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# A Preliminary Survey of Archaeological Sites Surrounding Cedarburg Bog

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*Abstract.* Cedarburg Bog was an attractive location for pre-historic Indian occupancy sites. The combination of upland deciduous forest and lowland marsh environments provided a rich food resource base for native inhabitants. During a surface survey conducted in 1991-1992, 11 habitation sites were located on the Bog's adjacent upland area. Projectile points which were found on the various sites and were diagnostic of certain periods, revealed a range of habitation from Early Archaic (6000 B.C.) to Late Woodland (1700 A.D.). Based on the characteristics of the sites discovered, it is apparent that other sites remain to be uncovered. This preliminary survey was meant to draw attention to sites which may be threatened by urbanization.

## Introduction

"The Swamp on Sections 29 & 32 and a part of the same on Sections 28, 31, & 33 is of a character little better than a mud lake, it cannot be passed without some danger to life (Burt 1835)." William Burt's assessment of Cedarburg Bog reflects a cultural prejudice and a common perception of wetlands held by pioneers. While "little better than a mud lake..." to early settlers, Cedarburg Bog was undoubtedly an important resource to the native population.

Recently, emphasis has been placed on wetlands as a focal point for aboriginal occupation. The location of numerous prehistoric settlements is most likely determined by the adjacent wetland and its rich food resource (Goldstein, 1982). Goldstein stated that "Archaeologists have often looked at wetland situations 'backwards': we have tended to see

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the distribution of sites in wet areas as determined by the presence of dry land....people are probably on that spot of dry land *because* of the presence of the wetlands." (Goldstein, 1982: 248).

The Cedarburg Bog and its adjacent deciduous forest zone would have been attractive to prehistoric people because of their rich food resources. The Bog's contiguous upland areas contained a significant distribution of mixed oak-sugar maple forest at the time of the original land survey in 1835 (Brumm, 1977). This basic forest type probably existed in approximately its original state for the last 4,000 to 5,000 years. Pollen analysis of sediments from Cedarburg Bog have shown oak to be an important, if not dominant, species of the surrounding pre-settlement forest (Fredlund, pers. com., Fredlund et al., 1991). Forests dominated by oak may have been the richest upland forest type utilized by American Indians due to a storable acorn crop (Goldstein, 1982).

The Bog had the added advantage of having its major lake, 250 acre Mud Lake, connected to Cedar Creek via a minor tributary. This tributary is a significant pathway for spawning fish in the spring (Szmania, 1973). In addition, the marshy environment surrounding Mud Lake contained three significant plant resources harvested by early native populations: wild rice (*Zizania aquatica*), bulrush (*Scirpus validus*), and duck potato (*Sagittaria latifolia*). The lake and aquatic plant growth also attracted waterfowl, and consequently probably fostered the harvesting of these birds by the native population during the spring and fall migrations.

One of the most important attributes of the Bog was its ability to attract and hold a significant white-tail deer population. During fall and winter, deer were a major protein source available to the native population. The Bog's extensive cover that included a cedar and shrub environment provided ideal winter habitat relative to the sparse understory of the mature upland forest. Based on richness of resources indigenous to the Bog area, the margin connecting these upland-wetland habitat types would have been a logical place for prehistoric sites. However, no comprehensive, or for that matter, casual archaeological, survey has been conducted around the Bog, despite the fact that it encompasses the quintessential characteristics outlined as desirable for aboriginal occupancy--oak forests, marsh wetlands and permanent water.

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The lack of investigation may be due to the perception among archaeologists that Ozaukee County contained few marshes and was dominated by a mixed deciduous forest during presettlement times (Goldstein, 1982). Consequently, the county has been given a low rating for archaeological research potential. Of the ten counties encompassing the Southeastern Wisconsin Archaeological Project, Ozaukee County has been identified as one of the most "unattractive" areas for prehistoric habitation (Goldstein, 1987). Understandably, researchers must prioritize. Given limited time and money, they concentrate their efforts to maximize return. However, the crunch of urbanization and changing land uses occurring in Ozaukee County necessitate a more comprehensive investigation of its prehistory.

