

ARCHAEOLOGICAL RESEARCH, INC.

# Eagle Heights Woods, UW-Madison Campus, Dane County, Wisconsin: Results of a Phase I Archaeological Survey.

Prepared For:

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Archaeological Research, Inc. Reports of Investigations No. 78

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## Executive Summary

Archaeological Research, Incorporated conducted a Phase I archaeological survey of a 2.5-acre area surrounding the Eagle Heights Mound group in Eagle Heights Woods on the University of Wisconsin – Madison campus. Campus land managers were concerned that the proximity of a hiking path to this prehistoric cemetery area might be causing damage to prehistoric and historic archaeological resources. Results from this survey will assist land managers with relocating the path to provide improved site preservation.

An updated plat of the Eagle Heights Group was made in addition to the excavation of 131 shovel tests placed around the cemetery. All shovel tests were negative indicating a lack of prehistoric cultural material in the vicinity of the mounds. Historic literature search and pedestrian survey indicate that the current hiking path is placed roughly on the same alignment as Raymer Drive, one of the earliest segments of what was to become the Lake Mendota Drive segment of the Madison Park and Pleasure Drive Association. ARI believes that the intact portion of Raymer Drive may be significant under Criterion A, B, and C of the National Register of Historic places and should undergo a Determination of Eligibility. ARI is also recommending that the Eagle Heights Group undergo a Determination of Eligibility for the NRHP under Criterion D. Consideration should be given to cataloging the Eagle Heights Mound Group with the State Historical Society of Wisconsin to provide additional protection to the site.

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## **Introduction**

In early 2001, Mr. Daniel Einstein (Facilities Planning and Management) at the University of Wisconsin contracted with Archaeological Research, Inc. (ARI) to conduct a Phase I archaeological survey of approximately 2.5 acres of Eagle Heights Woods (part of the Campus Natural Areas) on the campus of University of Wisconsin – Madison within the City of Madison, Dane County, Wisconsin. Campus land managers were concerned that the proximity of a hiking path to this prehistoric cemetery area might be causing damage to prehistoric and historic archaeological resources. Results from this survey will assist land managers with relocating the path to provide improved site preservation.

## ***Purpose***

The purpose of this Phase I archaeological survey is to provide recommendations for improved protection of pre-historic and historic resources located in Eagle Heights Woods in the Eagle Heights Mound Group area.

## ***Location/Legal Description***

Eagle Heights Woods is a prominent bedrock outcrop located along Lake Mendota Drive overlooking the south shore of Lake Mendota in the northeastern corner of the University of Wisconsin – Madison campus. More specifically, it is located in the SE ¼, of the SE ¼ of the NE ¼ of the NE ¼ of Section 17, Township 7 North, Range 9 East in Madison Township, Dane County, Wisconsin (Figures 1 – 2).

## ***Project Information***

<u>Survey Dates:</u>	November 12 - 13, 2001
<u>Surveyors:</u>	George W. Christiansen III Daniel Cain
<u>Project Contact:</u>	Daniel Einstein Environmental Management, University of Wisconsin - Madison
<u>Total Acres Surveyed:</u>	Approximately 2.5-acres



