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DEPARTMENT OF ANTHROPOLOGY
WESTERN MICHIGAN UNIVERSITY

TECHNICAL REPORT NO. 16
1984

ARCHAEOLOGICAL TEST EXCAVATIONS AT THE YACHT
HARBOR SITE (20VA57), CITY OF SOUTH HAVEN, MICHIGAN

WILLIAM M. CREMIN

Prepared for:

YACHT HARBOR DEVELOPMENT COMPANY
317 CENTER STREET, P.O. BOX 406
SOUTH HAVEN, MICHIGAN 49090

INTRODUCTION:

With the execution of a contract (dated 29 Oct 84) between the Yacht Harbor Development Company and Western Michigan University, authorizing Phase II archaeological assessment of the Yacht Harbor site (20VA57) in the City of South Haven, Michigan, the project Principal Investigator, Dr. William M. Cremin, undertook to design a data recovery strategy, hire the research team, and procure the equipment and supplies necessary to conduct test excavations at this site. The research team then moved to the site, where the Phase II investigation was accomplished on 3-4 Nov 84. There follows a report of the program of research undertaken on this occasion by WMU, together with recommendations regarding the proper disposition of the Yacht Harbor site.

PROJECT PERSONNEL:

The following individuals comprised the team that undertook the Phase II archaeological testing of the Yacht Harbor site. Of this number, three people also participated in the Phase I survey of the project area on 11 Oct 84, during which this site and two others were located and recorded.

Principal Investigator - Dr. William M. Cremin, Associate Professor
of Anthropology, Western Michigan University
Field Supervisor - James Cogswell, M.A. Candidate in Anthro-
pology, WMU
Field Assistants - Amy L. Campbell, Graduate Student in

Anthropology, WMU

- Mary E. Gibbons, Graduate Student in Anthropology, WMU
- Robert W. Hull, M.A. Candidate in Anthropology, WMU
- Conrad Kaufman, Senior major in Anthropology, WMU
- Alexander S. Levy, Senior major in Anthropology, WMU

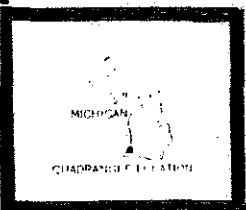
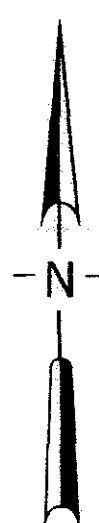
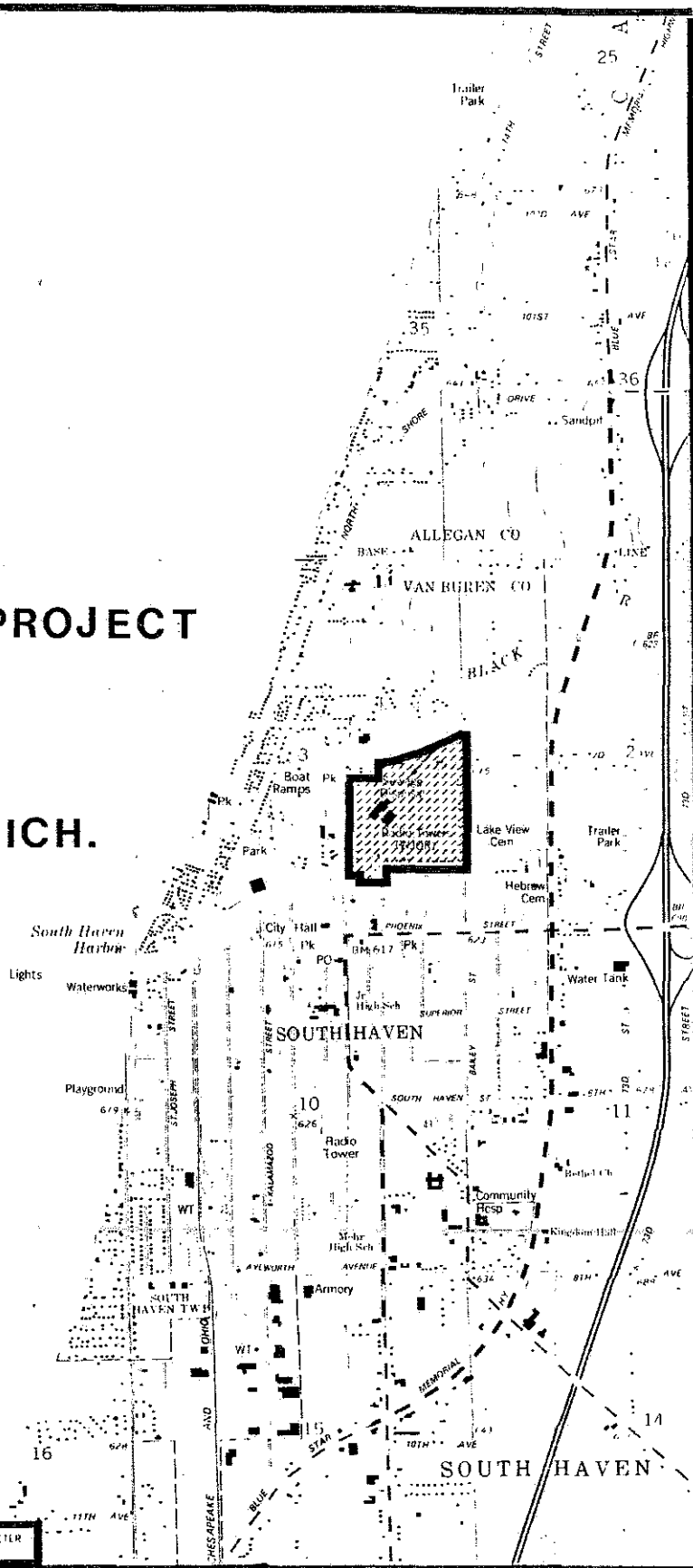
DESCRIPTION OF THE PROJECT AREA:

The Yacht Harbor site (and two others, Conger Street I and Conger Street II, not requiring Phase II assessment) occurs in an irregular tract of land comprising 30 ha (74 acres) within the limits of the City of South Haven, Michigan and includes the NE 1/4 of the SE 1/4 and portions of the NW 1/4, SE 1/4; SE 1/4, SE 1/4; SW 1/4, SE 1/4; and SE 1/4, NE 1/4 of Section 3, South Haven Township, T1S R17W, Van Buren County, Michigan (Map 1). The general site occupies a location on the Black River floodplain, and it is bounded on the north and west by the river channel and on the south and east by an upland rim overlooking a marsh with standing water. This area is traversed from NE to SW by an abandoned railroad grade which effectively separates the marshy eastern portion of the project from that portion immediately adjacent to the river as it passes by the study area. A report entitled Geotechnical Investigation of the Yacht Harbor Development Project, South Haven, Michigan (Warzyn Engineering 1984) contains the results of a soils study of the project, including soil boring logs clearly indicating that the western portion of the project

MAP 1

YACHT HARBOR PROJECT

SOUTH HAVEN, MICH.

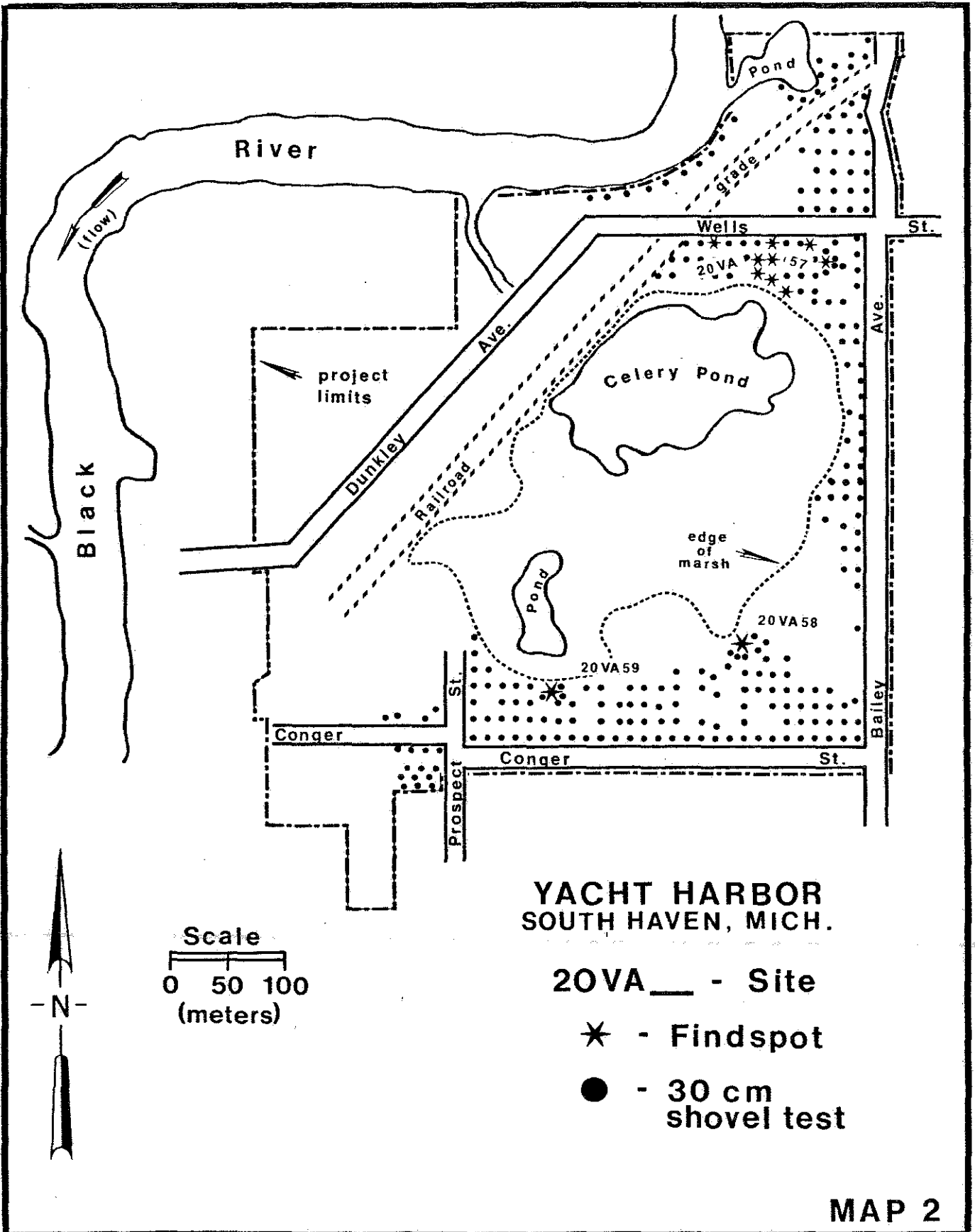


between the abandoned grade and the river channel has been very much impacted by sand, gravel, cinder, and rubble fill, often to a depth of three meters or more!

The eastern portion of the project is dominated by depressional topography occupied by wet marshland partially ringed by a rising upland rim supporting heavy brush and second growth on slopes and usually well-maintained properties consisting of domestic structures and associated lawn, trees, and ornamental plantings on the bluff tops. Only immediately north of the marsh, in the area where the Yacht Harbor site occurs, is the property occupying the slope rising above wetlands well cared for by the landowner (Map 2).