### Research Methods

The research method utilized in this project has been called "plow zone archaeology." I walked plowed fields in search of prehistoric artifacts, and questioned local residents, farmers, and former land owners as to their knowledge of "Indian arrowheads" on their property or property they lease. Plowing has mixed many of these artifacts in the soil, but the degree of lateral displacement is generally not significant (Roper, 1976). Consequently, a pedestrian survey of plowed fields can lead to the identification of general locations where some form of occupancy has occurred.

Occupation sites are locations where people have lived and carried out a multitude of activities among which is the manufacturing of stone tools. Chert flakes are a by-product of stone tool manufacturing and generally are the most noticeable artifact found on the surface. Once a site was located, I tried to establish boundaries for the site and locate diagnostic artifacts which would help give the site a time context.

I utilized soil maps (USDA, 1970), air photos and topographic maps to plot sites and identify potential research areas. Since land use patterns surrounding the Bog have changed significantly during the past 50 years, large tracts of contiguous land are presently fallow and therefore unsuitable for this research method. However, based on the number

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of sites located to date and their characteristics, it is apparent that many sites around the Bog remain to be identified. Significantly, some of these sites may contain undisturbed stratified cultural material since they have not been subjected to the plow. Several of these sites are second growth woodlots with numerous glacial erratics. Erratics would indicate that these areas have not been tilled.

## Results and Discussion

Between July 1991 and July 1992 I located eleven sites with artifacts within 1 km of Cedarburg Bog (Fig. 1). All identified sites had been plowed. The marsh, fallow lands, forested lands and hay fields were not surveyed.

I collected approximately 100 projectile points and when possible, identified their cultural period. Projectile points are the most commonly used diagnostic artifacts. Since the bow and arrow is a relatively recent innovation in this area (400 A.D.), many points found were not arrowheads, but functioned as spear points, dart points, knives, or other forms of cutting/piercing tools. The style of these points is culturally dependent and consequently their unique size, shape and manufacturing technique can help place a time frame on a site.

Numerous guides were utilized to identify point types (Morrow, 1984; Goldstein and Osborn, 1988). Confirmation of their identity and time context was obtained with help from personnel of the Great Lakes Archaeological Research Center. In general, the time span of projectile points collected encompassed a period from the Early Archaic period (6000 B.C.) to recent historic times (1700 A.D.) (Fig. 2). Additionally, numerous flake tools, hammerstones, chert cores and other lithic material were found. Noticeable by its absence, was pottery. This, however, could reflect the bias of a neophyte collector and the ravages of continuous plowing rather than its absence on the sites.

Most of the sites were located at the margins of oak forests and marsh wetlands as proposed by the Southeastern Wisconsin Archaeology Project (Goldstein, 1987). Ten of the eleven sites were located on well-

