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17-An Archaeological Survey of the Middle St. Joseph River Valley in St. Joseph County, Michigan

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DEPARTMENT OF ANTHROPOLOGY
WESTERN MICHIGAN UNIVERSITY

ARCHAEOLOGICAL REPORT NO. 17
1987

AN ARCHAEOLOGICAL SURVEY OF THE MIDDLE ST. JOSEPH
RIVER VALLEY IN ST. JOSEPH COUNTY, MICHIGAN

PROJECT NO. S86-223

A REPORT OF RESEARCH CONDUCTED BY WESTERN MICHIGAN
UNIVERSITY, KALAMAZOO, MICHIGAN, UNDER THE DIRECTION OF
DR. WILLIAM M. CREMIN, WITH THE ASSISTANCE OF MR. DAVID
DE FANT, M.A., MR. CONRAD KAUFMAN, MS. SHERRY WYKSTRA, AND
MR. BRIAN DEROO, DURING THE PERIOD BETWEEN 2-19 JUN 86.

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Furthermore, the analysis and interpretation of the site data presented in this report have been facilitated through the integration of environmental information generated with Fellowship and grant support to the senior author from the Faculty Research and Creative Activities Fund (#86-050), Western Michigan University.

The authors wish to express their appreciation to David De Fant, Conrad Kaufman, Sherry Wykstra, and Brian DeRoo, who comprised the permanent field survey team, and to the members of the 1986 WMU archaeological field school who each contributed one day on a voluntary basis to the successful data collection phase of this research program.

W.M.C.

D.W.Q.

ABSTRACT

Between 2-19 Jun 86, a team of researchers from Western Michigan University conducted a reconnaissance level survey of a 63.5 km² transect across the St. Joseph River Valley in Leonidas and Colon Townships, St. Joseph County, Michigan. They gained access to 77 parcels of farmland affording good to excellent surface visibility and aggregating 15.3 km², or 24% of the entire study area. In the process, 87 new archaeological sites were located and recorded; another three sites were recorded on the basis of documentary evidence reviewed during the course of the project.

For each of 16 sampling strata evaluated, at least one site attributable to Amerindian occupation was recorded. However, the data on site distribution in the study area show a pronounced tendency for the more impressive sites to concentrate along the course of the St. Joseph, especially near the confluence of Nottawa Creek with the river, and to a lesser extent along the lower reaches of this feeder stream and overlooking Long Lake through which another major tributary, Swan Creek, passes as it flows toward its confluence with the St. Joseph River.

In the report which follows, the survey area is briefly described, previously recorded sites are discussed, the research design employed in this survey is outlined, and the results of our efforts are fully presented. The report concludes with comparisons of the data set derived from the 1986 SJVA-I transect with those acquired during similar programs of research in the nearby drainages of the Middle Kalamazoo and Portage Rivers, together with some general statements about the implications of these data for Amerindian subsistence-

settlement behavior in this area of southwest Michigan.

In our recommendations regarding management of archaeological resources in this apparently very rich zone, we mention that as many as 10 sites recorded by the survey team in 1986 may warrant evaluation of their eligibility for listing in the National Register of Historic Places; note our current plans to conduct Phase II investigations at two of these sites in the upcoming field season, with grant support from the Historic Preservation Grant Program administered through the Bureau of History, Michigan Department of State; and comment on the cooperative attitude of area landowners and how good communications between professional archaeologists and property owners in the study area will greatly facilitate management efforts with respect to the resources as well as make possible future research oriented toward more intensive evaluation of potentially significant sites in this universe.

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SECTION 1: ST. JOSEPH VALLEY ARCHAEOLOGY

In the six years since the Department of Anthropology, Western Michigan University concluded its program of reconnaissance level survey in the Kalamazoo River Basin (Cremin 1981), several similar programs of survey have been initiated in adjacent tributary stream drainages, such as the Thornapple River Valley in Barry County (Cremin and McAllister 1980; Cremin and Clark 1982) and the Portage River Valley of Kalamazoo County (Cremin, Stout, and Murphy 1982; Cremin, De Fant, and Adams 1984; Cremin and De Fant 1986), in order to extend our control over regional chronology and learn more about Amerindian land use patterns in southwest Michigan. During these survey programs, most of which have been funded with Historic Preservation monies administered through the Michigan Department of State, special attention has been accorded data recovery procedures that would ensure comparability of all field observations, facilitate collection of similar sorts of data for subsequent analysis and interpretation, and ultimately permit us to make some meaningful statements about the cultural patterns characterizing Amerindian occupation of this region on the basis of information derived from a wide range of ecological/biogeographical zones present in southwest Michigan prior to the dramatic alteration of the landscape associated with American settlement in the early nineteenth century.

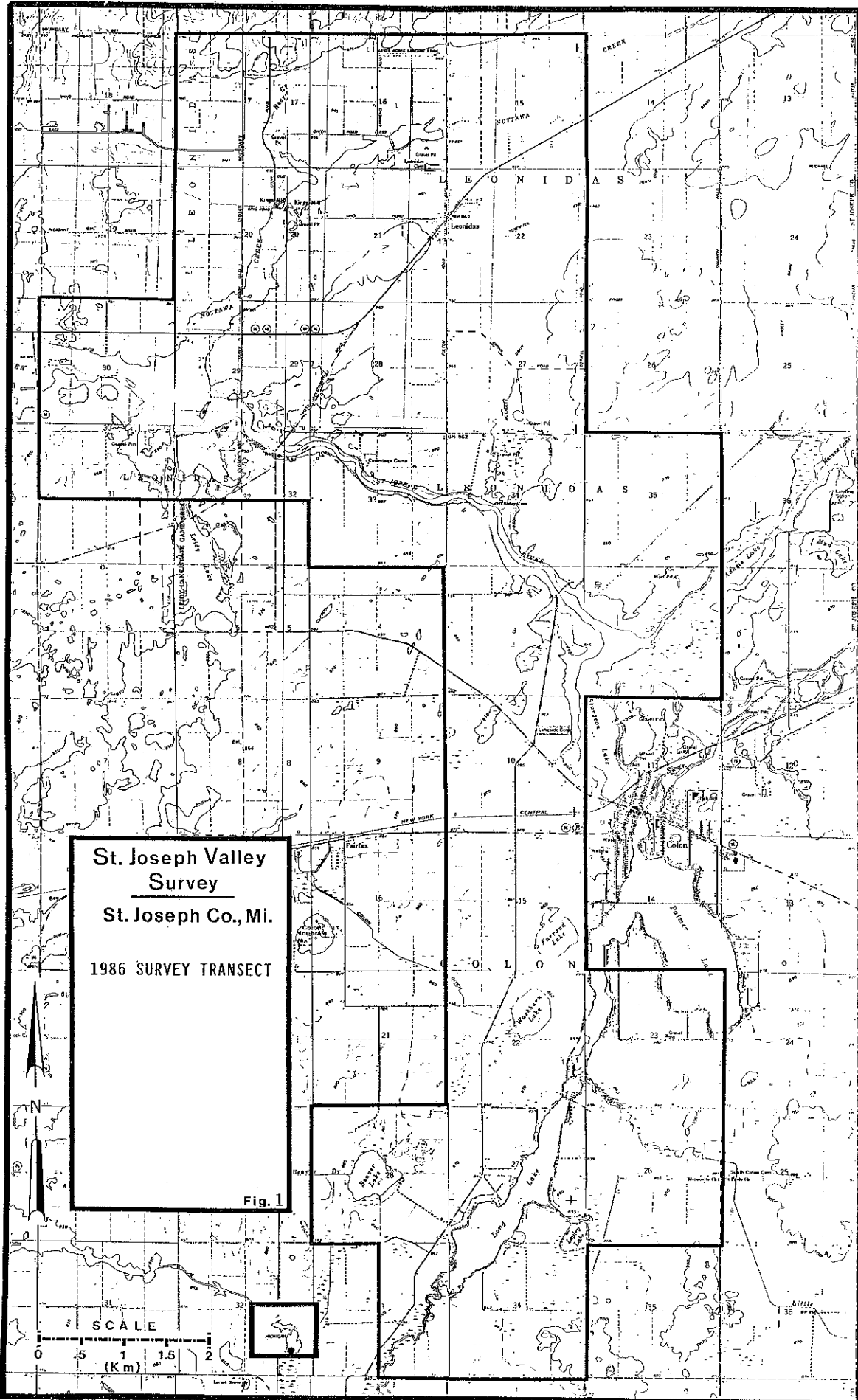
Examination of a map of southwest Michigan showing the locations of approximately 700 sites recorded during surveyor evaluation of more than 200 km² as part of the aforementioned research programs

clearly point out a glaring "void" in our regional survey coverage and, hence, a gap in the record (i.e. data set) available to us as we seek to better understand Amerindian occupation of the region. Prior to the commencement of the St. Joseph Valley Archaeology: Phase I (SJVA-I) study, systematic survey in St. Joseph County had been confined to that segment of the Portage River Valley lying between the Kalamazoo County line on the north and Fishers Lake on the south (Dorothy and Garland 1981). And no professional attention whatsoever had been given to the major drainageway in the county-- the St. Joseph River!! Thus, to extend our coverage into this previously unstudied area in anticipation of acquiring a potentially significant data set for comparison with existing information, we proposed to undertake the survey program that is the subject of this report.

SECTION 2: THE 1986 ST. JOSEPH VALLEY SURVEY UNIVERSE

The research area of this study comprises an irregularly shaped transect across the St. Joseph River Valley encompassing 63.5 km^2 (24.5 mi^2) of Leonidas and Colon Townships, St. Joseph County, Michigan (Fig. 1). Commencing 1.6 km north of the Village of Leonidas, the transect extends in a southerly direction and terminates 1.2 km south of Long Lake at the base line of Colon Township. The project boundaries are purposefully irregular, with the transect varying in length from 2.4-16.1 km ($\bar{X} = 8.0 \text{ km}$) and in width from 1.6-8.0 km ($\bar{X} = 4.1 \text{ km}$).

The landscape here (as elsewhere in the county) is distinctively glacial in origin. Moraines are few and limited in extent, and till plains are confined to the uplands fringing the broad alluvial valley of the St. Joseph River. The vast majority of the transect features



St. Joseph Valley
Survey
St. Joseph Co., Mi.
1986 SURVEY TRANSECT

Fig. 1

SCALE
0 5 1 1.5 2
(Km)

level to gently undulating outwash plains and/or old glacial melt-water channels.

Elevations slightly in excess of 270 m (900 ft) are recorded for both the northern and southern limits of the transect, descending toward the center where the St. Joseph River passes through the project. Here, the elevation recorded for Sturgeon Lake is 251 m (837 ft) ASL, providing for overall relief of a mere 19 m.

The dominant feature on the local landscape is the valley of the St. Joseph River. Rising in Baw Beese Lake in Hillsdale County, this river follows a generally westerly course from its source and enters the project area in the SE 1/4 of Section 2, Colon Township. Within a short distance, it flows into a large body of water called Sturgeon Lake, and after exiting this lake it continues toward the west passing out of the study area through the NW 1/4 of Section 30, Leonidas Township.

Within the project limits, the St. Joseph is joined by three major tributary streams. Swan Creek rises to the south of the project and enters it through Section 33 of Colon Township. Thereafter, it flows in a northeasterly direction through Long and Palmer Lakes before joining the St. Joseph in Section 11 just above that point where the river enters Sturgeon Lake. Nottawa Creek enters the transect from the NE through Section 15 of Leonidas Township and travels in a southwesterly direction before entering the St. Joseph on the north bank in the SE 1/4 of Section 30 about 1.4 km upstream from the western boundary of the study area. The third second-order stream occurring in the transect is the unnamed outlet that drains three small lakes (Adams, Mud, and Havens) in Section 1 of Colon Township and Section 36 of Leonidas Township. It enters the St.

Joseph near the center of Section 2, Colon Township where the river exits Sturgeon Lake.

In addition to the aforementioned streams and the lakes through which they pass, several smaller third-order streams (Bear Creek, Little Swan Creek) and standing bodies of water lacking outlets (Beaver, Farrand, and Washburn Lakes), as well as Lepley Lake, a small body of water having an active outlet to Long Lake (through which Swan Creek flows), occur within the area delimited by transect boundaries. These, too, presumably exerted some influence on Amerindian subsistence-settlement behavior in this segment of the St. Joseph River Valley.

With respect to the presettlement vegetation occupying this portion of the valley, both the GLO survey fieldnotes and plats and the county histories (Cutler 1906; Everts 1877) indicate that the following plant communities were represented:

1. Upland Associations

Oak savanna and bur oak openings dominated the landscape in both townships at the time of American settlement, with oak forest comprising the third community included within the varied oak associations which together are herein designated presettlement vegetation category E. In aggregate, this category is estimated to have encompassed about 22.7 km² (35.7%) of the transect. Typically, bur oak openings or "barrens" featured scattered but often pure stands of the bur oak and bordered dry prairies. The recorded tree density of 1-15 mature trees per acre indicates a very open canopy. The understory was sparse, if even extant, and ground cover consisted of herbaceous plants similar to those of adjacent prairies. Oak savanna, similarly supporting from

1-15 mature trees/acre, can be differentiated from the previous association by the strong dominance of white oak. Yellow oak was second in importance in this community, with black oak, bur oak, pignut hickory, and shagbark hickory being present in small numbers. Finally, oak forest, with white oak dominance and species composition not unlike oak savanna, can be distinguished from the latter by its much greater tree density, resulting in a more closed canopy, and the notable addition of the red oak.

The other upland association, beech-sugar maple forest, is designated presettlement vegetation category D, and this plant community is largely confined to the extreme northern and the northeastern portions of the transect in Leonidas Township. Characterized by the strong dominance of these two species, this association also contained small numbers of basswood, ironwood, white ash, tulip poplar, bitternut hickory, shagbark hickory, black walnut, and black cherry. It totals an estimated 3.2 km² (5.0%) of the area included within the survey transect.

2. Bottomland Associations

Wetland associations of all kinds comprise 34.3 km² (54.0%) of the presettlement vegetation in the survey universe. The floodplain of the St. Joseph River was timbered with forest species such as American elm, slippery elm, silver maple, and red maple. Less abundant in the canopy of southern floodplain forest were the water tolerant cottonwood, sycamore, and black willow, in areas of bottomland that were frequently inundated, and honey locust, hackberry, and black maple. Drier sites in the floodplain, however, were notable for stands of beech-sugar maple

forest. Southern floodplain forest (presettlement vegetation category A) is estimated to have covered 24.6 km² (38.7%) of the area included within the transect.

A variation of the aforementioned association occurred on wetlands located away from major river bottoms. Here, we find the swamp forest (presettlement vegetation category B), dominated by American elm or slippery elm and red maple, but with small numbers of black gum occurring throughout. Minor species shared by both wetland forest communities included swamp white oak, butternut, black walnut, and green ash. This association is estimated to have occupied about 1.9 km² (3.0%) of the survey area.

Undifferentiated wetlands, including swamp, marsh, or bog, supported vegetation representing stages in the succession from open bog or fen to forest. Within the transect these include swamps dominated by tamarack or black ash, cat-tail and bulrush marshes, sedge meadows, and mosaics that comprised elements of the above associations together with thickets of dogwood, alder, and willow. Associations grouped under category C (undifferentiated wetlands) are "spotted" throughout the study area and aggregate 7.8 km² (12.3%).

3. An extension of Nottawa Prairie occurred in a small portion of the transect on the south side of the St. Joseph River in Sections 30, 31, and 33 of Leonidas Township and Section 3 of Colon Township. Native grassland, totaling 3.2 km² (5.0%) of the study area and designated presettlement vegetation category F, occupied nearly level land and was characterized by fewer than a single mature tree/acre and a plant cover of grasses and forbs. The

dominant species were of the genus Andropogon; specifically big bluestem and little bluestem or wiregrass.

