

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

SECURI

AD-A160 730

id)

E

READ INSTRUCTIONS
BEFORE COMPLETING FORM

1. REP

AVT ACCESSION NO.

3. RECIPIENT'S CATALOG NUMBER

4. TITLE (and Subtitle)

ARCHAEOLOGY OF THE EAU GALLE RIVER VALLEY DAM
SALVAGE PROJECT.

5. TYPE OF REPORT & PERIOD COVERED

6. PERFORMING ORG. REPORT NUMBER

7. AUTHOR(s)

Hank Kerr

8. CONTRACT OR GRANT NUMBER(s)

9. PERFORMING ORGANIZATION NAME AND ADDRESS

State Historical Society of Wisconsin
Madison, Wisconsin10. PROGRAM ELEMENT, PROJECT, TASK
AREA & WORK UNIT NUMBERS

11. CONTROLLING OFFICE NAME AND ADDRESS

U.S. Army Engineer District, St Paul
1135 USPO & Custom House
St Paul, MN 55101-1479

12. REPORT DATE

n.d. / /

13. NUMBER OF PAGES

82 p

14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)

15. SECURITY CLASS. (of this report)

Unclassified

15a. DECLASSIFICATION/DOWNGRADING
SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

ARCHAEOLOGY
WISCONSIN
RESERVOIRS

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The proposed dam site lies in Pierce County, Wisconsin near the town of Spring Valley. The reservoir pool, when at its maximum elevation of 1028.0 feet, will cover the downstream portions of several tributaries of the Eau Galle River. Two sites were partially excavated. The Lamb 5 site received more attention because of its size, location, depth, and relatively high artifact yield. The Johnson 2 site was selected because of its prolific yield of flake debris.

DTIC
ELECTE
OCT 31 1985
S D
E

DD FORM 1473 EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

DTIC FILE COPY

ARCHEOLOGY OF THE LAU GALLE RIVER VALLEY

DAM SALVAGE PROJECT

STATE HISTORICAL SOCIETY OF WISCONSIN

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/ _____	
Availability Codes	
Dist	Avail and/or Special
A-1	



by Hank Kerr

85 10 31 033

Table of Contents

Acknowledgments.....	1
Geographical Background.....	3
Ethnographic Background.....	5
The Reservoir.....	8
Sites Excavated.....	9
Lamb 5 Site (Sc-25).....	10
Site Description.....	10
Observed Stratigraphy.....	13
Features.....	16
Artifact Descriptions.....	21
Discussion and Conclusions.....	30
Johnson 2 Site (Sc-34).....	35
Site Description.....	35
Observed Stratigraphy.....	37
Features.....	38
Artifact Descriptions.....	39
Discussion and Conclusions.....	44
Sites Extensively Tested.....	45
Sites Tested.....	50
Other Sites in the Reservoir.....	56
Appendix.....	69
Bibliography.....	82

ACKNOWLEDGMENTS

Work on the Eau Galle Reservoir project was greatly facilitated through the cooperation and assistance of numerous individuals and their institutions. The National Park Service provided the necessary funds and the State Historical Society of Wisconsin directed their disbursement.

I am particularly grateful to Dr. Joan E. Freeman, Curator of Anthropology, and Mr. Jay Brandon, Director of Archeological Programs, who assembled the crew and supplies and who provided unending assistance in every aspect of the undertaking. Mr. Thurman Fox, Director of the Museum, helpfully arranged for the lab facilities to be used in the preparation of this report.

The original survey team of A. Dewey Buck and Bent Thygesen conducted excellent preliminary work in the reservoir area in 1962 and were successful in establishing the location of numerous sites. Also, a note of thanks is due Mr. William Hurley who offered many helpful suggestions.

The people of Spring Valley, Wisconsin proved excellent hosts as did the farmers in the reservoir area who readily consented to

our excavations. Mr. Kenneth Larson was particularly generous in allowing our camp to be established on his land.

To Mr. Bill Gerritsen, who served as assistant field supervisor on the project, I am most grateful. His untiring aid throughout the summer was invaluable. Crew members Ron Argelander, Svend Hoiberg, Wayne Wiersum, Don Blegen, and Chuck Vanasse all proved to be top field hands and maintained an excellent attitude throughout the field season. Assistance in the washing and cataloging of artifacts was generously provided by Ron Argelander and Svend Hoiberg.

The accomplishments of the summer are due in large part to the efforts of my wife Pam who cooked for the crew while in the field and who provided invaluable aid in the lab, not only in cataloging artifacts but also in typing. To her I owe my deepest thanks.

GEOGRAPHICAL BACKGROUND

The Eau Galle Reservoir is situated in the northern end of the Western Upland province of Wisconsin. As the name suggests, it is a region of highlands lying adjacent to and east of the Mississippi River. The province has a surface area encompassing about 13,250 square miles.

The highlands are not flat-topped but are, rather, thoroughly dissected cuestas, a result of stream action. Average elevation of the hilltops above sea level is about 1100 feet in St. Croix and Pierce Counties wherein the reservoir is situated (Fig. 1). The northern four-fifths of the Western Upland lies principally in the belt of Lower Magnesian limestone. More specifically, the highland area between the St. Croix and Chippewa Rivers is composed of the Lower Magnesian limestone (Lower Ordovician) overlying the Franconia sandstone (Middle Cambrian) formation. Here the highland is a relatively flat region with slight surface relief - a condition probably brought about by glacial deposition. The rocks dip southwest and south at a low angle with some minor folding and occasional faulting present. The topography in the immediate area of the Eau Galle reservoir has been produced by the action of erosion upon the

nearly horizontal rock structures. These structures constitute a part of one of the two cuetas making up the Western Uplands province. This particular cuesta is characterized by a low, irregular escarpment on the north due to the presence of a thick mantle of glacial deposits. This east-facing escarpment lies several miles east of the Eau Galle reservoir and the cuesta surface slopes westward and southwestward at the rate of about nine feet to the mile.

Information on the geographical background was taken from The Physical Geography of Wisconsin, Second Edition, Bulletin No. 36, Educational Series No. 4, Wisconsin Geological and Natural History Survey, by Lawrence Martin.

ETHNOGRAPHIC BACKGROUND

Area 243 includes the western eighth of Trempealeau and Eau Claire Counties, all of Buffalo, Pepin, and Pierce Counties, the southern half of Dunn County and southwestern three-fourths of St. Croix County in Wisconsin. The Area extends into Minnesota to include Washington, Ramsey, and Anoka Counties in addition to southern sections of Sherburne and Isanti Counties.

Although the Eau Galle River is not mentioned specifically, it lies between the St. Croix and Chippewa Rivers, and is a western tributary of the latter, joining it in Pepin County, Wisconsin.

At the time of white contact in the late seventeenth century, the Eastern, or Santee Sioux, of which the Mdewakanton were a part, were living in established settlements in north central Minnesota. Summer hunts and war excursions carried them down the Rum River to the Mississippi and on south as far as its junction with the Wisconsin River. During such trips, attacks by the Fox, their allies to the east, and the Illinois and their allies to the south were not infrequent (p. 208).

The first trading post for the Sioux was established at Lake Pepin in 1685, but the Sioux villages, remained far to the north, out of Area 243 for the duration of French sovereignty.

Hickerson notes (p. 209) that Indian occupancy of the Chippewa River region during this period is difficult to appraise and, according to one chronicler of 1700, this river served as a war road between the Sioux and Fox. Hickerson concludes, however, that Sioux hunters probably utilized this and other eastern Mississippi tributaries of Wisconsin as far south as the Black River when the Lake Pepin trading post was occupied, and the Sioux were generally at peace with the Fox during the 1714-1760 period.

During the period of British sovereignty in the Northwest, from 1763 to 1783, the Sioux and the Chippewa to the east were frequently at strife over hunting grounds east of the Mississippi River. In the peace council at Mackinac in 1775, the Sioux agreed not to hunt east of the Mississippi, and the Chippewa similarly agreed not to hunt west (p. 210). As of 1786 the Chippewa were said to occupy all of the country east of the Mississippi as far south as the Chippewa River, and hence, the Eau Galle River valley.

The period of American sovereignty, 1783-1837, saw occasional occupation of Area 243 by the Sioux from the West. The Chippewa River region was sporadically occupied by the Sioux of Red Wing's and Wabasha's villages, but not prior to 1790 at the earliest (p. 212). Pike, in 1805, was the first to record permanent Sioux villages on the Mississippi south of its confluence with the Minnesota River. Under chiefs Wabasha, Red Wing, Little Crow, and their descendants these villages were offshoots of earlier Mdewakanton settlements on the Minnesota River (p. 211). During this period, the Sioux hunting parties were frequently attacked by the Chippewa. It was the Menominee who occasionally replaced the Sioux in this region and did so for the last time in 1832 (with the sanction of the latter).

Material for the ethno-history of the area was taken from an unpublished report by Dr. Harold Hickerson on the Indian occupancy of Royce Area 243.

THE RESERVOIR

The proposed dam site lies in Pierce County, Wisconsin approximately one-fourth mile north of the town of Spring Valley, Wisconsin. The reservoir pool, when at its maximum elevation of 1028.0 feet, will cover the downstream portions of several tributaries of the Eau Galle River. These are Lohn Creek and Lousy Creek flowing in from the east, and French Creek from the west (Fig. 2). Because of the hilly topography of the vicinity, the pool will be a narrow one relative to its depth, and will have a lengthy shoreline relative to its surface area.

The main purpose of the reservoir is flood control. Its necessity was first recognized in the early 1940's when much of Spring Valley was inundated after several unusually heavy rains. When water-congesting debris eventually dislodged from a bridge north of the town, water poured into the community with considerable destructive force.

Off the beaten path, the new reservoir should provide many recreational benefits for residents of the surrounding counties as well as contributing additional beauty to the countryside.

SITES EXCAVATED

Two sites were partially excavated during the 1964 field season. The first of these, the Lamb 5 site (Sc-25), received more attention than any other in the reservoir because of its location, size, depth, and relatively high artifact yield. The second site, Johnson 2 (Sc-24), was chosen for excavation because of its prolific yield of flake debris found eroding from a high terrace of the Eau Galle, near the far upper end of the proposed reservoir pool.

Lamb 5 Site - 25

SW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sect. 31 T28N, R15W

The Lamb 5 site is situated on the first major terrace of the Eau Galle River as it flows roughly eastward forming the boundary-line between Strum and Lamb properties, St. Croix County, Wisconsin (Fig. 2). A survey of the second terrace, planted in corn, produced the first indications of the existence of a site. Several projectile points, knife fragments, and numerous flakes were picked up and the new site was subsequently recorded on the reservoir map. Between this area and the river lay the first terrace, which was in pasture. Numerous large trees growing here indicated that no plowing had ever been done on this lower stretch of land. Grass here was too dense to allow the ground to be surveyed.

Approximately one hundred yards to the west of the site the land rises abruptly, to a height of more than one hundred fifty feet. To the east, or downstream, there is a gradual lowering of the surface, through a succession of small, irregular terraces, to a relatively wide, flat flood plain. Land across the river to the north is under cultivation and consists of a single terrace approximately eight feet above the river, on essentially the same plane as the Lamb 5 site (Fig. 3).

The decision to excavate Lamb 5 was based on the relatively large amount of cultural debris found on the surface. Having obtained permission from Merton Lamb, the owner, it was decided that two test grids would be set out. Grid A located on the first terrace near its leading edge, and Grid B on a projection off the second terrace at the edge of the cornfield. Grid B consisted of two adjacent 5' x 5' squares laid out in a north-south line (Plate 2, nos. 1 and 2). Initial work at Grid A consisted of three squares arranged diagonally with approximately the same directional orientation as Grid B (Plate 1, no. 1). A grid system which employed the use of North-South and left-right directional notations was used. Each 5' x 5' square was designated by the number corresponding to that of the stake marking its southeast corner. A north-south line of stakes was designated the "0" or zero line. The parallel line of stakes located five feet to the East was designated the R1 line, and the corresponding line to the West, the L1 line, etc. One line of stakes at 90 degrees to the N-S rows was also given a "0" or zero designation and the intersection of the two zero lines was termed "0-0". The line of stakes parallel to this and lying five feet north was termed the N1 line and the corresponding line to the south, the S1 line. The utilization of this notation system is illustrated in the following example. The intersection of the N4 and R2 lines of stakes is termed N4-R2 and serves to designate

the square whose southeast corner is marked by this stake (See Fig. 5).

Excavation within this grid was performed with shovels, trowels, brushes, and assorted smaller tools. One man was assigned to each square and excavated it in arbitrary 0.5 foot levels. The cultural material from each level was placed in properly labeled paper sacks and all vertical and horizontal artifact locations were established within the grid. Upon completion of each 0.5 foot level a report form was completed and pertinent observations recorded in addition to a list of artifacts and cultural detritus encountered in that level.

At the conclusion of the field season a total of thirty-one squares at the Lamb 5 site had been excavated to depths ranging from 1.5 feet to 5.0 feet. A total of one hundred ninety-nine levels were excavated. This includes the excavation of Grids A and B and a test pit two hundred fifty feet east of Grid A (Fig. 3).