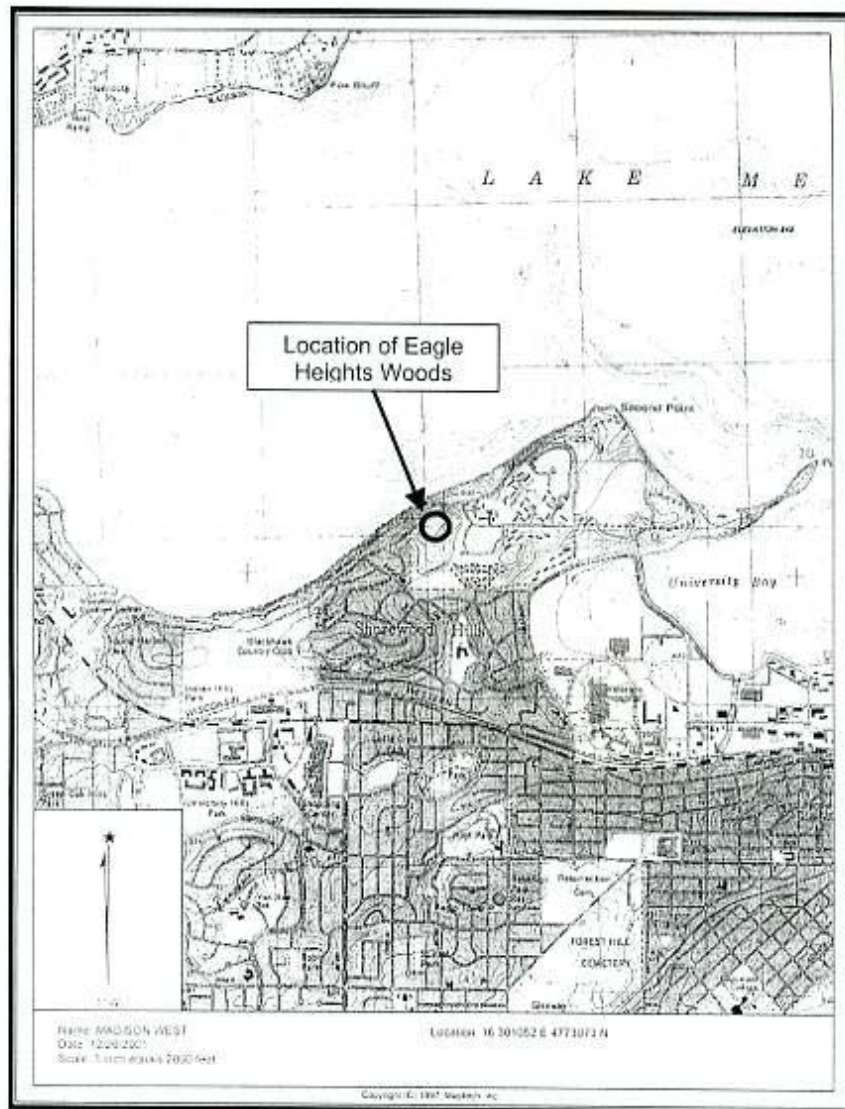


Figure 2: Location of Eagle Heights Woods



## **Environmental Setting**

### ***Geology***

The proposed project area is located on the western margin of the Eastern Ridges and Lowlands province defined by Martin (1965) and Pauli and Pauli (1977), within the Black River and Magnesian cuesta (Figure 3). The portion of the cuesta in the Four Lakes area is composed of alternating limestones and sandstones. The Lower Magnesian limestone caps the highest hills, Madison sandstone/St. Peter sandstone is present in steep short slopes, Mendota limestone caps the lower hills, and Potsdam sandstone/Cambria sandstone forms the broad valley bottoms (Martin 1965:223). The original bedrock-controlled topography of the region has been substantially altered by recent glaciations moving in from the northeast resulting in rolling terrain with numerous drumlins, moraines, kettles, marshes, lakes and relict shorelines.

### ***Vegetation***

General Land Office surveyors first surveyed the area near Eagle Heights in 1834. The surveyor, Orson Lyon, commented that the land was hilly and second rate and was covered in white, black and burr oak with an undergrowth that consisted of oak, hazle and grass (Lyon 1834).

Currently, the dominant canopy species include red and white oak, white ash, and basswood. The prevalent subcanopy species include white ash, black cherry, and basswood. Near the top of the hill there is a patch of black locust. The shrub layer consists of gray dogwood, chokecherry, honey suckle and buckthorn, the ground layer includes virginia creeper, poison ivy, moonseed vine, wild yam root, bloodroot, early meadowrue, solomon's seal, false solomon's seal and jack-in-the-pulpit.

### ***Current Land Use***

The Eagle Heights Woods is currently part of the Campus Natural Areas on the campus of the University of Wisconsin – Madison. The area is entirely wooded (primarily deciduous with some coniferous trees) and is being used for research and recreational purposes. A series of hiking trails runs roughly north/south through the woods, a segment of which encircles the Eagle Heights Group (47DA130).



