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# 89-Phase I Archaeological Assessment of the Sima Property on the Lower Galien River in New Buffalo, Michigan

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GREGORY R. WALZ  
WILLIAM M. CREMIN

PHASE I ARCHAEOLOGICAL ASSESSMENT OF THE SIMA PROPERTY  
ON THE LOWER GALIEN RIVER IN NEW BUFFALO, MICHIGAN

REPORT OF INVESTIGATIONS NO. 89  
1989

DEPARTMENT OF ANTHROPOLOGY  
WESTERN MICHIGAN UNIVERSITY

A Report of Research in Response  
to a Request From:

Mr. David Zuckerman  
Bureau and Associates  
Water Resource Consultants  
P.O. Box 487  
Grand Haven, MI 49417

**INTRODUCTION:**

Upon receipt of authorization from Mr. Randy A. Johnson of

Bureau and Associates dated 9 Nov 89, for a Phase I archaeological survey of portions of the Sima Tract in Sections 2 and 3 of New Buffalo Township, Berrien County, Michigan, researchers in the Department of Anthropology, Western Michigan University initiated a site file search and on 14-15 Nov conducted on-site evaluation in order to determine whether proposed development activities would adversely impact potentially significant archaeo-

logical resources. There follows a report of our research program, together with recommendations derived from our examination of the study area.

**PROJECT PERSONNEL:**

- Principal Investigator - Dr. William M. Cremin, Professor of Anthropology, Western Michigan University

**Field Supervisor**

- Mr. Gregory R. Walz, M.A. Candidate, Department of Anthropology, WMU

**Field Assistants**

- Mr. Lewis Wisser, M.A. Candidate, Department of Anthropology, WMU
- Mr. Timothy Knapp, Graduate Student, Department of Anthropology, WMU
- Mr. Daniel Goatey, Graduate Student, Department of Anthropology, WMU

**DESCRIPTION OF THE PROJECT AREA:**

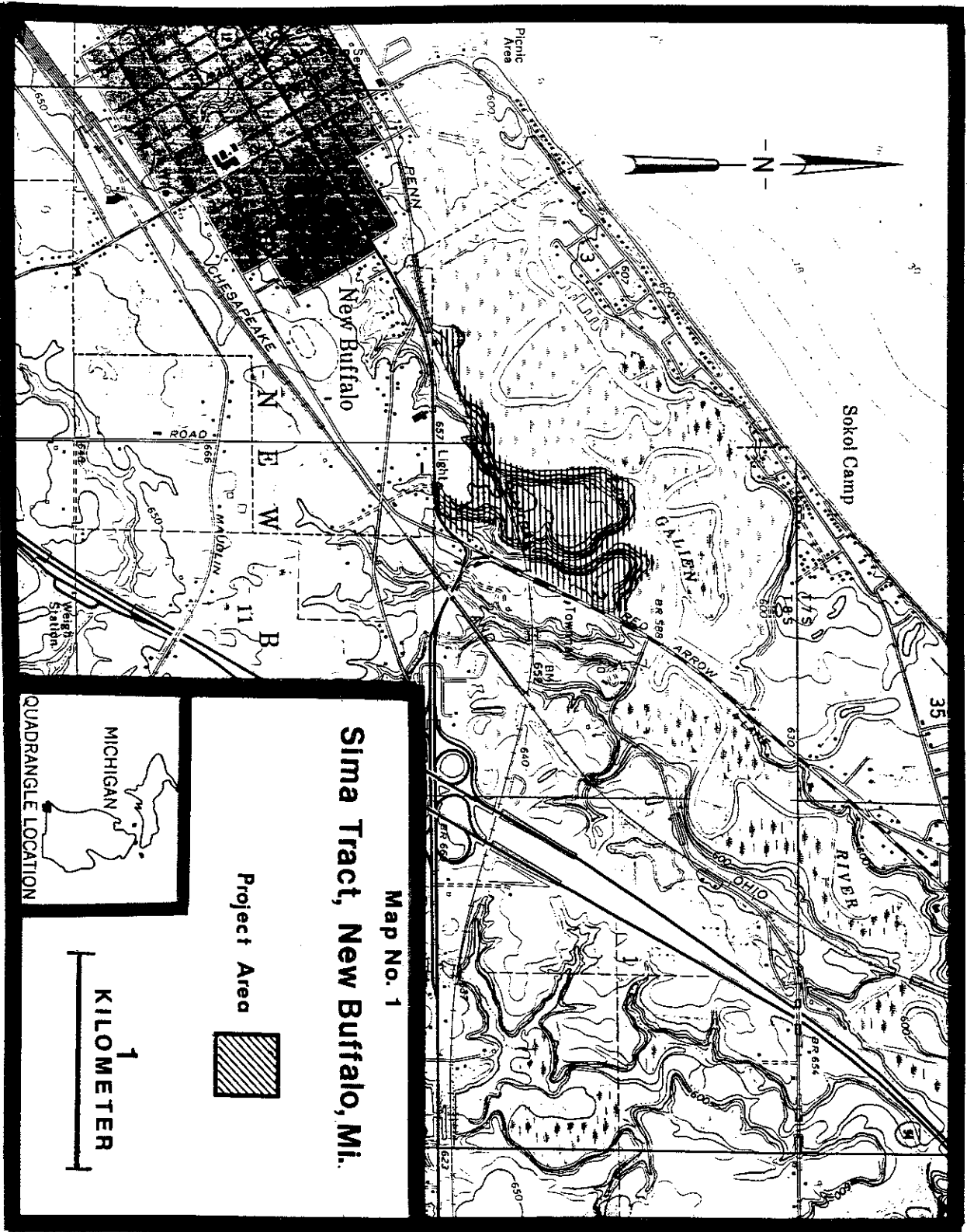
The Sima Tract in New Buffalo, Michigan includes extensive wet-land areas bordering the lower course of the Galien River, formerly known as "Lake Pottawatamie", and morainal uplands which overlook