In addition to those sources of information cited at the beginning of this discussion of presettlement vegetation, the descriptions of the species composition of these various plant associations provided by Hodler et al (1981) have been of critical importance in the process whereby the survey universe has been stratified for the purpose of sampling during the data recovery phase of the research program. The exact procedure by which stratification of the SJVA-I transect was accomplished will be the subject of a subsequent section of the report.

SECTION 3: PREVIOUSLY RECORDED SITES IN THE SURVEY UNIVERSE

Although the current research program represents the first systematic study conducted in this segment of the St. Joseph River Valley, 19 previously recorded sites occur within or very near to the boundaries established for our survey. Of this number, nine would appear to be derived from documentary evidence, without any attempt being made to verify them in the field; four sites were recorded during a compliance survey undertaken by WMU on behalf of the Village of Colon, Michigan (Kingsley 1977); and the remaining six have been reported by area residents/collectors to the University of Michigan, since which time they have been recorded with the Bureau of History and entered into the state site files.

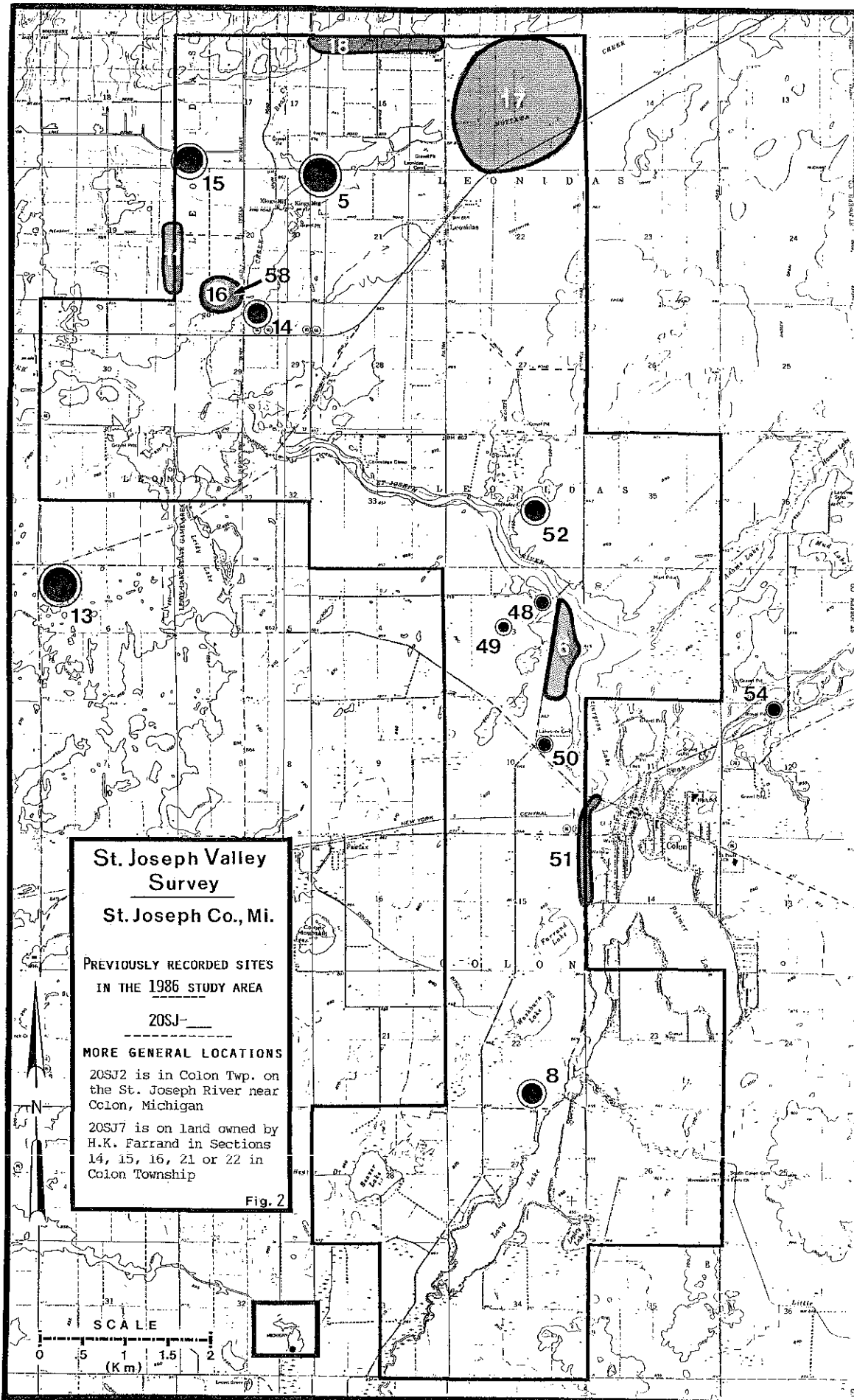
Briefly, these sites are (Fig. 2):

20SJ2

The Scott Mounds are reported in Quimby (1941a; 1941b) as being representative of the Middle Woodland Goodall Focus. However, the location of this site is very imprecise. The mounds are said to be on the St. Joseph River in Colon Township and near to the Village of Colon. This mound group has not been confirmed. In fact, the collection which has provided the basis for the identification of the Goodall Focus site has not been fully described in print.

20SJ5

The Bear Creek Earthwork is derived from a historical reference. This interesting site was presumably located about 2.0 km WNW of the Village of Leonidas in the NW corner of Section 21 overlooking the confluence of Nottawa and Bear Creeks. In the 1870's, the earthwork was still visible, "and is in a square form, fronting on the St. Joseph River (read Nottawa Creek), with an avenue leading to the rear to Bear Creek" (Everts 1877: 11). This site also has not been confirmed by professional archaeologists.



20SJ6

During the last century, a local "professor of taxidermy and embalming and archaeologist", Mr. E.H. Crane of Colon, excavated two mounds on the bank of Sturgeon Lake on the property of Mr. Phineas Farrand in the S 1/2, SE 1/4, NE 1/4 and E 1/2, SE 1/4 of Section 3, Colon Township. According to the county histories (Cutler 1906: 16-17; Everts 1877: 11), the mounds bore all the characteristics of the works of the mound-builders, but no bones; the soil of which they were constructed not being capable of preserving them. Crane did recover some small "flints", and in one, a fireplace. Cutler (1906: 17) notes that Crane referred to this feature as a "sacrificial fire-place", and in it he found the bones of all the animals and fish known to occur in the county, as well as some of extinct species. He, however, concluded that this feature could be attributed to historic Indians who were known to offer such sacrifices "by building a fire-place and a fire therein, and throw on their offerings of flesh, fish and fowl, and immediately cover the whole with earth, and the charred remains would preserve the bones". In 1986, when the WMU survey team evaluated the former Phineas Farrand property, four prehistoric sites (20SJ100, 101, 102, and 103) were recorded. While no remnants of earthen structures were observed, the nature of the cultural debris recovered suggests that we may have located a habitation area(s) associated with the Phineas Farrand mounds. This complex of sites certainly requires additional investigation.

20SJ7

The H.K. Farrand Mound is also referenced in the county histories (Cutler 1906: 16; Everts 1877: 11), and its discovery can also be attributed to E.H. Crane. Here, he found some remnants of bones, a wrought celt, and some flints. Any attempt to relocate this site will be hampered by an absence of provenience in the documents and the fact that H.K. Farrand owned land in Sections 14, 15, 16, 21, and 22 of Colon Township.

20SJ8

The Geoge Teller Mound is the third such site reported in the county histories (Cutler 1906: 16; Everts 1877: 11) and attributed to the work of Crane. In this structure he presumably found some

flints and celts. The original Teller Farm on which we presume that Crane made his discovery occupied the SW 1/4, SE 1/4 of Section 22, Colon Township. And it is of no small interest to us that this property today adjoins the land of Mr. H. David Walters where we have recorded the Walters 1 site (20SJ144); the most outstanding discovery of the 1986 field season. While the single diagnostic implement recorded for Walters 1 is a Middle Archaic artifact, the highly varied cherts of which the lithic debitage is comprised could be indicative of the presence of a Middle Woodland component as well. We tentatively suggest that Walters 1 might be the main habitation area associated with the George Teller Mound.

20SJ11

Nottawa-Seepe Village has been documented by Cutler (1906: 174-175) and, more recently, Weissert (1946b) and represents an 1830's settlement of Potawatomis on the old reservation west of the Village of Leonidas in Sections 19 and 20 of the township of the same name. The sources mention two specific locations: one refers to the Olney Brothers Farm which formerly straddled the line between the aforementioned sections; and the second refers to the "Reserve" school house, formerly located in the extreme NE corner of Section 19. Weissert, in referencing the latter, notes:

Pupils in 'Reserve' school, Dist. 3, play on ground where Indian children romped among wigwams. In this, the larger town, the Indians held, in 1838 and '39, two grand councils...(and) this Indian town, established before settlers arrived, consisted, in the late thirties, of approximately 40 huts built of poles, laid up like logs in a cabin, and roofed with bark. Smoke holes were cut in the roofs. Near the huts were bark tepees for temporary habitation and sleeping platforms for summer use.

Recently, while reviewing the Government Land Office survey field-notes and plats for Leonidas Township, the senior author found specific locational data for at least a portion of the structures and a cornfield that comprised this community. Surveyor Robert

Clark, jr., while establishing the line between Sections 19 and 20 on the Nottawaseepee Reservation in 1835, made the following observations as he passed through "barrens" very thinly timbered with bur oak, white oak, yellow oak, and hickory (all of the following measurements are recorded with reference to the corner shared by Sections 19, 20, 29, and 30):

- Indian house on line at 79.2 m north of the corner;
- another house at 207.9 m north and 3.3 m east of the line;
- a cornfield beginning at 287.1 m north and ending 158.4 m later, at 445.5 m north of the corner (a good crop was noted by Clark);
- a third house was encountered 12.4 m west of the line at 673.2 m north;
- two houses were recorded at 727.9 m north, one at 34.7 m east and the second at 19.8 m west of the line; and
- a sixth Indian house occurred on line at a distance of 861.3 m north of the corner.

Clearly, the precise locational data provided by Clark in the GLO survey records confirm the existence of this 1830's village on the old reservation; albeit the community would appear to be far more dispersed over the landscape than might otherwise be anticipated. No attempt was made to confirm this site in 1986.

20SJ13

Fort Hogan is an 1842 fortification erected by settlers on Daniel Hogan's property in the NW corner of Section 6, Colon Township, in anticipation of the outbreak of hostilities stemming from the Black Hawk War. When the local Indians remained at peace with the white settlers, work on the fortification ceased prior to its completion. In fact, based on Charles A. Weissert's (1946a) story in the Kalamazoo Gazette of 3 Nov 46, all that was accomplished:

With plows, shovels, scrapers, and ox-teams, the settlers began work on Fort Hogan which was to be patterned after common frontier defenses--an embankment with stockade of closely-set perpendicular timbers. The plan embraced five acres. Before nightfall, several furrows had been plowed the length of the western traverse, or outwork. Also

completed was a portion of the main work--an embankment two feet high, three wide, and 17 feet long.

On this were planted pickets from one to three inches in diameter.

At night, all of the workers went home, and work on this fort was not continued on the next day as the fears of the settlers dissipated. No attempt was made to confirm the existence of Fort Hogan.

20SJ14

This unnamed site is listed in the site files as a prehistoric lithic scatter occurring in the N 1/2, NW 1/4, NE 1/4 of Section 20, Leonidas Township. The cultural affiliation/temporal placement are undetermined. This site was not revisited during the 1986 survey.

20SJ15

This site is also described in the site files as a prehistoric lithic scatter of unknown extent and undetermined occupation. It lies in the S 1/2, SW 1/4, SW 1/4 of Section 17, Leonidas Township. The stratified random sample employed in our program of survey did not bring the survey team within 800 m of the reported location of this site. It remains unconfirmed.

20SJ16

Atkinson is another lithic scatter briefly described in the site files. It is located in the SW 1/4, SE 1/4, SW 1/4 of Section 20, Leonidas Township. Nothing in the collection from this site allows for determination of its cultural affiliation/temporal placement. Our site 20SJ109 occurs in very close proximity to Atkinson, but we cannot be confident that this previously recorded site has been confirmed.

20SJ17

Steinbarger is described as a prehistoric village on the basis of an amateur's collection and is very indefinitely located in Section 15, Leonidas Township. Our work in the NE 1/4 of this section has resulted in the recording of three sites (20SJ60, 61, and 62). Two are of very limited extent; one being a find-spot and the second covering only 10 m² of land area. However,

SECTION 4: SITE SURVEY METHODOLOGY

As previously noted, a concerted effort has been made by us to ensure that the methods by which the data have been collected during this project would produce information comparable with the data sets generated by earlier research programs conducted in other nearby drainages in southwest Michigan. In this section, a brief review of the project research design, field procedures, and means by which the data collected have been curated is offered.

1. Research Design

As in several of our previous programs of research, systematic investigation of the St. Joseph Valley transect was accomplished by means of stratified random sampling. The criteria used to stratify the study area are as follows (see Table 1):

- a. The permanent streams flowing through the transect, as well as inland lakes lacking outlet to area streams, have been rank ordered;
- b. landforms occurring in the survey universe have been differentiated on the basis of maps showing the surficial form of the local landscape; and
- c. mapping the distribution of major plant communities found in the study area at the time of American settlement, accomplished by reference to the GLO survey fieldnotes and plats and comparison of these data with the distribution of soils as plotted on a series of maps in the Soil Survey of St. Joseph County, Michigan (Cowan 1983).

As in previous years, the quarter section (64.8 ha) was established as the unit of area by which the transect would be sampled. The 63.5 km² survey universe was divided into 98 sampling units.

TABLE 1: CRITERIA USED TO STRATIFY THE SURVEY UNIVERSE

Water:

- 1 - St. Joseph River and Sturgeon Lake through which it passes
- 2 - 2nd order stream such as Nottawa Creek or Swan Creek and the lakes (Long, Palmer) through which the latter stream flows toward its confluence with the St. Joseph River
- 3 - 3rd order stream such as Bear Creek, which is a tributary of Nottawa Creek
- 4 - inland lake such as Farrand, Washburn, or Beaver Lake in Colon Township
- 5 - sampling unit (1/4 section) lacking permanent water of any sort

Landform:

- 1 - St. Joseph River floodplain
- 2 - tributary stream floodplain
- 3 - terrace formation on the St. Joseph River Valley floor
- 4 - tributary stream terrace
- 5 - bluff/uplands bordering the St. Joseph River Valley
- 6 - isolated ridge remnant/knoll on the valley floor

Presettlement Vegetation:

- A - southern floodplain forest
 - B - southern swamp forest
 - C - wetlands (undifferentiated)
 - D - beech-sugar maple forest
 - E - oak associated forest (oak forest, oak savanna, bur oak opening or "barrens")
 - F - prairie
-

The population of 98 quarter sections was first subdivided on the basis of water association or drainage into five categories. For example, if the St. Joseph River passed through a particular unit, it was assigned to category 1. If the quarter section lacked permanent water of any sort, it was placed in category 5.

Following assignment of all 98 units to one of the categories established on the basis of drainage, the entire population was again subdivided, but this time with an eye toward position on the landscape (i.e. landform). If, for example, the unit occupied bluff's edge overlooking the valley floor, it was assigned to category 5. In the event that a particular unit occurred in the St. Joseph floodplain, it was placed in category 1.

Finally, each sampling unit was assigned to a specific pre-settlement vegetation category. If a quarter section occurred in an area of the transect formerly supporting prairie, it was assigned to category F. In the event that the predominant plant community at the time of American settlement was marsh, the quarter section in question was placed in category C (undifferentiated wetlands).