OBSERVED STRATIGRAPHY

Grid A

The initial test work here on the first major terrace of the Eau Galle indicated that additional excavations would be most productive here. It is from this grid that all positive conclusions regarding the site were drawn. Soil profiles are included in figure 4 and in Plate 1, nos. 5, 6, and 7.

Stratigraphy at the site was relatively uniform throughout. The humus zone below the grassy surface was of a relatively consistent thickness varying from 0.3 to 0.4 foot. In color, it ranged from very dark brown to dark gray, and could best be described as sandy loam. Below this band the loam was similar in texture but of a lighter, gray-brown color and was of less uniform thickness, generally measuring from 0.7 to 0.9 foot with extremes of 0.5 to 1.1 feet.

Along the lower margins of the second zone the soil began to take on a darker brown color although its consistency did not appear to change. This area of darker sandy loam generally ranged from 0.8 to 1.0 foot in thickness with extremes of 0.6 to 1.7 feet. It was this zone which contained the bulk of the artifacts recovered at the site.

Below this, a yellow-tan sandy loam was encountered. Over most of the site this zone was traversed by numerous irregular, superimposed bands of dark brown loam of finer particle size than the enclosing soil but still within the size range of "sand." These denser bands stood out clearly against the light background. Average thickness was about 1.3 feet with extremes of 0.8 and 1.9 feet. In squares S1-R1, and N1-R1 this zone was found to overlie a gravel lense contained within a tan soil of almost clay-loam fineness. This gravel was not encountered over the remainder of the site. Its upper limits were 3.0 feet below surface at the shallowest point, dropping off to 4.2 feet at the deepest. In areas below the zone of banding where no gravel was present, a tan loam of clay and sand sized particles existed. This zone had no distinct boundary between it and the one above; there was only a gradual but noticeable change in soil consistency.

Test Pit #1

As previously noted, the terrain some 70 feet east of Grid A begins a gradual descent through a series of three minor terraces after which it reaches flood plain level of the Eau Galle River. At a distance 250 feet east of Grid A, situated on the first of these small terraces above the flood plain, a 5' x 5' test pit was sunk. Below the dark brown to black sandy humus layer (0.1 foot

in thickness) lay 0.1 foot of yellow sand. Beneath these two strata was a zone of brown sandy loam of undetermined depth. The pit was excavated to a depth of 1.5 feet and produced no artifacts or cultural debris of any kind.

Grid B

This grid was established on the second and final major terrace of the Eau Galle River. Initial excavations consisted of two adjacent 5' x 5' squares. Having completed the third level in each, the grid was filled in and abandoned as no cultural debris was recovered. Soil below the 0.3 foot dark brown humus zone was a hard, compact, brown clay loam (Plate 2, nos. 1 and 2).

FEATURE DESCRIPTIONS

Horizontal distribution of features is illustrated in figure 5.

Feature No. 1

The initial feature encountered was a fire pit in level 1 of square O-R1. It was situated in the southwest corner of the square and extended slightly into the northwest corner of square S1-R1. The pit had a maximum diameter of 2.0 feet and was centered 0.7 foot north and 1.5 feet right of stake O-0. Within the pit, the soil color ranged from dark brown to black, in sharp contrast to the surrounding gray-brown loam. The feature was encountered 0.3 foot below the ground surface and extended to a depth of 1.2 feet. Contained within it were numerous chert flakes, burned bone fragments, bone fragments, and charcoal traces.

Feature No. 2

This feature, also a fire pit, was located in the southwest corner of square S1-R1 with a small part of it extending into the northwest corner of S2-R1. The outline, while distinct, was somewhat irregular. It had a maximum north-south length of approximately 2 feet with a maximum width of 1.8 feet. It was first encountered at a depth of 2.1 feet below the surface and extended to its maximum

depth of 3.8 feet below surface. The maximum area occurred at a depth of 2.5 feet and below this decreased sharply. Contained within the pit were fire fractured rock, bone fragments, burned bone fragments, chert flakes, and charcoal traces. Soil within the boundaries of the feature was dark brown to black in color contrasting distinctly with surrounding brown sandy loam.

Feature No. 3

The third fire pit was present in square O-R1. Its outline was subrectangular, measuring 3.4 feet by 2.0 feet (east-west by north-south) and was centered 1.0 foot north and 1.5 feet west of stake O-R1. The pit extended slightly into the southwest corner of square O-R2 but was situated principally in the southeast portion of square O-R1. The upper limits of this pit lay 1.5 feet below the surface and extended to a maximum depth of 2.7 feet below surface. Bone fragments, burned bone fragments, deer teeth, chert flakes, and charcoal traces were contained within the black loam of the feature.

Feature No. 4 (Plate 1, no. 8)

In the northwest quadrant of square S1-L1, a prolific concentration (hundreds) of chips and flaking spalls of white chert was found beginning at a depth of 0.75 foot and continuing to a

depth of 1.75 feet. In plan outline, the feature is generally ovate with a north-south length of 3.0 feet and a width of approximately 2.0 feet. The feature center is located 1.0 foot south and 1.5 feet right or east of stake 0-L2. In addition to the flake debris, four cores of the same stone as the flakes were contained within the limits of the feature. In addition, numerous long-bone fragments up to several inches in length were found, all showing green breaks. One sandstone rock was also included in the area along with two pieces of fired clay rock. Though not nearly as great in number as the flakes, the bone fragments covered a larger area, extending out from the eastern margin of the immediate feature for an additional foot.

Feature No. 5

Feature number 5 consisted of a fire pit 4 feet in diameter and situated 1.2 feet below the surface with a maximum thickness of 0.5 foot south and 2.0 feet right or east of stake N1-L2. The presence of this feature was marked by a distinct soil color change from gray-brown sandy loam to dark brown, and in some instances nearly black loam. Additional to this were numerous fire fractured rocks and partially fired clay lumps throughout, along with a deer maxilla and teeth, burned and unburned bone fragments, charcoal, one core, and several chert flakes. Charcoal was present in sufficient quantity and a sample was taken for dating purposes.

Feature No. 6

A small hearth area was located in square N4-R1 centered two feet north and one foot left or west of stake N4-R1. The diameter was approximately 0.5 foot with minimum and maximum depths of 1.6 and 2.2 feet respectively. Several partially baked clay lumps were found around the pit but in no specific pattern. The charcoal present was sufficient in quantity for dating and a sample was taken.

Feature No. 7

A high concentration of small chert flakes in a limited area with an included projectile point base constituted this feature at the Lamb 5 site. The maximum north-south length of the feature area is 2.0 feet; the maximum width, 1.5 feet. The center is located 4.0 feet north and 1.0 foot left of stake N4-R1. The minimum to maximum depths of the feature are 1.7 and 2.0 feet. Due to the abundance of charcoal a sample was taken for dating purposes.

Feature No. 8

Feature number 8 was one of the two deepest fire pits found at the site. It was located 3.5 feet left or west of stake N2-R2 with a half contained in each of squares N2-R2 and N3-R2. Its maximum length measured 1.9 feet north-south; its width, 1.75 feet. The upper limits of this fire pit lay 2.8 feet below the surface while the lower limits extended to a depth of 3.9 feet. In associa-

tion with this pit was a large, ovate knife (Plate 1, no. 19).

This artifact was found in the northwest section of the feature, just out of the area of highest charcoal concentration. Burned bone and a deer tooth were taken from the pit along with five fire-blackened rocks and a small sandstone slab. Several chert flakes were also taken from the area. Charcoal was abundant and a carbon sample was taken along with a soil sample.

Feature No. 9

A fire pit approximately 11 feet south of the Feature 8 pit and of comparable depth comprises the final feature excavated at the site. It was situated approximately 4 feet north and 3.5 feet west of stake O-R2. Length (north-south) measured 0.95 foot; width, 1.4 feet. Top of the pit is 2.4 feet from the surface and the pit itself is 0.55 foot thick. No chert flakes were found within the area of fire blackened earth but several were found in the brown sandy loam around it. Charcoal being abundant, a sample was taken.

ARTIFACT DESCRIPTIONS

SURFACE

Projectile Points

- 1 Triangular Point - 21.5 x 16.5 x 4.5 mm. (length-width-thickness). Plate 3; no. 1.
- 1 Straight Stem Point (incomplete) - width 23.5 mm.; stem length 18.5 mm.; stem width 15.5 mm.; thickness 10.5 mm. Plate 3; no. 2.
- 1 Side Notch Point (Madison Side-notch-like) - maximum length 28.0 mm.; base width 22.0 mm.; shoulder width 18.0 mm.; blade length 17.5 mm.; base length 6.0 mm.; notch lengths 2.0 mm.; notch widths, 3.0 mm. and 5.0 mm.; internotch width 17.0 mm.; thickness 6.5 mm. Plate 3; no. 3.
- 1 Concave Base Point (incomplete) - base width 23.0 mm.; maximum depth of concavity 2.5 mm.; maximum width 32.0 mm.; maximum thickness 7.0 mm. Plate 3; no. 4.

Knives

- 1 Slender Ovate Knife - 51.5 x 26.0 x 12.0 mm. Plate 3; no. 5.
- 4 Knife Fragments
- 1 Ovate Core Knife - 84.0 x 57.4 27.5 mm.

Other

- 2 Side scrapers
- 3 Utilized flakes
- 1 Core scraper
- 4 Cores Plate 4; no. 16

EXCAVATED - GRID A

CHIPPED STONE

Projectile Points -- Side-notched

Side-notched specimen no. 1 (Plate 3, no. 6)

One projectile point was found in the fifth level of square 0-0, which resembles in some respects the Raddatz Side-notched projectile point (Wittry 1959, pp. 44-45) and the Madison Side-notched as described by Baerreis (1953, p. 154). Overall length is 50.0 mm.; maximum width occurs at the shoulders and is 32.7 mm.; maximum thickness is 10.0 mm. Notch depth is 5.4 mm. and notch width is 7.0 mm. in each case. Blade edges are convex with a slightly serrated appearance and are 38.0 mm. in length. The straight base of the artifact is slightly to moderately ground and has a width of 32.0 mm. The stem or inter-notch width is 23.0 mm., and the stem length (shoulder to base) is 13.0 mm.

Specimen no. 2 (Plate 3, no. 7)

Level 5 of square S1-R2 produced a point which is also reminiscent of Baerreis' Madison Side-notched variety. The resemblance is much closer here than in the case of the specimen described above. Although there are several similar features, the point from the Lamb site has a much greater width-length ratio than that given for the Madison type. It is also consider-

ably thicker than the average for the latter type. Overall length is 33.5 mm.; maximum or tang width 30.5 mm.; and maximum thickness 10.4 mm. The shoulder to base length measures 11.0 mm. Notch length is 2.8 mm. and width 4.5 mm. The inter-notch width is 22.0 mm. Blade edges are slightly convex, 23.0 mm. long; and the base is slightly concave with rounded tangs.

Projectile Points -- Corner notched (Plate 3, no. 8)

One small corner notched projectile point was recovered from level 4, square N4-R1, of excavations. Part of the tip and one tang are missing. Shoulder width is 20.0 mm. and stem length is 8.5 mm. Stem width measures 10.0 mm. at minimum. One notch is measurable and has width-depth dimensions of 4.5 mm. and 3.0 mm. Maximum thickness is 6.5 mm. Blade edges are slightly convex; the base is moderately convex.

Projectile Points -- Expanding stem (Plate 1, no. 4; Plate 3, no. 11)

From level 3 of square S2-R1 an expanding stem point was recovered which may be described as a small to medium sized point characterized by a distinctive "fishtail" shaped stem. Maximum length is 58.5 mm., maximum or shoulder width 22.5 mm., and maximum thickness 10.5 mm. Blade length is 46.0 mm.; and base width 19.5 mm. The base has a portion of the original

striking platform of the parent flake still intact.

Projectile Points -- Straight stem (Plate 3, no. 9)

One basal section of a straight stemmed point was recovered from level 2 of square O-R9. Length of the stem is 15.0 mm.; width is 20.0 mm. The maximum thickness is 10.0 mm.

Unidentifiable Fragments

Nine broken artifacts are present which are so incomplete that their class cannot be determined. This collection consists of midsections and point tip sections, some of which might be from knives.

Knives -- Triangular (Plate 3, no. 10)

One triangular knife is present from excavations. This knife is relatively small, and one face contains part of the cortex of the original pebble. It is 50.0 mm. long, 24.0 mm. wide, and 10.5 mm. thick. Blade edges and base are slightly convex. The specimen is from level 6 of square O-N1.

Knives -- Slender ovate (Plate 3, nos. 12, 13, and 14)

There are three slender ovate knives among the excavated artifacts. The first is from level 2, square O-N1. It is 70.0 mm. in length with a maximum width of 25.5 mm. and a

thickness of 12.0 mm. The second specimen, from level 4 of square O-R1, has a maximum length of 60.5 mm., a maximum width of 24.5 mm., and a maximum thickness of 10.0 mm. From level 2, square O-R1, a knife with a straight base and recurved blade was recovered. It has a high length-width ratio giving it its slender appearance. Overall length measures 61.1 mm. and the maximum width, 24.8 mm. The point of greatest thickness measures 10.5 mm.