The center of the marsh is occupied by a 2.6 ha body of water called Celery Pond; the elevation of which is 174.2 m ASL, or 0.2 m above the level of the Black River. A much smaller pond within the limits of the marsh and to the SW of Celery Pond stands at 174.3 m ASL. Water level in the marsh, we have been told, does fluctuate from year to year with the level of nearby Lake Michigan; this wet marsh being connected by a small channel passing from Celery Pond beneath the old railroad grade and Dunkley Avenue to the Black River. The perimeter of the marsh appears to conform to the 175.5 m contour as it passes through the eastern portion of the project area (Map 2).

Wetland vegetation, including marsh grasses, reeds, and some sedges, dominates in the eastern portion of the project today as it did in the past. According to Brewer (1979), at the time of the Government Land Office survey of South Haven Township the Lower



**YACHT HARBOR
SOUTH HAVEN, MICH.**

- 20VA__ - Site**
- ★ - Findspot**
- - 30 cm shovel test**

MAP 2

Black River floodplain was choked with marshes, while the nearby uplands supported markedly beech-maple forest with some inclusions of hemlock and white pine. Today the upland rim overlooking the marsh is predominantly residential property, with erosional cuts and other land poorly suited to occupation and abandoned properties taken over by brush, scrub second growth, and noxious weeds.