Figure 3: Survey Location in Relationship to Geologic Provinces

## Culture Context

### Paleo-Indian Tradition

Overstreet (1991, 1994) has suggested that the earliest occupation of southern Wisconsin may date as early as 13,000 BP. The **Chesrow Complex** was originally defined as falling late within the Early Paleo-Indian stage on the basis of excavations at the **Chesrow** site and surface collections at nearby sites in Kenosha County in southeastern Wisconsin. Though the complex has not been securely dated, Overstreet has argued for an early date based on the recovery of mammoth and mastodon remains bearing butchery marks, dated to 12,100-12,600 BP, on the same landforms and within the same geographic constraints as Chesrow complex material (Mason 1986a, Overstreet 1991, 1993).

The early Paleo-Indian Fluted Point complexes (**Clovis**, **Gainey** and **Folsom**) have been securely dated to the period between 11,500 BP and 10,000 BP. The fluted point complexes are distinguished by the presence of lanceolate projectile points, commonly manufactured of fine and exotic materials, which have been carefully thinned at the base by the removal of long, deep flakes which extend for varying lengths along the point and produce a distinctive, fluted appearance. Points belonging to the Clovis complex, dating 11,500-11,000 BP, have flute scars that extend less than one-third of their length. Folsom points (produced ca. 10,000 BP) have broad flute scars that extend nearly the entire length of the point. Gainey points fall between the two both morphologically and temporally (Stollman 1991).

Evidence for early Paleo-Indian occupation of Dane County is abundant, though confined for the most part to surface finds of isolated projectile points. The majority of fluted points in the county have been found at the **Skare** and **Havey** sites southeast of the project area (Mason 1997). Early Paleo-Indian peoples have been stereotyped as big-game hunters specializing in mammoth and mastodon. While there is evidence that these animals were hunted by humans in Wisconsin, the repeated use of lacustrine or marsh environments for occupation by early Paleo-Indian people suggests a concern for the availability of small game and aquatic resources.

The late Paleo-Indian stage is characterized by the use of long, slender, lanceolate and stemmed projectile points that were carefully fashioned of fine chert. The quality of flaking on some late Paleo-Indian points has been described by some researchers as high art. Most examples in east central Wisconsin were manufactured of orthoquartzite and fall within the **Agate Basin**, **Alberta**, **Eden** and **Scottsbluff** types. Basal grinding on those points is frequent and usually heavy (Mason 1997). While late Paleo-Indian life ways have consistently been described as focused on a continuance of earlier big-game hunting strategies, evidence suggests that late Paleo-Indian peoples practiced a broad range of subsistence activities (Kuehn 1998). As in the early Paleo-Indian stage, social structure was probably based on small groups of



related individuals, who moved frequently on the landscape and preferably occupied lakeshores and stream banks near the outlets of lakes (Mason 1997).

#### Archaic Tradition

##### Early and Middle Archaic Stages (9,000 BP to 3,500 BP)

The Early Archaic is characterized by the presence of formally diverse diagnostic projectile types such as **Hardin Barbed**, **St. Charles**, a variety of **Bifurcated Base** points and **Thebes**. Subsistence practices and social organization appear to have been similar to those during the Paleo-Indian period, and it appears likely that there is no clear line between the Early Archaic stage and the late Paleo-Indian stage other than that based on lithic typologies (Stoltman 1986, 1997).

The Middle Archaic stage in Wisconsin saw a number of technological innovations, including the first use of ground stone technology and copper metallurgy. The stage is primarily identified with cultural developments that culminated in the **Old Copper Complex**. The Old Copper Complex is known primarily from the excavation of several spectacular cemeteries (Freeman 1966, Ritzenthaler 1957). Identifying habitation sites contemporary with Old Copper Complex mortuary sites has depended mainly on projectile point morphology. A convincing argument has been made that the cluster of side-notched points diagnostic of the Middle Woodland stage (**Raddatz**, **Godar**, **Madison**, **Matanzas**, **Reigh**) are "everyday" variations on the ceremonial Osceola points accompanying Old Copper burials (Stoltman 1997).

