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DEPARTMENT OF ANTHROPOLOGY
WESTERN MICHIGAN UNIVERSITY

REPORT OF INVESTIGATIONS NO. 78
1987

ARCHAEOLOGICAL SITE LOCATION SURVEY OF THE PATTEN CORPORATION MICHIGAN
PROPERTY ON LAKE ALLEGAN IN ALLEGAN COUNTY, MICHIGAN
(ER-87396, EASEMENT FILE #64)

WILLIAM M. CREMIN

A Report Prepared For:

Patten Corporation Michigan
225 Broadway, Suite 13-14
South Haven, Michigan 49090

Attention:

Mr. Patrick C. Regan
Manager Technical Specialists

INTRODUCTION:

Pursuant to receipt of authorization from Mr. Patrick C. Regan, Manager Technical Specialists, Patten Corporation Michigan (dated 17 Sep 87), for a Phase I archaeological survey of 119 acres (48 ha) of corporate holdings on Lake Allegan, Allegan County, Michigan, archaeologists in the Department of Anthropology, Western Michigan University began a literature, documents, and site file search and prepared to undertake on-site evaluation of the project area in order to ascertain whether proposed development of the property would adversely impact potentially significant archaeological resources. There follows a report of fieldwork conducted on 24-25 Sep 87, together with appropriate background information and the recommendations derived from our program of research.

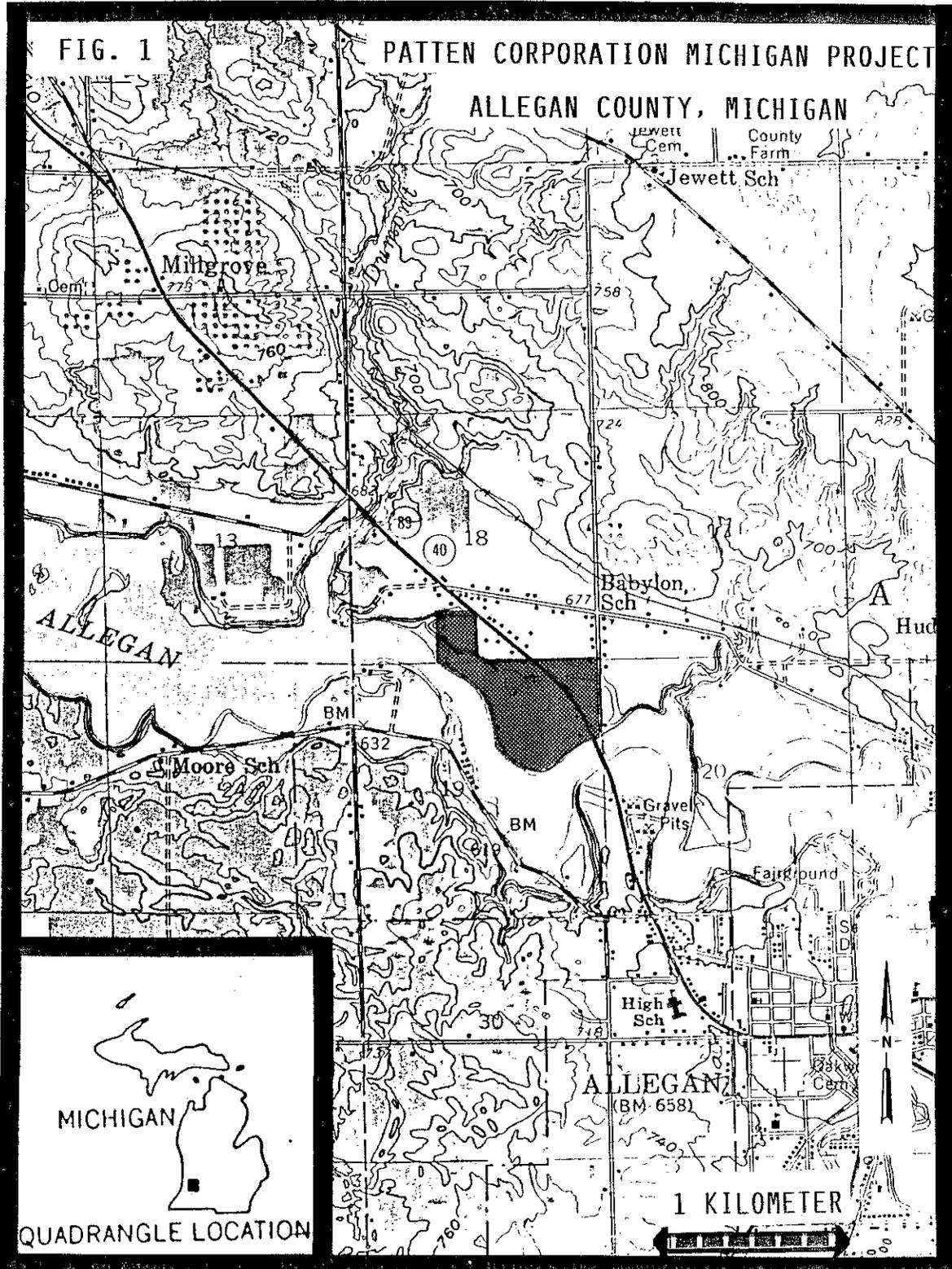
PROJECT PERSONNEL:

- 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 Assistants - Mr. Conrad Kaufman, Graduate Student in
Anthropology, WMU
- Mr. Zachary Zisk, Graduate Student in
Anthropology, WMU
- Mr. Lewis Wisser, Graduate Student in
Anthropology, WMU
- Mr. David Hebert, Senior majoring in
Anthropology, WMU

DESCRIPTION OF THE PROJECT AREA:

The research area of this study constitutes an irregular tract of land encompassing 48 ha in the NE 1/4 of Section 19 and extending into the NE 1/4, NE 1/4 of the NW 1/4 of Section 19 and the SE 1/4, SW 1/4 of Section 18, Allegan Township (T2N R13W), Allegan County, Michigan (Fig 1). For almost 2 km this parcel follows the north shoreline of Lake Allegan; an impoundment of the Kalamazoo River. From water's edge, it reaches into the adjacent uplands for a distance of between 84-700 m. The lake today stands at an elevation of 184.5 m above sea level, and elevations across the study area range from 185.4-198.0 m ASL. While the local landscape is for the most part gently rolling, the highest elevations occur in the northern and western portions of the project, where a ridge dissected by a deep ravine through which seasonal runoff from the uplands flows to the lake (river) dominates the scene. Finally, in this segment of the valley, land tends to rise quite rapidly as one proceeds northward from the lake, with upland ridges attaining elevations in excess of 240 m ASL (55.5 m above lake level) at a distance of less than 2 km from the project.

At the time of our on-site investigation in late September, former fields comprising the greatest portion of the study area had lain fallow for several years. Dense stands of grasses and weeds thoroughly concealed the surface of the ground. The higher lands to the north and west supported mixed hardwoods which gave way to a mature pine plantation in much of the area lying between M-40 and the lake. Grasses comprised the ground cover beneath the canopy of hardwoods, and the litter of aging pines choked the understory in the area supporting the plantation. Occasionally, however, the



survey team did encounter dense brambles and briars among the pines in those locations where openings in the canopy allowed sunlight to reach the forest floor.

Our examination of Government Land Office survey records from 1831 clearly shows that uplands flanking either side of the valley formerly supported beech-maple forest and oak-pine woodlands. As surveyors descended to the river floodplain, more water tolerant species were observed to dominate. Trees recorded in the river bottom included thornapple, butternut, hackberry, box elder, cherry, and ash. Frequently mentioned species occupying the riverbank included willow, sycamore, hackberry, and linden or basswood. Throughout the general area, surveyors noted only the presence of seedlings of the canopy species in the forest understory.

PREVIOUS RESEARCH IN AND NEAR THE STUDY AREA:

Our background research has turned up only a single line of inquiry regarding previous archaeological activity in the general area. While no sites have previously been reported for this 48 ha parcel of land, my (Cremin and Marek 1979) survey work in this portion of the Kalamazoo River basin in 1978 did produce results from adjacent properties that strongly suggested we could anticipate locating archaeological resources of potential interest during this Phase I survey for Patten Corporation Michigan.

