A PRELIMINARY ARCHAEOLOGICAL SURVEY OF A PROPOSED RECREATIONAL DEVELOPMENT AND FISH AND WILDLIFE ENHANCEMENT PROJECT IN LAKE REBECCA, HASTINGS, MINNESOTA.

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On 26 and 27 June 1978, the author conducted a preliminary archaeological survey of the proposed recreation area on the shores of Lake Rebecca, in Hastings, Minnesota. Almost all of the proposed construction will be confined to the east and northeastern shores of the lake, a peninsula of land now largely occupied by Lake Rebecca Park. The peninsula cuts northwest-southeast across Section 21 of Hastings Township, Township 115N, Range 17W, Dakota County, Minnesota. The proposed development includes the construction of roads, parking facilities, a beach area, a hiking trail, and various structures. The lake will also be raised to elevation 680 ft, drowning some of the adjacent shoreline, primarily on its eastern and southern banks.

Lake Rebecca covers approximately 40.5 acres. It lies immediately downstream from Lock and Dam #2 and generally parallels the Mississippi River. Lake Rebecca Park, on the eastern side of the lake, is composed of wetland and open stands of deciduous trees with little understory. The ground surface of this area is relatively wet, with many areas of open water or very marshy conditions, even in those areas covered by stands of trees. A storage tank park, on formerly agricultural land, is to be found abutting the park. The area on the western shore slopes steeply down to the lake from the bluffs above. This area is covered by denser stands of mixed hardwoods and understory. To the north, a levee separates the lake from Pool #2 of the Lock and Dam complex. To the south, deciduous brush and trees are found as the park area abuts residential structures.

Many species of fish inhabit the lake, although the quantity has apparently declined in recent years. Waterfowl also inhabit the area and may utilize the lake in the course of migration. Various mammalian species such as the white-tailed deer, raccoon, grey squirrel, muskrat, and beaver may also be found (U.S. Army Corps of Engineers Report 1978 27-31).

A number of both historic and prehistoric sites are recorded in the Hastings area, including several buildings which have been nominated for inclusion or already placed on the National Historic Register. However, no known sites are located in the proposed project area. Several concrete foundations on the peninsula were surveyed to ascertain their historic value.

Methods

This survey was designed to provide a preliminary evaluation of the archaeological and historic potential of the Lake Rebecca Park area prior to the proposed construction. Of special interest was an evaluation of the areas to be flooded and the foundations on the eastern side of the lake in the park. A walking survey was conducted, and a number of test units were excavated to assess the soil conditions. Two of these units were excavated near the foundations. These test units were a minimum of 50x50 cm in size. Careful note was taken of the existing soil horizons.
A walking survey of the area revealed that almost the entire Lake Rebecca Park is a very wet area with many pools of open water or marshy stretches. Few areas were dry enough to support the weight of the author without some degree of yinking into the wet, sandy alluvium. A test unit was excavated in perhaps the highest, driest portion of the park, a cleared and graded, but never utilized, ballfield. The soil profile was as follows:

**Test Unit #1**

Size: 70x70cm

Soil Profile:
- 0-27 cm deep—fill and disturbance
- 27-42 cm deep—dark yellowish brown sand, 10YR 4/4
- 42-128 cm deep—dark brown sand, 10YR 4/3
- groundwater at 124 cm deep
- shells of pelycopods recovered beginning approximately 100cm deep

A second test unit was excavated in the woods approximately 50 meters west, and 20 meters north of the entrance gate to the park. This soil profile looked as follows:

**Test Unit #2**

Size: 60x60cm

Soil Profile:
- 0-8 cm deep—sand with organic stains
- 8-25 cm deep—light brown sand
- 25-100 cm deep—darker brown sand, very wet
- no Munsell colors taken due to poor light

Two other test units were excavated on the northeastern shore of the lake. These had sandy horizons with groundwater at a shallow depth.

It would appear that the character of the Lake Rebecca Park area as a whole may be generalized from the test units excavated. The park is a low, marshy area of loose, sandy alluvial soils. These conditions would not have encouraged extensive aboriginal or historic occupation of the project area, although temporary utilization for such activities as fishing was certainly possible. The author must also stress the difficulty in finding sites buried under considerable deposits of alluvium, perhaps well below the present water table. As noted, archaeological sites do exist in the Hastings area. Ms. Hazel Jacobson, a local historian, indicated that at least historic aboriginal groups utilized the area southwest of Lake Rebecca. This area, besides being considerably higher and drier, also has a set of soil horizons based on a bedrock foundation, rather than a soil profile consisting of shifting alluvium. The bluff areas to the west of the lake probably also contain archaeological resources. A purported Indian trail follows the bluff. However, this area is outside of the proposed project limits.
In terms of the areas to be drowned, it would appear that archaeological resources would not be likely to be disturbed. On the eastern shore, where most of the flooding will occur, the area is covered almost entirely with marshes. These marshy areas are primarily standing water and wetland vegetation. On the west side of the lakes, only a small area will be flooded. A surface survey of this area indicated that the slope was far too severe to accommodate any archaeological sites, although it is not impossible that materials may have eroded down from possible sites on the bluffs above. In May 1976 Mr. Dan Bowman, archaeologist for the U.S. Army Corps of Engineers, indicated that a test raise of the lake to elevation 680 feet would have no adverse effect upon identified cultural resources. The author would concur with that opinion and indicate that in light of the marshy conditions additional archaeological resources are not likely to be found.