Most Old Copper Complex artifacts have been recovered as surface finds in the east-central portion of the state, centering on Lake Winnebago (Wittry 1957). It was with the emergence of the Old Copper Complex that long-range trade networks between territorial groups were first established. The establishment of formal cemeteries hints that group mobility was at a fairly low level and cultural boundaries between groups were beginning to form. The eastern Old Copper burial assemblages contain goods that may have signaled individual status—copper headdresses and jewelry of exotic marine shell (Stoltman 1997). If so, Wisconsin was home to one of the earliest socially complex societies in the Upper Great Lakes.

##### Late Archaic Stage (3,500 BP – 2,500 BP)

The arrival of the Late Archaic stage in southwestern Wisconsin is signaled by the appearance of new projectile point types, a decline in the use of copper and a lack of identifiable cemeteries (Stoltman 1997). Late Archaic projectile points are generally small, stemmed, side or corner-notched dart points. Few other artifacts diagnostic of this phase have been identified. The beginning of the stage seems to coincide with changes in the climate and environment. Starting around 3500 BP, oak savanna seems to have partially given way to closed oak forest, as weather grew cooler and wetter. The impact of this environmental shift on Late Archaic populations is not well

understood, as few well-stratified or single component Late Archaic sites have been scientifically excavated in Wisconsin.

The Late Archaic stage is the first to be well represented in south-central Wisconsin. Sites have been located over a broad range of environmental and topographical zones. Based on excavations to date, it would appear that the Late Archaic stage represents a transition between the extremely mobile, small band strategies of the Paleo-Indian, Early Archaic and Middle Archaic stages and the less-mobile, seasonally dispersed populations of the Woodland Tradition.

#### Woodland Tradition

##### Early Woodland Stage (5,000 - 2,300 BP)

The Early Woodland stage in south-central Wisconsin encompasses two distinct cultural regimes. Residents of the area during the Early Woodland stage practiced a variant of the Marion culture, a widespread phenomenon with participants across the northern Eastern Woodlands (Esarey 1986, Green and Schermer 1988, Munson 1982). In many areas, the Marion culture is associated with Red Ochre ceremonialism. Red Ochre mortuary sites represent a leap in cultural complexity. The quantity and quality of grave goods is far greater than that found in Old Copper cemeteries. Burials were typically in-the-flesh internments placed in a flexed posture with pits in natural ridges, knolls and occasionally within artificially constructed mounds. Some bundle burials, cremations and extended in-the-flesh inhumations are known. Red ochre (powdered hematite), sometimes mixed with red sand, was liberally sprinkled over corpses and their associated grave goods during the course of burial ceremonies. Large caches of exotic and finely fashioned burial goods were placed with the remains of both adults and children—a pattern usually associated with the emergence of hereditary status differences (Stevenson et al 1997).

The Marion culture is responsible for the introduction of ceramic technology into Wisconsin. **Marion Thick** pottery was grit-tempered, cord-paddled inside and out, and took a distinctive conical or "flowerpot" form. **Kramer Stemmed** projectile points are the only other artifact diagnostic of early Early Woodland habitation sites.

The latter part of the Early Woodland saw an evolution in pottery technology and a minor switch from square stemmed projectile points to **Waubesa Contracting Stem** points, diagnostic of the **Lake Farms phase** in the Madison area. Lake Farms phase ceramics are sand or grit-tempered, cord-marked jars with relatively thin walls and slightly everted upper rim profiles. Decoration is applied directly over cord-marking in the form of bosses, incising, fingernail impressions and cord-wrapped-stick impressions. This material is closely related to that produced by the **Black Sand culture** in Illinois. Excavations of Lake Farms phase sites in south-central and southeastern Wisconsin indicate that late Early Woodland peoples may have lived in large warm-season camps surrounded by specialized resource processing and extraction sites. The large camps would have broken up in the winter, as individual families spread out across the landscape. Though many Lake Farms phase sites are located near shallow lakes and



marshes, recovered faunal remains are curiously lacking in aquatic species (Stevenson et al 1997).