In 1978, a survey transect across the Kalamazoo River utilized the line separating Section 19 and Section 20 (lying immediately to the east of the project area) as part of the western limits of the universe. Within Section 20, portions of three quarter-sections aggregating 93.1 ha (Cremin and Marek 1979: 30) were systematically

evaluated by means of surface reconnaissance, resulting in the recording of seven (7) new sites (20AE212, 213, 214, 215, 217, 335, and 394) lying within 1.5 km of the project area. An additional five (5) sites, lying both within (20AE218 and 302) and outside (20AE301, 341, and 355) of 1978 Transect A, were also found nearby (1979: 24). Finally, four (4) sites (20AE10, 20AE3/29, A-35, and A-40) previously recorded by amateurs working with Dr. Elizabeth Garland of Western Michigan University have been noted for Section 20 in Allegan Township (Cremin and Marek 1979: 12). While none of these 16 sites, representing findspots or lithic scatters of modest extent in all but one instance, is, in and of itself, especially interesting or worthy of note in the context of this report, the number of sites recorded for the general vicinity of the Patten Corporation Michigan property seemed reason enough to conduct systematic and intensive evaluation of the project. Parenthetically, that the Babylon site (20AE214) might be Upper Mississippian in cultural affiliation was of no small importance to me, given our work with sites yielding such components in the lower Kalamazoo River valley (Cremin 1983).

PHASE I SURVEY FIELD PROCEDURES:

The intent of our Phase I program of research was to conduct a systematic survey of sufficient intensity to result in a conclusive recommendation with respect to potential impact on important archaeological resources that might be present in the project area. Inasmuch as this property afforded us surface visibility that was "spotty" at best, reconnaissance level survey procedures were augmented everywhere by the application of shovel testing along transects. In point of fact, surface reconnaissance proved to be a useful adjunct to our shovel testing procedures only in those small areas (slight sandy

rises) of the field where wind ablation had prohibited dense grass and weed cover from taking hold in the sandy soil.

On the morning of 24 Sep, while an engineer/surveyor from Patten Corporation Michigan and I attempted to relocate property markers in the densely wooded western "arm" of the project, the survey team began their examination of that portion of the project lying east of M-40. All but the small piece of land lying above the river in the extreme southeastern corner of the project was traversed by lines of survey spaced 20 m apart, with shovel tests being located along each transect at intervals of 20 m. In the corner parcel, the spacing between transects and shovel tests was reduced to 10 m.

Following our relocation of property lines in the woods between M-40 and the lake, surveyors initiated work here employing the same strategy. The ridge tops, together with the pronounced ravine separating them, were carefully probed employing the 20 m interval; until the team approached to within 50 m of the lowlying wetlands here flanking the lake shoreline, at which point the interval was once again reduced to 10 m between transects and shovel tests.

The land in fallow field was surveyed on the second day. As previously noted, surface reconnaissance was of some limited value to the team where sandy rises occurred in the field. However, for the most part, the same strategy of shovel testing along transects was employed in evaluating the field, with the 50 m wide strip of land bordering water's edge or wetlands hugging the shoreline being probed at 10 m intervals and the 20 m interval being used as surveyors moved away from the lake.

Shovel tests were routinely excavated to a depth of 40-50 cm below the surface; these were further augmented by use of a Stam soil tester, permitting examination of the soil profile(s) across the project to depths in excess of one meter. Nowhere did we find cultural items or evidence of cultural deposits (i.e. middens) below the humus zone in forested areas or beneath the plow zone in areas of former field. Additionally, shovel tests clustered about find-spots of lithic pieces in four instances did not produce any more evidence for the presence of a site than had initially called the team's attention to a particular locus. Thus, the sites presented below are without integrity on the basis of the shovel testing program that surveyors employed on this occasion.