PREVIOUS RESEARCH IN THE PROJECT AREA:

An extensive and thorough search of the literature, documents, and state site files conducted as part of the Phase I archaeological assessment revealed that no site had ever been recorded for the general vicinity of the Yacht Harbor project or, for that matter, the Lower Black River Valley (Cremin 1984). And of the historical documents consulted, only Ellis' (1880) History of Berrien and Van Buren Counties, Michigan even alluded to the presence of some Native American groups on the Black River when American settlers first arrived. In this instance, the implication is that the Indian occupation was intensive only during the season of maple sugaring. However, it is possibly noteworthy that one early settler by the name of Daniel Pierce remarked in 1838 that small plots of corn had been planted by some Indians following conclusion of maple sugaring, after which they left the valley until their planned return in the fall (Ellis 1880: 534).

The Phase I archaeological survey conducted for the Yacht Harbor Development Company on 11 Oct 84 represents the first clearly professional activity in the Lower Black River Valley (Cremin 1984). On this occasion, surface reconnaissance and systematic shovel testing resulted in the recovery for evidence for at least three

prehistoric sites in the project area. These sites, recorded on the basis of two surface finds and materials recovered from nine subsurface (shovel test) loci, can be summarized as follows:

- 20VA57 The Yacht Harbor site, tentatively recorded as covering about 4500 m² in the N 1/2, NE 1/4, NE 1/4, NE 1/4, SE 1/4 of Section 3, is represented by nine occurrences of lithic debris and fire-cracked rock. Of the 22 lithic specimens recovered, none is diagnostic; the cultural affiliation and temporal placement of this site are unknown.
- 20VA58 Conger Street I represents the discovery of an isolated bifacial thinning flake in a shovel test located in the NE 1/4, NW 1/4, NE 1/4, SE 1/4, SE 1/4 of Section 3. Cultural affiliation/temporal placement cannot be established for this site.
- 20VA59 Like the aforementioned site, Conger Street II is a find-spot of a bifacial thinning flake in the NW 1/4, NE 1/4, NW 1/4, SE 1/4, SE 1/4 of Section 3. Here, as in the above mentioned case, cluster testing of the area surrounding the initial discovery yielded no evidence of context or association. And the highly lustrous white chert cannot be identified as to source.

The results of the Phase I research program, derived from systematic and intensive evaluation of an estimated 3.5 ha accessible to surveyors, strongly suggested that sites 20VA58 and 20VA59 were no more than isolated occurrences of single chert flakes and would require no further consideration. However, in the case of the Yacht Harbor site (20VA57), the following observations signaled the need

for additional study:

1. The quantity of cultural material recovered and the number of shovel tests producing debris over a relatively small area were both atypical in the Principal Investigator's experience;
2. soil conditions observed during shovel testing of this site initially suggested that it had been impacted only minimally as a result of recent land-use practices; and
3. the comments of the current landowner regarding local artifact collector activity over the years that the site was farmed indicated that many "arrowheads" had been found here.

These observations, then, formed the basis for the recommendation that the Yacht Harbor site be subjected to Phase II archaeological test excavation prior to the commencement of construction work in this area of the project.