Upon completion of the categorization process, the 98 units comprising the transect were assigned to a sampling stratum that combined the three criteria outlined previously and described in Table 1. For example, if a particular quarter section lacked permanent water (5), occupied a tributary stream terrace (4), and formerly supported oak associated forest (E), its sampling stratum designation would be 5-4-E.

In aggregate, the 98 units comprising the survey universe have been assigned to 16 sampling strata, representing the maximum number

of combinations derived through the application of the three criteria employed (Fig. 3). Briefly, these are (with the proportion of the transect occupied by each):

Stratum 1-1-A

This stratum consists of areas in the floodplain of the St. Joseph River where southern floodplain forest formerly predominated (17 units or 11.0 km^2 ; 17.3%).

Stratum 1-1-F

This stratum consists of units in the same topographic position, but the presettlement vegetation was prairie (2 units or 1.3 km^2 ; 2.0%).

Stratum 2-2-A

The units assigned to this stratum occur in the floodplains of major tributary streams where southern floodplain forest was formerly dominant (20 units or 13.0 km^2 ; 20.5%).

Stratum 3-2-A

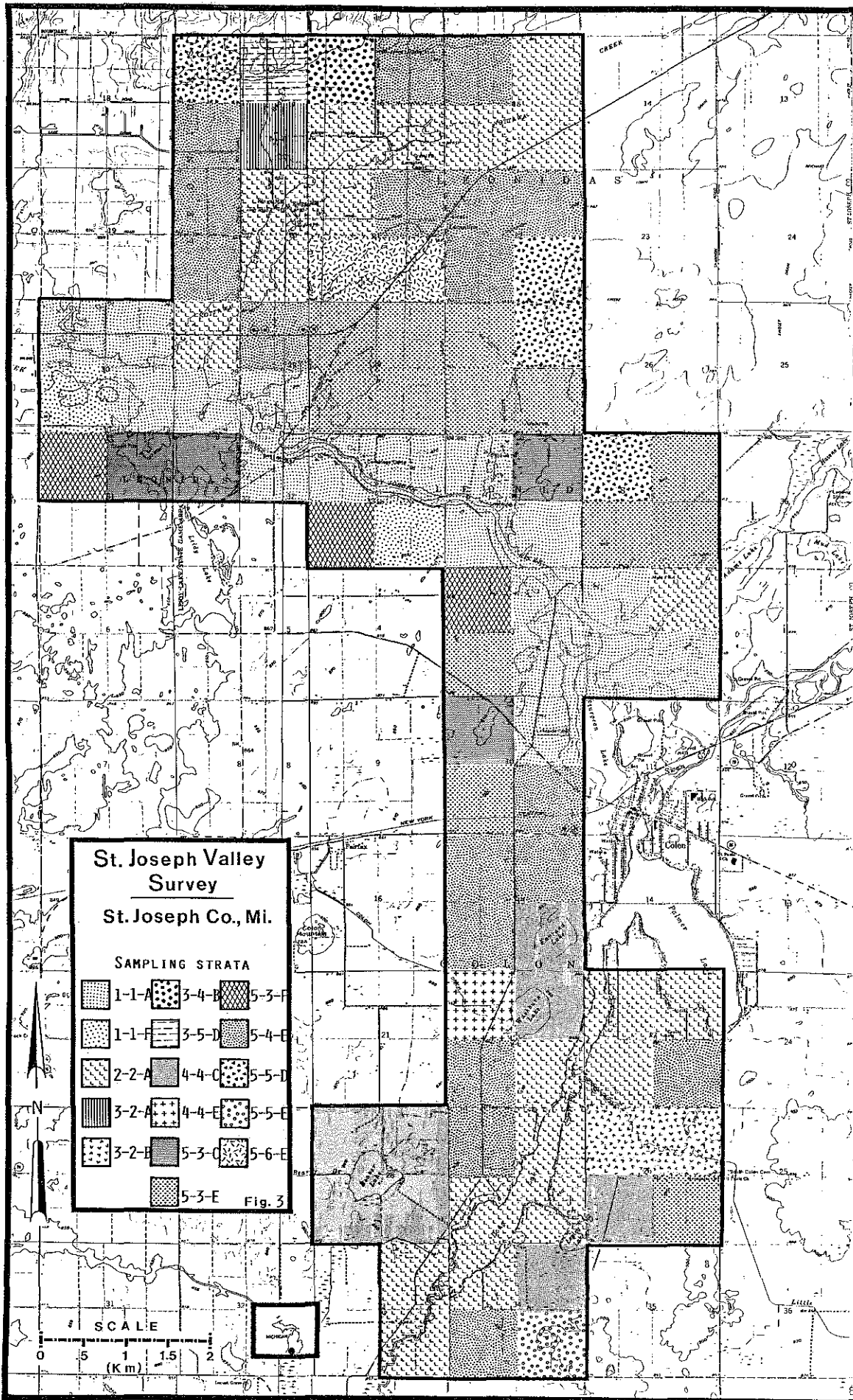
The single unit assigned to this sampling stratum occupies the floodplain of Bear Creek and formerly supported southern floodplain forest (1 unit or 0.6 km^2 ; 0.9%).

Stratum 3-2-B

The units comprising this stratum occupy a similar topographic position, but southern swamp forest predominated (2 units or 1.3 km^2 ; 2.0%).

Stratum 3-4-B

This unit (and stratum) on Bear Creek occupies an old stream terrace where southern swamp forest was dominant (1 unit or 0.6 km^2 ; 0.9%).



Stratum 3-5-D

The single unit comprising this stratum occupies a bluff's edge position above Bear Creek that formerly supported beech-maple forest (1 unit or 0.6 km²; 0.9 %).

Stratum 4-4-C

The stratum designates units occupying old tributary stream terraces where inland lakes are situated. The vegetation formerly (and in some cases, still) found here consists of undifferentiated wetlands (8 units or 5.2 km²; 8.2%).

Stratum 4-4-E

The one unit in this sampling stratum also occurs on an old stream terrace adjacent to an inland lake, but the plant community can be identified as oak associated forest (1 unit or 0.6 km²; 0.9 %).

Stratum 5-3-G

The units comprising this stratum lack permanent water of any sort, occupy old terrace formations in the St. Joseph River Valley, and formerly supported undifferentiated wetlands (4 units or 2.6 km²; 4.1%).

Stratum 5-3-E

Same as above, but with presettlement vegetation consisting of oak associated forest (13 units or 8.4 km²; 13.2%).

Stratum 5-3-F

Same as above, but with prairie vegetation (3 units or 1.9 km²; 3.0%).

Stratum 5-4-E

The units in this stratum lack permanent water, occupy tributary stream terraces, and formerly supported oak associated forest

(18 units or 11.7 km²; 18.4%).

Stratum 5-5-D

The units of this sampling stratum are also characterized by the lack of permanent water, but they occupy the bluff/uplands bordering the old glacial valley and formerly supported beech-maple forest (4 units or 2.6 km²; 4.1%).

Stratum 5-5-E

Same as above, but with oak associated forest as the dominant plant association (1 unit or 0.6 km²; 0.9%).

Stratum 5-6-E

The units in this sampling stratum also occur in areas without permanent sources of water, but in this case the dominant landform is an isolated ridge remnant/knoll on the valley floor and presettlement vegetation has been identified as oak associated forest (2 units or 1.3 km²; 2.0%).

Following assignment of all sampling units to one of 16 strata, a 20% random sample of quarter sections from each stratum was selected for investigation. Inasmuch as we anticipated that the survey team would seldom have access to 100% of the land in a targeted unit, and in order to increase our coverage in each stratum, we instructed the surveyors not to hesitate examining quarter sections in addition to those originally selected for study. Since these additional (i.e. alternative) sampling units had also been randomly drawn, the basic integrity of the research design would not be compromised were the team to evaluate such alternative units.

In aggregate, 27 of 98 quarter sections were targeted for study. During the course of fieldwork, however, the survey team actually walked all or portions of 59 units, or 60% of the total of 98 quarter

sections comprising the survey transect (Fig. 4). Although the 27 targeted quarter sections contained a total of 17.5 km², exceeding the required coverage of 12.7 km² (20%) called for by the research design, the survey team did succeed in intensively evaluating a total of 15.3 km² in the 59 quarter sections that were investigated. In other words, coverage exceeded the target by a full 20%, as the team was able to complete reconnaissance of 24.2% of the entire study area! And of equal importance is the fact that in none of the 16 sampling strata did surveyor coverage fall below 100% of the target land area; the acreage evaluated by stratum ranged from 100.3% to 320.5%, or 153.0% on the average for the 16 sampling strata. Surveyor coverage in the transect by stratum and random sampling unit is summarized in Table 2.

2. Field Procedures

Survey methods employed on this occasion were in all respects consistent with those characterizing earlier programs that I directed. The field team consisted of a Field Supervisor and three Field Assistants, and this permanent party was augmented on a daily basis by a student volunteer from the archaeological field school that had commenced excavation at several sites in southern Kalamazoo and northern St. Joseph Counties about one month earlier that the survey team entered the field.

Guided by the list of randomly selected and ordered quarter sections and the list of instructions provided below, fieldwork began on 2 Jun 86. The Field Supervisor was instructed to:

1. Focus on coverage by hectares rather than random sampling units, as several quarter sections might be required to gain access to enough land area in a particular stratum;

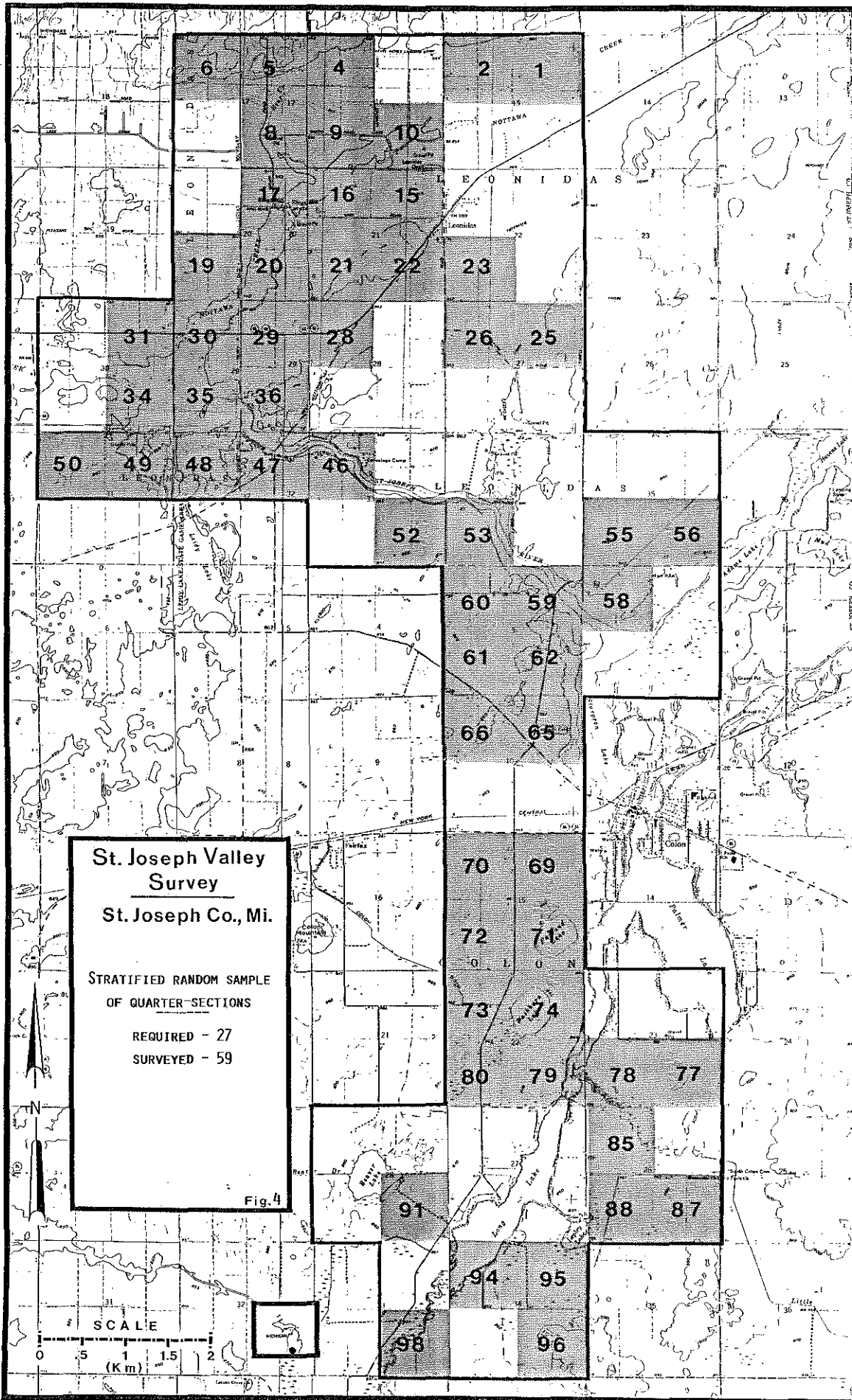


TABLE 2: SURVEY COVERAGE BY STRATUM
AND RANDOM SAMPLING UNIT (1/4 SECTION OR 64.8 HA)

Stratum 1-1-A:	N = 17 (4 targeted)	Objective - 220.3
<u>RS#</u>	<u>Coverage</u>	
31	43.6	
34	21.5	
35	13.9	
36	32.2	
46	7.2	
47	15.9	
53	35.5	
58	30.6	
59	5.2	
62	19.2	
<u>65</u>	<u>7.3</u>	
11	232.1	Achieved - 105.4%
Stratum 1-1-F:	N = 2 (1 targeted)	Objective - 25.9
<u>RS#</u>	<u>Coverage</u>	
<u>52</u>	<u>45.4</u>	
1	45.4	Achieved - 175.3%
Stratum 2-2-A:	N = 20 (4 targeted)	Objective - 259.2
<u>RS#</u>	<u>Coverage</u>	
1	42.5	
9	28.3	
10	14.2	
16	50.5	
17	9.2	
20	11.2	
30	19.8	
78	14.2	
79	31.9	
94	24.6	
<u>98</u>	<u>31.3</u>	
11	277.7	Achieved - 107.1%
Stratum 3-2-A:	N = 1 (1 targeted)	Objective - 13.0
<u>RS#</u>	<u>Coverage</u>	
<u>8</u>	<u>19.0</u>	
1	19.0	Achieved - 146.2%
Stratum 3-2-B:	N = 2 (1 targeted)	Objective - 25.9
<u>RS#</u>	<u>Coverage</u>	
<u>85</u>	<u>27.6</u>	
1	27.6	Achieved - 106.6%

Stratum 3-4-B:	N = 1 (1 targeted)	Objective - 13.0
<u>RS#</u>	<u>Coverage</u>	
4	25.7	
1	25.7	Achieved - 197.7%
Stratum 3-5-D:	N = 1 (1 targeted)	Objective - 13.0
<u>RS#</u>	<u>Coverage</u>	
5	20.2	
1	20.2	Achieved - 155.4%
Stratum 4-4-C:	N = 8 (2 targeted)	Objective - 103.7
<u>RS#</u>	<u>Coverage</u>	
71	27.5	
74	23.3	
88	17.9	
91	47.4	
95	20.3	
5	136.4	Achieved - 131.5%
Stratum 4-4-E:	N = 1 (1 targeted)	Objective - 13.0
<u>RS#</u>	<u>Coverage</u>	
73	26.0	
1	26.0	Achieved - 200.0%
Stratum 5-3-C:	N = 4 (1 targeted)	Objective - 51.8
<u>RS#</u>	<u>Coverage</u>	
48	44.9	
49	16.9	
66	6.1	
3	67.9	Achieved - 131.1%
Stratum 5-3-E:	N = 13 (3 targeted)	Objective - 168.5
<u>RS#</u>	<u>Coverage</u>	
26	19.6	
28	45.6	
55	27.1	
56	39.8	
61	27.7	
87	25.5	
6	185.3	Achieved - 110.0%
Stratum 5-3-F:	N = 3 (1 targeted)	Objective - 38.9
<u>RS#</u>	<u>Coverage</u>	
50	32.4	
60	37.6	
2	70.0	Achieved - 179.9%