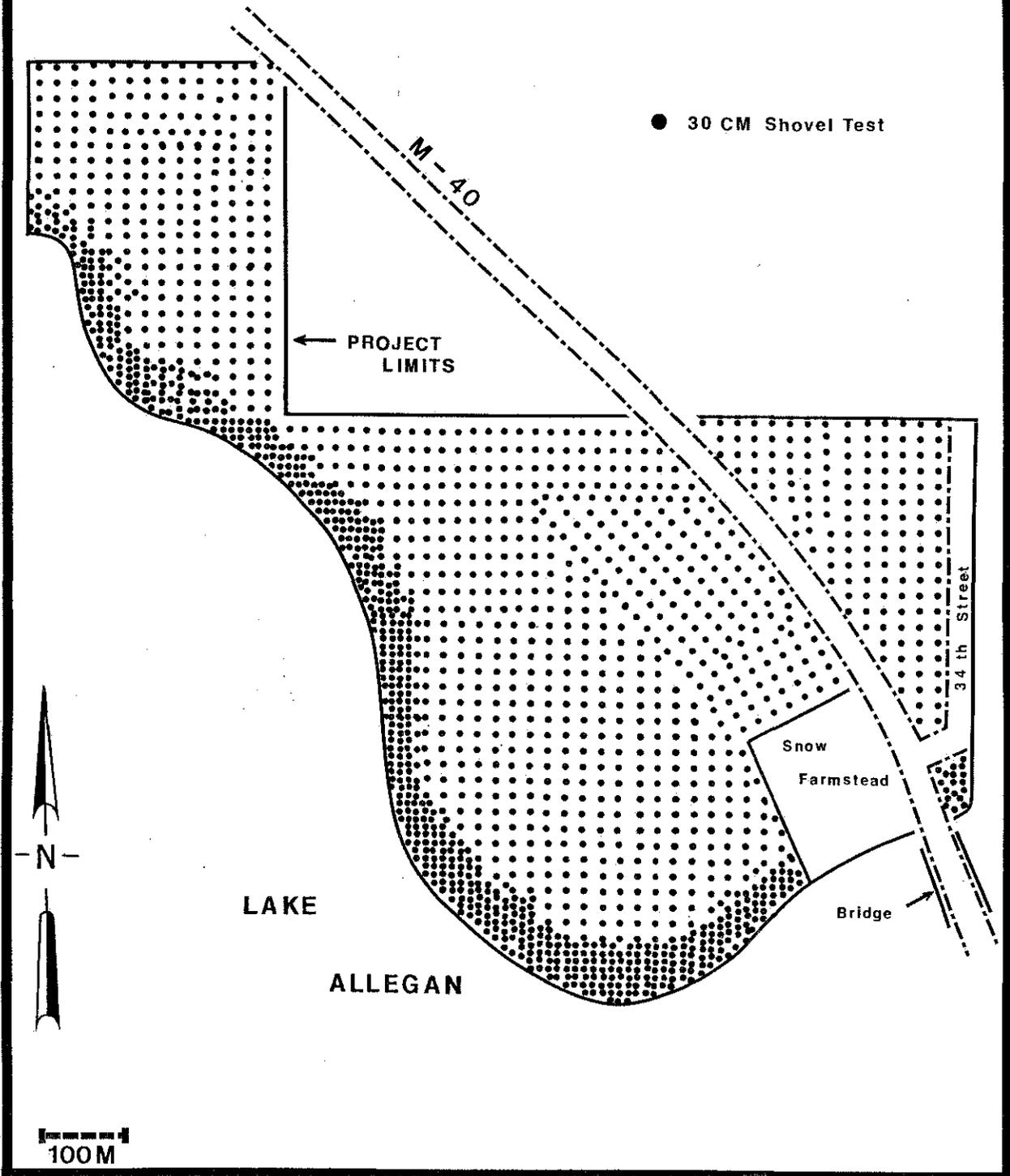
In aggregate, 1821 shovel tests were excavated during our evaluation of the project area. Their approximate locations are shown in Fig. 2. These shovel tests, together with careful evaluation of the ground surface where possible, provided ample opportunity to complete a systematic and intensive examination of the study area in search of potentially significant archaeological resources.

