



1988

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DEPARTMENT OF ANTHROPOLOGY
WESTERN MICHIGAN UNIVERSITY

REPORT OF INVESTIGATIONS NO. 83
1988

AN ARCHAEOLOGICAL SURVEY OF THE COVERT TOWNSHIP
WASTEWATER TREATMENT FACILITY, VAN BUREN COUNTY, MICHIGAN

WILLIAM M. CREMIN

A Report of Research in Response
to ER-87549 and Prepared for:

WW Operation Services
611 Cascade West Parkway, S.E.
Grand Rapids, MI 49506-2179

Attention:

Mr. Carl A. Malsom
Project Administration

INTRODUCTION:

Pursuant to receipt of authorization from Mr. Carl Malsom, Project Administration, WW Operation Services (dated 21 Dec 87), for a Phase I archaeological study of a 5.5 ha parcel in the NE 1/4 of Section 17, Covert Township, Van Buren County, Michigan, archaeologists in the Department of Anthropology, Western Michigan University undertook a literature and site file search and, with the arrival of appropriate weather and soil conditions, on 8 Mar 88 conducted on-site evaluation of the project area in order to determine whether construction of wastewater treatment facilities would adversely impact potentially significant archaeological resources. There follows a report of our fieldwork, together with appropriate background information and the recommendations derived from our program of research.

PROJECT PERSONNEL:

Principal Investigator - Dr. William M. Cremin, Associate Professor,
Department of Anthropology, WMU

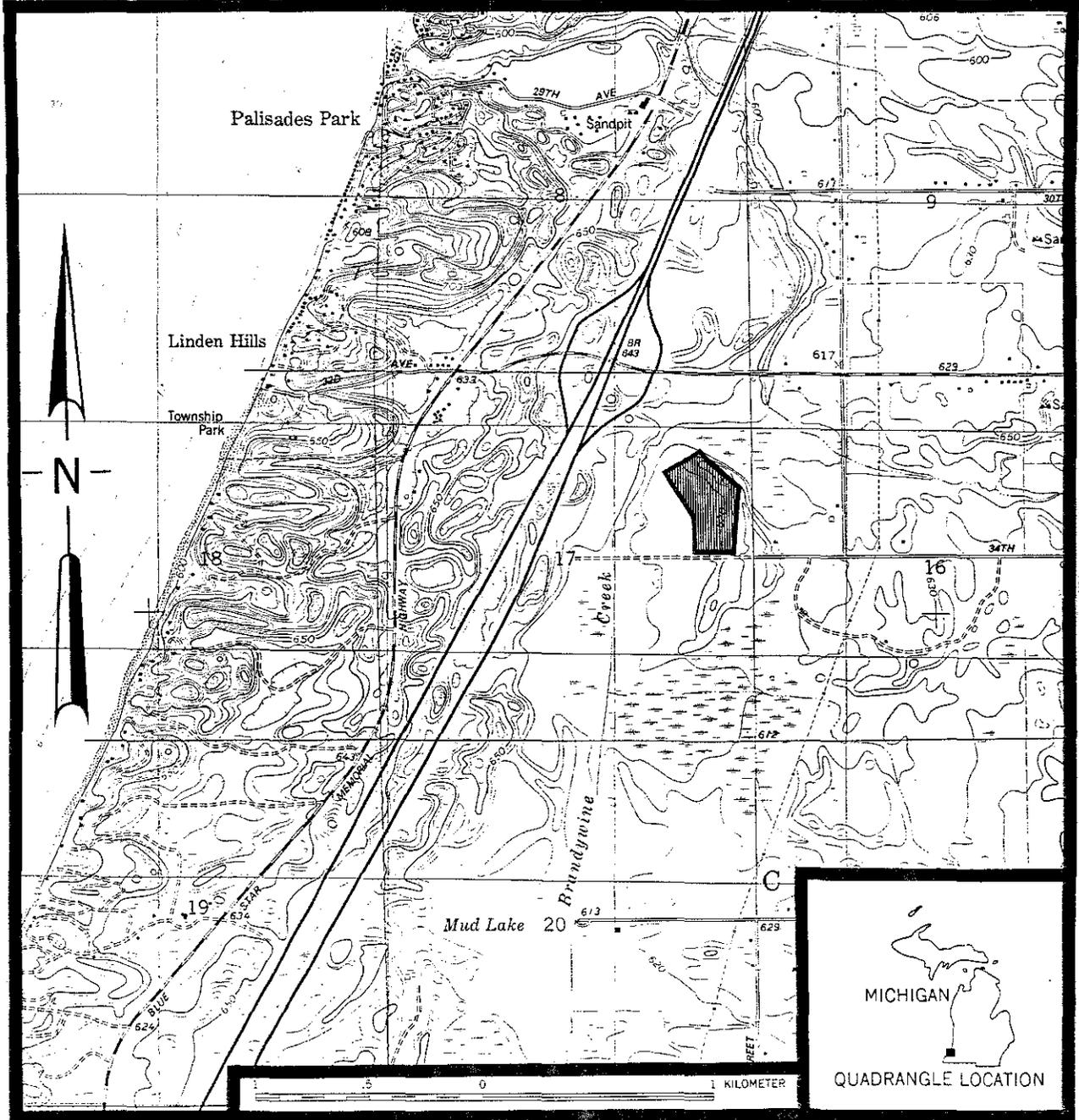
Field Supervisor - Mr. Dale W. Quattrin, M.A. Candidate in
Anthropology, WMU