Stratum 5-4-E: N = 18 (4 targeted) Objective - 233.3

<u>RS#</u>	<u>Coverage</u>	
2	38.6	
15	14.0	
19	56.4	
23	16.2	
29	30.6	
69	23.6	
70	6.1	
72	12.3	
77	22.3	
80	13.8	
10	233.9	Achieved - 100.3%

Stratum 5-5-D: N = 4 (1 targeted) Objective - 51.8

<u>RS#</u>	<u>Coverage</u>	
6	16.2	
25	47.2	
2	63.4	Achieved - 122.4%

Stratum 5-5-E: N = 1 (1 targeted) Objective - 13.0

<u>RS#</u>	<u>Coverage</u>	
96	20.6	
1	20.6	Achieved - 158.5%

Stratum 5-6-E: N = 2 (1 targeted) Objective - 25.9

<u>RS#</u>	<u>Coverage</u>	
21	60.7	
22	22.3	
2	83.0	Achieved - 320.5%

Totals:

Research Universe	98 quarter-sections (6,350.4 ha)
Targeted Units	27 quarter-sections (1,749.6 ha)
Surveyed Units	59 quarter-sections, with total coverage of 1,534.2 ha or 87.7% of the land area in the target and <u>24.2%</u> of the entire study area

Summary by Stratum (with the land area actually evaluated divided by the number of ha required in each stratum to achieve a 20% stratified random sample of the research universe):

Stratum 1-1-A	11 quarter-sections (232.1/220.3 = 105.4%)
Stratum 1-1-F	1 quarter-section (45.4/25.9 = 175.3%)
Stratum 2-2-A	11 quarter-sections (277.7/259.2 = 107.1%)
Stratum 3-2-A	1 quarter-section (19.0/13.0 = 146.2%)
Stratum 3-2-B	1 quarter-section (27.6/25.9 = 106.6%)
Stratum 3-4-B	1 quarter-section (25.7/13.0 = 197.7%)

Stratum 3-5-D	1 quarter-section (20.2/13.0 = 155.4%)
Stratum 4-4-C	5 quarter-sections (136.4/103.7 = 131.5%)
Stratum 4-4-E	1 quarter-section (26.0/13.0 = 200.0%)
Stratum 5-3-C	3 quarter-sections (67.9/51.8 = 131.1%)
Stratum 5-3-E	6 quarter-sections (185.3/168.5 = 110.0%)
Stratum 5-3-F	2 quarter-sections (70.0/38.9 = 179.9%)
Stratum 5-4-E	10 quarter-sections (233.9/233.3 = 100.3%)
Stratum 5-5-D	2 quarter-sections (63.4/51.8 = 122.4%)
Stratum 5-5-E	1 quarter-section (20.6/13.0 = 158.5%)
Stratum 5-6-E	2 quarter-sections (83.0/25.9 = 320.5%)

Average coverage for 16 sampling strata = 153.0% of the required land area in each stratum.

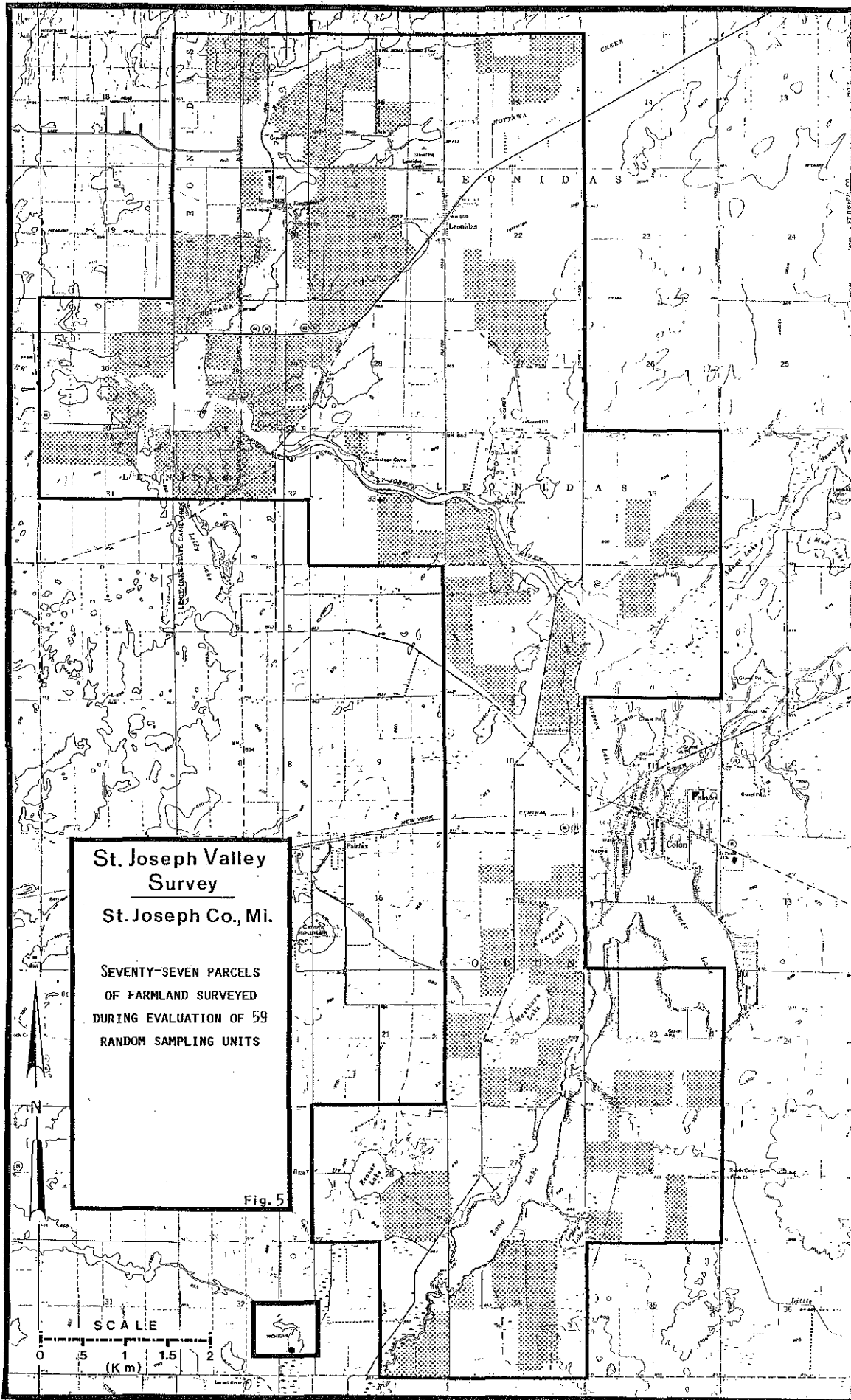
2. actually evaluate a particular quarter section only if it could be determined that at least 25% of the land area was accessible for surface reconnaissance. Should this not be the case, the unit would be removed from consideration and replaced with the next quarter section on the list of randomly selected sampling units;
3. always be sure to proceed through the list of quarter sections in the order that they appeared so as to preserve the integrity of the random sample;
4. if possible, without the loss of potentially significant site data, leave one stratum for another when the number of hectares surveyed reached the objective called for in the research design (this obviously proved to be infeasible in the majority of cases);
5. locate all sites recorded on the plat sheet and appropriate topographic map, fill out a site form as completely as possible, and enter comments in the project log book together with the random sample number and location of the quarter section in which the site was found; and
6. include in all log entries the date a particular random

sampling unit was evaluated, the estimate of land area that was surveyed, the landowner's attitude regarding this work and possible follow up test excavation, any interesting observations about a site that was recorded, information regarding possible collector activity, and the condition of the field (surface visibility) at the time that it was surveyed.

Guided by the list of randomly selected sampling units and the aforementioned instructions for the conduct of fieldwork, the survey team sought access to parcels of land that were under cultivation or otherwise afforded good surface visibility. Figure 5 precisely locates the 77 parcels, ranging in size from 6.1-56.4 ha ($\bar{X} = 19.9$ ha), that were evaluated by surveyors.

What the survey team typically encountered was a corn or bean field in which the plants were barely breaking the surface, and on no occasion was a crop standing tall enough, even toward the end of the two week period in the field, to restrict visibility in any serious way. Thus, the survey team routinely employed an interval of 20 m between surveyors and was able to move rapidly across a field without forsaking appropriate observations along the way. The relative frequency with which isolated artifacts and lithic debris scatters of very limited extent were recorded, is indicative of the conditions in which surveyors found most fields, the competence of surveyors in scanning the landscape for "telltale" signs of the presence of a site, and the general adequacy of the 20 m interval employed while reconnoitering fields in the survey transect.

In addition to surface reconnaissance, the survey team also employed the Stam soil tester in selected situations (specifically



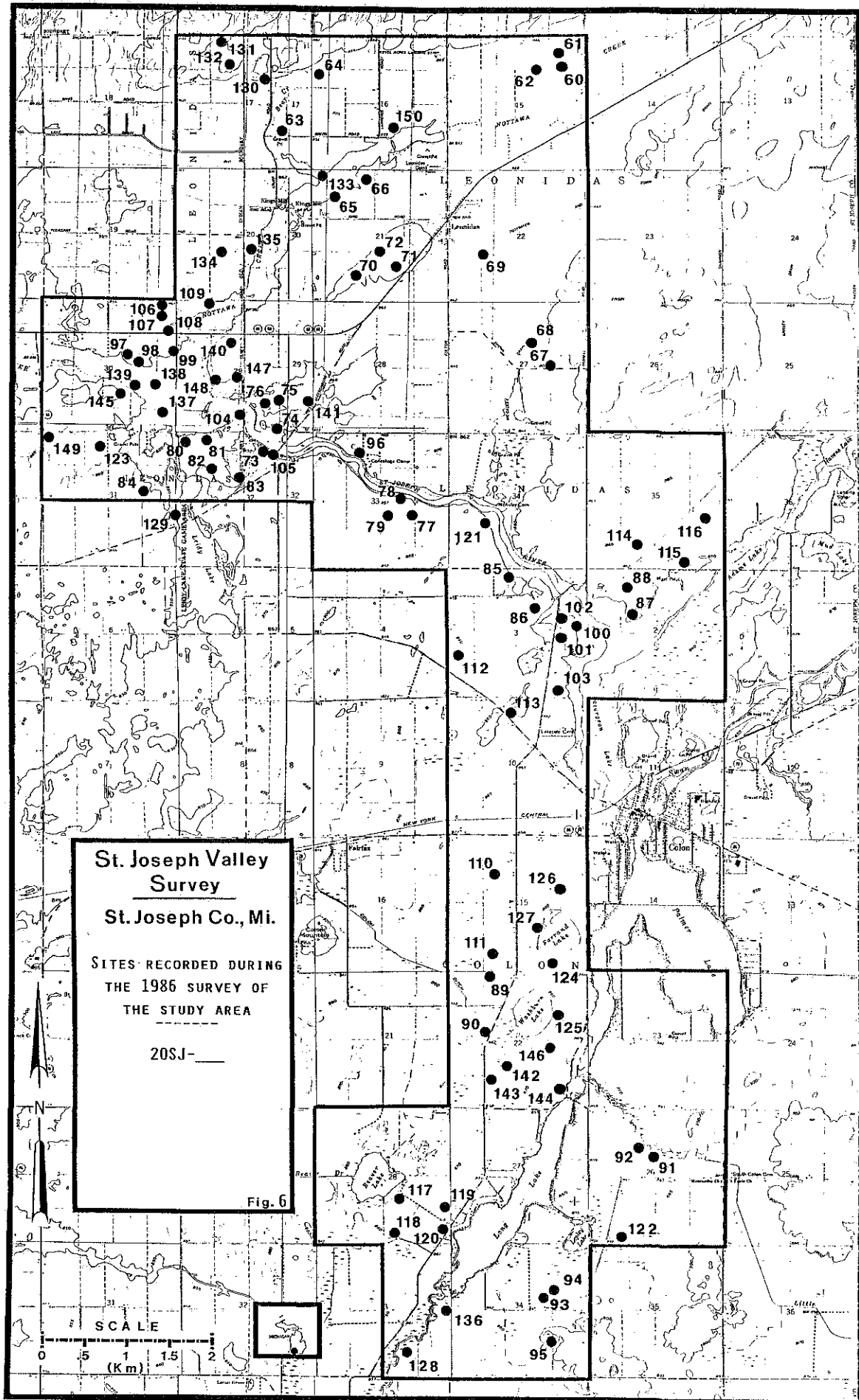
alluvial floodplain contexts) to search for deeply buried cultural deposits. Although selected locations were probed to a depth of 1.5 m below the surface with this device, no indications of the presence of buried sites were found in surveyed portions of the study area.

Surveyors were instructed to look for any evidence that would suggest a former occupation or activity area; whether the material observed was prehistoric or historic, a site was to be recorded on the basis of appropriate information gathered. In the event that a member of the team encountered cultural material, the entire team assembled in this area in order to better delineate the site area and seek to collect diagnostic items. Archaeological sites were to be recorded only if bona fide cultural items or features were observed. A scatter of fire-cracked rock, in and of itself, was not considered sufficient for definition of a site locus unless accompanied by supportive cultural material.

In addition to reconnaissance level survey, the SJVA-I team visited local collectors and photodocumented collections in their possession in order to learn more about sites which they had recorded and also to acquire leads to the locations of sites that had not been observed first-hand in the field. Information collected in this manner has proven most useful in better assessing several of the potentially more significant sites that were recorded during this project (e.g. Walters 1: 20SJ144).

3. Curation of Cultural Material and Survey Records

The cultural material collected from the 90 newly recorded sites located in Figure 6 and described in the subsequent section of this report was cleaned, labeled, and examined and identified



by the junior author, Mr. Quattrin, preparatory to accessioning the items into the collections maintained by the Department of Anthropology. The Department's type set of artifacts and lithic raw materials was consulted to identify diagnostic tools and the sources for cherts found on these sites that have their origins outside of southwest Michigan. Additionally, recent studies (Clark 1981; Garland 1984) which include analyses of artifacts useful in ascertaining the cultural affiliation and/or temporal placement of diagnostics collected during the SJVA-I research program were consulted. Finally, each site and the material recovered from it was assigned a state site number whereby the site could be entered into the computerized site files maintained by the Bureau of History, Michigan Department of State.

A copy of this report, together with all written and photographic records from the SJVA-I project, will be placed in the files that are kept together with the artifactual material in the archaeological collections at Western Michigan University.

SECTION 5: SITE DESCRIPTIONS AND CATALOG OF SURFACE COLLECTIONS

With respect to the site descriptions that follow, we have provided both a legal reference to the property and a point location derived from the UTM projection. All sites in the project area occur within UTM Zone 16, and the precise location within this zone is given in parentheses following the legal reference assigned each site.

A site's cultural affiliation and/or temporal placement, when provided, are based upon our assessment of diagnostic artifacts (see the plates appended to the report), occasional pieces of pottery, and lithic specimens identified as to source of the raw material and the proposed appearance of various cherts in southwest Michigan over time. These should, however, be regarded as tentative inasmuch as many of our sites have provided little in the way of information with which to work.

The relative importance assigned to each site reflects our evaluation of its potential interpretive value with respect to both chronological reconstruction and determination of prehistoric utilization of this segment of the St. Joseph River Valley. In accordance with these objectives, a "low, moderate, or high priority" is assigned each site recorded and described below.