Knives -- Ovate-acuminate (Plate 3, nos. 15 and 19)

Two ovate acuminate knives were also excavated, one from level 3, square N1-L1, and the other from level 6, square N3-R2. Both have markedly convex bases with slightly convex sides tapering to a pointed tip. The artifact from level 3 has length-width-thickness measurements of 36.0 mm., 30.5 mm., and 8.0 mm.; the knife from level 6, 106.5 x 62.5 x 17.5 mm. The smaller of the two may be a lanceolate projectile point but this is uncertain.

Knives -- Ovate (Plate 3, no. 16)

One knife of general ovate outline has a straight base which makes fairly distinct points of juncture with the blade edges. Base width is 33.5 mm. while maximum width is 36.5 mm. Overall length is 44.9 mm. and the specimen measures 9.5 mm. at the point of maximum thickness. It was recovered from level 3 of square O-R1.

Knives -- Flake

One flake knife was found at the Lamb 5 site, a specimen from level 3 of square 0-L2. It may be described as a flake implement of moderate size which has had a series of flakes removed befacially along one of its edges, thus differentiating it from a flake side scraper which has only unifacial flaking present. The artifact in question measures 22.0 x 42.0 x 12.0 mm. in length, width, and thickness.

Knife Fragments

Fourteen knife fragments are present including bases, midsections, and tip sections. None can be measured or identified as to form. One of these, a midsection, has a maximum thickness of 6.0 mm. with cortex present on both surfaces indicating that the parent material (Chert) occurred naturally in tabular form. It was found in level 5 of square 0-L3. (Plate 3, no. 17).

Core Knives -- Ovate-acuminate

Three core knives of a general ovate-acuminate outline were found in the fifth level of excavations. Core knives are distinguished from "knives" by their lack of any secondary, pressure flaking subsequent to the rough shaping by percussion methods. For this reason, core knives are cruder in appearance when compared to knives. The largest of these

measures 158.0 x 102.8 x 41.0 mm. and is from square N1-R2. (Plate 5, no. 2). The intermediate one from square S1-R1, measures 46.0 x 35.0 x 16.5 mm., and the smallest, from square N2-L1, 43.0 x 33.3 x 16.0 mm. (length-width-thickness).

Core Knives -- Circular

One complete and one section of circular core knives were recovered from levels 5 and 3 respectively. The complete artifact is 73.0 mm. long, 68.0 mm. wide, and 27.5 mm. thick. It was from square N1-R2. The only measurement of the incomplete knife obtainable was its maximum thickness of 11.0 mm. It was found in square 0-S1.

Core Knife Fragments

Four sections of core knives are so incomplete as to be unidentifiable. These are base fragments, midsections, and tip sections which do not lend themselves to reliable measurements. (Plate 4, no. 17).

Scrapers -- Ovate

One scraper of ovate outline was found. It is from level 3, square N1-R2, and measures 40.5 x 44.0 x 12.0 mm.

Scrapers -- Side

From level 5, square 0-N2, a side scraper was recovered measuring 38.0 x 35.0 x 20.3 mm. One edge of the parent flake

has intentional, unifacial flaking which has produced a straight scraping edge. This preparation of one edge prior to its use is a characteristic of the side scraper differentiating it from the utilized flake.

Utilized Flakes

Eight flakes were recovered which have varying amounts of use flaking present along one or more edges. These lack any intentional altering of the edges prior to use and show their varying degrees of flaking as the result of implementation. Characteristically, the use scars occurring along any and all edges are unifacial and in this respect differ from flake knives. Vertical distribution is as follows; level 2 - 1, level 3 - 1, level 4 - 4, (Plate 4, no. 1; Plate 4 no. 2) level 5 - 1, level 6 - 1 (Plate 4, no. 3). Sizes range from 49.8 x 25.5 x 3.5 mm. to 24.0 x 23.0 x 8.0 mm.

Drill (Plate 3, no. 18)

One tip section of a drill was found in level 3, square 0-N1 of the section present is 34.0 mm., and its width is 14.7 mm. It has a thickness of 6.5 mm.

Cores

One-hundred-one cores were present from levels 2 through 8. These have served as the source material from which flakes have been struck in the initial phase of artifact manufacture.

These are not regarded as artifacts in themselves but merely as parent material. The sample present exhibits a wide range of core form from moderately to completely faceted. Characteristically, cores have had one surface prepared as a striking surface to facilitate flake removal. The size of these artifacts range from 20.0 x 12.5 x 12.1 mm. to 148.0 x 63.0 x 64.0 mm. Vertical distribution is as follows:

Level 1 - 0
Level 2 - 2
Level 3 - 9
Level 4 - 37
Level 5 - 23
Level 6 - 15 (Plate 4, no. 18)
Level 7 - 5
Level 8 - 1

GROUND STONE

Muller (Plate 5, no. 1)

One large granitic stone was recovered from level 4, which may have been used as a unifacial muller. It is an incomplete specimen and for this reason is a questionable artifact as it is the "ground" face that is only partially present. The piece measures 164.0 x 124.0 x 93.3 mm.

GRID B

No artifacts were recovered at Grid B.

DISCUSSION AND CONCLUSIONS

The vertical range of cultural debris at the site extends from the surface to a maximum depth of 4.0 feet. In most instances excavations below the sixth level were unproductive.

The vertical range of cultural debris at the site is made up of the uppermost eight levels (0.0 to 4.0 feet deep). Examination of the artifact distribution by levels indicates an increase in absolute numbers from level 8 upward to a maximum in level 4. From this point to the surface there is a uniform decrease in the number of artifacts. An analysis of the vertical distribution of flakes recovered in the excavations (excluding those from features 4 and 7) yielded similar results with a similar peak in level 4 (Fig. 6).

The foregoing evidence would indicate that the most intensive occupation of the site occurred when former ground surface was approximately 2.0 to 1.5 feet below its present level.

Looking at the horizontal distributions of artifacts by levels, there is a definite clustering of cores in the north-eastern corner of the grid in levels 4 and 5. In level 4, twenty-

five of the total thirty-seven for the level were concentrated in four adjacent squares centering about N3-R1 and N3-R2 squares. The grouping in level 5 was confined to five squares centering about N2-R1 and N3-R1. Sixteen of the twenty-three total are included here. This would suggest that the present grid is centered slightly to the southwest of the geographical center of artifacts and that any subsequent excavations should begin with the R3, R4, and R5 trenches.

Analysis of materials excavated at the Lamb 5 site indicates the presence of an occupation limited to the Archaic horizon. Nothing was recovered which might suggest the presence of Paleo-Indian groups prior to this horizon and likewise nothing was found which would indicate subsequent habitation by either Woodland or Mississippian groups.

Projectile points have come to play the key role in interpretations and, although few in number, they are nonetheless reliable because of the absence of any complicating materials extraneous to the Archaic period.

Due to present ground surface conditions and lack of contrary evidence to be found in studying soil profiles, one can argue for a relatively level ground surface throughout the occupation and build-up of the terrace with no geologic catastrophies or irregularities to

confound the building and accumulating processes which formed the terrace.

It is in determining which phase of Archaic culture predominates (early, middle, or late) that the scarcity of projectile points is a handicapping factor. The possibility of an occupation as far back as the Early Archaic is not inconceivable for the site. Side notched projectile points have been recovered from cultural zones dating back to this general time period in several Archaic sites of the Mississippi valley (Bell 1958, p. 68; 1960, p. 8). The general form has been found in Early Archaic or Paleo-Indian contexts in Tennessee, Alabama, Illinois, Missouri, and Iowa (Wyckoff 1964, p. 106). Although side notched specimen no. 1 (Plate 3, no. 6) from Lamb 5 has basal grinding in common with these other early points, it lacks any definite basal thinning. Lack of conclusive evidence will not permit any statements to be made as to the presence of an Early Archaic cultural zone.

The Side-notched specimen no. 1 is also somewhat similar to the Raddatz Side-notched points as named by Wittry (1959), p. 44). In his discussion of the type, he assigns them to the Middle Archaic period. He also suggests in the Raddatz Rockshelter report that the Raddatz point possibly survives into Woodland times having

lasted for several thousand years during the Archaic period. The artifact was excavated at a depth of 2.5 feet below the surface.

Side-notched projectile point specimen no. 2 (Plate 3, no. 7), as noted in the artifact descriptions, is much more reminiscent of Baerreis' Madison Side-notched variety than is the projectile point discussed above. Following Baerreis' lead (1953, p. 163), the general type might be placed as far back as the Early Archaic. Having a sample of but a single point of this form, no definite conclusions could be drawn linking this site to Baerreis' Airport Village site. Only a possible temporal similarity can be suggested. This point was taken from level 5 (2.2 feet deep).

Another projectile point to be used in interpretations is the expanding stem specimen. While not a diagnostic artifact in itself, it is not discordant with the other materials from the site. Rather, its presence strengthens the argument for an Archaic date for the site. It occurs at a shallower depth (1.3 feet) than the previous two projectile points discussed (Plate 1, no. 4; Plate 3, no. 11).

The fragmentary straight stemmed point is unsuitable for detailed measuring and resultant comparisons since only the stem section is present. It was recovered at a depth of 1.2 feet. The

general type has been listed as part of the Middle Archaic complex at the Raddatz Rockshelter, Wisconsin, by Warren L. Wittry (1959, pp. 60-61). The specimen is no. 0 on plate 3.

It appears, then, that occupations of this site were pre-ceramic, limited to Middle or Late Archaic periods. The artifact inventory as a whole, while not large, is relatively pure in that it does not include any materials which are obviously extraneous to the Archaic horizon. The presence of cultural debris from the eighth through the first level (4.0 feet to surface) suggests a history of numerous occupations, not limited to any one group because of the hunting and gathering nature of the economy. This seems to be borne out by the vertical range of fire pits found within the site. The deepest of these pits was encountered in level 6 (2.9 feet deep) while the shallowest was only 0.3 foot below the surface.

A more exacting study of the Archaic of far western Wisconsin would be possible with the complete excavation of this site. It is recommended that any additional work carried out in the Eau Galle Reservoir include excavations at this site equivalent in extent to those of the 1964 season.

JOHNSON 2 - Sec 34

NW $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 30, T28N, R15W

The Johnson 2 site is situated higher in the reservoir than any other known site, being farther upstream from the proposed dam location. The property is owned by Henry Johnson, Spring Valley, Wisconsin. The site itself is on the east bank of the Eau Galle River, on a high, solitary terrace occupying this stretch of the river. Land across the Eau Galle consists of narrow floodplain interrupted by high limestone cliffs. Immediately to the north of the site at a distance of some fifty yards the terrace begins to rise sharply becoming one of the numerous hills of the region. To the east, the land takes on a very gradual, almost unnoticeable slope for a distance of about four hundred yards. Turning more to the southeast this relatively flat pasture land extends for a half of a mile until it too becomes part of the hilly region. Down river to the south it continues for more than four hundred yards before abutting against a high hill (Fig. 2).

Examination of the terrace slope during the 1964 survey produced numerous large, man-made flakes suggesting the presence of a site. Initial test excavations bore this out with the recovery of several artifacts.

A grid composed of 5' x 5' squares was used and excavation procedures were similar to those used at the Lamb 5 (Sc-25) site. Upon completion of work at the site, 15 squares had been excavated to depth ranging from 1.5 to 2.0 feet.

OBSERVED STRATIGRAPHY

Soil at the Johnson 2 site was a sandy loam. The dark brown to brown-black humus layer was of a uniform thickness averaging 0.25 feet. Below this lay a compact, brown to gray-brown sandy loam of relative uniform thickness extending to a depth of 1.4 feet below the surface. The exception to this occurred along the western edge of the grid in squares 0-L3, 0-L2, and S1-L2 where in the second and third levels the loam was yellowish-tan in color. At a depth of about 1.4 feet throughout most of the site a gravel lense was encountered which extended to an undetermined depth. In the L2 and L3 trenches, gravel was not struck until a depth of 2.0 feet was reached. No cultural debris of any sort was recovered in the zone of gravel and it was concluded that this marked the point of deepest occupation at the site.

This field has been plowed frequently in the past mixing the upper half of the stratigraphy destroying any fire pits or other features present in this zone. Vertical distribution of artifacts is included in Figure 7.

FEATURE DESCRIPTIONS

Horizontal distribution of features is included in figure 7.

Feature No. 1

A fire pit was located in the northeast corner of square S1-L1. Portions of it extended into the other three squares converging at this corner. Its upper limits were 0.95 foot below the ground surface and extended to a maximum depth of 1.6 feet. In plan view, it is generally triangular in outline measuring approximately 4 feet on each side. Fire cracked rock and burned bone fragments were recovered around the periphery of this pit. Charcoal was present in sufficient quantity and a sample was taken.

Feature No. 2

An area approximately one foot in diameter in levels 2 and 3 of square 0-L1 produced 240 small, white, chert flakes. These flakes extended from 0.9 foot below the surface to a depth of 1.4 feet. The center of this area was 3.5 feet north and 2.7 feet left (west) of stake 0-L1.