Field Assistant - Mr. Conrad Kaufman, Graduate Student in
Anthropology, WMU

DESCRIPTION OF THE PROJECT AREA:

The research area of this study comprises an irregular tract of land encompassing 5.5 ha in the SE 1/4, NE 1/4 of Section 17, Covert Township (T2S R18-17W), Van Buren County, Michigan (Fig. 1). The parcel slated for construction of wastewater treatment facilities and designated ER-87549 occupies an "island" of undulating terrain ranging in elevation from 182.5-193.2 m ASL and almost completely surrounded by

Figure 1: Covert Township Wastewater Treatment Facility.



lowlying wetlands drained by Brandywine Creek. This stream heads to the south of the study area and flows in a northerly direction, passing by the parcel a short distance to the west, until it reaches the NE corner of Section 8, where it turns abruptly to the west, breaks through the Lake Border Moraine, and enters Lake Michigan near Palisades Park.

The project area lies 2.3 km due east of the Lake Michigan shoreline and is separated from the lake by the pronounced bluff formations and morainal uplands that here border Lake Michigan. At the time of the GLO surveys of the township, the vegetative cover was described as being beech-sugar maple forest with hemlock occurring as a codominant. However, scattered stands of pine trees were also noted in the area (Brewer 1979). At the time of our survey, the parcel supported a few very large trees and considerable secondary growth consisting of oak, pine, cherry, witchazel, sassafras, and beech. Scrubby brush and cactus comprised the dominant plant cover in the northernmost portion of the study area.

Soils were observed to be typically sandy, varying in color from a yellowish brown to almost white. The darker soils were confined to higher elevations across the parcel, and here the soil profile revealed a humus zone of some 10 cm in thickness underlain by a thin layer of leached material over deep deposits of sand. No where did the survey team observed remnant plow zone, strongly suggesting that the area had not been in cultivation during the recent past.

PREVIOUS RESEARCH IN AND NEAR THE STUDY AREA:

Our background research has turned up only a single reference to a previously recorded archaeological site. According to Dr. John Halsey of the Bureau of History (personal communication), the University of

Michigan entered into the state site files some years ago a Middle Woodland campsite (20VA27) that was reported to be located in the NW 1/4, NE 1/4 of Section 17. Nothing more is known about this site than its general location and probable affiliation.

More recently, Dr. Richard Flanders of Grand Valley State University conducted a cultural resource investigation for Williams and Works in the center of the S 1/2 of Section 15, Covert Township. His program of research, combining reconnaissance level survey and test pitting along transects across the study area, revealed nothing to suggest the presence of archaeological resources (Flanders 1985).

PHASE I SURVEY FIELD PROCEDURES:

The intent of our Phase I study was to conduct a systematic survey of sufficient intensity to produce a conclusive recommendation with respect to potential impact on important archaeological resources that might be present in the project area. We reasoned that given the proximity of the landform on which this parcel is located to a rather pronounced wetland area, there might well be evidence of pre-historic occupation for purposes of exploiting aquatic and riparian resources occurring in the lowlying marshes surrounding it.

Inasmuch as the project afforded us surface visibility that was almost nil, the survey team evaluated the study area by means of shovel testing at intervals of 20 m along transects spaced 20 m apart. In fact, only the northernmost portion of this parcel, in close proximity to a dirt field road, provided an opportunity to employ surface reconnaissance procedures.

On the morning of 8 Mar, following our having located the survey flags placed along the margins of the parcel by WW Operation Services personnel to guide our movements over the project area, surveyors commenced shovel testing along a series of north-south trending lines of survey

or transects. Shovel tests were routinely excavated to a depth of 40-50 cm below the surface, with several being excavated to twice this depth for purposes of more thorough examination of the soil profile across the property. Nowhere did shovel tests produce cultural items; nor did the surveyors observe anomalies in the soil suggesting the presence of subsurface archaeological deposits. The only observation signaling prior human presence, a single nondiagnostic flake of an unidentified chert, was recovered from the surface in close proximity to the aforementioned road. Careful examination of the area about this findspot, including scrutiny of the ground surface and the excavation of several shovel tests, did not produce additional cultural material.