In every case, we regard the cultural material acquired through surface reconnaissance and limited subsurface testing with the Stam soil probe and inventoried below as being inadequate or insufficient for purposes of making an assessment of a site's eligibility for listing in the National Register of Historic Places. Only those sites which are assigned a moderate or high priority are at this time felt to warrant additional evaluation,

at least in the form of limited test excavation. However, we are quite confident that if such work is carried out in the near future that potentially 5-10% of this site population will yield information supporting nomination for listing in the register. Parenthetically, a proposal to test two sites, Walters 1 (20SJ144) and Cupp 5 (20SJ104), to determine eligibility during the 1987 field season is currently pending.

20SJ60

5315-1
The Nottawa Creek site, located in the SE 1/4, SW 1/4, NE 1/4, NE 1/4 of Section 15, Leonidas Township (4655310N 637670E), occupies a terrace of this stream overlooking a pronounced bend in the creek. Here, surveyors observed a moderate fire-cracked rock and light lithic scatter over an area of 2.0 ha. Given the recovery of a nutting stone and the site's size, it is appropriate to hypothesize that 20SJ60 is a habitation site. In the absence of diagnostic material, the site's cultural affiliation/temporal placement cannot at this time be determined. Low to moderate priority.

- 1-uniface of unidentified chert
- 1-nutting stone
- 4-flakes of Burlington chert
- 4-flakes of unidentified chert

20SJ61

5315-2
Norma Shoop represents the isolated occurrence of a projectile point in the SW 1/4, NW 1/4, NE 1/4, NE 1/4 of Section 15, Leonidas Township (4655460N 637790E). In addition to the tool, several pieces of FCR were observed in this location about 200 m NW of 20SJ60. The artifact is analogous to the St. Joseph corner-notched point described by Clark (1983) and assigned a Late Archaic-Middle Woodland temporal placement. Low priority.

- 1-St. Joseph corner-notched point of unidentified chert

20SJ62

5315-3
The Etal site occupies a slight ridge in the SW 1/4, SE 1/4, NW 1/4, NE 1/4 of Section 15, Leonidas Township (4655260N 637480E). The lithic pieces found here occurred within a few

meters of one another with very little associated FCR. Neither the cultural affiliation nor temporal placement of this possible knapping station can be determined. Low priority.

2-thinning flakes of Burlington chert

2-Flakes of unidentified material

205J63

STAS-4
Situating on the east side of Bear Creek in the SW 1/4, SW 1/4, NE 1/4, SE 1/4 of Section 17, Leonidas Township (4654420N 634410E), the Rockelein Trust site consists of a light lithic and FCR scatter over an area of about 3,000 m². The presence of a Snyders corner-notched point in the collection is suggestive of a Middle Woodland temporal placement. Low to moderate priority.

1-Snyders corner-notched point of heat treated Burlington chert

1-projectile point of unidentified chert

1-biface of unidentified chert

1-historic "blob top" bottleneck

205J64

STAS-5
The J & A site occupies 1500 m² of a pronounced ridge paralleling the course of Bear Creek in the NW 1/4, NW 1/4, SW 1/4, NW 1/4 of Section 16, Leonidas Township (4655130N 634810E). Here, surveyors recorded a light lithic and FCR scatter lacking diagnostic items. However, the presence of Bayport chert might be suggestive of a Middle Woodland temporal placement. Low priority.

1-flake of heat treated Burlington chert

1-flake of Bayport chert

1-flake of Wyandotte chert

2-flakes of an unknown material

2-fragments of transfer printed earthenware

205J65

STAS-6
Located on a slight rise overlooking the mill race near the confluence of Bear and Nottawa creeks in the SW 1/4, SE 1/4, NW 1/4, NW 1/4 of Section 21, Leonidas Township (4653680N 635270E), the Outman site encompasses approximately 9,000 m²

and represents a mixture of prehistoric and historic debris. The prehistoric component would appear to date to the Middle Woodland period, based on the identification of a reworked Snyders point in the assemblage. Given the site's size and location and the presence of a variety of exotic cherts in the surface collection, we have assigned 20SJ65 a moderate to high priority.

- 1-reworked Snyders corner-notched point of heat treated Burlington chert
- 1-flake of Burlington chert
- 1-flake of heat treated Bayport chert
- 1-flake of Attica chert
- 1-blank or preform of Bayport chert
- 3-flakes derived from local till cherts
- 1-sherd of Yellow and Green earthenware
- 1-fragment of Blue transfer print ware
- 1-"blob top" bottle top
- 1-unidentified medicine bottle top

20SJ66

SJAS-7
The Leon site lies just south of Nottawa Creek in the NW 1/4, NE 1/4, NE 1/4, NW 1/4 of Section 21, Leonidas Township (4653910N 635440E). It is represented by a light lithic and FCR scatter encompassing about 600 m² of a prominent ridge paralleling the course of the creek. Identification of the base of a Madison point suggests a Late Woodland temporal placement for this probable limited activity locus. Low priority.

- 1-base of a Madison point of an unidentified chert
- 1-flake of Burlington chert
- 2-flakes of Norwood chert
- 1-flake of an unidentified chert evidencing unifacial retouch

20SJ67

SJAS-8
The D & M Decker site represents the findspot of a "diminutive" point probably dating to the Late Woodland period in the SE 1/4, SE 1/4, SW 1/4, NE 1/4 of Section 27, Leonidas Township (4651660N 637670E). Inasmuch as this location is associated with uplands supporting undifferentiated oak forest and lacks

a permanent source of water, This Late Woodland site signals an isolated episode of hunting during which this tool was lost or discarded by its user. Low priority.

1-diminutive projectile point of an unknown material

20SJ68

The Swonk site is situated in the SE 1/4, SW 1/4, NW 1/4, NE 1/4 of Section 27, Leonidas Township (4652030N 637430E).

While there is no permanent source of water in the uplands near this site of some 1,800 m² extent, the quantity of lithic debris and associated FCR attests to a rather substantial occupation in prehistory. The single clearly diagnostic item is a Berrien corner-notched point (Clark 1983), suggesting placement in the Late Archaic-Early Woodland transition. However, this point type also evidences occasional occurrences in Middle Woodland contexts as well. Debris density and the great variety of lithic raw materials on this site support assignment of a high priority to 20SJ68.

- 1-Berrien corner-notched point of an unidentified chert
- 1-hafted biface of an unknown material
- 1-bifacial scraper of an unknown chert
- 1-biface of quartzite
- 1-core of quartzite
- 1-core of an unidentified material
- 1-unifacial scraper of Purple chert
- 1-quartzite uniface
- 1-large unifacially retouched flake of Flint Ridge chert
- 1-bifacially retouched flake of Purple chert
- 1-utilized flake of an unidentified chert
- 5-flakes of Purple chert
- 4-flakes of heat treated quartzite
- 4-flakes of quartzite
- 3-flakes of Deer Lick Creek chert
- 1-flake of Upper Mercer chert
- 1-flake of Burlington chert
- 1-flake of heat treated Burlington chert
- 1-flake of Kettle Point chert
- 13-flakes of unidentified material

20SJ69

SJAS-10
The Fulton site is the findspot of a single flake of Bayport chert in the NW 1/4, SW 1/4, NE 1/4, SW 1/4 of Section 22, Leonidas Township (4652990N 636860E). That the only item found here is of the nonlocal Bayport chert might be best construed to support a Middle Woodland temporal placement for this findspot. Low priority.

1-flake of Bayport chert

20SJ70

SJAS-11
The Rick Coomer site is a small lithic and FCR scatter covering an area of 400 m² in the SE 1/4, NW 1/4, SE 1/4, SW 1/4 of Section 21, Leonidas Township (4652680N 635380E). The site is located atop a pronounced knoll on an old terrace of the St. Joseph River. Due to the paucity of material recovered, it is not possible to determine this site's cultural affiliation/temporal placement. Low priority.

2-flakes of Burlington chert

20SJ71

SJAS-12
The site recorded as Roger C. encompasses 200 m² on the same pronounced knoll as 20SJ70 in the SE 1/4, SW 1/4, NW 1/4, SE 1/4 of Section 21, Leonidas Township (4652800N 635810E). It is suggested that this locus represents a single episode of knapping, and given the presence of two items of Burlington chert it is also tempting to suggest that the two sites are related. No attempt has been made to determine this site's cultural affiliation or temporal placement. Low priority.

1-core fragment of Burlington chert

1-flake of Burlington chert

20SJ72

SJAS-13
Carol C. is the findspot of a flake of Deer Lick Creek chert a short distance to the north of the aforementioned two sites and in the SE 1/4, NE 1/4, NE 1/4, SW 1/4 of Section 21, Leonidas Township (4653020N 635590E). Nothing can be offered regarding this site's cultural affiliation and/or temporal placement. Low priority.

1-bifacially worked flake of Deer Lick Creek chert

20SJ73

STAS-14

Located on the bluff overlooking the St. Joseph River flood-plain, the Fredenburg site is a light lithic and FCR scatter covering an estimated 7,000 m² in the NW 1/4, SE 1/4, NW 1/4, NE 1/4 of Section 32, Leonidas Township (4650490N 634350E). The presence of a nutting stone fragment on this site might provide a clue as to its function and seasonality of occupation. In the absence of diagnostic specimens, it is not possible to determine its cultural affiliation and/or temporal placement. Low priority.

- 1-nutting stone fragment
- 1-flake of Burlington chert
- 1-flake of an unidentified raw material

20SJ74

STAS-15

Tunison occupies about 900 m² of a pronounced but small ridge above the St. Joseph River in the SE 1/4, SE 1/4, SW 1/4, SE 1/4 of Section 29, Leonidas Township (4650790N 634450E). Surveyors identified a moderate scatter of lithic debris and FCR at this locus, and the presence of a Charleston point in the assemblage suggests an Early Archaic temporal placement (Garland 1984). A limited activity or special purpose function and moderate priority are proposed for this small site.

- 1-Charleston projectile point of unidentified chert
- 1-distal portion of a projectile point of unknown material
- 1-unifacially thinned side scraper of unidentified chert
- 1-flake of quartzite
- 1-flake of unknown material

20SJ75

STAS-16

The Covey site is a findspot located in the NE 1/4, NE 1/4, SW 1/4, SE 1/4 of Section 29, Leonidas Township (4651140N 634420E). Here, the survey team found a Durst stemmed point and a flake of Burlington chert without FCR in association. It is tempting to view this site as reflecting a single episode of knapping, dating to the Late Archaic, as has been noted by Stoltman (1986) for Wisconsin, or perhaps extending as recently as A.D. 200 in southwest Michigan (Garland 1984). Low priority.

- 1-Durst stemmed projectile point of unknown material
- 1-flake of Burlington chert

20SJ76

505-17
A light lithic and FCR scatter occupying a slight rise and encompassing about 1,500 m² in the NW 1/4, NE 1/4, SW 1/4, SE 1/4 of Section 29, Leonidas Township (4651130N 634280E) has been designated the Tunison 2 site. The presence of a "diminutive" corner-notched point in the collection argues for a Late Woodland temporal placement. Low priority.

1-diminutive point of Burlington chert

1-flake of Deer Lick Creek chert

20SJ77

505-18
Gordon Barton, located in the SE 1/4, NE 1/4, NW 1/4, SE 1/4 of Section 33, Leonidas Township (4649790N 636080E), represents the findspot of a Charleston corner-notched projectile point. Also found here was a single fragment of Flow Blue earthenware, attesting to the presence of a historic component as well. While this site, like 20SJ74, signals the presence of Early Archaic people in this segment of the St. Joseph River Valley perhaps 10,000 years ago, 20SJ77 warrants only a low priority assignment on the basis of this scant surface collection.

1-Charleston corner-notched projectile of Attica chert

1-fragment of Flow Blue earthenware

20SJ78

505-19
Situating in the SW 1/4, SE 1/4, SE 1/4, NE 1/4 of Section 33, Leonidas Township (4650010N 635960E), the "Ole Trading Post" site overlooks the St. Joseph River to the north. Not only were surveyors able to delineate a prehistoric component covering perhaps 2.4 ha and strongly suggestive of Middle-Late Woodland cultural affiliation, but this site has also produced historic ceramics dating to the first half of the nineteenth century. While neighbors maintained that this was the site of an early trading post, we are inclined to view the historic debris as being associated with some of the earliest permanent settlers of the township. For, as noted later on in this section, the Hatch Trading Post site would appear to be better located at a point downstream from 20SJ78. Moderate priority.

1-biface fragment of an unidentified chert

1-flake of Flint Ridge chert

- 2-flakes of Deer Lick Creek chert
- 3-flakes of quartzite
- 1-fragment of Stippled Blue transfer print (1810-1830?)
- 1-piece of Cobalt Oxide Blue transfer print (1830-1845)
- 1-herd of Red transfer print (post-1828)
- 1-fragment of Blue Banded earthenware
- 1-piece of melted glass

Note: the source for placing these historic ceramics in time is Brose (1967)

20SJ79

The historic site surveyors located in the SW 1/4, NW 1/4, NW 1/4, SE 1/4 of Section 33, Leonidas Township (4649820N 635760E) is herein referred to as Appletree. This 6,000 m² scatter of nineteenth century ceramics has also been identified by some local residents as the Hatch Trading Post, occupied for a short time during the year 1831. For the same reason previously cited, we suspect that 20SJ79 lies too far upstream to be the location of this post and rather suggest that Appletree is also the location of an early farmstead; albeit an unidentified one. According to Lockwood-Moore (1984), both of the identifiable ceramic types were in production for nearly forty years, spanning ca. 1820-1860 or 1865. Interestingly, a neighbor noted that crop marks in the field appear to outline a former structure(s). Moderate priority.

- 2-fragment of Red transfer print earthenware
- 2-herds of late Gaudy Dutch earthenware
- 3-pieces of common whiteware
- 1-fragment of pearlware

20SJ80

Smith Road is located in the SE 1/4, NW 1/4, NW 1/4, NW 1/4 of Section 32, Leonidas Township (4650580N 633380E). This light lithic and FRC scatter occupies ca. 3.0 ha of a low ridge to the south of a pronounced bend in the course of the St. Joseph River. The material recovered includes two partial points, one of which is another "diminutive" projectile dating to the Late Woodland period. While the light nature of the debris scatter does not suggest substantial occupation, the size of the site

would argue for an alternative interpretation. A moderate to high priority is assigned to this site until this matter can be settled.

- 1-diminutive projectile point base of an unidentified chert
- 1-distal portion of another possible diminutive specimen fabricated on Burlington chert
- 1-serrated uniface of quartzite
- 1-flake of Burlington chert
- 4-flakes of quartzite, one of which evidences thermal pre-treatment of the raw material

20SJ81

SJAS-22
R & B represents the isolated occurrence of a projectile point and one flake in the NE 1/4, NE 1/4, NW 1/4, NW 1/4 of Section 32, Leonidas Township (4650640N 633580E). The artifact is a Gibson point (Clark 1981) and dates to ca. A.D. 125 in Illinois where it commonly occurs in association with Middle Woodland Hopewell ceramics. Low priority.

- 1-Gibson point of an unknown raw material
- 1-flake of an unidentified chert

20SJ82

20SJ82
Situating in the SW 1/4, SW 1/4, NE 1/4, NW 1/4 of Section 32, Leonidas Township (4650310N 633720E), the Small site occupies 2,000 m² of a prominent knoll intermediate between two small wetland associations. Perhaps 20SJ82 represents seasonal reoccupation of this well drained locus during exploitation of aquatic and/or riparian resources of the nearby wetlands. In the absence of a good diagnostic tool, we can only tentatively suggest a Woodland placement given the Wyandotte chert on the site.