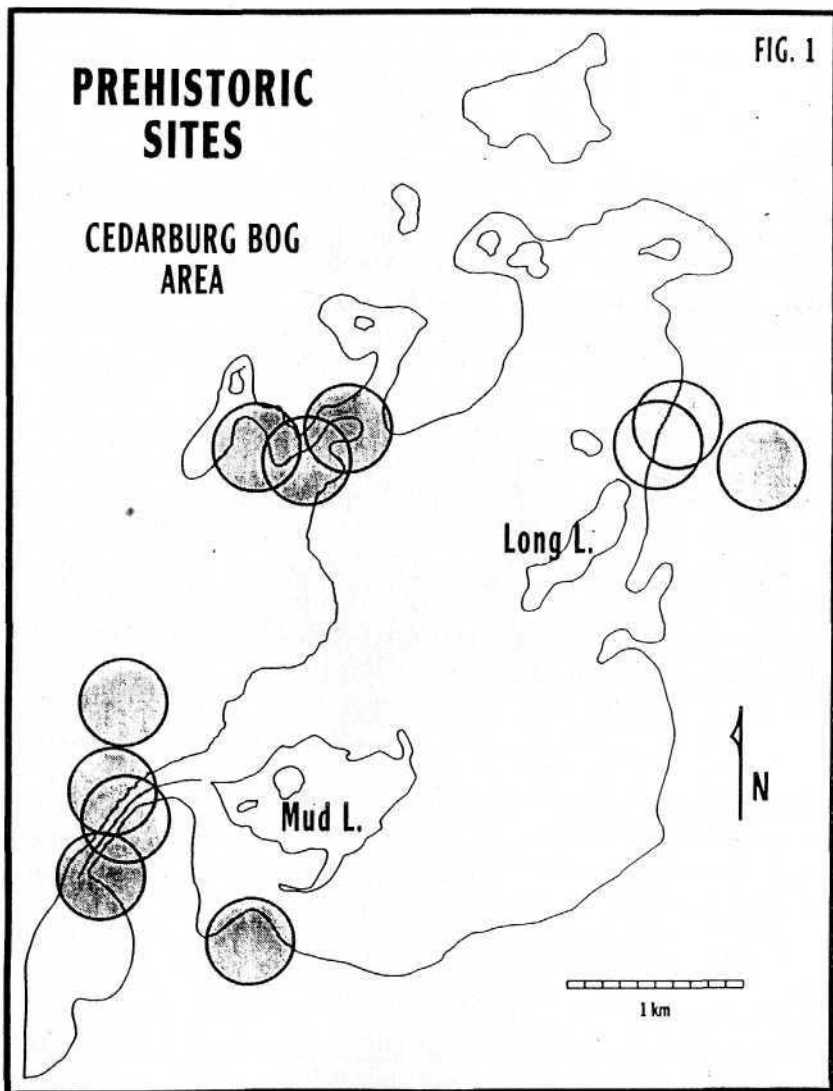


Figure 1. Map of prehistoric occupancy sites surrounding Cedarburg Bog located in 1991-1992.