ARTIFACT DESCRIPTIONS

SURFACE

Projectile Point -- Corner-notched (Plate 4, no. 4)

The only projectile point found on the surface was a corner-notched specimen with a concave base and slightly rounded tangs. Maximum length-width-thickness measurements are 22.5 x 16.4 x 6.7 mm. Blade edges are convex. Both notches are 1.7 mm. in length and 4.5 mm. wide. Inter-notch width is 12.0 mm.; stem length measures 8.0 mm. Shoulders are obtuse measuring 16.4 mm. across. The area of greatest width lies between the tangs. Moderate grinding is evident along the base in the area of concavity.

Core Scraper

One core scraper was found on the surface. It measures 41.0 x 38.0 x 15.0 mm. (length-width-thickness).

Core

One core is present from the surface collection. It measures 53.0 x 33.0 x 19.5 mm.

EXCAVATED

Projectile Points -- Corner-notched (Plate 4, no. 5)

A single artifact of this variety was recovered in excavations. It is a basal fragment broken off across the notches. The specimen is from level 1 of square 0-0, and is 23.0 mm. The notches are approximately 3.0 mm. deep. The artifact is of quartzite.

Projectile Points -- Expanding stem

One complete and three broken expanding stem points were excavated at the Johnson 2 site. All have convex bases, obtuse shoulders and on the two artifacts with complete or nearly complete blade edges, these are convex. The complete point, from level 2 of square S2-L1 (Plate 4, no. 9), has an overall length of 40.0 mm., a blade length of 26.5 mm., and a stem length of 13.0 mm. Blade width across the shoulders is 20.0 mm., and base width is 14.0 mm. Maximum thickness is 6.5 mm. Of the three broken specimens, one has a measurable shoulder width of 21.5 mm., a base width of 14.5 mm., a stem length of 11.5 mm., and a maximum thickness of 8.0 mm. It is from level 1, square S1-L2 (Plate 4, no. 10). The remaining two artifacts have stem lengths of 8.0 mm. and 12.0 mm. and basal widths of 13.0 and

12.0 mm. respectively. They are from level 3 of square 0-L1 (Plate 4, no. 6) and level 1 of square 0-S2 (Plate 4, no.7).

Unidentifiable Fragments

Five fragments of projectile points, or perhaps knives, are so incomplete that they cannot be definitely identified. Two are from level 1 while the remaining three are from level 2. The fragment pictured in plate 4, no. 11 is from square 0-0.

Knives

Four broken knives are present from excavations. Original shapes are indeterminable because of their fragmentary state. Three are from level 1, the other from square 0-S1, level 2 (Plate 4, no. 20).

Core Knives

One core knife was recovered at the site. It was found in two sections, one part in level 1 of square S3-R1, the other in level 1 of square S1-R1. This latter section showed evidence of having been in a fire as the chert was gray in color while the other half was pink. Length-width-thickness measurements are 72.0 x 46.0 x 19.5 mm. (Plate 4, no. 12).

Cores

Eleven cores were excavated. The size of the sample ranges from 26.0 x 30.7 x 14.0 mm., to 72.0 x 156.0 x 83.5 mm. Vertical distribution is as follows:

Level 1 - 1
Level 2 - 5
Level 3 - 4
Level 4 - 1

Drills

There are one complete and one section of artifacts of this variety. The complete drill has long, straight to slightly convex sides and slightly convex base. The stone is a golden quartzite. Overall length is 53.0 mm., base width 12.5 mm., and the maximum thickness is 5.8 mm. It was found in the second level of excavations in square S1-L2 (Plate 4, no. 8). The broken specimen is a tip section of white chert. It is from level 1, square S1-R1 (Plate 4, no. 14).

Utilized Flakes

One utilized flake was found in level 1, square O-L2. This artifact has a series of flakes removed unifacially along one section of its edge. From all indications, the flake received no modifications prior to its use as a scraper or similar tool. It measures 51.0 x 30.5 x 14.0 mm.

DISCUSSION AND CONCLUSION

Although the absolute number of projectile points is rather small, the sample is "pure" in that there appear to be no discordant artifacts present. The assemblage is composed entirely of projectile points of intermediate size, suggesting an occupation of the site by groups limited exclusively to the Archaic horizon. No artifacts were found which could be attributed either to the Paleo-Indian horizon or to post-Archaic ceramic-bearing cultures. The upper foot of excavations was found to contain the bulk of the artifacts. The vertical distribution by levels is included in figure 7. The grid used covered only a small part of the site. Were it expanded and additional information recovered, a more exact placement of this site within the Archaic should be possible.

Future excavation is recommended for this site. It is suggested that it extend from the original grid outward to the east and south.

SITES EXTENSIVELY TESTED

One site received extensive test work during 1964. This was the Larson 4 site (Sc-23). Initial plans were to carry out at least a partial excavation but the extremely low yield of cultural debris, especially projectile points, resulted in an early abandonment of the location.

No other sites were extensively tested because they were either too limited in surface area or because they were covered by corn or other crops. This latter factor was a handicapping one in many areas of the reservoir.

St. Croix County

Sc-23 Larson 4 Site

Location: SW $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 32, T28N, R15W

Owner : Kenneth Larson

Survey work during the 1964 season led to the discovery of numerous chert flakes eroding from the bank of Lohn Creek approximately 150 yards downstream from the Larson 3 (Sc-11) site. Stratigraphy of the bank indicated that the site might extend to a depth of 2 feet. Two grids and a test pit were set up at the site.

Grid A was located approximately 40 yards downstream and across the creek from the point at which the flakes were found to be eroding out. This was because of additional surface finds of large flakes in this area. Grid B was located in the pasture above the area of eroding flakes on the southeast bank of the creek (Plate 2, nos. 3 and 4). The test pit was placed approximately 110 yards to the southeast of Grid B in a section of the pasture where the ground has begun an upward slope toward the surrounding hills.

The following materials were recovered at Grid A:

Surface - 4 core scrapers (16.0 x 50.0 x 50.5 mm. to 4.0 x 32.5 x 20.0 mm.)

1 core (77.0 x 55.0 x 33.5 mm.)
1 end scraper (14.5 mm. thick, inc.)
6 chert flakes

Square 0-0

Level 1 - 6 chert flakes
Level 2 - 1 chert flake
Level 3 - 3 chert flakes
Level 4 - 1 chert flake
Level 5 - 1 chert flake
Level 6 - 1 chert flake

The soil at Grid A was hard, compact, gray, clayey loam. This grid was located across and downstream from Grid B and was situated on somewhat higher ground.

Grid B consisted of five squares, each measuring 5' x 5'. The soil consisted of a tan, sandy loam plow zone averaging 0.4 foot thick over yellow-brown sandy loam of 0.5 foot thickness. From a depth of about 0.9 to 1.8 feet lay a zone of gray-brown sandy loam and below that, a dark brown clay loam containing frequent gravel inclusions. Excavations were carried out through the fifth level (2.5 feet) at Grid B with a test hole in square N2-L2 extending down an additional 0.5 foot (Plate 2, no. 6). Squares excavated were the 0-0, 0-N1, N1-L1, N2-L2, N8-L5, and Test Pit #1. Iron concretions and pieces of limonite were found throughout the site along with deer bone, charcoal traces, and fire fractured rock.

What appeared to be a fire hearth was found in levels 3 and 4 of squares 0-0 and 0-N1. The diameter was about 4 feet and the area

contained dark brown loam and numerous rocks, some of them fire fractured, along with large quantities of gravel.

Vertical distribution of cultural debris by levels is as follows:

Grid A	Surface	- 3 cores
	Level 1	- 1 nail, 1 piece of broken glass, 6 chert flakes, 1 quartzite flake
	Level 2	- 1 nail, 1 chert flake
	Level 3	- 1 expanding stem projectile point, 1 core, 3 chert flakes
	Level 4	- 2 utilized flakes, 10 chert flakes
	Level 5	- 7 chert flakes
	Level 6	- (test hole) nothing
Test Pit #1		- 3 levels, nothing recovered

The projectile point has a "fish tail" base similar to the expanding stem projectile point found at the Lamb 5 site, plate 3, no. 11, (Sc-25) but has been reworked in the area of the tip. Maximum length is 26.0 mm., maximum width (across the shoulders) 19.8 mm., and maximum thickness 7.5 mm. Blade length is 17.0 mm., the stem length 9.0 mm., and the base width 13.0 mm. The stem width is 13.0 mm. Lithic material is white chert. It is from level 3 of square 0-0 (Plate 4, no. 15; Plate 2, no. 5).

The two utilized flakes are of chert with measurements of 30.0 x 22.5 x 8.0 mm., and 60.0 x 36.0 x 13.0 mm. (length-width-thickness).

CONCLUSION

Testing carried on at this site produced evidence insufficient to warrant drawing any conclusions as to its cultural affiliations. However, the recovery of a projectile point of rather distinctive style and the presence of other cultural detritus, though not copious, suggest that further exploration of the site is desirable.

SITES TESTED

Limited testing, generally involving no more than a day's work, was carried out at three locations. The first of these, the Larson 3 site (Sc-11) was found by the survey crew of 1962. The second, the Holman site (Sc-30), was found and recorded by the 1964 survey. The final piece of property tested belonged to Dr. Gordon Emerson of Spring Valley. Testing produced no cultural debris, and because no member of the 1964 survey crew was able to find any artifacts, no site was listed. Were the land taken from soilbank and cultivated, this might be possible.

St. Croix County

Sc-11 Larson 3 Site

Location: SW $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 32, T28N, R15W

Owner : Kenneth Larson

This site was located during the survey of 1962. At that time four test pits 2' x 2' were sunk in order to determine the limits of the site as well as possible. The following materials were recovered, all from the plow zone:

Test Pit #1
1 projectile point fragment
124 chert flakes
Test Pit #2
20 chert flakes
Test Pit #3
5 chert flakes
Test Pit #4
3 chert flakes

The site is situated on a high rise of ground east of Lohn Creek. Additional test work was done during the 1964 field season in the form of two 5' x 5' squares. Results were much the same as those attained in earlier testing; the site was found to be no deeper than the plow zone. This upper zone was a dark, gray-brown sandy loam overlying a hard, compact tan clay loam. The following materials were recovered.

Square S1-R1
Level 1 - 5 chert flakes
Level 2 - none

Square 0-0

Level 1 - 9 chert flakes

Level 2 - 1 chert flake

Level 3 - none

The site appears to have been a shallow campsite or workshop area but no cultural inferences can be made because of the scarcity of recovered materials.

St. Croix County

Sc-30 Holman 3 Site

Location: NE $\frac{1}{4}$ of NW $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Myrl Holman

A survey of the Holman property in 1964 resulted in three additional sites to be added to the total for the reservoir. At one of these, Sc-30, test work was carried out in an effort to determine the depth to which the site extended. Mr. Holman had picked up numerous flakes here along with several broken and complete artifacts while plowing in the past, and although the site was currently planted to oats he consented to our testing of the area.

Three test squares, each 5' x 5', were laid out so as to have a common diagonal (Plate 2, nos. 7 and 8). A total of nine levels were excavated. Depths were 2, 3, and 4 levels in squares 0-0, S1-R1, and S2-R2 respectively. From level 1 of square S2-R2 (0-25 foot deep), a core scraper was recovered measuring 75.5 x 45.0 x 22.0 mm. in addition to one piece of broken glass and one chert flake. One piece of brown bottle glass was found in level 2 of this square. Nothing was found below this in levels 3 or 4. In the two remaining squares, S1-R1 and 0-0, more brown bottle glass was found in levels 1 and 2

but no artifacts or flakes were recovered.

Because the ground cover almost completely obscured the surface debris, it is probable that the test squares were not located in the most advantageous spot. Test work here was not expanded because of the value of the oat crop to Mr. Holman. Several fragments of mussel shell were found scattered about a few feet west of the test grid but no additional materials were recovered. The soil below the plow zone was hard, compact clay which gave every indication of being sterile, suggesting the existence of a very shallow site. No culture inferences could be drawn because of the almost complete lack of cultural materials.

It is not recommended that additional test work be carried out here unless the geographic center of the site can be located. This would be possible by surveying in mid-spring when the ground is freshly plowed.

Gordon Emerson Property

Location: SE $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Gordon Emerson

Reported archaeological finds in past years were checked by the 1962 survey crew through the digging of numerous test pits on this expanse of flat land on the north bank of the Eau Galle. The testing produced no positive results and the field, which was planted in pine trees, was not listed as a site location. In the 1964 field season, two 5' x 5' squares were set out in addition to 28 2' x 2' test holes. None produced any cultural debris of any kind and this ideally located stretch of land was again abandoned with no site being recorded.

OTHER SITES IN THE RESERVOIR

The remaining sites are listed in this section together with their locations and other pertinent information. Those found by the 1962 survey are listed first and these site discussions include results of test work done at that time. Beginning with Sc-24, sites are listed which were found during the 1964 field season.