- 1-side-notched biface of an unidentified chert
- 1-uniface of quartzite
- 2-flakes of Burlington chert
- 1-flake of Wyandotte chert

20SJ83

20SJ83
The Jacksonburg Road site is a light lithic and moderate FCR scatter occupying 1,800 m² of a low landform adjacent to a small wetland in the SE 1/4, NE 1/4, SE 1/4, NW 1/4 of Section 32, Leonidas Township (4650140N 634030E). The site's cultural

affiliation/temporal placement cannot be ascertained given the nature of the assemblage. Low priority.

1-bifacial blank of Deer Lick Creek chert

1-piece of Burlington shatter

1-flake of quartzite

20SJ84

20SJ-25
Sited in the SW 1/4, SW 1/4, SE 1/4, NE 1/4 of Section 31, Leonidas Township (4650020N 633070E), the Schimdtendorff site is an interesting findspot. Here, the survey team discovered a hafted drill lacking any other associations. The site is located to the SW of a wetland area on the south bank of the St. Joseph River where it is joined by Nottawa Creek. Neither the cultural affiliation nor temporal placement of 20SJ84 can at this time be postulated. Low priority.

1-hafted drill fragment of Burlington chert

20SJ85

20SJ-26
The J S W Brandt site is located in the NE 1/4, NE 1/4, NE 1/4, NW 1/4 of Section 3, Colon Township (4649110N 637270E), about 100 m SW of the St. Joseph River. Encompassing 600 m² of area, this site is characterized by a light lithic and FCR scatter surrounded on the remaining three sides by low areas of muck soils. Nothing in the small surface collection is diagnostic, but a Middle Woodland placement may be suggested. Low priority.

1-utilized flake of an unidentified chert

2-flakes of Bayport chert

3-flakes of an unidentified material

20SJ86

20SJ-27
The findspot called the Colon City site is situated in the NW 1/4, NE 1/4, SW 1/4, NE 1/4 of Section 3, Colon Township (4648700N 637560E). It occupies a slight rise surrounded by water on three sides; the St. Joseph lying to the north and east and wetlands on the south and northwest. The single artifact found here is not diagnostic, so the site's cultural affiliation/temporal placement is unknown. This site may have been previously recorded by Kingsley (1977) as 20SJ48. Low priority.

1-bifacial core of an unknown chert

20SJ87

The Nystrom site occupies a bluff's edge position overlooking the St. Joseph River in the SE 1/4, NW 1/4, SE 1/4, NW 1/4 of Section 2, Colon Township (4648660N 638690E). Encompassing an estimated 4,800 m² of area, 20SJ87 is delimited by water on three sides. The river passes by the site to the west; on the south the northernmost edge of Sturgeon Lake approaches the site; and a small unnamed creek flows in a northeasterly direction along the east side of Nystrom. During survey of this property, the field team observed a moderate lithic and heavy FCR scatter on the surface. They also employed the Stam soil probe to test for buried cultural deposits, but to no avail. All indications suggest an Early and/or Middle Woodland occupation, with Bayport, Upper Mercer, and Wyandotte cherts being present (see Clark in Garland 1984). Unfortunately, no clearly diagnostic artifacts were recovered during our survey. High priority.

- 1-triangular blank or knife of Wyandotte chert
- 4-flakes of Wyandotte chert
- 2-flakes of Bayport chert
- 1-flake of Upper Mercer chert
- 13-flakes of Burlington chert
- 1-unifacially worked piece of Burlington chert
- 2-utilized flakes of quartzite
- 2-flakes of quartzite
- 13-flakes of unidentified chert

20SJ88

Blossom is situated in the SW 1/4, NW 1/4, NE 1/4, NW 1/4 of Section 2, Colon Township (4649040N 638620E). Here, an isolated "microgouge" and one flake were observed at a point some 200 m south of 20SJ87. No temporal placement is suggested for this findspot. Low priority.

- 1-microgouge of an unidentified material
- 1-flake of quartzite

20SJ89

The K & P Miller site is represented by a light lithic and FCR scatter covering an area of 900 m² in the NW 1/4, NW 1/4, NE 1/4,

NW 1/4 of Section 22, Colon Township (4644320N 637110E). It occupies level ground between to areas of wetland vegetation; one to the south and the other located to the northwest of the site. The material is not diagnostic, and we cannot, therefore, suggest a specific cultural affiliation/temporal placement for 20SJ89. Low priority.

1-perforated object of an unidentified material

4-flakes of an unknown chert

20SJ90

Located in the SW 1/4, SW 1/4, SE 1/4, NW 1/4 of Section 22, Colon Township (4643630N 637140E), the Bradley site is a light lithic and FCR scatter occupying 2,800 m² of a small rise overlooking wetlands to the south. Neither the cultural affiliation nor temporal placement of this probable limited activity locus can be precisely determined; albeit a Woodland period placement might be suggested on the basis of Wyandotte chert. Low priority.

1-proximal portion of a hafted knife of Wyandotte chert

2-flakes of Purple chert

20SJ91

The Zinck site is characterized by a moderate scatter of FCR over an area of 1,800 m², but only a single "good" flake was observed to be in association with the fire-cracked rock. It occupies a slight ridge adjacent to Little Swan Creek in the NE 1/4, SE 1/4, SE 1/4, NW 1/4 of Section 26, Colon Township (4642160N 639130E). Since Attica chert would appear to span virtually the entire period of human occupation of southwest Michigan, the presence of this nonlocal raw material is not a good indicator of the site's probable age. Low priority.

1-utilized flake of Attica chert

20SJ92

The Minnie site occupies the same ridge as 20SJ91, but is located downstream of the latter in the NE 1/4, NW 1/4, SE 1/4, NW 1/4 of Section 26, Colon Township (4642320N 638960E). Here, the survey team noted a light lithic and FCR scatter encompassing an area of ca. 5,000 m². Nothing in the small assemblage is diagnostic, and the site's cultural affiliation and temporal

placement cannot be determined. Low priority.

1-utilized flake of an unidentified material

1-Flake of quartzite

1-Flake of an unknown chert

20SJ93

SW-34
The findspot identified as the Bogert site is located in the NE 1/4, SE 1/4, SW 1/4, NE 1/4 of Section 34, Colon Township (4640500N 637910E). It is situated in close proximity to an area of wetland vegetation, and FCR was noted throughout the very large field in which the distinctive Thebes Cluster projectile point was recorded. While this type is poorly documented in Michigan, its occurrence in Early Archaic contexts in Illinois and the Middle Archaic in Ohio is noted by Clark (in Garland 1984). Unfortunately, the situation in which this specimen was encountered sheds little light on the matter addressed by Clark, and 20SJ93 is accorded a low priority on this basis.

1-Thebes Cluster projectile point of Burlington chert

20SJ94

The Trust site is situated between two wetlands in the SE 1/4, NE 1/4, SW 1/4, NE 1/4 of Section 34, Colon Township (4640570N 637970E). This findspot of a "bird point" suggests a Late Woodland to Historic temporal placement (Clark 1981). Low priority.

1-corner-notched bird point of unidentified material

20SJ95

The Powell site is a light lithic and very heavy FCR scatter located in the SE 1/4, SE 1/4, NW 1/4, SE 1/4 of Section 34, Colon Township (4639950N 638000E). The site might cover as much as 2.8 ha along a slope rising to and descending from a rather prominent hill surrounded by wetlands. The cultural items were collected from the promontory, but surface visibility was such that it is entirely possible that flakes and other clearly cultural debris are associated with the much larger FCR scatter and simply were not observed by the field party. No cultural affiliation/temporal placement can be assigned this site. Low to moderate priority.

- 1-uniface of quartzite
- 1-flake of Deer Lick Creek chert

20SJ96

57A5-27

The Green Acres Resort site occurs in the NE 1/4, SW 1/4, NE 1/4, NW 1/4 of Section 33, Leonidas Township (4650520N 635440E). Here, surveyors observed a light lithic and heavy FCR scatter over an area of 2,800 m². The two recovered diagnostic pieces are Feeheley points which, according to Clark (1981), date from ca. 2,000-1,500 BC. This site occupies a bluff's edge location overlooking the St. Joseph River, and while the quantity of lithic material recovered is small the considerable density of FCR would strongly suggest the presence of subsurface features at this probable habitation site. A moderate to high priority is given this Late Archaic site.

- 1-Feeheley point of Burlington chert
- 1-reworked Feeheley point of an unidentified chert
- 2-flakes of Burlington chert
- 2-flakes of Cobden chert
- 1-probable uniface of quartzite
- 1-flake of unknown chert

20SJ97

The very impressive Millard site occupies 1.0 ha on the bluff overlooking the St. Joseph River in the SE 1/4, SW 1/4, SW 1/4, NE 1/4 of Section 30, Leonidas Township (4651620N 632580E). The survey team noted a moderate lithic and FCR scatter, including two pieces which are diagnostic and date the prehistoric occupations to the Late Middle-Early Late Woodland transition and the late Late Woodland period. In addition, historic ceramics from 20SJ97 suggest an occupation dating between ca. 1820-1860. The site is assigned a high priority by us.

- 1-medium sized triangular core which appears to have been intended as a Levanna or Madison point, had it not been lost or discarded. The raw material cannot be identified
- 1-Jack's Reef corner-notched point of an unknown chert
- 1-biface of Purple chert
- 1-"thumbnail" scraper of an unknown material
- 1-quartzite cobble

- 6-flakes of Burlington chert
- 3-flakes of Purple chert
- 3-flakes of Deer Lick Creek chert
- 1-flake of Wyandotte chert
- 1-flake of Bayport chert
- 1-utilized flake of an unidentified chert
- 17-flakes of unknown material
- 1-fragment of Red transfer print earthenware
- 1-sherd of Blue Banded earthenware
- 1-bottle top

205J98

The Robert site is located in the SE 1/4, SE 1/4, SW 1/4, NE 1/4 of Section 30, Leonidas Township (4651550N 632750E). This light lithic and moderate FCR scatter occupies 1.5 ha of a small knoll on the valley margin overlooking the confluence of Nottawa Creek and the St. Joseph River. The single diagnostic, although missing the base, is analogous to the well known Gibson point of Hopewell affiliation in Illinois. The presence of several flakes of Upper Mercer chert firms up the Woodland temporal placement; albeit questionable whether this chert type should remain characteristic of the Late Middle-Early Late Woodland transition as has so long been thought by regional specialists. Interpretations derived from the recently concluded US-31 project leave room for considering this chert as a type that achieved some popularity during the Early Woodland in the Lower St. Joseph River Valley (Clark in Garland 1984). Moderate to high priority.

- 1-Gibson point fabricated on Burlington chert
- 1-biface of Burlington chert
- 1-hafted biface of Wyandotte chert
- 2-cobbles of Burlington chert
- 3-flakes of Burlington chert
- 2-flakes of Upper Mercer chert
- 1-flake of Wyandotte chert
- 1-flake of Purple chert
- 2-flakes of unidentified material

20SJ99

5735-42
 The RM site occurs upstream from 20SJ97 and 20SJ98 immediately above the junction of Nottawa Creek with the St. Joseph River in the NE 1/4, SE 1/4, SE 1/4, NE 1/4 of Section 30, Leonidas Township (4651720N 633200E). It covers an estimated 1,800 m² and produced a very light lithic and FCR scatter. Neither its cultural affiliation nor temporal placement can be derived from the contents of the surface collection. Low priority.

- 1-uniface of Burlington chert
- 1-flake of Burlington chert
- 2-flakes of unidentified chert

20SJ100

The NR site is located in the SW 1/4, SE 1/4, SE 1/4, NE 1/4 of Section 3, Colon Township (4648460N 638040E) and consists of an impressive linear scatter of lithic debris and FCR over an area of 1.5 ha at that point where the St. Joseph River exits Sturgeon Lake. Unfortunately, none of the pieces found here is diagnostic, and a firm cultural affiliation/temporal placement for this site cannot be provided. However, this site and the three which follow, 20SJ101, 20SJ102, and 20SJ103, occur on what was formerly the Phineas Farrand Farm and may correspond to the site previously recorded as 20SJ6 (see the description of 20SJ6 provided in the section on previously recorded sites in the study area). This entire complex of sites requires a very high priority designation.

- 7-flakes of Burlington chert, one of which evidences heat treatment
- 1-utilized decortication flake of Wyandotte chert
- 2-flakes of Deer Lick Creek chert
- 2-flakes of Purple chert
- 3-flakes of Flint Ridge chert
- 1-flake of a very high quality white chert
- 3-flakes of quartzite
- 14-flakes of unidentified raw material
- 1-piece of blue stained glass
- 1-fragment of a "blob top" bottle

20SJ101

Located in the NE 1/4, NW 1/4, NE 1/4, SE 1/4 of Section 3, Colon Township (4648370N 637890E), the Farrand Road site consists of a moderate lithic and heavy FCR scatter occupying 2,000 m² of a small knoll intermediate between the river bluff to the east and an area of wetlands to the west. It is in the same field as 20SJ100. While nothing in the lithic assemblage is diagnostic, two small grit-tempered, cord-marked sherds suggest a Woodland temporal placement for this site. Surveyors also observed an especially dense concentration of FCR in an area of about 20 m² where numerous flecks of charcoal and patches of dark, organically stained soil were noted, strongly suggesting the presence of subsurface features on 20SJ101. A high priority must be assigned to this (and the other possibly related sites) probable habitation area.

- 1-uniface fabricated on an unidentified chert
- 2-flakes of Burlington chert
- 2-flakes of Deer Lick Creek chert
- 1-flake of Bayport chert
- 1-flake of quartzite
- 8-flakes of unidentified material
- 2-small grit-tempered, cord-marked potsherds

20SJ102

Zerfas, the third site in this complex, is located to the NW of 20SJ100 in the S 1/2, SW 1/4, NE 1/4 of Section 3, Colon Township (4648600N 637880E). Here, surface reconnaissance revealed a very dense concentration of lithic debris and FCR over an area of approximately 5,000 m². In contrast to the other sites, we have noted that fully 60% of the lithic assemblage from 20SJ102 consists of Burlington chert. The remaining pieces do, however, show an equally if not more varied collection of identified local and exotic chert types. While no diagnostic items occur in this material, the spatial proximity of Zerfas to the other three sites and the overwhelming presence of nonlocal cherts from Ohio, Indiana, and Illinois strongly suggest a Woodland (probably Middle Woodland) temporal placement for this site. Very high priority.

26-flakes of Burlington chert, one of which evidences heat treatment

4-flakes of Indiana hornstone

1-flake of Flint Ridge chert

3-flakes of Kettle Point chert

1-flake of Deer Lick Creek chert

1-flake of Purple chert

5-flakes of an unidentified, probably till derived, chert

20SJ103

SMB-44
The Sturgeon Lake site is located somewhat south of the preceding three sites, but in the same field overlooking the lake in the NW 1/4, SW 1/4, SE 1/4, SE 1/4 of Section 3, Colon Township (4647730N 637840E). Here, surveyors observed a light lithic and moderate FCR scatter covering an area of about 3,200 m². While this collection contains a tool, it has not been possible to identify a known analog in the literature. Given the somewhat "crude" workmanship and weak hafting element, we suggest that this item represents a knife or tool having a similar function. The large sand-tempered, cord-marked body sherd collected from the site argues for an Early or Middle Woodland temporal placement (Elizabeth Garland, personal communication). Inasmuch as this site may be associated with the others occurring on this property bordering the lake, a high priority is assigned to 20SJ103.