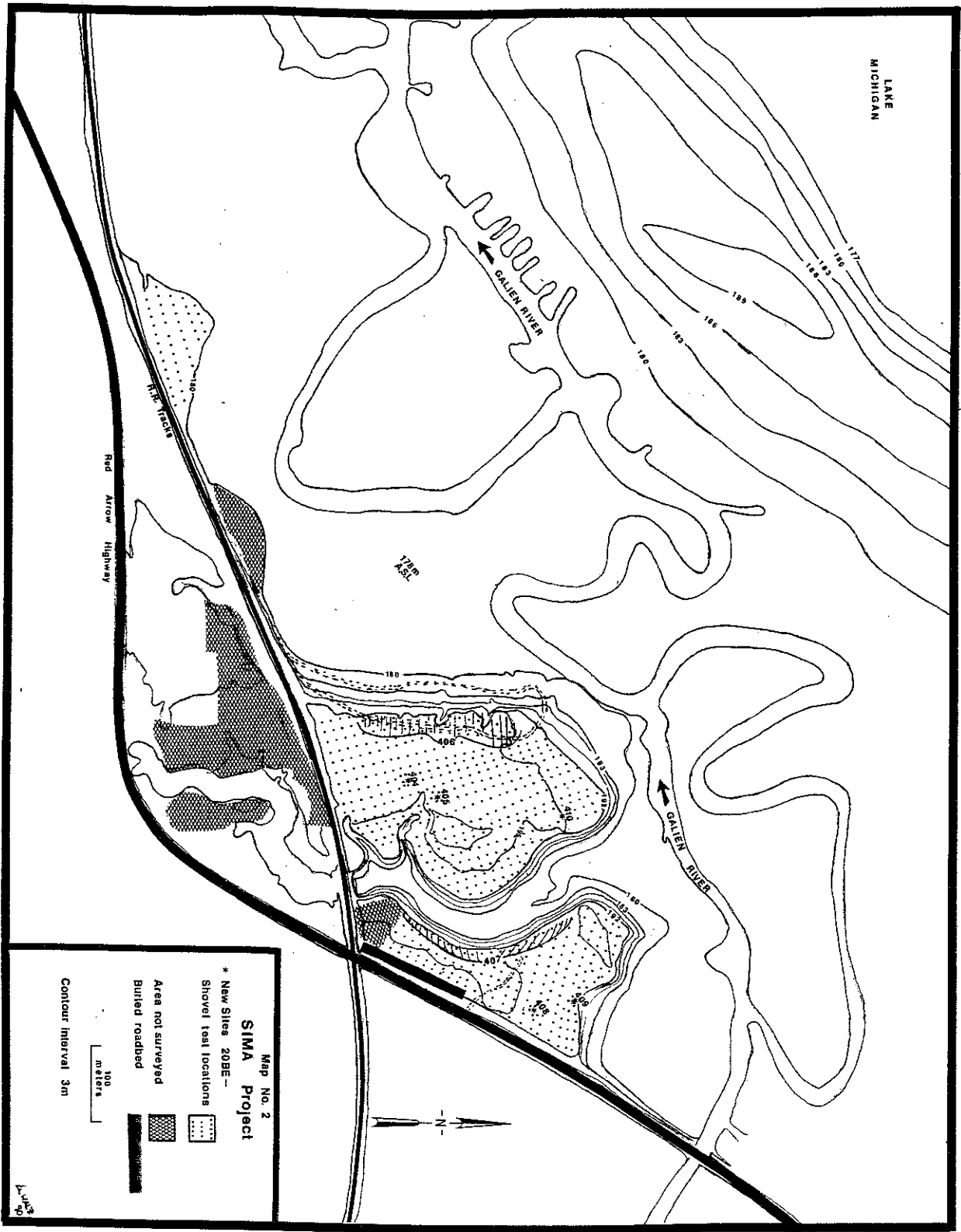
the river in the SW 1/4 of Section 2 and extreme SE 1/4, SE 1/4 of Section 3, T8S R21W, Berrien County, Michigan (Map 1). As part of the permitting process wherein Bureau and Associates of Grand Haven, Michigan is assisting the Sima Family in developing this tract, we were asked to evaluate the archaeological potential of the aforementioned upland area; a parcel of 70+ acres that currently supports dense second growth forest and fallow field cover (and possibly remnant orchard growth) accessible to us by a recently constructed road lying between the marshlands flanking the river and the Penn Central Railroad right-of-way that almost bisects the morainal landform from east-west (Map 2).