#### Middle Woodland Stage (2,300 B.P. – 1,500 B.P.)

The Middle Woodland Stage in southern Wisconsin is generally equated with the Hopewell Interaction Sphere, a widespread exchange system famous for its exotic raw materials, spectacular artwork, elaborate mortuary facilities and fine ceramics. The core areas of the Hopewell interaction were located to the south of Wisconsin, in Illinois and Ohio. The Middle Woodland Stage in the Four Lakes Area has been incorporated into the **Waukesha phase**. Waukesha phase pottery is characterized by grit tempering and smooth exterior surfaces decorated using a wide variety of techniques. Ceramic types include **Kegonsa Stamped**, **Shorewood Cord Roughened**, **Havana Zoned**, **Naples Stamped**, **Neteler Crescent Stamped** and classic **Hopewell ware** (Goldstein 1992). Projectile point types dating to the Waukesha phase are commonly either corner notched or stemmed and include the **Snyders**, **Steuben**, **Monona Stemmed** and **Norton** types.

Waukesha phase peoples practiced mound burial, and interred their dead in rectangular pits covered by large conical mounds. Waukesha phase burials were extended; flexed or bundled, and rarely incorporated the elaborate Hopewellian grave goods found in contemporary mounds in southwestern Wisconsin and Illinois.

Waukesha phase habitation sites indicate a continued emphasis on hunting and gathering, with increased use of aquatic resources. Lippold (1973) has suggested that Waukesha phase peoples had begun to live in semi-sedentary communities supported in part by shellfish harvesting.

#### Late Woodland Stage (1,500 B.P.- 1,000 B.P.)

The Late Woodland stage in the eastern United States has often been viewed as a transitional phenomenon by a number of researchers. This, however, is not the case for Wisconsin where even the earliest archaeological researchers were aware of, and intrigued by, monumental earthworks that dotted the landscape (ex. Lapham 1855, McKern 1928, 1929, 1930, Peet 1890). As research on the Late Woodland has progressed, it has become clear that while the Late Woodland stage is transitional in some aspects, others indicate a unique and well-developed stage with a complexity that is expressed not in material goods, but in ceremonialism and ritual. In other words, it does not represent a decline between two climaxes, but rather reorganization and consolidation of regional and macroregional networks that laid the groundwork for larger sociopolitical units. The early portion of the Late Woodland was, in essence, a continuation of the lifeways that had been gradually developing over the last thousand years. People continued to hunt, gather and fish, live in small groups and practice a seasonal round (Arzigian 1987, Theler 1987, Storck 1974).

Some transitional aspects of the Late Woodland stage relate to changes in subsistence strategies, settlement patterns and technology. It has become increasingly

clear in the last 10 years that sometime around AD 850 maize began to play a more significant role in the diet of some Late Woodland groups (Arzigian 1987). Certainly by 1000 BP, maize had become a mainstay for a number of contemporaneous peoples who occupied the Wisconsin landscape. The adoption of more intensive horticultural economies apparently had profound effects on settlement patterns as sedentism become more prevalent among prehistoric peoples (Dirst 1988, 1995, Richards 1992, Salkin 1987, 1993). The establishment of permanent villages at a number of locations in the eastern portion of Wisconsin confirms the impact that the rigors of maintaining a maize-based diet had. Population appears to have increased during the Late Woodland, presumably as a result of changes in diet and settlement patterns. Several major changes in material culture and ceremonial practices mark the **Horicon Phase**. Cord and fabric impressed ceramics (**Madison Cord-Impressed, Madison-Fabric-Impressed**) dominate Horicon phase ceramic assemblages. Madison ware ceramics are generally globular in form grit-tempered and almost always in the form of large jars, although several smaller bowl-like vessels are known from a number of sites. Exteriors are cordmarked with decoration being confined to the inner lip, outer lip, lip surface, and the exterior rim to the neck of the vessel. Rims may be incurving, flared or straight. When decoration is present, it is usually in the form of single or multiple cord impressions in linear bands or geometric patterns.