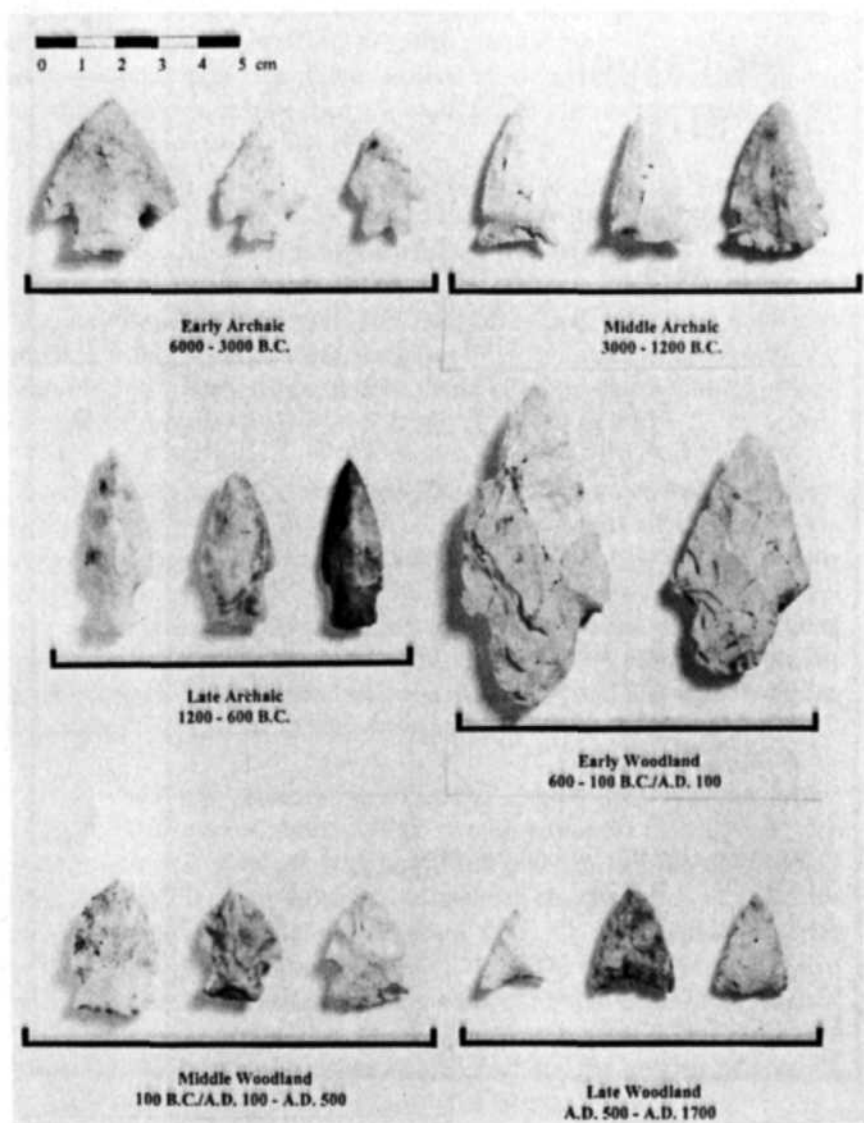


Figure 2. Examples of diagnostic projectile points found on various sites in the vicinity of Cedarburg Bog.

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drained upland soils. Six sites were located on sand and gravel outwash material of the Casco soil series, while Boyer and Fox soil series each occurred at one site. Two sites were located on well-drained soils of glacial till origin--Hocheim and Ozaukee series (USDA, 1970).

The final site was located on somewhat poorly drained Fabius loam and was distinctive in that it was the only site with late Woodland/Mississippian projectile points. This site is subject to flooding and consequently could reflect a temporal occupancy different than that of the upland sites. It is near a narrow stream that is used by over 400 breeding northern pike (*Esox lucius*) during the spring spawning run (Szmania, 1973).

Several occupancy sites spanned more than one cultural period, indicating the desirability of certain sites over a long period of time. These sites contained diagnostic projectile points spanning the periods from Middle Archaic to Late Woodland. Four of the large sites encompassed an area in excess of 3 acres with the largest site approximately 5 acres in size. This long period of occupancy and evidence of stone tool manufacturing, also resulted in the highest concentrations of lithic debris with several sites having in excess of 150 artifacts/acre. Goldstein (1987) has suggested that artifact concentrations of this magnitude reflect areas of significant resource potential.

Cultural material was concentrated on level to nearly level land generally with a slope of less than 6%. Sites with excessive slope have limitations for semi-permanent occupancy. Some lithic material was found on adjacent slopes in excess of 6% and could reflect movement by erosion or lateral displacement due to cultivation.

A water source was within 200 meters of each site. In some cases, this water source was seasonal in nature. Four sites were adjacent to ephemeral streams and two sites were adjacent to spring ponds. The remaining sites were contiguous to the poorly drained wet soils of the Cedarburg Bog proper. These wet soils: Houghton, Poygan and Adrian series, are saturated for most of the year and could have provided water with a minimum of excavation.

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A substantial amount of peat has accumulated in the Bog over the past several years so that "free water" may have existed closer to the sites than is apparent today. Similarly, the climatic conditions and water regime of the time span represented by the artifacts, i.e., 7,000 years, encompass numerous climatic episodes. Consequently, the hydrologic landscape viewed today could be different than the one at the time of prehistoric people.

### **Conclusion**

Cedarburg Bog was a focal point for early inhabitants of this region. Significant settlement sites existed around its periphery and only a few have been located. None of the sites located during my survey had been previously recorded by the State Historical Society (Kolb et al., 1988). Considerable potential exists for further research. This article is not meant to be a comprehensive survey of prehistoric sites around Cedarburg Bog. Specifically it is meant to draw attention to one aspect of the Bog's prehistory which has long been overlooked.

The well-documented resources of the Bog and its environs provided a magnet to prehistoric people. Deer, muskrat, racoon, waterfowl and fish provided protein. Wild rice, duck potato, and acorns provided other storable food supplies. Permanent water, critical to survival, was available throughout the area. The Bog was and is a valuable resource.

### **Acknowledgments**

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