The landform is further bisected north-south by a steep-sided ravine that carries water off the uplands to the river. Maximum elevation above sea level exceeds 192 m at bluff's edge, dropping rapidly to an elevation of 178 m ASL in the marsh to the west of the study area. The elevation of the Lake Michigan shoreline, which here is separated from the Lower Galien River Valley by a narrow spit of sandy beach and dunes rising almost 10 m above the river, is 177 m ASL (Map 2).

Today, the channel of the Galien meanders strongly through a rather pristine marsh. Formerly, however, the lower course of the river, for a distance of about 3.2 km above its mouth, was occupied by "Lake Potawatamie". Occupying the floodplain from valley margin to valley margin, this body of water was observed at the time of initial American settlement to have supported dense stands of wild rice and teamed with migratory waterfowl (Ellis 1880: 270).

In addition to farming (and possibly orchard) activities that





LAKE MICHIGAN

GALIEN RIVER

GALIEN RIVER

Rad Arrow Highway

K.H. Leach

TWP 42E

**Map No. 2**  
**SIMA Project**

- \* New Sites 20BE--
  - Shovel test locations
  - Area not surveyed
  - Buried roadbed
- Contour Interval 3m
- 100 meters

are recorded for upland areas lying within the Sima Tract, we have noted possible quarrying and evidence of land leveling and filling and some harvesting of marketable timber in the recent past. The study area now supports a mixture of grasses and weedy annuals interspersed with some mature trees, especially along the edges of the bluff overlooking the valley to the north and west, and very dense undergrowth. The present canopy bears little resemblance to the oak-hickory forest cover that formerly dominated on uplands flanking the Lower Galien. Rather, climax vegetation is now represented by a scattering of hickories and scrub oaks, together with stems of sassafras, locust, and sumac and in places gnarled stems densely matted with grapevines. Without hesitation, we regard the plant cover occupying the study area as representing the most challenging impediment to archaeological survey work in our collective experience!