St. Croix County

Sc-9 Larson 1 Site

Location: SE $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Kenneth Larson

This is a small campsite situated on a slight rise some 100 feet in diameter and located about 300 feet west and 100 feet north of the County Highway NN-Lohn Creek bridge. It was found by the original survey in 1962 at which time 17 flakes and 1 bone fragment were recovered. Investigations in 1964 produced recent crockery sherds, deer teeth, 9 chert flakes, and additional bone fragments. At this time the site was planted in corn and no test work was possible. This site should be tested when crop conditions permit.

Sc-10 Larson 2 Site

Location: SE $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Kenneth Larson

This site was also found by the 1962 survey and described as an accumulation of numerous large chunks of limestone and sandstone some of which may have been burned. This area was located 200 feet west of the Larson 1 site. In addition, 1 grit tempered, cord roughened body sherd, 3 deer bones, 2 deer teeth, 22 bone fragments, and 8 burned bone fragments were collected. When surveyed briefly in

1964, 3 chert flakes and numerous bone fragments were found. The single sherd from this site is unique throughout the reservoir as no others were found during the 1962 survey or the 1963 field season. This site was also planted in corn preventing any test excavations. Additional work in the reservoir should include test work here.

Sc-12 Lamb 2 Site

Location: SW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Merton Lamb

Four flint flakes were reported by the 1962 survey team along the eroded slope of a hill directly south of Mr. Lamb's barn. Its exact limits were not determined at that time and no additional materials were found there in 1964. No test work is recommended at this time.

Sc-13 Lamb 3 Site

Location: SW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Merton Lamb

Five flint flakes were recovered from the north end of the garden east of Merton Lamb's house. Directly north of the garden is a pasture area in which the main portion of the site probably lies. The site was discovered in 1962. Testing is recommended in the pasture area.

Sc-14 Strum 1 Site

Location: NW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Mrs. A. C. Strum

This site is located on a small sand ridge extending along the north bank of the Eau Galle River. The following material was widely scattered over an area approximately 200 feet by 50 feet:

15 flint flakes
12 Bone fragments

It is strongly recommended that testing be carried out here since none was done in 1962 or 1964 because of the presence of crops.

Sc-15 Strum 2 Site

Location: NW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Mrs. A. C. Strum

This small campsite is located approximately 500 feet due west of the Strum 1 site. The following material was recovered from the surface by the 1962 survey:

1 projectile point
12 flint flakes
1 piece worked sandstone

Additional work in the reservoir should include testing here.

Sc-16 Holman 1 Site

Location: SE $\frac{1}{4}$ of NW $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Myrl Holman

This is a large campsite or a small village site located directly north of the Holman barn. Material was found along the edge of a cornfield and appeared to extend southward to the barn and sheds. The following material was found in an area measuring 50 feet north-south and 300 feet east-west immediately adjacent to the farm buildings:

1 piece burned clay
1 implement fragment
50 flint flakes

This work was accomplished by the 1962 survey. During the 1964 season this site was planted in alfalfa and the ground was not visible. Extensive test work is recommended.

Sc-17 Hollerude

Location: SE $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 30, T28N, R15W

Owner : Mr. Jim Hollerude

Work in 1962 discovered this small campsite located at the south property line and at the eastern slope of a hill just north of Lousy Creek. The following was recovered at that time:

1 projectile point fragment

1 implement fragment
85 chert pieces

Investigations in 1964 produced 27 chert flakes, 2 bone fragments, and one flake knife (Plate 4, no. 13). At this time the site was planted in corn. Test work is recommended for the site.

Sc-18 Hollerude 2 Site

Location: $SE\frac{1}{4}$ of $SE\frac{1}{4}$, Sec. 30, T28N, R15W

Owner : Mr. Jim Hollerude

This site was described in the 1962 survey as an extensive campsite located on a small rise almost halfway between the Hollerude house and Lousy Creek and about 500 feet north and slightly east of Hollerude 1 site. At that time 88 flint flakes were recovered from an area about 300 feet in diameter. During the brief survey in 1964, one core and one hammerstone were found along with 6 flakes and 2 bone fragments. Test work is recommended.

Sc-19 Hollerude 3 Site

Location: $SE\frac{1}{4}$ of $SE\frac{1}{4}$, Sec. 30, T28N, R15W

Owner : Mr. Jim Hollerude

This also appears to be a campsite and is located directly south of the Hollerude house. It was located by the 1962 survey at which time the following material was recovered from an area

approximately 200 feet in diameter from the edge of the lawn southward:

1 knife
22 flint chips

In 1964 a core scraper, 9 chert flakes, 2 bone fragments, and several modern porcelain sherds were found at the site. No testing is recommended.

Sc-20 Anderson 1 Site

Location: NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Arthur Anderson

One projectile point was found in a cornfield 90 feet north of a right angle bend in Lousy Creek. No additional artifacts were found during the original survey of 1962. In 1964 the land was in soilbank, hence extensive testing appears feasible and is recommended.

Sc-21 Anderson 2 Site

Location: NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Arthur Anderson

In 1962 a test pit located about 100 feet west of the bend in the creek and approximately 200 feet southwest of Anderson 1 yielded 17 flint flakes. Four other surrounding test pits each at a radius of 30 feet were all sterile indicating that at best this is a

very small campsite. Additional finds in 1964 include 1 incomplete projectile point, 1 broken and 1 complete core knives, and 28 flakes. Porcelain fragments were also collected. The projectile point specimen is of the corner notch variety. Its shoulder width is 20.0 mm., stem length 7.0 mm., and inter-notch width 9.0 mm. The only other ascertainable measurement is the maximum thickness which is 2.5 mm. (Plate 4, no. 21).

Additional test work is recommended for this site.

Sc-23 Anderson 3 Site

Location: NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Arthur Anderson

A test pit located in the south end of the field 100 feet west of the gate and 120 feet north yielded 6 flint flakes. Surrounding test pits failed to yield any cultural material indicating that this may have been a very small campsite perhaps occupied only a few times. No additional work is recommended.

Sc-24 Lamb 4 Site

Location: SW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Merton Lamb

One stem section of a projectile point, one scraper, one core,

and numerous chert flakes were found about 50 yards north of Mr. Lamb's house on the west bank of the Eau Galle River. This may be an extension of the Lamb 3 site but much of the ground between is overgrown and the limits are uncertain. No cultural affiliations can be inferred because of lack of materials. Testing is recommended.

Sc-26 Lamb 6 Site

Location: $SE\frac{1}{4}$ of $SW\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Merton Lamb

This appears to have been a small campsite at the base of a hill about 350 yards west of Mr. Lamb's barn. One corner notched projectile point and numerous flakes were found here in what is now a cornfield. The point is 33.0 mm. in overall length, 17.0 mm. in base width, and 20.0 mm. in shoulder width. Minimum stem width is 9.0 mm; stem length is 10.0 mm. (Plate 4, no. 22). The presence of a projectile point would suggest considerable age for the site but no conclusive statements can be made due to lack of materials. It is recommended that additional work be carried out here.

Sc-27 Lamb 7 Site

Location: $NE\frac{1}{4}$ of $SW\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Merton Lamb

This site is situated at the base of the same hill as Lamb 6, approximately 200 yards north of the latter. No artifacts were found at the time the site was located in 1964, but numerous flakes and pieces of chert were collected in a limited area. This may represent a workshop area and further exploration is recommended.

Sc-28 Strum 3 Site

Location: NW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Mrs. A. C. Strum

Six chert flakes and 1 bone fragment were collected in a narrow cornfield half way between the Strum 2 site and the county road to the north. No artifacts were found and the cultural significance of the area remains questionable until such time as the terrain can be examined more closely. Land around the cornfield was in oats at the time of the survey made in 1964. Additional surveying and testing is recommended for this area.

Sc-29 Holman 2 Site

Location: SE $\frac{1}{4}$ of NW $\frac{1}{4}$, Sec. 30, T28N, R15W

Owner - : Myrl Holman

One hundred yards due east of the Holman house in a cornfield

a large quantity of flakes and several artifacts were found. The site is situated on a rise, the highest point between the house and the river to the east. The following materials were found by the 1964 survey:

- 1 projectile point (expanding stem). Measurements: stem length 11.0 mm.; shoulder width 2.8 mm.; stem width 10.0 mm.; base width 16.0 mm.; thickness 6.0 mm. (Plate 4, no. 19).
- 1 projectile point fragment
- 2 knife sections
- 1 side scraper
- 1 pointed scraper
- 3 cores
- 66 chert flakes

The site would receive high priority because of its relatively prolific yield of cultural debris.

Sc-31 Holman 4 Site

Location: NE $\frac{1}{4}$ of NW $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Myrl Holman

Mr. Holman reported finding a large concentration of flakes whenever plowing in an area approximately 150 yards northeast of the Holman 3 site. The spot in question is on the highest of several terraces of the Bau Galle, the same one upon which Holman 2 and 3 sites are located. An alfafa crop obscured the ground from view and no materials were collected by the 1964 survey. Additional survey and testing is recommended.

Sc-32 Geiger 1 Site

Location: SW $\frac{1}{4}$ of NW $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Eugene Geiger

This site is located in the pasture bordering the county road at a point about 120 yards west of the low-water bridge. It was reported that in the past numerous artifacts had been picked up when this land between the county road and French Creek was under cultivation. The survey of 1964 found 1 knife base and 3 chert flakes. Ground conditions were unfavorable for collecting and the exact location of this site could not be determined. Further survey and testing is recommended for this area.

Sc-33 Johnson 1 Site

Location: NW $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 30, T28N, R15W

Owner : Henry Johnson

Several flakes were collected over a large area about 300 yards south of the Johnson 2 site. The site is on the east bank of the Eau Galle immediately north of a point at which the river has cut away the hill forming a bluff. The land was in soilbank and extensive surveying was not possible. No additional work is recommended.

Sc-35 Longseth 1 Site

Location: SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Sec. 31, T28N, R15W

Owner : Longseth brothers

The cornfield across the county road and due east of the Longseth brother's house yielded 1 projectile point or knife midsection, 4 cores, 54 chert flakes, 3 deer teeth, and 3 bone fragments. This site lies north and across the road from the Strum 3 site. Careful testing is recommended.

PIERCE COUNTY

Pi-22 Lamb 1 Site

Location: NW $\frac{1}{4}$ of NE $\frac{1}{4}$, Sec. 6, T27N, R15W

Owner : Merton Lamb

This is a small campsite located at the foot of a hill at the edge of a cornfield about 500 feet west of Eagle Spring. The following material, found by the survey, came from an area about 100 feet in diameter:

1 implement fragment
47 flint flakes

Test work is recommended for this site.