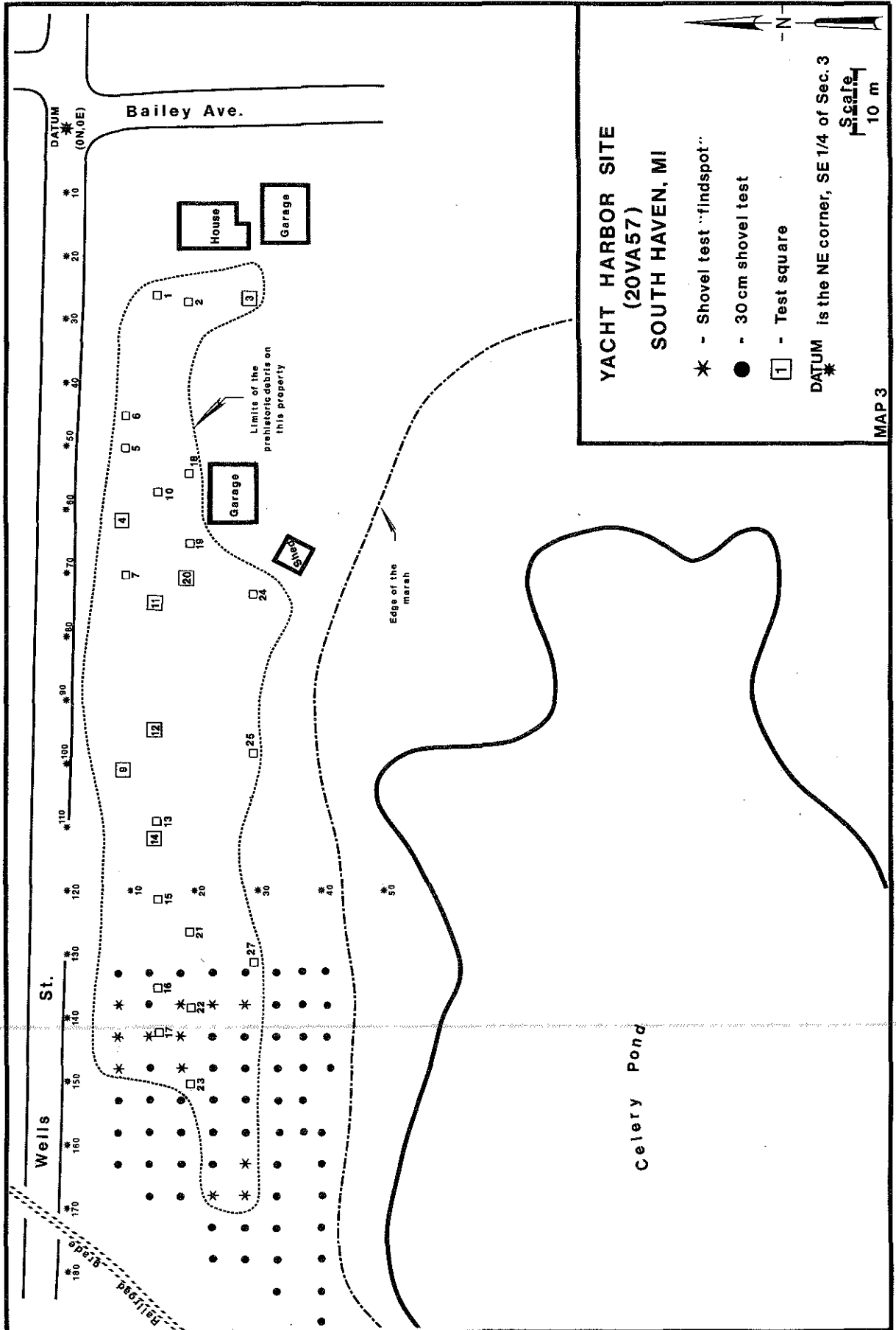
PHASE II RESEARCH DESIGN AND DATA RECOVERY PROCEDURES:

The recommendation derived from our Phase I research having been accepted, the PI set about to develop a systematic yet limited program of test excavation that would in all likelihood result in the delineation of the site's perimeter, lead to the recovery of data that might make significant contributions to the solution of current research problems in the area, and make possible a determination of its eligibility for nomination to the National Register of Historic Places. To this end, it was proposed that a one percent (1%) random sample of the estimated site area of 4500 m² be excavated. This procedure would ensure a reasonably representative and unbiased recovery of information while at the same time requiring that only a minimal portion of the site be investigated. In addition, the

research design called for limited shovel testing along the west end of the site using a five meter grid in an attempt to ascertain whether the construction of the railroad grade during the last century had obscured/obliterated a portion of the prehistoric occupation area. The approximate locations of 71 shovel tests, 12 of which yielded additional prehistoric occupational data, excavated during the Phase II assessment are depicted on Map 3.

The display of 25 test squares aggregating 46 m² of site area shown on Map 3 was derived through random selection of grid coordinates spaced at one meter intervals along four transects placed at 10 m, 15 m, 20 m, and 30 m south of the East-West base line of the site grid. Random placement of either 1 X 1 m or 2 X 2 m excavation units was then used to achieve the desired coverage equal to one percent (1%) of the estimated site area. Datum for the site grid is a metal plate in the intersection of Bailey Avenue and Wells Street marking the NE corner of the SE 1/4 of Section 3, South Haven Township.