**PREVIOUS ARCHAEOLOGICAL RESEARCH IN AND NEAR THE STUDY AREA:**

Our literature, documents and site file search indicates that no prior archaeological research has been undertaken in the study area. However, the senior author (Crem in 1982) did conduct a Phase I survey of a small adjacent parcel of Sima property seven years ago, with negative results, and a former WMU graduate student, William Mangold (1981), has reported on his survey and excavation efforts in this rich archaeological zone. He briefly summarizes what is known about the mid 19th century excavation of the group of three mounds (20BE52) on the Quantrell Farm in the center of Section 3, records 20BE346, located in the SW 1/4, SW 1/4 of this same section, and discusses his own program of site testing at 20BE282 located on the sandy peninsula lying between Lake Michigan and the



The initial survey of the Sima Tract entailed placing more than 300 shovel tests across the tops of two prominent landforms and visual inspection in those areas where the ground surface was to some extent free of obstructing plant growth. Map 2 shows the approximate locations of 30 cm shovel tests across the study area. In addition to testing the prominent landforms overlooking the marsh, a small point of land jutting into the wetlands was also investigated. Due to very nasty weather conditions during our two days of fieldwork, not all of the project area could be evaluated. These areas, for the most part, lie south of the railroad tracks and in close proximity to small commercial developments fronting on Red Arrow Highway (Map 2). Be that as it may, the portion of the project that did receive our careful attention comprises the bulk of the area to be impacted by proposed development activity and, moreover, constitutes the areas of the project which were most likely to yield archaeological remains/deposits least prone to prior disturbance from road and railway construction.

#### PHASE I ARCHAEOLOGICAL FIELD PROCEDURES:

Galien River. This latter site, situated in the NW 1/4, NE 1/4 of Section 3, is but a short distance from the aforementioned mound group and also evidences woodland components. Mangold postulates that the occupation of this habitation site is, at least in part, related to the burial component at the Quantrell Mounds (1981: 36). It is perhaps significant that the mound group and habitation site discussed by Mangold lie to the west and immediately across the river valley from the area herein under consideration.

Our Phase I investigation employed a program of shovel testing to the depth of sterile subsol along parallel transects (lines of survey) that were adjusted so as to best fit the lay of the land. Generally, survey transects were spaced 15 m apart, with the distance between shovel tests ranging from 15-20 m. Some alteration of the test intervals was made necessary by the heavy undergrowth surveyors encountered in portions of the study area, but our coverage remained systematic and intensive throughout. When a shovel test proved positive, i.e. revealed cultural debris, an area of approximately 10 m<sup>2</sup> around the findspot was cluster tested in an effort to uncover additional information, make some determination of debris density in the immediate area, and ascertain the spatial extent of the debris scatter.

Visual observation of disturbed portions of the study area was also undertaken to augment the sample provided by our shovel testing procedures. Surface reconnaissance was, however, nearly impossible over most of the property due to brush and leaf litter. Only in the recent roadcut along the western edge of the westernmost landform (see Map 2) was vegetative cover spotty enough to permit consistent visual examination of the ground surface in the study area. And here, as will be noted below, we did observe cultural debris on the ground surface in significant quantities.

#### RESULTS OF THE PHASE I SURVEY:

Although we were unable to complete our survey of the entire upland area within the Sima Tract, those portions adequately examined did reveal sufficient evidence to warrant the designation of at least seven (7) prehistoric archaeological sites. While the sites herein

designated 20BE404-410 are firmly based on the recovery of cultural material, their spatial isolation may be deceiving due to the vagaries of shovel testing in a most difficult situation. Therefore, while we are tentatively identifying a total of seven (7) archaeological sites, we remain to be convinced that the entire tops of the two landforms created by the intervening ravine should not be regarded as single site areas coterminous with the limits of each landform. For the purposes of this Phase I survey report, each of seven sites, together with an inventory of the debris recovered, is presented below:

Site 1 (20BE404) is located in the SE 1/4, NW 1/4, SW 1/4 of Section 2. Here, a shovel test yielded a secondary flake of tannish chert and a piece of fire-cracked rock. Additional shovel testing in the near vicinity produced four more cultural items, including two secondary flakes of a yellowish-white chert, a tertiary flake of the same material, and a flake fragment of tannish-white chert. Reexamination of the location by David Zuckerman of Bureau and Associates one week later produced two more chert flakes. Site 2 (20BE405), a short distance northwest of the previous site, and located in the NE 1/4, SE 1/4, NW 1/4, SW 1/4 of Section 2, has been identified on the basis of three cultural items retrieved from several proximal shovel tests, including one decoration flake of Deer Lick Creek chert and one blocky flake and a flake fragment of a greyish-white cherty material.