APPENDIX

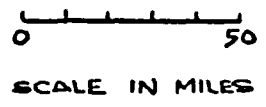
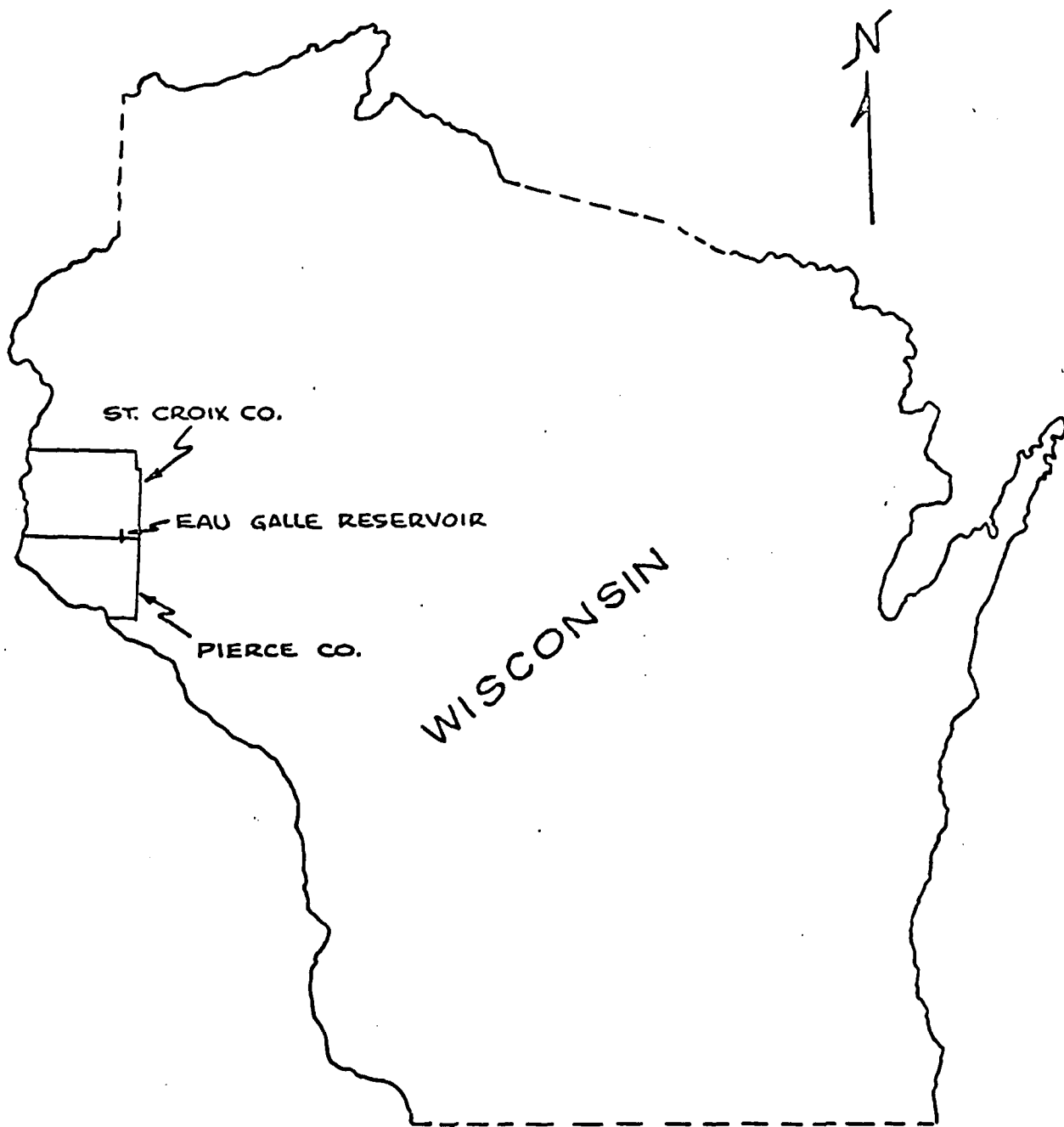
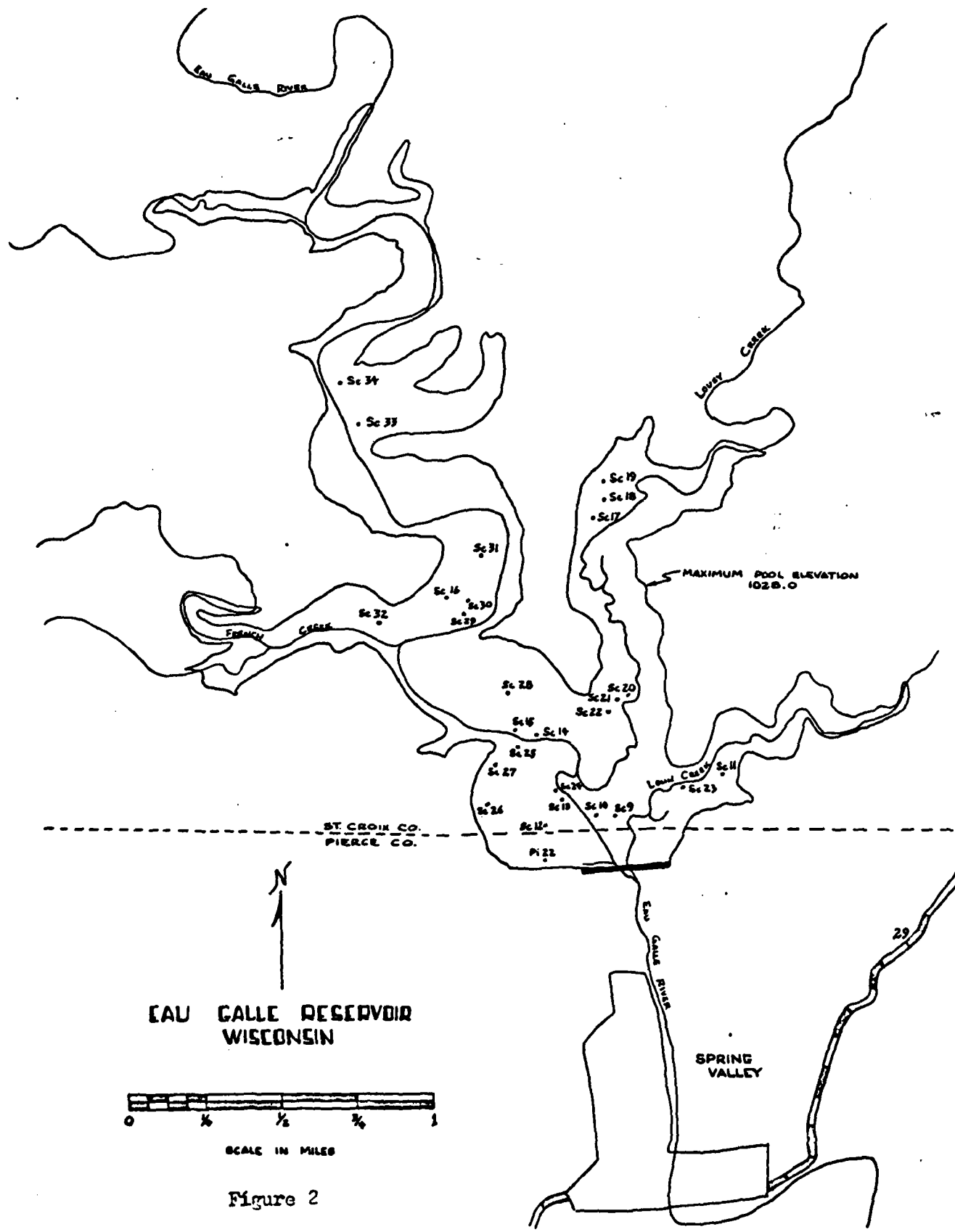


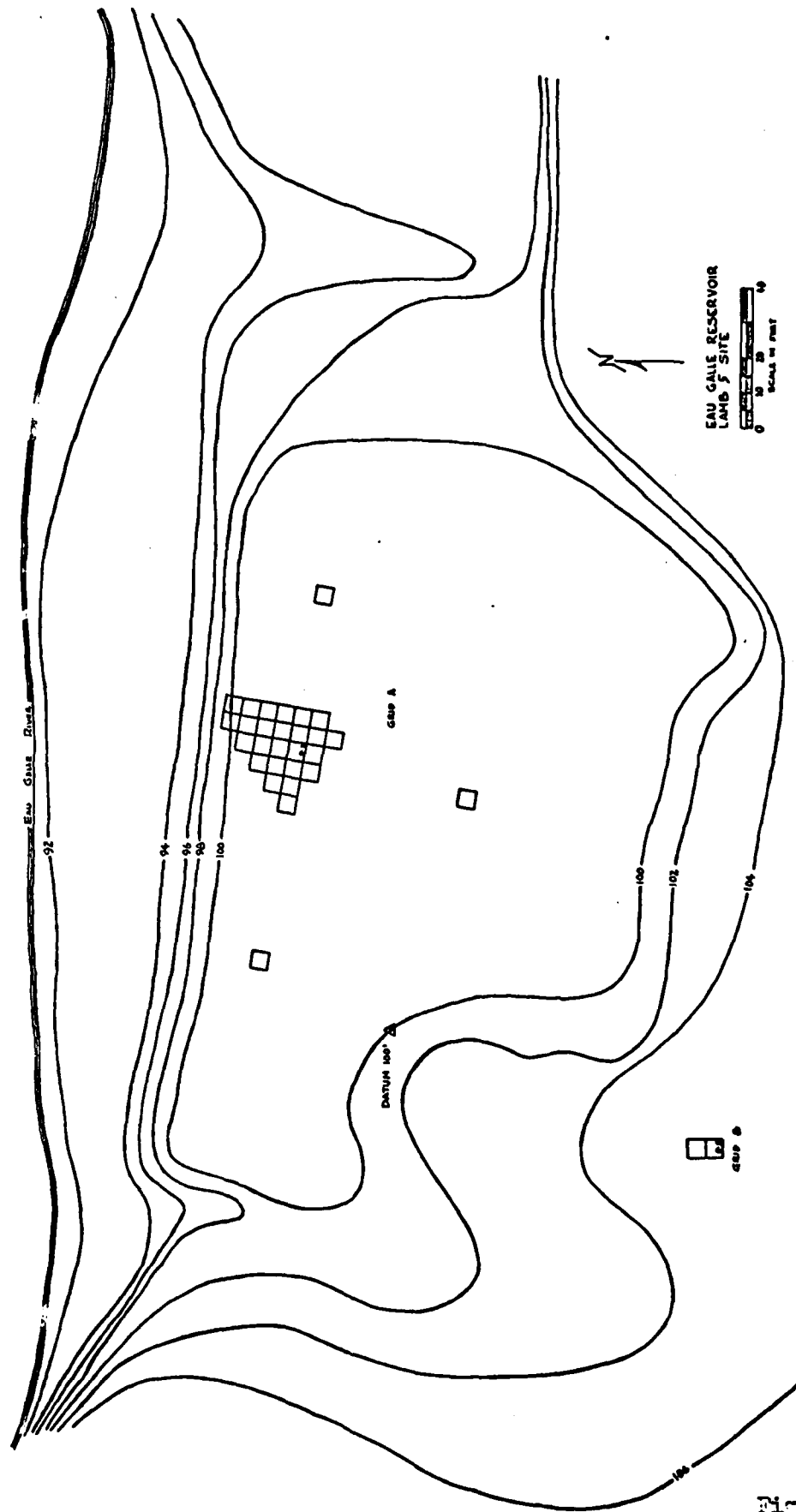
Figure 1 — State of Wisconsin



**EAU GALLE RESERVOIR
WISCONSIN**



Figure 2



EAU GALLIE RESERVOIR
LAMB 5 SITE

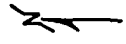
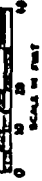
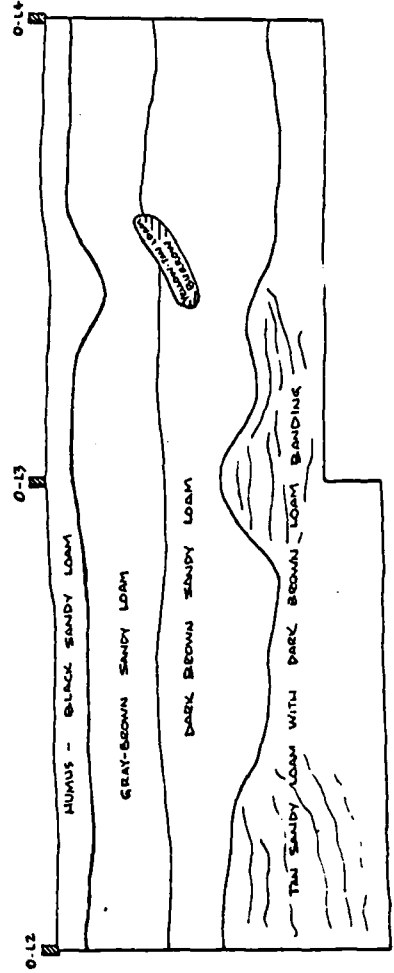
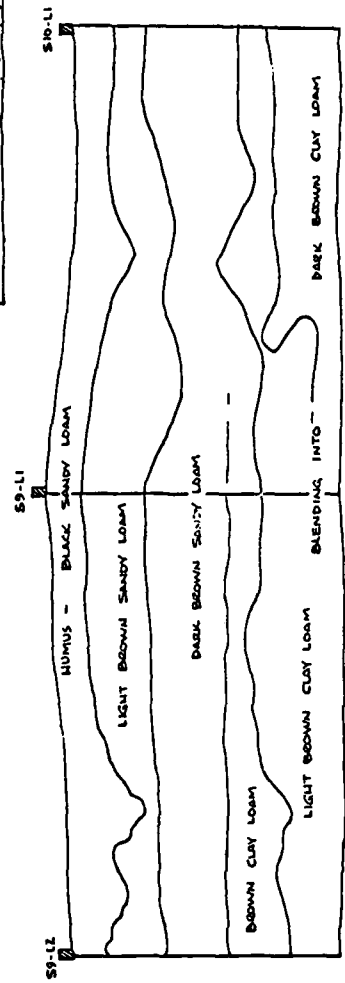
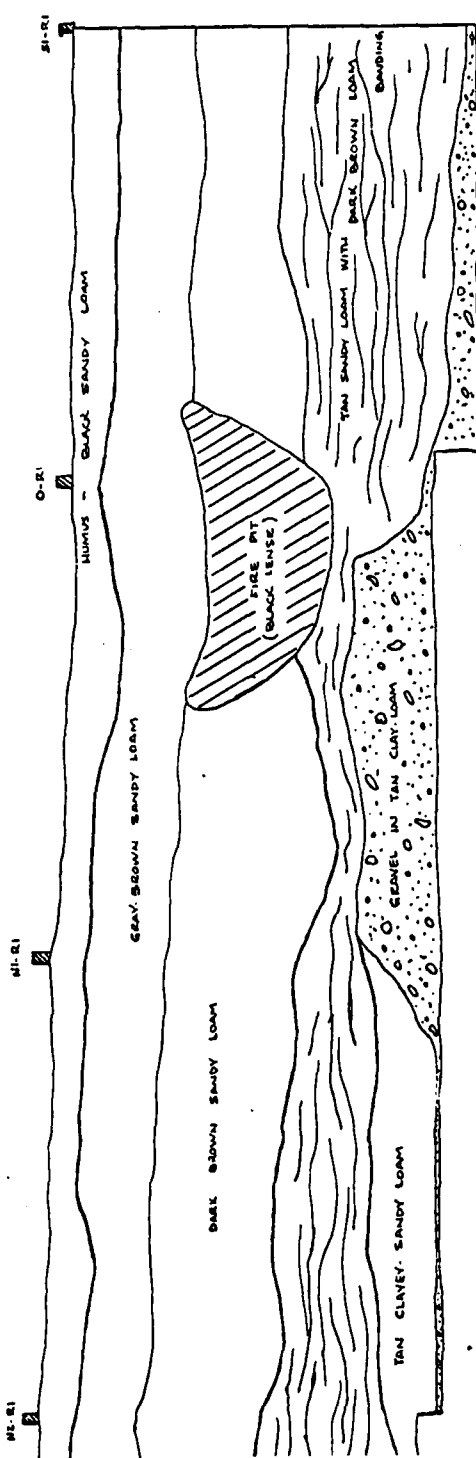
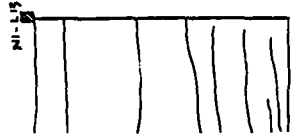