RESULTS OF THE PHASE I SURVEY:

Surface and subsurface finds of prehistoric lithic items and/or fire-cracked rock scatters indicate some occupation of the project area in prehistory; especially along a linear sand ridge in the field that for approximately 250 m parallels the former river channel at a distance of 30-180 m from the present lake shoreline. Three FCR scatters were delineated along this ridge and also on a sand rise near water's edge. However, careful examination of the sparsely vegetated sandy soils in these areas, augmented by numerous shovel tests, revealed associated cultural material in only a single instance.

FIG. 2

PATTEN CORPORATION MICHIGAN PROJECT
ALLEGAN COUNTY, MICHIGAN



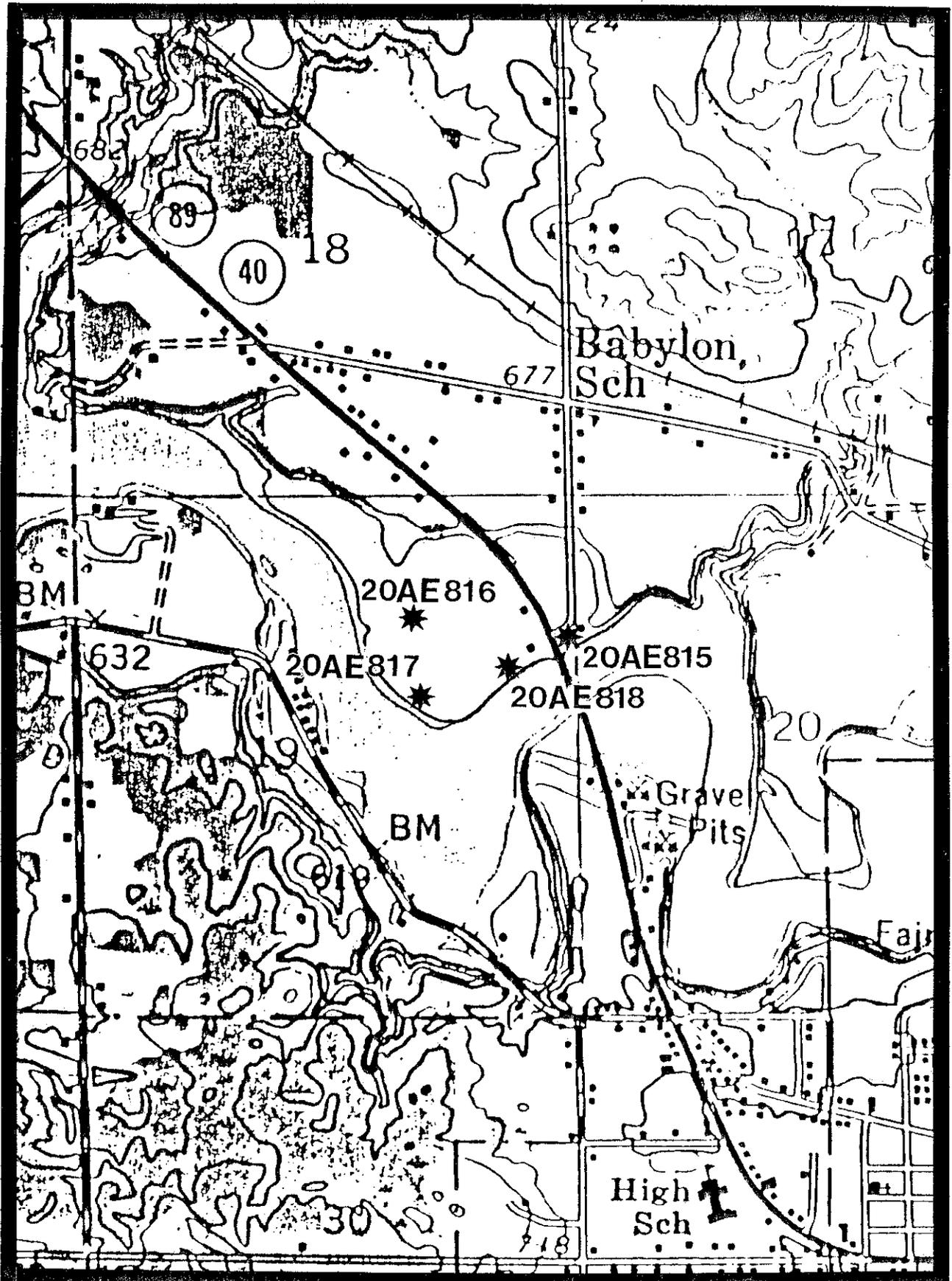
Including the aforementioned case, all sites herein defined rest on the discovery of a single indisputable cultural item. All represent the isolated occurrence of a chert flake, without other bona fide cultural remains in association. While the FCR scatters may be attributable to either human or natural agencies, the observed attributes of the four flakes recovered leave no doubt as to their "maker"--man! Thus, while the proximity of the sand rise and linear ridge to the river would make these landforms good locations for habitation, and in our opinion should have yielded greater evidence for human presence, our interpretation of potential significance must reflect only that evidence recovered through very careful study of the situation.