The primary technological innovation of the stage was the widespread adoption of the bow and arrow. The bow and arrow were introduced into Wisconsin circa 1,300 BP, and small arrow points are the most abundant projectile points found in archaeological sites occupied after that date. Lithics from Effigy Mound culture sites are often made from local Prairie du Chien and Galena cherts as well as any of the silicified sandstones found in northwestern Wisconsin. The lithic tool kit appears to be generalized with a high proportion of utilized and retouched flakes relative to more formal patterned tools. Drills, endscrapers and spokeshaves are known from rockshelter and open-air sites. Projectile points seem to be present in three forms: triangular, small corner-notched and small, stemmed points. It seems likely that the triangular points (**Madison Triangular points**) and small corner-notched points (**Klunk points**) are part of a bow and arrow delivery system, while the small stemmed points may represent spear or atlatl points.

Prior to 1987, the Late Woodland stage was synonymous with the **Effigy Mound culture**. As it is recognized today in Wisconsin, the Effigy Mound culture is used as an umbrella term that incorporates at least two phases, the Horicon phase in south-central Wisconsin (Salkin 1987, 1993), the Eastman phase in southwestern Wisconsin (Stoltman 1990), and several phases not yet completely defined in northwestern and north-central Wisconsin.

The distribution of Effigy Mound culture sites is predominantly in the southern three-quarters of Wisconsin with additional sites in northern Illinois, northeastern Iowa and southeastern Minnesota. Site types include rock shelters, caves, multi-seasonal open-air villages, short-term encampments, seasonal resource exploitation camps and the highly visible effigy mound mortuary complexes typically located on elevated terraces near waterways, marshes and lakes. Very little is known of Effigy Mound



domestic architecture, although three shallow oval basins excavated at the Sanders site (47Wp26) (Hurley 1975) suggest that small oval wigwam type houses were utilized. In addition, several "keyhole" shaped structures with associated Madison ware ceramics were recently excavated at the **Statz** site in Dane County (Meinholz and Kolb 1997). Salkin has argued that Horicon phase peoples utilized large habitation sites for socializing and ceremonial purposes and then occupied small sites at other times of the year (Salkin 1993). The size and distribution of sites has been used as support for a band-level hunting and gathering lifestyle for the Effigy Mound peoples (Mallam 1976). Analysis of faunal and floral remains from rock shelters, caves and open-air sites indicate that a variety of local resources were consumed by Effigy Mound builders, including deer, small mammals, fish, fowl, mollusks, nuts, as well as starchy and oily seed bearing plants (Arzigian 1987, Benn 1980, Berwick 1975, Emerson 1979, Lippold 1973, Parmalee 1959, Stork 1974, Theler 1987). Though there is evidence that maize was utilized in the Driftless Area to some extent (Arzigian 1987, Gartner 2000, Stoltman 1990), no maize has yet been reported from Horicon phase sites (Salkin 1987, 1993). By definition, Effigy Mound culture mortuary sites contain one or more earthen, animal-shaped effigy mounds. Mound shapes include "panthers", birds, waterfowl, bears, canines, deer, buffalo, "turtles" and humans (Birmingham and Rosebrough 2000, Christiansen n.d., McKern and Ritzenthaler 1949, Rowe 1956). Effigy Mound peoples also constructed long "linear" mounds and small conical mounds. Unlike earlier Red Ochre and Hopewellian mounds, these mounds were generally low, contained few, if any, grave goods and contained the remains of only a single individual, though some mounds with multiple interments, (and some with none at all), are known. Articulated and bundle burials, cremations, pit burials, primary mound floor and primary mound fill burials were all common. The only consistency in burial regime was the placement of the corpse near the "heart" of the effigy (Stevenson et. al. 1997). Though many excavated Late Woodland mounds contain burial features, not all do. This has led several researchers to suggest that the importance of the mounds lay in the process and ceremonies accompanying their construction, and not only in their use as burial markers (Mallam 1976).