Figure 3



EAU GALLE RESERVOIR
LAMB SITE
SOIL PROFILE

0 1 2 4
SCALE IN FEET



LAMB 5 ~ Sec 25
 GRID A
 FEATURE DISTRIBUTION
 1" = 5'

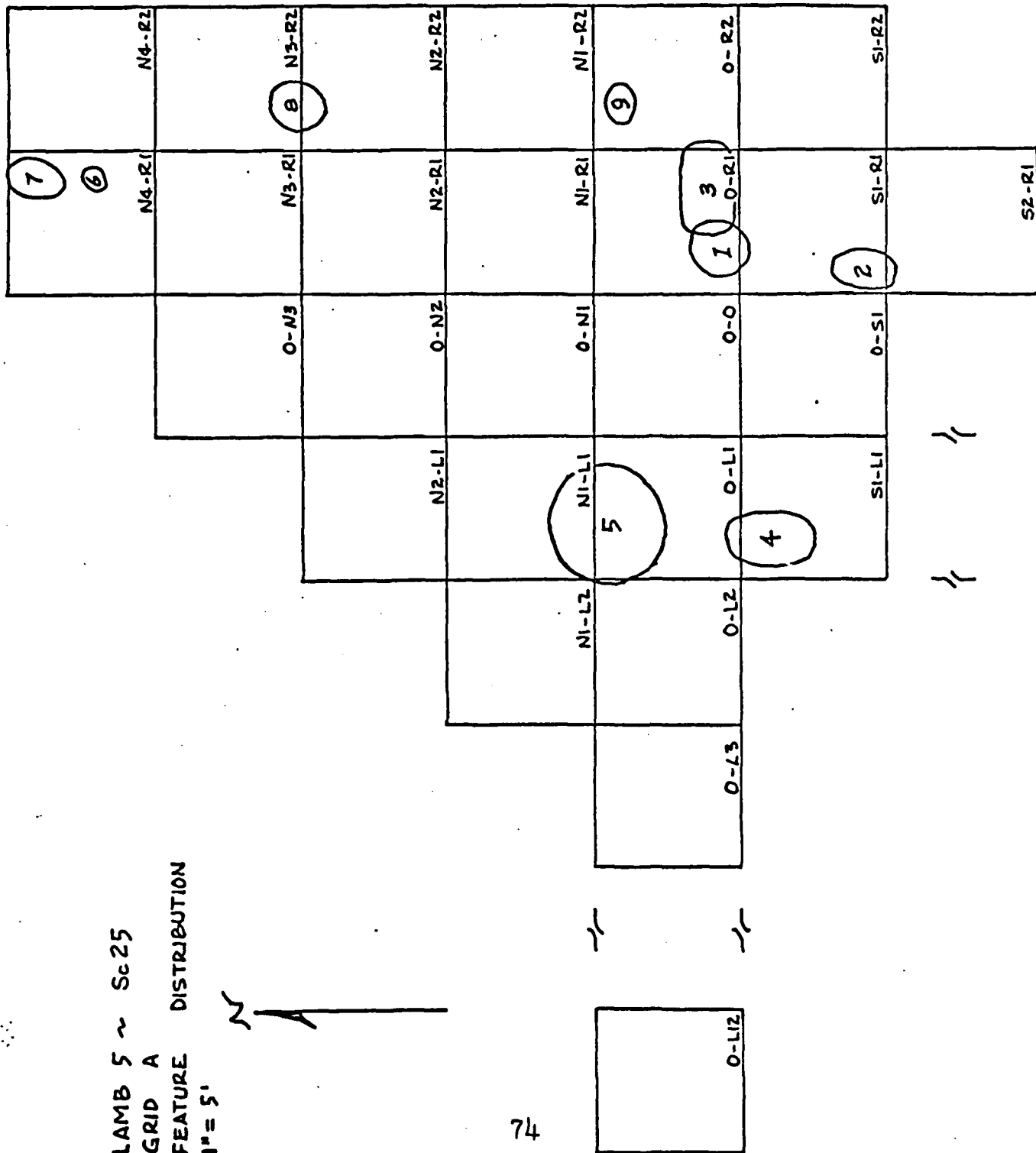
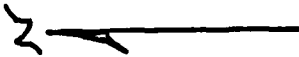


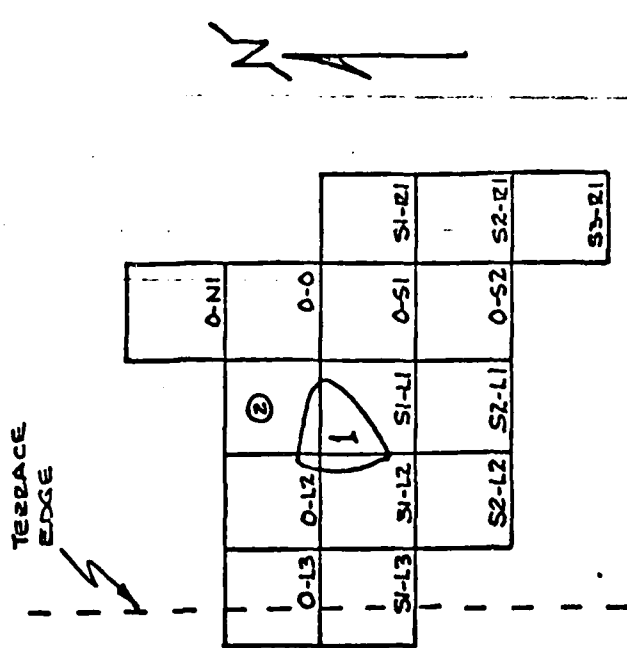
FIGURE 5

LAMB 5 ~ S.c.25
ARTIFACT DISTRIBUTION BY LEVELS

ARTIFACTS	LEVEL							
	1	2	3	4	5	6	7	8
SIDE NOTCH DART POINTS					2			
CORNER NOTCH DART POINTS				1				
STEMMED DART POINTS		1	1					
KNIVES		3	5	7	4	2		
CORE KNIVES		1	2	1	5			
FLAKE KNIVES			1					
OVATE SCRAPERS			1					
SIDE SCRAPERS					1			
UTILIZED FLAKES		1	1	4	1	1		
CORE SCRAPERS				2				
CORES		2	9	37	23	15	5	1
UNIDEN. FRAGMENTS	2	3	2		1	1		
DRILLS			1					
MULLER				1				
CHERT FLAKES	128	258	564	869	701	243	38	
QUARTZITE FLAKES	1	5	8	1	2	3		
TOTAL LESS FLAKES	3	16	31	54	39	22	5	1
TOTAL INCL. FLAKES	131	274	595	923	740	265	43	1

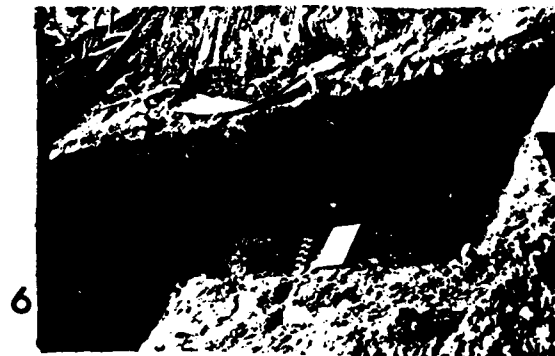
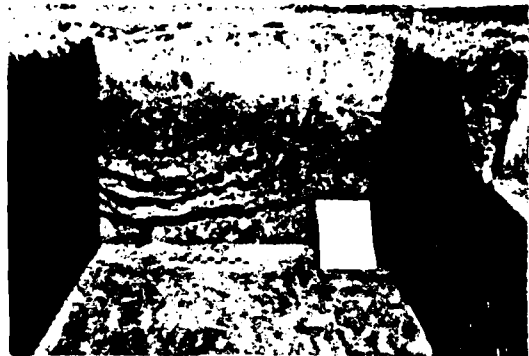
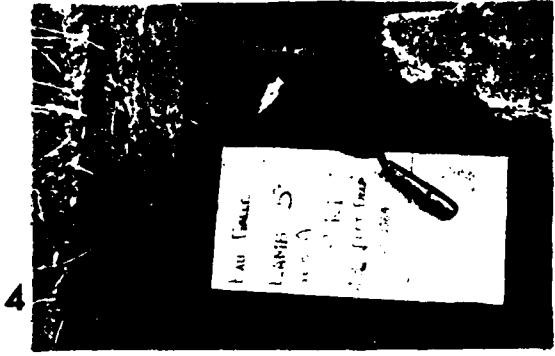
LEVEL	1	2	3	4
ARTIFACT				
CORNER NOTCH DART POINTS	1			
EXPAND. STA. DART POINTS	2	1	1	
BIFACE FRAGMENTS	2	3		
KNIFE FRAGMENTS	3	1		
CORE KNIVES	1			
CORES	1	5	4	1
DRILLS	1	1		
UTILIZED FLAKES	1			

ARTIFACT DISTRIBUTION BY LEVELS



EAU GALLE RESERVOIR
 JOHNSON 2 SITE ~ Sc 34
 FEATURE DISTRIBUTION
 1" = 10'

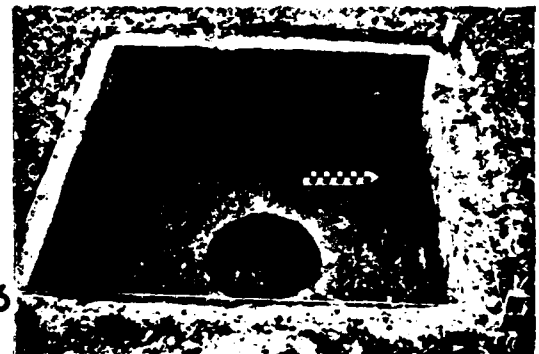
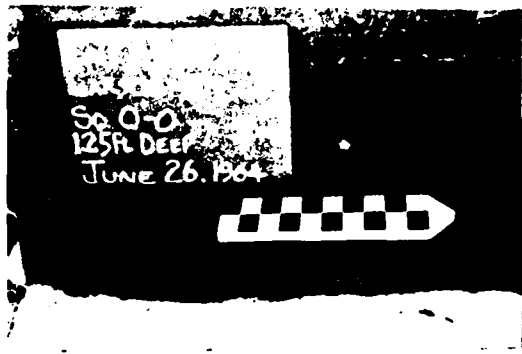
Figure 7