1-biface fragment of an unidentified chert

1-flake of Bayport chert

3-flakes of Burlington chert

1-flake of quartzite

4-flakes of unidentified material

1-large sand-tempered, cord-marked body sherd

20SJ104

Cupp 5 occupies the inside bank of a pronounced meander loop in the St. Joseph River in the S 1/2, SE 1/4, SW 1/4 of Section 29, Leonidas Township (4650970N 634020E). Although part of riverbank is in dense woods, the recently cultivated field flanking the woodlot afforded surveyors excellent visibility, resulting in the discovery of a very dense lithic and FCR

scatter over an area of some 2.4 ha (with additional site area presumed to be concealed by tree cover between the field and the river). The two diagnostic implements recovered, consisting of a projectile point base and a serrated blade missing the distal end, tentatively suggest a Middle Woodland temporal placement. The single most interesting observation is that fully 70% of the lithic pieces are of a quartzite of moderate quality. No other site in the study area, or for that matter in the recently investigated US-31 project in the Lower St. Joseph River Valley (Elizabeth Garland, personal communication), shows such heavy utilization of this raw material. Also of interest to us is this site's location on the landscape. It is surrounded on three sides by ground sloping steeply toward the river, with the fourth opening toward the field to the south. Very high priority.

10-flakes of heat treated quartzite

23-flakes of white quartzite

2-decortication flakes of quartzite

1-corner-notched and serrated projectile point of Burlington chert

1-corner-notched point base of an unidentified chert

1-side scraper of Burlington chert

6-flakes of Burlington chert

1-piece of worked green argillite

5-flakes of an unidentified raw material

20SJ105

5145-46
 For reasons given in the descriptions of sites 20SJ78 and 20SJ79, we are reluctant to accept the identifications provided by several area residents, Mr. Wagner and Mr. Weinberg, that either or, perhaps, both of these early nineteenth century sites are associated with the Hatch Trading Post of 1831. Rather, we are inclined toward assigning this number and locating the trading post about one mile downstream and below the bridge that crosses the St. Joseph River in the NW 1/4, NE 1/4, NE 1/4 of Section 32 in Leonidas Township. This structure, formerly known as the Mathews Bridge, was erected over the river at the site of an old ford on the property (E 1/2, NE 1/4 of Section 32) of George Mathews who,

with his wife and children, settled here in 1831. According to the History of St. Joseph County, Michigan (Culter 1906: 170, 174, 222), the first white man to settle in Leonidas Township was an Indian trader by the name of Hatch, who arrived in the spring of 1831 and located near the permanent village of the Nottawaseepe Indians on the south side of the St. Joseph River. Although the trading post that he established was only temporary, structural remains were still visible on the south bank of the river, opposite the grove of old appletrees on the north bank just below the present site of the bridge, for some years thereafter. Parenthetically, just who planted the appletrees is unknown, but their presence is presumed to be the basis for the name "Appletree Ford" that was in common use prior to the construction of the bridge over the river at this location. Given the above information, we are locating the site named Hatch Trading Post (20SJ105) on the south side of the St. Joseph River in the S 1/2, NE 1/4, NW 1/4, NE 1/4 of Section 32, Leonidas Township.

20SJ106

Campbell represents a very light lithic and FCR scatter over an area of 400 m² in the NW 1/4, NE 1/4, NE 1/4, NE 1/4 of Section 30, Leonidas Township (4652300N 633040E). Here, surveyors found a biface and one flake together with fire-cracked rock. The cultural affiliation/temporal placement cannot be firmly stated, but the presence of Wyandotte chert does suggest a Woodland age.

1-biface fragment of Wyandotte chert

1-flake of Wyandotte chert

20SJ107

The Tony site produced a handful of good flakes from an area of some 2,800 m² without associated FCR and is located in the SW 1/4, NE 1/4, NE 1/4, NE 1/4 of Section 30, Leonidas Township (4652150N 633060E). It occupies a portion of the upper terrace of the St. Joseph River Valley to the west of that point where Nottawa Creek joins the river. Given that all pieces of debitage are of the same chert, it is probable that this scatter documents a single episode of tool knapping/resharpening. No placement is possible given the nature of the data. Low priority.

5-flakes of Burlington chert

20SJ108

The M-60 site is situated in the SE 1/4, SE 1/4, NE 1/4, NE 1/4 of Section 30, Leonidas Township (4651980N 633170E) and represents a 2,000 m² scatter of FCR with only two flakes occurring in association. The site occupies the edge of the bluff overlooking Nottawa Creek to the east. No attempt has been made to determine this site's cultural affiliation/temporal placement. Low priority.

1-flake of either Deer Lick Creek or Wyandotte chert

1-flake of heat treated material, probably Burlington chert

20SJ109

This large site in the NE 1/4, NE 1/4, NW 1/4, NW 1/4 of Section 29, Leonidas Township (4652320N 633610E) has been named the Tallman Road site. It consists of a 3.0 ha scatter of lithic material associated with dense concentrations of FCR. Based on the material recovered by surveyors, little can be said about its cultural affiliation/temporal placement; however, it is perhaps noteworthy that the location overlooking Nottawa Creek corresponds with the location(s) of previously recorded sites 20SJ16 and 20SJ58. In light of the heavy scatter of FCR over this large area, it is tempting to suggest that Tallman Road represents a major habitation area that may, with further study, yield subsurface features. If this location on the creek does relate to the former presence of a historic village (as has been suggested in the description of 20SJ58), it is certainly worthy of additional study. Moderate priority.

1-biface of an unidentified chert

7-flakes of quartzite

6-flakes of unknown material

20SJ110

The Holtz site documents a dense scatter of FCR occurring over an area of about 2,000 m² in the NE 1/4, NW 1/4, SE 1/4, NW 1/4 of Section 15, Colon Township (4645490N 637230E). This scatter occupies the crest of a low hill, but inasmuch as the only good cultural indicator is a single chert flake nothing can be said regarding its cultural affiliation or temporal placement. Low priority.

1-flake of an unidentified chert

20SJ111

STK-92
The K & P site is situated in the NW 1/4, SW 1/4, SE 1/4, SW 1/4 of Section 15, Colon Township (4644560N 637870E). It comprises a very light scatter of lithic material over an area of 100 m², without associated FCR. The site's small size, the absence of FCR, and the occurrence of a hafted end scraper and one flake would argue for 20SJ111 most probably representing a single episode of hunting. Cultural affiliation/temporal placement cannot be determined without additional study. Low priority.

1-hafted end scraper of an unidentified material

1-flake of unknown material

20SJ112

The Jack Barton site is a light lithic scatter occupying 400 m² of area in the SE 1/4, NW 1/4, NW 1/4, SW 1/4 of Section 3, Colon Township (4648180N 636720E). No FCR occurs with the tool and flake found here. The stone implement is a Levanna point, presumably dating the occupation to ca. AD 900-1200 (Clark 1981). Again, we interpret this Lake Woodland site to probably represent an isolated episode of hunting. Low priority.

1-Levanna projectile point of an unidentified chert

1-utilized flake of unknown material

20SJ113

The 600 m² lithic and FCR scatter occurring between two wetlands in the SE 1/4, NE 1/4, NE 1/4, NW 1/4 of Section 10, Colon Township (4647420N 637280E) has been named the Sharp site. No cultural affiliation/temporal placement can at this time be postulated. Low priority.

3-flakes of the same unidentified raw material

20SJ114

The small lithic and FCR scatter occupying about 500 m² in the NE 1/4, NW 1/4, SE 1/4, SW 1/4 of Section 35, Leonidas Township (4649540N 638759E) is called the Paul Etheridge site. The slight hill or rise that defines the limits of this site occurs in an area of otherwise flat terrain and at a distance of 0.8 km from the nearest source of permanent water. The site's placement is not known, and a low priority is assigned 20SJ114.

2-flakes of unidentified material

20SJ115

TAS-50 The Blossom Road site is located in the SE 1/4, SE 1/4, SW 1/4, SE 1/4 of Section 35, Leonidas Township (4649300N 639340E). This 2,000 m² scatter of lithic debris and FCR lies 300 m NW of the outlet for Adams Lake. Two temporal indicators occur in the assemblage. The flared-stem projectile point does appear to resemble the Middle Archaic Matanzas point described for the Helton phase assemblage at the Koster site in Illinois (Cook 1976). And the presence of two specimens of Upper Mercer chert could argue for either a Late Archaic-Early Woodland or Late Middle-Early Late Woodland temporal placement. In the absence of substantial quantities of FCR over the site's surface, making the case for subsurface features here a rather weak one, 20SJ115 is assigned a low to moderate priority.

- 1-probable Matanzas flared-stem projectile point of unidentified material
- 2-flakes of Upper Mercer chert
- 1-flake of quartzite
- 3-flakes of unidentified chert

20SJ116

The Carlisle site documents the discovery of an isolated flake in the SE 1/4, NW 1/4, NE 1/4, SE 1/4 of Section 35, Leonidas Township (4649870N 639520E). The cultural affiliation/temporal placement of this site cannot be determined. Low priority.

- 1-flake of an unidentified material

20SJ117

The Beaver Lake site occupies about 3,000 m² of area overlooking wetlands flanking the lake of the same name in the NE 1/4, SW 1/4, NW 1/4, SE 1/4 of Section 28, Colon Township (4641630N 636130E). Although characterized by a very light lithic and FCR scatter, the landowner, Mr. Hovarter, indicated that a mound formerly stood nearby but has been plowed down during his 80 years on the land. He has a large collection of artifacts from his property, containing the rather typical "soup to nuts" material documenting a very lengthy human presence in the area. However, the survey team recovered nothing suggestive of firm temporal placement for 20SJ117. Low to moderate priority is assigned this site on the basis of the Hovarter Collection.

2-flakes of unidentified chert

20SJ118

Wagner Road occupies an area of 4,000 m² in the SE 1/4, SW 1/4, SW 1/4, SE 1/4 of Section 28, Colon Township (4641200N 636110E). This light lithic scatter without associated FCR lies just north and east of wetlands extending in a southeasterly direction along what may have formerly been a drain flowing from Beaver Lake to Swan Creek. A piece of slate evidencing deliberate smoothing on two sides and percussion strikes on a third was recovered here, as were two flakes. Nothing is suggestive of a specific cultural affiliation/temporal placement. Low priority.

1-smoothed slate fragment

1-utilized flake of an unidentified chert

1-flake of an unidentified material

20SJ119

The James Wagner site is located just south of an area of wetlands in the NE 1/4, NE 1/4, SE 1/4, SE 1/4 of Section 28, Colon Township (4641490N 636680E). Here were found the distal portion of a partially serrated projectile point and one flake. Due to the fact that the hafting element is missing and the blade has undergone considerable resharpening, the artifact cannot be typed; hence, it is not possible to determine the cultural affiliation/temporal placement of this findspot. Low priority.

1-distal portion of a serrated projectile point, possibly fabricated on heat treated Burlington chert

1-flake of unidentified chert

20SJ120

The Tanglewood site occupies about 6,000 m² of area adjacent to an extensive deposit of muck soils in the NE 1/4, SE 1/4, SE 1/4, SE 1/4 of Section 28, Colon Township (4641250N 636670E). Only two flakes were found associated with an extensive but light scatter of FCR. No cultural affiliation/temporal placement for 20SJ120 is proposed. Low priority.

1-flake of Purple chert

1-flake of an unknown chert

20SJ121

The J & J Brandt site is a linear scatter of light lithic debris

and FCR extending for several hundred meters along the course of the river and encompassing an area of about 3.4 ha on bluff's edge in Section 34 of Leonidas Township (4649760N 636970E). To be more precise, the site commences in the SE 1/4 of the NE 1/4, NW 1/4 and extends into the NW 1/4 of the SW 1/4, NE 1/4, SW 1/4 of this section. One complete projectile point was found here and has been identified as a Sodus expanding stem specimen (Clark in Garland 1984). This point type is regarded as a Late Archaic-Early Woodland style on the basis of an associated 14C date of 550 BC \pm 70 from the Wymer site and a 990 BC \pm 80 date from the Eidson site in the Lower St. Joseph River Valley (Clark in Garland 1984: 153-154). Given the linear nature of the cultural debris scatter, it is tempting to suggest that this site reflects repeated use of the same general area, but with some shifting of activity loci along bluff's edge over time. Moderate priority.

- 1-Sodus expanding stem point of an unidentified chert
- 1-projectile point base or hafting element of Burlington chert
- 4-flakes of Bayport chert
- 2-flakes of Burlington chert
- 2-flakes of Flint Ridge chert
- 3-flakes of unidentified material

20SJ122

5745-03
 Hooley Farms is situated about 300 m east of Lepley Lake in the SE 1/4, SE 1/4, SW 1/4, SW 1/4 of Section 26, Colon Township (4641190N 638750E). This is the locus of a single flake of chert in a large field throughout which the survey team noted the presence of a light scatter of FCR. The cultural affiliation/temporal placement of this site is unknown. Low priority.

- 1-flake of an unidentified chert

20SJ123

The Comfort Tyler Farmstead site, representing perhaps the first white occupation of the old Nottawaseepee Reservation, has been precisely located on the basis of Government Land Office survey fieldnotes and plats prepared by Robert Clark, jr., who surveyed the reserve in 1835 before this land was generally opened for

occupation by American settlers. That Tyler was already well established on the reserve by 1835 is suggested by Clark's references to stout fences that were on several occasions intersected by section lines and his placement of Tyler's house and frame barn at a point 37 chains W and 12.5 chains S of the corner of Sections 29, 30, 31, and 32 in Leonidas Township (4650750N 632420E). In other words, this site is located in the SE 1/4, NE 1/4, NE 1/4, NW 1/4 of Section 31.

20SJ124

57K-66
The Sharf site occupies 2.4 ha of land extending around the southern tip of Farrand Lake in the NW 1/4, SW 1/4, SE 1/4, SE 1/4 of Section 15, Colon Township (4644490N 637860E). Among the debris comprising this extensive and light scatter of lithic material and FCR was observed the distal portion of a biface lacking any distinguishing characteristics permitting identification of the site's cultural affiliation/temporal placement. A limited activity locus from which procurement of aquatic and riparian resources was undertaken would seem the most likely function served by 20SJ124. Low priority.

- 1-distal portion of a biface of Burlington chert
- 3-flakes of Burlington chert
- 2-flakes of unidentified material

20SJ125

57AS-66
Located in the NW 1/4, NW 1/4, SE 1/4, NE 1/4 of Section 22, Colon Township (4643890N 637930E), the Washburn Lake site encompasses 1.2 ha of land flanking the eastern margin of the lake of the same name. A light lithic and moderate FCR scatter characterizes this site, with the only diagnostic implement being a Late Archaic-Early Woodland Kramer point (Clark 1981). Because of the possibility of furthering our insight with respect to the Archaic-Woodland transition, we have assigned 20SJ125 a moderate to high priority; albeit little information has been derived from the sparse surface collection.

- 1-Kramer point of Deer Lick Creek chert
- 3-flakes of unknown chert

20SJ126

57X-67
 Surveyors recorded a light lithic and FCR scatter covering an area of 2,500 m² just east of a small area of wetlands in the NE 1/4, SW 1/4, SE 1/4, NE 1/4 of Section 15, Colon Township (4645390N 637970E). This wetland area near the Charles site might have been more extensive in the past, because of a topographic connection with Farrand Lake. Unfortunately, no diagnostics occur in the surface collection, making it impossible to ascertain this site's cultural affiliation/temporal placement. Low priority.

- 1-unifacially retouched flake of an unidentified heat treated chert
- 2-flakes of unknown material

20SJ127

Margaret is a light lithic and FCR scatter occupying 3,000 m² along the western side of Farrand Lake in the SW 1/4, SE 1/4, NW 1/4, SE 1/4 of Section 15, Colon Township (4644890N 637770E). Little can be said about this site given the paucity of the data recorded by the survey team. However, the piece of argillite evidencing bifacial drilling could have been used in conjunction with a fire drill to create sparks for igniting a fire. Perhaps this site might best be explained as a location from which aquatic and riparian resources were taken. Low priority.

- 1-drilled fragment of argillite
- 1-flake of an unidentified chert

20SJ128

The Condon site encompasses an estimated 1.6 ha and is characterized by a linear scatter of lithic debris and FCR following the course of Swan Creek above Long Lake in the SW 1/4, NE 1/4, SW 1/4, SE 1/4 of Section 33, Colon Township (4639770N 636260E). Among the half dozen cultural items recovered is a Levanna point, dating to AD 900-1200 (Clark 1981). Thus, a Late Woodland cultural affiliation can be proposed for Condon. Low priority.