Recent research suggests that there are patterns to the distributions of certain types of mounds that indicate an east to west geographical division (Christiansen n.d.; Rosebrough, n.d.). This division seems to reflect differing terrain, resource bases, and perhaps social affiliations and cosmologies. As an example, bear-shaped mounds are more frequently found in the western portion of the state, while the east is dominated by "panther" and "turtle"-shaped mounds (forms similar to historic iconography depicting water spirits). Bird mounds, while found throughout the area occupied by Effigy Mound builders, are most abundant in the higher elevations of the Driftless Area. The association of specific animals with high and low elevations fits within a pan-eastern Native American tradition concerning a tripartite division of the world into the "Upper World" (order, fire, lightning/thunder, warfare, birds), "Middle World" (this world, balance) and "Lower World" (chaos, water, springs and caves, healing and fertility, bears and water spirits) (Birmingham and Rosebrough 2000, Hall 1997; Hudson 1992). Local landscape features also appear to have played a role in the structure of individual

mound groups. "Panther" or Water Spirit mounds are often found near springs and deep lakes, features identified as portals to the underworld in the cosmology of eastern Native Americans (Birmingham and Rosebrough 2000). It appears that the Native Americans who built the effigy mounds were creating a symbolic landscape through the construction of various types of mounds.

#### Terminal Late Woodland (1,100 BP- 800 BP)

Sometime around 1,100 BP, significant changes took place on the landscape of southern Wisconsin. A few ceramic vessels in east central Wisconsin were produced with a distinctive folded rim, which produced the appearance of a "collar" around the pot. Though used in small amounts at first, collared pottery became more popular and replaced the earlier Madison ware entirely by 950 B.P. The resulting **Point Sauble** and **Aztalan Collared** types are the diagnostic hallmarks of the terminal Late Woodland stage. At the same time that this ceramic transition was taking place, maize was introduced into the Late Woodland diet in increasing amounts. By 1,000 B.P. fully horticultural societies had arisen and the first sedentary villages in Wisconsin were occupied (Stevenson et al 1997). Some of these early villages were fortified with post palisades (Salkin 1993). This set of changes signaled the onset of the Terminal Late Woodland in southern Wisconsin. In the eastern part of the state (east of the Driftless Area), the terminal Woodland has been called the **Kekoskee Phase** (Salkin 1987, 1993).

There are strong indications that the socio-political dynamics of southern Wisconsin became more complicated as sedentism took hold and diverse cultural groups either developed within, or moved into, southern Wisconsin. By AD 1050, the terminal Late Woodland town of **Aztalan** was occupied by a group of Cahokian **Middle Mississippians** and **Oneota** settlements were springing up in northwestern, northeastern and southeastern Wisconsin.

#### Mississippian Tradition

#### Middle Mississippian (1000 BP to 750 BP)

Evidence of a Middle Mississippian presence in southern Wisconsin is confined to only a handful of sites, which has led researchers to the conclusion that it is largely an intrusive presence. Middle Mississippian peoples were different from surrounding Late Woodland groups in a number of ways. First, they were a fully sedentary agricultural people depending on maize, beans and squash. Second, they appear to have had a ranked society that was organized around chiefly authority. Third, they constructed monumental architecture that included platform temple mounds, large bastioned palisades and specialized public buildings. Fourth, they utilized a very specialized ceramic technology that included the use of crushed freshwater clamshell as a tempering agent. In addition to this new temper, they also made a wider variety of vessel forms that included jars, water bottles, plates, and bowls that were occasionally slipped with red, black, white or brown pigments. The diagnostic Middle Mississippian