Eau Galle Reservoir - Plate 1

Plate 1

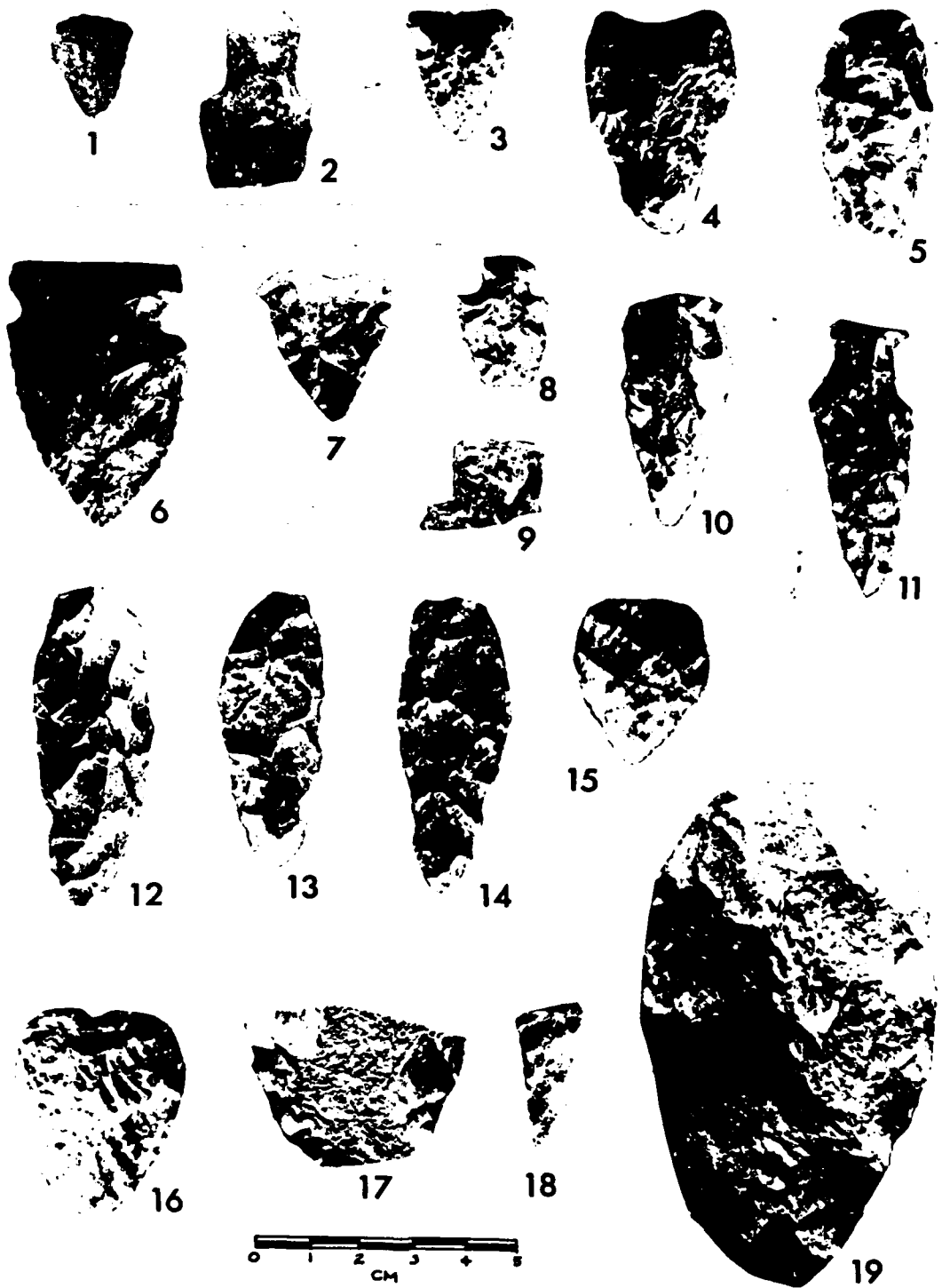
- Number 1 Initial squares of Grid A, Lamb 5 site (Sc-25).
Camera facing north, Eau Galle River in background.
- 2 Lamb 5 site early stages of excavations. Camera
facing south.
- 3 Lamb 5 site showing relationship between Grid A, the
main terrace, and the river, Camera facing northwest.
- 4 Projectile point in situ, Lamb 5 site.
- 5 Lamb 5 site showing soil profile. Camera facing west.
Depth of floor 3.5 feet.
- 6 Lamb 5 site showing soil profile on face of south wall,
N2 trench.
- 7 Lamb 5 site excavations, maximum depth of floor 3.5 feet.
Viewing southwest.
- 8 Lamb 5 site - Feature No. 4 partially excavated.



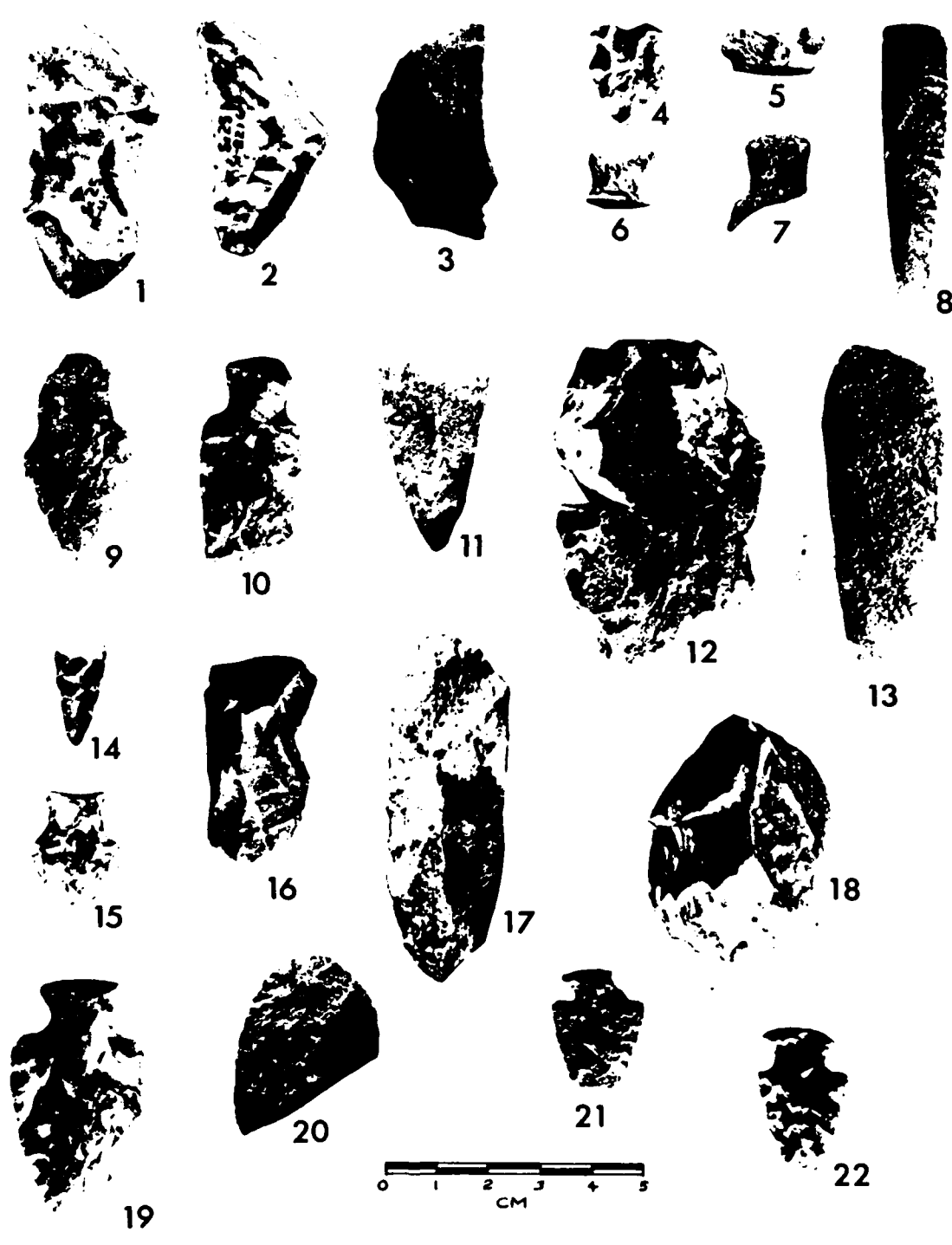
Eau Galle Reservoir - Plate 2

Plate 2

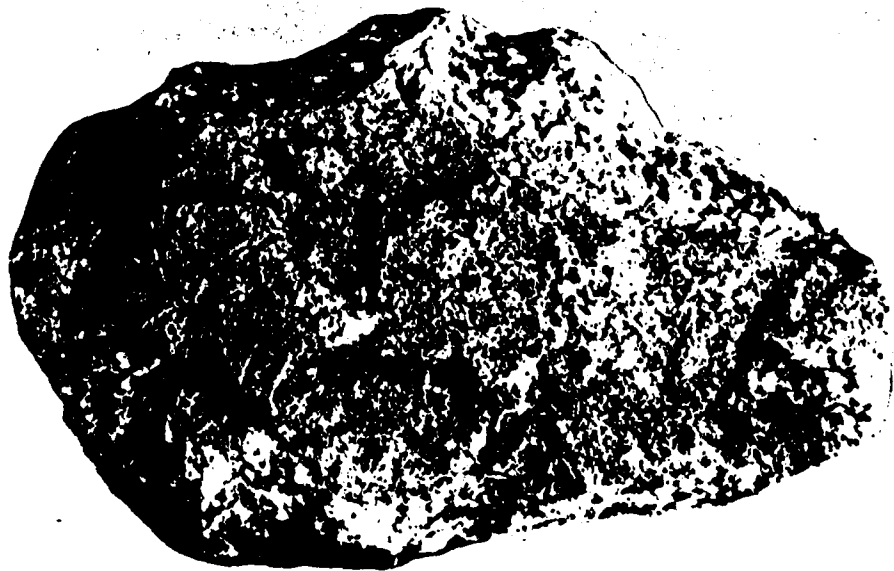
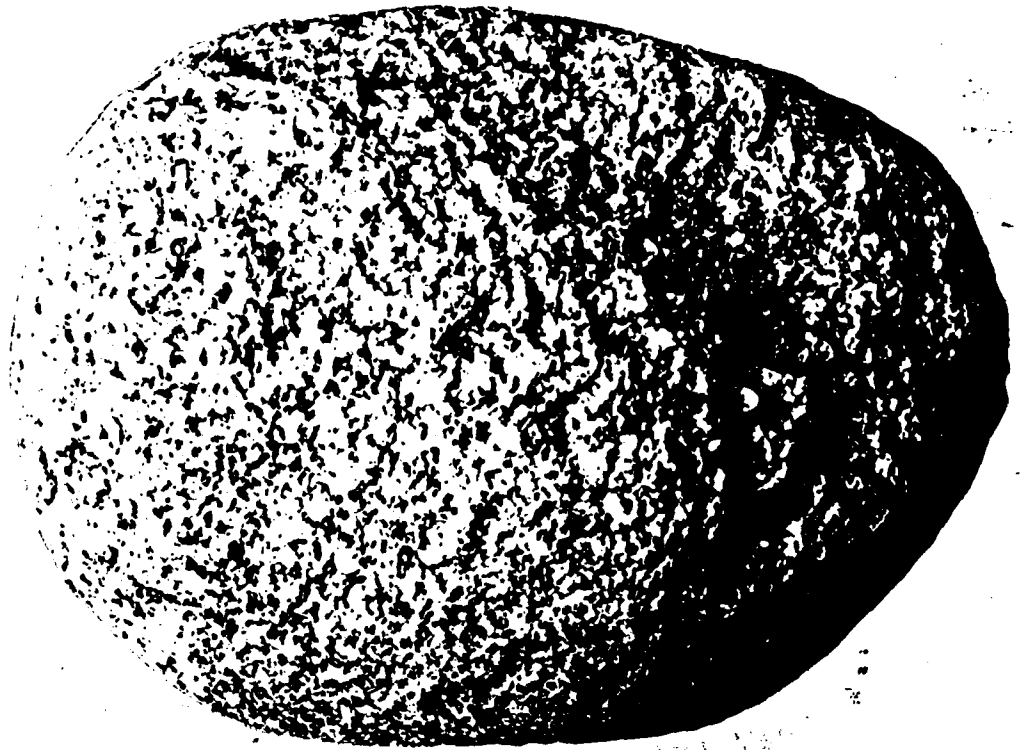
- Number 1 Lamb 5 site - Grid B. Camera facing north.
- 2 Lamb 5 site - Grid B. Showing relationship to Eau Galle River in background. Viewing north.
- 3 Stripping sod prior to excavation of Larson 4 site. Camera facing north with Lohn Creek in background. Grid B.
- 4 Arrangement of squares at Grid B, Larson 4 site (Sc-23) viewing southeast.
- 5 Projectile point in situ recovered at Grid B of the Larson 4 site (note error on sign board). Arrow points north.
- 6 Maximum depth of excavations at Larson 4 site (note error on sign board). Arrow to north.
- 7 Initial work at Holman 3 site (Sc-30). Viewing southwest.
- 8 Testing the Holman 3 site. Bluff in background rises above Eau Galle River. Camera facing south.



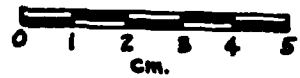
Eau Galle Reservoir - Plate 3



Eau Galle Reservoir - Plate 4



Eau Galle Reservoir - Plate 5



BIBLIOGRAPHY

- Baerreis, D. A. -- The Airport Village Site, Dane County, Wisconsin Archeologist. Vol. 34, No. 3, Sept. 1959.
- Bell, Robert E. -- Guide To The Identification Of Certain American Indian Projectile Points. Special Bulletin No. 1, 1958 and No. 2, 1960, of the Oklahoma Anthropological Society.
- Hickerson, Harold -- An Anthropological Report On the Indian Occupancy of Area 243, which was ceded to the United States by the Mdewakanton Band of Sioux Indians under the Treaty of September 29, 1837. Unpublished manuscript.
- Martin, Lawrence -- The Physical Geography of Wisconsin, Second Edition, Bulletin No. 36, Educational Series No. 4, Wisconsin Geological and Natural History Survey, 1932.
- Wittry, Warren L. -- The Raddatz Rockshelter, The Wisconsin Archeologist, Vol. 40, No. 2, 1959.
- Wyckoff, Donald G. -- The Cultural Sequence At The Packard Site; Archeological Site Report No. 2, Oklahoma River Basin Survey Project, University of Oklahoma Research Institute, 1964.

END

FILMED

12-85

DTIC