; and (4) the site's relationship to prehistoric activity elsewhere in southwest Michigan.

The application of a testing strategy should first take into consideration the disturbed context of the sand blowouts and eroded surfaces of the site. One way to approach this is through stratified sampling, such that the exposed and intact areas are tested independently of each other. The intact areas stand a far better chance of producing cultural materials and features in satisfactory archaeological context. Testing of the sand blowouts and eroded areas would be



beneficial in terms of recovering representative samples for future comparative analysis.

The possibility of Paleoindian activity, or occupation of the site, relates directly to past finds of fluted points in Area B, primarily at the higher elevations along the northeast side. Information regarding these point finds is presently being pursued by the author. Paleoindian activity has been documented at many other locations in Allegan County, mainly from projectile point finds characteristic of this period (Crenin and Marek 1978; Garland and Parachini 1981; Peru 1965). However, in the final analysis, there is a big difference between findspots of Paleoindian points and discovery of an actual occupation site. Due to lack of preservation over several thousand years, the identification of a paleoindian component relies heavily on the recovery of lithic items and finite distribution studies of such items over the surrounding area (Ellis and Deller 1988). This has been demonstrated at the Gainey site (20GSS49), where over a decade of excavations and survey has resulted in the recovery of literally hundreds of lithic artifacts attributable to Paleoindian occupation of the site (Simons, Shott, and Wright 1984). Any indications of an occupation of the Little John site during the Paleoindian Period will remain questionable unless a significant representative assemblage is recovered through further fieldwork. Lastly, a more thorough investigation into the historical background of the site area would be very beneficial, especially as it relates to past research conducted by amateurs and professionals alike. Such information could significantly influence future investigative strategies and interpretations of the Little John site.

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## APPENDIX I

Description of Soil Horizon Types (adapted from Waters 1992:45-47).

These are generalized descriptions of the main soil horizons encountered in most situations. They are strongly influenced in their interpretation by factors relating to both natural geological processes, and human activity as well. Waters (1992:45-60) presents a much more detailed discussion of these factors, along with descriptions for subdivisions of soil horizon types.

**O Horizon** An organic horizon consisting of dark surface soils and organic matter from plants and animals. Further subdivision of this horizon is sometimes made relative to the degree of decomposition of organic matter, ranging from slight decomposition to highly decomposed matter (generally not visible to the naked eye). Since most O Horizons are very shallow and susceptible to frequent disturbance. Therefore, they are often included within classifications of A Horizons.

**A Horizon** A mineral horizon that forms either at the surface, or just below an O horizon. Typified by fully decomposed (humified) organic matter that is intermixed with solid mineral particles, with the latter generally dominating the horizon's matrix.

**Sub-A Horizon** The lower portion of an A Horizon that underlies a zone of agricultural or similarly related activity (i.e., plowzone, pastures, etc.). Sub-A Horizons are typically lighter colored and contain far less organic and/or humified matter.

**E Horizon** A light colored horizon underlying O or A horizons. Primarily consisting of weather resistant minerals (quartz), with a noticeable decline in clays, organic

matter, and soluble minerals (i.e., iron, aluminum, etc.). In making distinctions of soil types, this horizon is often viewed as being similar to, or synonymous with A Horizons.

**B Horizon** A mineral horizon formed below O, A, and E horizons. Mainly characterized by illuvial deposits or concentrations of clay, iron, aluminum, carbonates, or silica.

**C Horizon** Subsurface horizon consisting of unaltered or partially disturbed parent material (i.e., mineral horizons, sedimentary structures, etc.).

## APPENDIX II

### Catalog of Recovered Cultural Materials

Area A - Test units (the single shovel test pit was sterile).

|    |                 |   |                      |
|----|-----------------|---|----------------------|
| 20 | light chippage  | 1 | point tip            |
| 1  | biface fragment | 1 | utilized flake       |
| 7  | for             | 1 | barbed wire fragment |

Area A - Survey party surface collection.

|    |                |   |                 |
|----|----------------|---|-----------------|
| 36 | light chippage | 1 | blocky debitage |
| 1  | for fragment   |   |                 |

Area B - Survey party surface collection.

|    |                |  |  |
|----|----------------|--|--|
| 13 | light chippage |  |  |
|----|----------------|--|--|

General surface collection obtained by landowner.

|    |                |   |                 |
|----|----------------|---|-----------------|
| 35 | light chippage | 1 | blocky debitage |
| 1  | for fragment   | 9 | pebble chert    |