In terms of the concrete foundations, two and possible three were identified. The first, and most complete (see Map #2) consists of a foundation slightly more than 2 meters deep. Its construction consists of fieldstone in a concrete matrix, faced with concrete. A part of the concrete is still painted white. Associated artifacts included iron bedsprings, an iron stove or heater, and recent trash deposits. A test unit excavated approximately 1.5 meters east of the structure revealed the following soil profile:

**Test Unit A - Foundation #1**

**Size:** 50x50cm  
**Soil Profile:**
- 0-20cm deep---sand with disturbance including rusted pieces of iron  
- 20-75cm +deep---sandy-clay loam  
- no Hunsell colors taken due to poor light

A second foundation was discovered approximately 50 meters to the southwest of Foundation #1. This foundation is located in a swath made for the construction of a telephone or power line. Pole #2 of that line stands amid the ruins of the foundation. It is very possible that the construction of this line may have done further damage to this structure. This ruin is in correct position, according to maps, to be the barn associated with Foundation #1, a farmhouse. However, according to pictures taken last summer the barn foundation was in considerably better repair than the foundation discovered by the author. Thus, Foundation #2 either represents an as yet unreported foundation, or the foundation of the barn after recent damage. As in the case of Foundation #1, the construction was of fieldstone in a concrete matrix with some concrete facing. A test unit was excavated 1 meter to the west of the structure yielding the following soil profile:

**Test Unit B - Foundation #2**

**Size:** 50x50cm  
**Soil Profile:**
- 0-31cm deep---clay with some rust objects and pieces of sawn board, 10YR 2.5/1  
- 31-80cm +deep---sand and small pebbles, 10YR 3/3
It may also be noted that a third possible foundation might be located on the northwestern edge of the ball field, approximately 9 meters west and three meters south of Test Unit U1. This possible structure is represented by a pile of concrete rubble and stone. This may also be material deposited in the filling of part of the ball field and may not represent a structure at all. Several large concrete slabs lay half-buried in the ball field itself.

It would appear that these structures are not of any great historical importance for several reasons:

1) Ms. Hazel Jacobson, the local historian and expert on the building of Hastings area, indicates that to her knowledge, no relatively early historic structures were located in what is now Lake Rebecca Park. Indeed, the only early structure with which she was familiar was a farmstead located in what is now the storage tank park.

2) A review of maps of the Hastings area revealed that the Lake Rebecca Park area was surveyed as early as 1857. However, no structures were recorded as having been built there. Similarly, no structures were recorded in the area in an 1875 map. Finally, no structures were recorded for the area on a series of maps made between 1884 and 192 These maps, made by the Sanborn Company of New York, note all the stone, wood and brick structures in the town.

3) The construction of the two foundations tested also indicated that they were probably not early structures in the area. Concrete construction is not likely to be associated with early pioneer occupations. Mr. Nelson (personal communication) of the Minnesota Historical Society has indicated that fieldstone and concrete construction is not likely to be found in this area before the 1890's, and indeed is more likely to be found after the turn of the century.

The excavated test units yielded no materials which could help date these structures. However, it is unlikely that they date much, if at all, before 1900 A.D.

Summation and Recommendations

In June 1978 the author conducted a preliminary archaeological survey of a proposed recreation area on the shores of Lake Rebecca in Hastings, Minnesota. The area, primarily encompassed in Lake Rebecca Park, is a low, wet section of alluvial sand. The vegetation consists of spaced deciduous trees or marsh species. On the basis of the physiography of the area and the few test units excavated, it would not appear likely that this area has a great deal of archaeological potential, although it could have been used periodically for such activities as hunting or fishing. Such sites would be difficult to locate due to the usually low density of artifactual material associated with small temporary sites of this nature and because of the wet, swampy conditions of the area.
Several foundations were discovered in the project area. No historical references to the age or significance of these structures could be found. On the basis of the existing literature, maps, local informants and the construction techniques utilized, it would not appear likely that these foundations represent either early or significant structures in the Hasti area.

**Curation**

No archaeological materials were recovered during the course of this survey. Notes are curated by the author at the U.S. Army Corps of Engineers office in St. Paul, Minnesota.
Bibliography

U.S. Army Corps of Engineers, St. Paul District

Other Sources

Mr. Charles Nelson (personal communication)

Map Library of the Minnesota Historical Society
Map #1 - The Lake Rebecca Project Area in Hastings, Minnesota
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