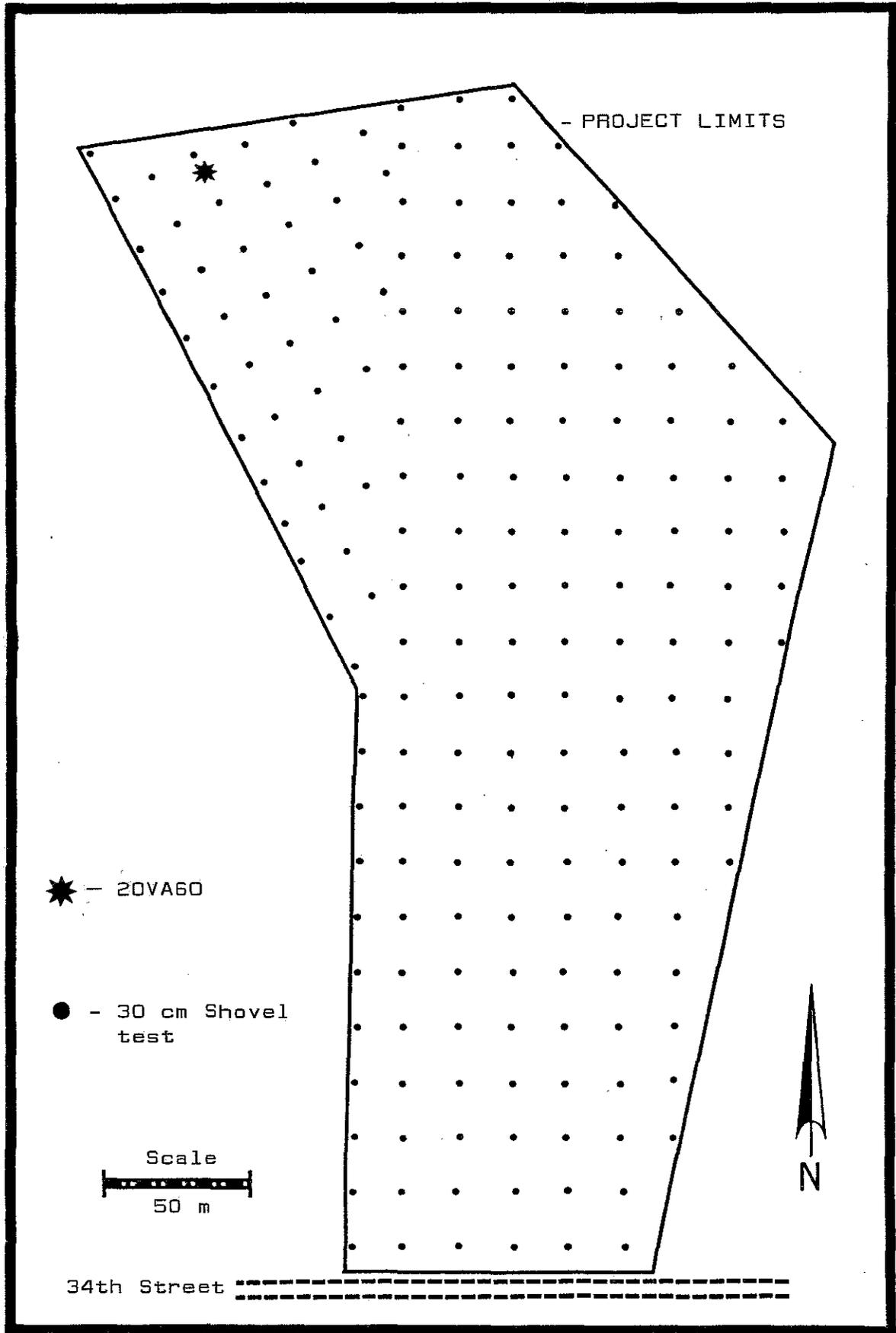
In aggregate, 189 shovel tests were excavated during our evaluation of the project. Their approximate locations and the location of the findspot we have recorded as 20VA60, the Covert Wastewater Treatment Facility site, are shown in Figure 2. These shovel tests, together with limited application of surface reconnaissance procedures where possible, provided ample opportunity to complete a systematic and intensive search of the study area for the presence of potentially significant archaeological resources.

RESULTS AND RECOMMENDATIONS DERIVED FROM THE PHASE I SURVEY:

The single observation worthy of note is the discovery of one chert flake on the ground surface near the northern limits of the study area. This object is clearly without any association, both on the surface and beneath the surface in the area about the findspot. For the record, 20VA60 is located in the NW 1/4, NE 1/4, NW 1/4, SE 1/4, NE 1/4 of Section 17 in Covert Township.

Based upon a careful on-site examination of the project area, resulting

Figure 2: Surveyor Coverage in the Project Area.



only in the recovery of a single nondiagnostic cultural item of no value with respect to even chronocultural placement of the site, it is our considered opinion that construction of the proposed wastewater treatment facilities will not have an adverse impact on potentially significant archaeological remains. It is therefore recommended that the project proposed by WW Operation Services of Grand Rapids, Michigan for the area under study be permitted to proceed as planned.

REFERENCES CITED:

Brewer, R., compiler

1979 Vegetation of southwestern Michigan at the time of settlement. Department of Biology, Western Michigan University. Kalamazoo.

Flanders, R.

1985 Archaeological survey: sanitary treatment facility, Covert township, Van Buren county, Michigan. Department of Anthropology and Sociology, College of Arts and Sciences, Grand Valley State Colleges, Cultural Resource Report.