- 1-Levanna point of unknown chert
- 1-unifacially worked flake of unidentified material
- 4-flakes of unidentified chert

20SJ129

57K-70
 Old Indian Fields in another site that we have recorded on the basis of documentary evidence. When surveyor Robert Clark, jr. subdivided the Nottawaseepe Reservation in 1835, he noted when passing from Nottawa Prairie along the line between Sections 31 and 32 of Leonidas Township several "old Indian clearings covered with small hickory bushes" for a distance of 10 chains or 200 m along this line. We have located this site along the section line in question at a distance of 1.0 km south of the corner shared by Sections 29, 30, 31, and 32 in this township (4649750N 633260E). Parenthetically, Clark's observation of Indian fields being located off the prairie rather than on this natural grassland may be viewed as further confirmation of conclusions reached by Cremin and De Fant (1986) during their study of Indian utilization of the prairie environment in Kalamazoo County.

20SJ130

The Krupp Road site is confined to an area of 30 m² on top of a prominent knoll about 300 m west of Bear Creek in the SW 1/4, NE 1/4, SW 1/4, NE 1/4 of Section 17, Leonidas Township (4655040N 634240E). Here, surveyors recovered just two cultural items amidst a moderately dense scatter of FCR. Neither piece is diagnostic, and the cultural affiliation/temporal placement of 20SJ130 cannot at this time be determined. Low priority.

1-chert cobble that has been modified into a drill or perforator

1-flake of an unidentified chert

20SJ131

The Shallenbarger site occupies 4,000 m² of flat land about 700 m northwest of Bear Creek in the NW 1/4, NW 1/4, NE 1/4, NW 1/4 of Section 17, Leonidas Township (4655550N 633640E). It is a site characterized by a light lithic and moderate FCR scatter. The cultural affiliation/temporal placement of 20SJ131 is not known. Low priority.

1-flake of quartzite

2-flakes of unidentified chert

20SJ132

Frank records the discovery of an isolated flake on a prominent knoll in the SW 1/4, SE 1/4, NE 1/4, NW 1/4 of Section 17, Leonidas Township (4655250N 633770E). Nothing can be said about this site's cultural affiliation/temporal placement. Low priority.

1-flake of an unidentified chert

20SJ133

Immediately north of the confluence of Bear and Nottawa Creeks in the NE 1/4, NW 1/4, NW 1/4, NW 1/4 of Section 21, Leonidas Township (4653060N 634970E) the survey team located a light lithic and FCR scatter encompassing 6,000 m² adjacent to what was formerly a rather extensive area of wetland vegetation. Nothing in this small surface collection is diagnostic, and the Mill Pond site's cultural affiliation/temporal placement is not presently known. Low priority.

1-flake of Burlington chert

1-flake of Deer Lick Creek chert

2-flakes of unidentified chert

20SJ134

The Adeline Olney site is situated in the NE 1/4, SW 1/4, NE 1/4, SW 1/4 of Section 20, Leonidas Township (4652960N 633690E). This is also a light lithic and FCR scatter and occurs at a distance of 200 m from Nottawa Creek to the east. The cultural debris and FCR scatter covers 2,500 m², but nothing found here is diagnostic. Hence, we cannot place it in time, excepting for a clearly historic item inventoried below. Low priority.

1-flake of Burlington chert

1-flake of an unidentified material

1-historic ceramic figurine

20SJ135

The Olney Road site is located a short distance from 20SJ134 and much closer to the creek. Here, two isolated flakes were found on a low ridge paralleling the creek and its adjacent wetland in the SE 1/4, NW 1/4, NW 1/4, SE 1/4 of Section 20, Leonidas Township (4653000N 634120E). No temporal placement

or cultural affiliation can be assigned. Low priority.

2-Flakes of an unidentified material

20SJ136

During reconnaissance of the NE 1/4, NE 1/4, NE 1/4, SE 1/4 of Section 33, Colon Township (4640290N 636760E), surveyors recorded the Kanouse site. Although visibility was marginal at the time this area was visited, a light lithic and FCR scatter was observed over an area of 1.0 ha. One projectile point was recovered, but a typological analog has not been found in the literature. This specimen is 8 mm in length and features sharply constricted side notches and a short contracted stem. Also found was a stone exhibiting strike marks on the distal and lateral edges. While it is possible that a revisit to this site might clarify the problems of affiliation and temporal placement, for the moment we can only assign 20SJ136 a low-moderate priority.

1-projectile point of Burlington chert

1-chopping-pecking stone of an unidentified material

1-unifacially retouched flake of Purple chert

1-flake of Burlington chert

4-flakes of unidentified chert

20SJ137

On a low knoll to the south of a small stream in the SW 1/4, NE 1/4, SE 1/4, SE 1/4 of Section 30, Leonidas Township (4650980N 633060E), surveyors observed a moderate lithic and FCR scatter over an area of 8,000 m² that is almost entirely surrounded by wetlands. Perhaps the Schmidtendorff site was periodically reoccupied to exploit wetland resources in close proximity to this relatively well drained landform. While no diagnostics were recovered and the site's cultural affiliation/temporal placement is only tentatively thought to be Middle Woodland, a moderate priority is assigned to 20SJ137.

1-flake of Bayport chert

1-flake of quartzite

2-flakes of Burlington chert

1-flake of an unknown material

20SJ138

5374-79

One of the more interesting sites located during the 1986 field season is Arden. Situated in the NE 1/4, SE 1/4, NE 1/4, SE 1/4 of Section 30, Leonidas Township (4651330N 632990E), it covers an area of 1,500 m² and is characterized by a heavy lithic and moderately dense scatter of FCR. It occupies a ridge spur descending from the uplands toward the valley floor, and this landform is surrounded on three side by the St. Joseph River and extensive wetlands that here choke the valley floor. It is especially well located for exploitation of riverine resources, yet would have afforded its occupants easy access to the uplands behind the site. The most notable observation derived from this site is the only confirmed Paleo-Indian component recorded for the study area. A Cumberland fluted point has been identified in the surface collection from Arden. High priority.

- 1-Cumberland fluted projectile point of Burlington chert
- 1-preform or blank of Burlington chert
- 3-flakes of Burlington chert
- 1-flake of Upper Mercer chert
- 1-flake of Purple chert
- 9-flakes of unidentified material

20SJ139

The Ralph site is located in the NW 1/4, SE 1/4, NW 1/4, SE 1/4 of Section 30, Leonidas Township (4651230N 632720E). Occupying an estimated 2,000 m² of land, this site is characterized by a light lithic and FCR scatter. One biface was recovered by the survey team, but it cannot be positively identified. While this specimen is small and triangular, and quite similar to the Levanna and/or Madison point morphology, it does not possess the thin cross-section typical of these Late Woodland types. Rather, it is very lenticular in cross-section! With a certain reservation, a Late Woodland temporal placement is, however, proposed for 20SJ139. Low priority.

- 1-triangular biface fabricated on an unknown chert
- 1-flake of Burlington chert
- 5-flakes of unidentified material

20SJ140

5.2.2.91
 The Roger Coomer site covers an area of 700 m² in the NW 1/4, NE 1/4, SE 1/4, NW 1/4 of Section 29, Leonidas Township (4651840N 633850E). It is characterized by a light lithic and FCR scatter without any diagnostic items. Hence, nothing can be said regarding the site's temporal placement except for noting of presence of Wyandotte chert (Woodland?). Low priority.

- 1-flake of Wyandotte chert
- 1-flake of quartzite
- 3-flakes of unknown chert

20SJ141

Alf Barton represents the isolated occurrence of a flake of slate in the NE 1/4, NE 1/4, SE 1/4, SE 1/4 of Section 29, Leonidas Township (4651160N 634830E). This item was found on the crest of a prominent knoll amidst lowlying wetlands. Surface visibility was not especially good; thus it is possible that surveyors overlooked the presence of associated material. This location is certainly well suited for exploitation of seasonal resources to be found in the proximal wetland habitat. No cultural affiliation/temporal placement can be posited for 20SJ141 at this time. Low priority.

- 1-flake of slate

20SJ142

The EG site is located in the SW 1/4, SE 1/4, NE 1/4, SW 1/4 of Section 22, Colon Township (4643190N 637370E) and consists of a 1,000 m² scatter of lithic debris and FCR. The site lies just south of a prominent hill, and wetland areas dominant the landscape to both the south and west. While the density of the FCR observed here suggests a rather substantial occupation, the discovery of only two flakes was a disappointment to the surveyors. The cultural affiliation/temporal placement of 20SJ142 is undetermined. Low priority.

- 2-flakes of unidentified material

20SJ143

Elizabeth Miller occupies about 800 m² of level land between two wetlands in the NW 1/4, NW 1/4, SE 1/4, SW 1/4 of Section 22,

Colon Township (4643080N 637140E). Here, in association with a light scatter of FCR, were recorded a cobble of Kettle Point chert, a slightly worn abrader, and one waster flake. Nothing in this small assemblage is suggestive of the site's cultural affiliation/temporal placement. Low priority.

- 1-cobble of Kettle Point chert
- 1-abrader of an unidentified material
- 1-flake of unknown chert

20SJ144

5JAS-85
 Walters 1 occupies 4,000 m² in a field and extends into a nearby grassed area surrounding an abandoned farmstead on a ridge that parallels Swan Creek as it passes from Long Lake to Palmer Lake in the center of the S 1/2, SE 1/4, SE 1/4 of Section 22, Colon Township (4642970N 638030E). This site has been heavily collected over the years by area residents, and the survey team felt quite fortunate to recover one diagnostic item among the 140 pieces picked up from the surface. This artifact is a Matanzas point, with Middle Archaic Helton phase affiliations in the Lower Illinois Valley (Cook 1976). The lithic debitage constitutes the largest collection recovered during the survey, exceeding by a factor of more than two the next largest assemblage recorded. Given the highly varied chert types represented and the proximity of this site to the property where the George Teller Mound (20SJ8) is presumed to have been located, a strong Middle Woodland (Goodall Focus) component might reasonably be anticipated with further investigation. Very high priority.

- 1-Mantanzas point fabricated on quartzite
- 7-flakes of heat treated quartzite
- 15-flakes of white quartzite
- 1-blank of Burlington chert
- 1-worked cobble of Burlington chert
- 1-flake of heat treated Burlington chert
- 2-flakes of Burlington chert
- 2-Flakes of Upper Mercer chert
- 2-flakes of Indiana hornstone
- 5-flakes of Purple chert, one of which evidences utilization
- 1-flake of Flint Ridge chert

- 1-flake of Cobden chert
- 1-flake of Deer Lick Creek chert
- 1-utilized flake of an unidentified chert
- 94-flakes of unknown material

20SJ145

30
The Wood site is located on the crest of a ridge along the St. Joseph River in the SE 1/4, SW 1/4, NW 1/4, SE 1/4 of Section 30, Leonidas Township (4651230N 632580E) and consists of a moderate lithic and FCR scatter over an area of 2,400 m². Although the biface found here evidences extensive resharpening and is minus the base and one ear, it is distinctively a Snyders corner-notched point of Middle Woodland affiliation. While surveying this site, the team observed numerous fresh footprints, indicating that a collector had walked over the area since the rain had fallen the night before. A moderate to high priority can be assigned this site.

- 1-reworked Snyders corner-notched point of Deer Lick Creek chert
- 1-side scraper of Purple chert
- 1-uniface of an unidentified chert
- 4-flakes of Burlington chert
- 1-flake of Purple chert
- 1-flake of possibly heat treated Norwood chert
- 11-flakes of unidentified material

20SJ146

In the SE 1/4, NE 1/4, NW 1/4, SE 1/4 of Section 22, Colon Township (4643440N 637810E); the survey party delineated a 1.8 ha scatter of lithic debris and FCR near several areas of wetland and equidistant between Washburn Lake and Palmer Lake. The surveyors noted some interesting similarities between the lithic material found here and the surface collection recovered from the nearby Walters 1 site. However, the collection bag from 20SJ146 was misplaced, and the collections could not be compared. Thus, nothing can be said regarding this site's cultural affiliation/temporal placement, aside from the comment on similarities between the two sites that is noted in the Field Supervisor's log. Moderate priority.

20SJ147

57A4-35
 The Teodecki site is a light lithic and FCR scatter occupying 5,700 m² of land just above a wetland area in the Floodplain on the north side of the St. Joseph River in the NE 1/4, NE 1/4, NE 1/4, SW 1/4 of Section 29, Leonidas Township (4651430N 633970E). A "bird point" in the collection strongly suggests that this site was occupied during the Late Woodland and/or Historic periods. A low to moderate priority is assigned.

- 1-bird point of unidentified chert
- 1-unifacial end scraper of Deer Lick Creek chert
- 1-flake of quartzite
- 4-flakes of unidentified material

20SJ148

A light lithic and FCR scatter in the SW 1/4, NW 1/4, NE 1/4, SW 1/4 of Section 29, Leonidas Township (4651370N 633690E) has been named the Big Bend site. It encompasses 3,500 m² on a point of land jutting into the St. Joseph River floodplain. The projectile point in the surface collection is analogous to the Middle Woodland Gibson point (Clark 1981). The location is suggestive of a special purpose site occupied to exploit the aquatic and riparian resources of the floodplain environment. Low to moderate priority.

- 1-Gibson point of unidentified chert
- 1-flake of quartzite
- 2-flakes of unidentified material

20SJ149

Mumby represents the findspot of two flakes in the NW 1/4, NW 1/4, NW 1/4, NW 1/4 of Section 31, Leonidas Township (4650710N 631550E). Located 1200 m from the closest permanent water, it is probably most appropriate to interpret this isolated find as representing an episode of tool resharpening during a hunting expedition. A low priority is assigned this site in the absence of any indicators of cultural affiliation/temporal placement.

- 2-flakes of an unidentified chert

20SJ150

On a terrace immediately above Nottawa Creek in the SE 1/4, SW 1/4,

NW 1/4, SE 1/4 of Section 16, Leonidas Township (4654500N 635750E), the survey crew located and identified a small (200 m²) lithic and FCR scatter called the Taylor site. A thorough examination of the site area was not possible due to the onset of severe weather conditions that forced the team from the field. Because only two flakes were collected, it has not proven possible to ascertain this site's cultural affiliation/temporal placement. Further, it is doubtful that revisitation would result in the recovery of data requiring significant revision of the low priority that is being assigned this site of 200 m² extent.

2-flakes of an unidentified material

SECTION 6: SUMMARY AND CONCLUSIONS

Inasmuch as the data derived from this program of research will have their greatest value when used in conjunction with the data sets generated by surveys previously conducted by the senior author in adjacent areas of southwest Michigan, we have opted to organize this section of the report so as to facilitate comparisons with the extant information from the nearby Portage River and Kalamazoo River drainages. With this in mind, we will now proceed with the summary and interpretations of the SJVA-I data set followed by selected comparisons with other recently conducted research programs.

As previously noted, WMU surveyor coverage in the 1986 study area of 15.3 km² (together with a thorough review of the relevant documents) has resulted in the recording of 90 new archaeological sites and pertinent revisions with respect to several of the sites previously recorded for the survey universe and its immediate environs. Of the 90 new sites, all but one (20SJ129) occur within the boundaries established for this program of research. Seventy-six are presumed to be prehistoric; seven yielded evidence of both prehistoric and historic American components; four are felt to be prehistoric and/or historic Amerindian; and the last three relate solely to American settlement in the second quarter of the nineteenth century. In summary, 124 cultural components have been tentatively identified as follows:

Prehistoric components - 110

Paleo-Indian	1
Archaic	0
Early Archaic	3
Middle Archaic	3