Each test square was excavated using standard data recovery procedures. Inasmuch as most if not all of the site was expected to evidence plow zone, this zone of recent disturbance was removed as a single unit. The soil was sifted through 6 mm mesh screen to facilitate the recovery of cultural material. Upon making contact with the base of the plow zone, each team of excavators was instructed to trowel the floor carefully in an attempt to expose and delineate any soil changes (i.e. soil staining resulting from color and/or textural differences with the surrounding sterile sandy subsoil) which might signal the presence of cultural features



extending below the depth to which the plow had penetrated. If suspicious stains were not observed, and cultural material did not continue to occur at depths below the plow zone, the team of excavators was instructed to record depth measurements at the four corners of the test square, fill out a standard excavation unit form, and terminate the test, but not before probing the test square floor for an additional 30-40 cm to ensure that good contact with culturally sterile subsoil had been made. In the event that cultural material continued to appear beneath the recent zone of disturbance, excavators peeled away the subsoil layer by layer in increments of 10 cm until no further encounter with cultural debris was made.

Of the 25 test squares excavated, 18 or 72% were terminated at depths below the ground surface of 30 cm or less; the remaining seven were closed out at depths between 30-57 cm. But in each of the seven cases, recent shifting of sand and/or slope wash is felt to have buried the prehistoric material at these relatively greater depths.

Finally, we routinely probed with a soil tester to a depth of 1.5 m both within and immediately adjacent to test squares in order to further substantiate decisions to terminate excavation units, without needlessly excavating deeper into the subsoil or expanding test squares in cases where atypically high quantities of debris suggested that features may have "just been missed" by random placement of our excavation units.

All observations recorded during fieldwork were entered into logs maintained by the Field Supervisor and on standard forms kept

by each team of Field Assistants responsible for a particular test square. The cultural material collected was bagged by provenience unit and returned to the laboratory in the Department of Anthropology at the end of the field day for subsequent cleaning, cataloguing, and analysis. Finally, a photographic log of all field activities was maintained to document our work as well as to enhance our record of any diagnostic items and/or feature data collected.

RESULTS OF THE PHASE II TEST EXCAVATION:

As previously mentioned, the Yacht Harbor site occupies the slope rising above Celery Pond on the north and is bounded on the north, east, and west by Wells Street, Bailey Avenue, and the abandoned railroad grade, respectively (Map 2). Although originally estimated to encompass about 4500 m², the distribution of prehistoric materials in both test squares and shovel tests more precisely conforms to an area of about 3000 m² as delineated on Map 3. However, we cannot rule out the possibility that the site was formerly more extensive--its true limits obscured/obliterated by recent man-made features on three sides.

In anticipation of possible return to this site at a future date, a permanent datum was established somewhat east of the perceived limits of the site. This datum, a plate recording the location of the NE corner of the SE 1/4 of Section 3 in the present intersection of Wells Street and Bailey Avenue, is at an elevation of about 183.6 m ASL. Elevation across the sloping site ranges between 182.5 m on the east and 176.6 m above sea level on the SW overlooking the marsh and Celery Pond.

In two field days, the research team excavated seven 2 X 2 m test squares and 18 units that were one meter on a side, totaling 46 m² of site area. The plow zone, where it was observed in our test squares, ranged between 16-30 cm below the surface, with the singular exception of Test Square # 4 (10S, 63W). Here, the plow zone extended to a depth of 57 cm below the surface, strongly suggesting that slope wash and/or fill from the nearby road has been deposited over the area of this unit to a considerable depth since the site was cultivated some fifty years ago by the father of the current landowner. No cultural features or indications of the presence of an occupation floor (i.e. midden) were observed over the site, and the kinds and quantities of prehistoric (and some historic) debris leave little room for meaningful interpretation.

Every test square and 12 shovel tests yielded prehistoric material. Tools and flakes showing signs of human utilization occur in one shovel test and 16 test squares, but nothing in this collection is diagnostic. Fortunately, Test Squares # 12 and # 20 produced a total of five grit-tempered, smoothed-over cordmarked body sherds, the wall thickness and paste of which suggest a probable Late Woodland temporal placement for the site. The ceramic specimens are too fragmentary or weathered to permit more meaningful analysis at this time.