We have defined four (4) archaeological sites on the basis of the evidence available to us. These are located in Fig. 3 and may be described as follows:

20AE815 Patten 1 represents the isolated occurrence of a chert flake in a shovel test placed among dense second growth forest overlooking the lake in the extreme southeastern corner of the project area. Additional shovel tests placed about this locus in the NE 1/4, NE 1/4, SE 1/4, NE 1/4 of Section 19 revealed no additional material. The specimen is a secondary flake of an unidentified material. The cultural affiliation and temporal placement of this site cannot be determined from the scant evidence.

20AE816 Patten 2 is the findspot of a secondary flake of an unidentified whitish chert on the long sand ridge that

Fig. 3. New archaeological sites in the project area.



occupies a position in the field paralleling the former course of the river beneath the lake. It is located in the SW 1/4, SW 1/4, NW 1/4, NE 1/4 of Section 19. Again, the site's age and affiliation cannot be ascertained on the basis of this single nondiagnostic item.

20AE817 Patten 3 is situated in the center, N 1/2, SE 1/4, SW 1/4, NE 1/4 of Section 19 and represents the isolated occurrence of a utilized flake amidst a 1500 m² scatter of FCR over a sandy rise near the lake shoreline. Very careful examination of the ground surface, together with numerous shovel tests and intensive probing with the soil tester, revealed neither additional cultural items nor evidence of site integrity below the base of the plow zone. The chert flake cannot be identified as to source, and the site's cultural affiliation and temporal placement are not known.

20AE818 Patten 4 represents the isolated occurrence of another secondary flake on an unidentified whitish chert and is located at lake's edge in the SE 1/4, NW 1/4, SE 1/4, NE 1/4 of Section 19. Again, nothing can be said regarding this site's age or cultural affiliation.

Beyond these brief comments regarding archaeological resources that have been identified in the Patten Corporation Michigan project, we can say all too little with respect to prehistoric human occupation of this 2 km long segment of the Kalamazoo River valley. And, clearly, these scant data provide nothing in the way of useful information to enable us to better understand the extant data derived from adjacent Section 20 during prior survey of 1978 Transect A by Kalamazoo Basin

Survey project personnel (Cremin and Marek 1979).

RECOMMENDATIONS DERIVED FROM THE PHASE I STUDY:

Our research program, involving both a thorough literature search and on-site evaluation of the 48 ha study area, has clearly established the presence of four (4) archaeological sites (i.e. findspots of chert knapping debris) in those portions of Section 19, T2N R13W, lying within the Patten Corporation Michigan project. However, neither surface reconnaissance nor intensive shovel testing about the loci of the findspots revealed additional information suggesting the presence of site integrity--a prerequisite for more intensive study (i.e. Phase II test excavation) of these sites. When these sites are compared with the vast majority of those that have been previously recorded in the general area, it is most reasonable to conclude that our knowledge and understanding of prehistory in this segment of the Kalamazoo River valley will not be appreciably advanced through additional work at the Patten 1-4 sites.

Therefore, in light of the findings from our systematic and intensive examination of this property, it can be recommended that the proposed project be permitted to proceed as planned; inasmuch as no potentially significant archaeological resources would appear to be threatened by the development activity proposed by Patten Corporation Michigan.

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