Site 3 (20BE406) is a linear scatter in the E 1/2, E 1/2, SW 1/4, NW 1/4, SW 1/4 of Section 2 and occupies a bluff's edge position overlooking marshland flanking the river below. Here, cultural items were collected from the surface of a roadcut and from shovel

tests placed between the road and the edge of the bluff. Fourteen chert items and two pieces of FCR comprise the collection and include a nondiagnostic biface (triangular point preform?) of Flint Ridge chert, one utilized flake of yellowish-white chert, one decoration flake of a brownish-grey material, four secondary flakes, two of yellowish-white and one each of a brown and whitish-grey chert, two flake fragments of yellowish-white chert and two of whitish-grey chert, and a blocky flake of whitish-grey chert. Sima 3 is potentially the most interesting of the seven sites recorded to date.

Sima 4 (20BE407) is a linear scatter overlooking the ravine that separates the two landforms from the east in the SE 1/4, NW 1/4, NE 1/4, SE 1/4 and NE 1/4, SW 1/4, NE 1/4, SE 1/4 of Section 2. A number of questionable cherty pieces were located by shovel testing the edge of the bluff; however, examination in the laboratory did confirm that two items, both of Laurel(?) chert, were of human origin. These are a flake fragment and a tertiary flake. Re-examination of this area under better conditions will probably result in more precise delineation of site area.

Sima 5 (20BE408), located in the center of the NE 1/4, NE 1/4, SW 1/4 of Section 2 near Red Arrow Highway, produced three good cultural items. Shovel tests revealed a blocky flake of yellowish-white chert showing evidence of use-wear, a utilized flake of flint Ridge chert, and one decoration flake of an unidentified whitish-grey chert. Discovered in the pouring rain, the site would probably have produced a larger assemblage had it been discovered under more ideal conditions for Phase I survey.

Given our rate of data recovery in light of the heavy undergrowth

## RECOMMENDATIONS:

recovery methods.

will only be forthcoming with the application of more intensive data more information available to us in the study area; information that

representing the "tip of the iceberg"! Simply put, there must be remarkable. And, as such, we can only regard the data at hand as

success in finding such evidence of prehistoric occupation quite

prior experience with shovel testing procedures, we regard our prominent landforms overlooking the Galien River Valley. Given our

found mostly through shovel testing in heavily vegetated areas on

the recovery of almost three dozen cultural items. These were

In aggregate, our Phase I survey of the study area has resulted in the mouth of the ravine where it meets the marsh flanking the river.

cultural material; albeit the location is promising as it overlooks tion of the general area of this findspot did not reveal additional bifacial thinning flake of an unidentified chert. Careful examina-

SW 1/4 of Section 2, represents the isolated occurrence of one

Stma 7 (20BE410), located in the SW 1/4, NE 1/4, NW 1/4,

near where we had recovered the aforementioned items earlier.

a bifacial thinning flake in one of the shovel tests he excavated

David Zuckerman, returning to this location one week later, found of FCR, an unidentified mammal bone, and quantities of mussel shell.

SW 1/4 of Section 2. Here, shovel tests produced several pieces

to the north in the center of the N 1/2, N 1/4, NE 1/4,

ernmost landform overlooking the river and its adjacent marshland Stma 6 (20BE409) occupies a position on the north edge of the east-

and inclement conditions in which we worked, together with the prime location overlooking the river and its extensive marshland occupied by the project area, we can only recommend that additional archaeological research be conducted here prior to the commencement of significant landscape altering activities. We are reasonably confident that prehistoric cultural material is not confined to the site loci identified on the basis of our Phase I study, but rather may extend across these landforms and be coterminous with them. Certainly, on the basis of the information now available to us, this portion of the extensive Sima Tract in New Buffalo Township should be subjected to Phase II investigation in order that we might determine the spatial extent of the sites recorded and whether archaeological contexts are still preserved below the zone of disturbance that can be attributed to prior farming of the study area.

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Mangold, W.L. 1981 An Archaeological Survey of the Galien River Basin. The Michigan Archaeologist 27(1-2): 31-51.