With respect to the few pieces of historic material, a square nail from one shovel test suggests a 19th century presence, and the two coins and several pieces of glass from test squares are of post-World War II vintage. There follows a complete inventory of this historic material, together with the prehistoric items found during both the Phase I and Phase II studies of the site.

Inventory of Cultural Material from 20VA57

<u>Provenience</u>	<u>Description</u>
surface	<ul style="list-style-type: none"> * - 1 piece of unidentified chert showing use-wear * - 5 flakes, including one each of Bayport and Burlington chert * - 5 fragments of fire-cracked rock found in association with flakes
shovel tests	<ul style="list-style-type: none"> * - 1 biface midsection of Bayport chert * - 1 possible perforating tool * - 2 pieces of Burlington chert evidencing use-wear * - 12 flakes, including two each of Bayport and Burlington chert - 1 core fragment - 25 flakes - 1 square-cut nail
TS # 1 (15S, 27W)	<ul style="list-style-type: none"> - 7 flakes - 3 pieces of burnt clay
TS # 2 (20S, 28W)	<ul style="list-style-type: none"> - 3 flakes - 2 pieces of bone
TS # 3 (30S, 28W)	<ul style="list-style-type: none"> - 1 bifacial blank fragment - 1 unifacially retouched flake of hornstone(?) - 2 flakes showing use-wear - 96 flakes, including two that are probably hornstone - 2 coins
TS # 4 (10W, 63W)	<ul style="list-style-type: none"> - 1 flake of Bayport chert evidencing use-wear - 22 flakes - 5 pieces of glass

1. Mr. David De Fant, M.A. Candidate in Anthropology, WMU, has prepared the inventory of cultural material from the Yacht Harbor site.
2. An asterisk (*) denotes items found during the Phase I study.
3. Unless otherwise noted, chert in the assemblage from 20VA57 is derived from the nearby Deer Lick Creek source or local glacial till deposits.

Inventory, cont.

<u>Provenience</u>	<u>Description</u>
TS # 5 (10S, 51W)	- 1 flake - 2 cobbles showing evidence of deliberate(?) battering
TS # 6 (10S, 46W)	- 2 flakes
TS # 7 (10S, 71W)	- 1 flake with use-wear - 16 flakes
TS # 8 (10S, 77W)	- cancelled
TS # 9 (10S, 102W)	- 42 flakes
TS # 10 (15S, 58W)	- 1 flake evidencing some use-wear - 18 flakes
TS # 11 (15S, 76 W)	- 1 flake with use-wear - 117 flakes
TS # 12 (15S, 96W)	- 2 bifacial blanks or preforms - 3 uniaxially retouched flakes - 4 flakes with use-wear - 235 flakes - 4 grit-tempered body sherds, two of which are smoothed-over cordmarked specimens
TS # 13 (15S, 110W)	- 1 flake with use-wear - 47 flakes
TS # 14 (15S, 113W)	- 1 biface fragment - 143 flakes - 1 nail - 2 brass .22 shell casings - 2 pieces of glass

Inventory, cont.

<u>Provenience</u>	<u>Description</u>
TS # 15 (15S, 122W)	- 2 unifacially retouched flakes - 1 flake evidencing use-wear - 116 flakes - 1 brass .22 shell casing - 1 piece of glass
TS # 16 (15S, 136W)	- 1 bifacial blank - 35 flakes, including two pieces of heat-treated Burlington chert
TS # 17 (15S, 143W)	- 45 flakes
TS # 18 (20S, 55W)	- 1 unifacially retouched flake - 1 flake showing use-wear - 1 core fragment - 155 flakes
TS # 19 (20S, 66W)	- 51 flakes
TS # 20 (20S, 72W)	- 1 biface fragment - 3 flakes exhibiting use-wear - 164 flakes - 1 grit-tempered, smoothed-over cordmarked sherd
TS # 21 (20S, 127W)	- 1 unifacially retouched flake - 43 flakes
TS # 22 (20S, 139W)	- 1 unifacially retouched flake - 37 flakes
TS # 23 (20S, 151W)	- 11 flakes
TS # 24 (30S, 74W)	- 1 flake of hornstone(?) evidencing some use-wear - 27 flakes

Inventory, cont.

<u>Provenience</u>	<u>Description</u>
TS # 25 (30S, 99W)	- 1 projectile point fragment, possibly Levanna or Madison type - 8 flakes - 1 unidentified piece of metal
TS # 26 (30S, 116W)	- cancelled
TS # 27 (30S, 132W)	- 57 flakes

SIGNIFICANCE OF OBSERVATIONS:

The Phase II test excavation of the Yacht Harbor site in the City of South Haven, Michigan has resulted in the recovery of additional material cultural items through the excavation of 71 shovel tests and 25 test squares aggregating 46 m² of site area. However, while we can now recognize a much more precise distribution of prehistoric materials conforming to an area of about 3000 m² on the slope overlooking Celery Pond and its surrounding marsh to the south, our work did not result in the discovery of cultural features or midden deposits relating to the occupation. Nor did we observe in the cultural assemblage much in the way of diagnostic material--items which would enable us to pinpoint the cultural affiliation and temporal placement of 20VA57. The only indicators of possible value in this regard are the five body sherds which exhibit wall thickness and paste not unlike the ceramics dating to Late Woodland times and the distal portion of a well-made biface that in terms of size, thinness, and flaking pattern may possibly represent an incomplete Levanna or Madison (Late Woodland) point.

The absence of good diagnostic items in the lithic material from this site is not the only disappointment experienced by the research team. Of even greater significance is the total failure of our testing strategy to produce evidence of archaeological context. Virtually everything recovered from the site occurred within the limits of the former plow zone, albeit our observations did initially suggest in several instances that material occurred at depths below the modern surface that were too deep even for mowboard and/or chisel plowing techniques. Because the current landowner indicated that it has been about 50 years since the site was actively farmed, it seems appropriate to conclude that in recent years slope wash and/or fill from Wells Street and the abandoned railroad grade has come to cover portions of the site, in some cases burying prehistoric materials at greater depths than might otherwise have been anticipated by the research team.

Finally, it is perhaps noteworthy that in light of the relatively great quantity of debitage the number of unifaces and flakes exhibiting use-wear is quite high in comparison to the number of bifacial blanks and finished bifaces found on the site. Yet, there exists very good evidence that the full range of lithic reduction is represented in the debitage from the site. Where are the well-made projectiles, knives, and other hafted bifaces? And why, in the presence of a Late Woodland component, is pottery so rare in the site assemblage?

Perhaps the answers to questions such as these are to be found by reference to the wet marshland flanking the site on the south. This was certainly a rich resource zone on the Black River floodplain in the past and could certainly have supported an occupation

of the site that was limited in scope or of a "special purpose" nature; an occupation of brief duration characterized by procurement activities oriented principally toward aquatic and riparian plant and animal resources common to this habitat. In this context, although the full range of lithic reduction is in evidence, perhaps expediency tools like flake-knives and scrapers were more frequently made, used, and discarded by the site's occupants, while bifaces produced on the site were more commonly curated for use in other activities intended to be undertaken from sites located elsewhere and occupied at a different time of the year.

Of course, an equally attractive if not even more appealing explanation may relate to past artifact collector activity on the Yacht Harbor site. Collector emphasis on the recovery of well-made and attractive bifaces from the surface of the freshly plowed site might well account for the perceived underrepresentation of these artifacts in the lithic assemblage.

RECOMMENDATIONS:

In the final analysis, the data set derived from 20VA57 would appear to have limited value with respect to shedding new light on the nature of prehistoric settlement along the eastern littoral of Lake Michigan. And while this site remains one of a very few currently recorded for the Black River Basin, nothing in the collection appears to be unique or of special interest given our present understanding of the extant data set from the lake shoreline zone.

In the opinion of the project Principal Investigator, the most interesting observation remains the atypically high frequency of lithic debitage observed in test squares and shovel tests over a

relatively small area of about 3000 m²; debitage that represents the entire range of the lithic reduction process. But this may be nothing more than a reflection of the site's close proximity to the Deer Lick Creek source area and, secondarily, to a source of useful till cherts.

Given the findings derived from an intensive and systematic Phase I assessment, and with additional material being recovered through Phase II test excavations, it is suggested that further investigation of the Yacht Harbor site (20VA57) is not necessary. Nothing observed here warrants that we consider this site to be eligible for nomination to the National Register of Historic Places as possessing either unique or especially representative qualities in terms of the extant data base and current knowledge regarding the prehistoric occupation of this region within the State of Michigan.

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