ceramic types are **Powell Plain** and **Ramey Incised**. Lithic technology was based around a generalized core reduction strategy and the typical projectile point was a small, thin, notched or multi-notched triangular point (Christiansen 2000). Middle Mississippian peoples, or at the very least, ideas, were present in southern Wisconsin sometime between A.D. 1000 and A.D. 1050. It is thought that Middle Mississippian people took at least two routes north, one to the west along the Mississippi River trench and a second from Illinois via the Rock River. The eastern route brought Middle Mississippian peoples into contact with Late Woodland Kekoskee Phase people who had already settled at several locations. It appears that some type of relationship was established with these people and the small village of **Aztalan** metamorphosed into a 22-acre mixed Kekoskee/Middle Mississippian village with three platform mounds. Middle Mississippian presence is seen at several other sites in the form of trade goods and locally made imitations of Powell Plain and/or Ramey Incised. Evidence for a Middle Mississippian presence in Wisconsin ceases shortly after A.D. 1250 when portions of Aztalan were apparently burnt (Christiansen 2000).

#### Oneota (1000 B.P. to 400 B.P.)

Some Late Woodland communities appear to have adopted elements of Mississippian material culture and ideology, and evolved into a group of related cultures termed the **Oneota**. Oneota peoples adopted many elements of Mississippian material culture, including the manufacture of smooth surfaced, shell-tempered pottery decorated with trailed geometric and curvilinear motifs, and a heavy reliance on maize horticulture. Like the terminal Late Woodland peoples of eastern Wisconsin, they inhabited large, sometimes fortified, sedentary villages. Oneota material culture was variable, due in part to the differing responses of local groups to Mississippian ideology and technology. The geographic distribution of Oneota villages was discontinuous, as not every Late Woodland stage group accepted new ideas (Christiansen 1999, Overstreet 1997).

The sudden pre-occupation with fortification systems that developed with the emergence of sedentary societies may be due in part to the close proximity that the culturally dissimilar terminal Late Woodland, emergent Oneota and Middle Mississippians found themselves in. However, while terminal Late Woodland and Middle Mississippian sites in the area are frequently fortified, only a single fortified Emergent Oneota site has been noted to date.

Subsistence revolved around fishing, shellfish harvesting, hunting and trapping of aquatic mammals and a horticultural system involving corn, beans and squash. Shell middens, shellfish processing areas, garden beds and rock piles produced during field clearance are common both near and within habitation areas. Wild mast crops, such as hickory, walnut, butternut, acorn and hazelnut were collected, and there is evidence that deer and elk were hunted (Overstreet 1997).

#### Historic Period



#### Historic Native Americans (400 BP- present)

Oneota culture appears to have persisted into the Historic period, based on excavations at the **Astor site** in modern Green Bay. Items of European manufacture were found there in association with Oneota shell-tempered ceramics. Fragments of brass kettles, a glass bead and a clasp knife were recovered from the site, along with a grit-tempered **Bell Type I** pot (Wittry 1963, Mason 1986b). Bell Type I pottery has been associated with the historic Potawatomi and Mesquakie. The ethnic affiliations of the Oneota communities have not yet been established, but their geographic location and material culture of the eastern Classic Oneota matches early European descriptions of the "**Ouinipigou**" (Winnebago/Ho-Chunk). It appears that Oneota populations had declined by historic contact (presumably due to epidemic disease and an increase in regional conflict) and contact had been established with the Mesquakie, Potawatomi and other groups being pushed westward by disturbances resulting from Euro-American colonization (Hall 1962, Overstreet 1997).

These disturbances, coupled with an increasing reliance on items of European manufacture, resulted in a cessation of pottery and stone tool manufacture. As a result, it is very difficult in most cases to link historic residents of Wisconsin to prehistoric cultural complexes. The association of the Ho-Chunk with the eastern Oneota, though tentative, still remains the strongest to date.

The early Historic period, in a formal sense, is traditionally said to begin in 1634, when Jean Nicolet is believed to have landed at Red Banks on the shore of Green Bay (though Hall and other researchers have questioned whether this location is correct [Hall 1993]). Nicolet had been sent as an envoy to the Ho-Chunk nation with the intent of establishing a peace treaty between their nation and the Ottawa, in order to facilitate the flow of furs into French territory. As competition for those furs between native tribes and European groups increased, warfare and population movement accelerated. War parties from eastern fur-trading tribes began to attack the Ho-Chunk, whom Nicolet had failed to convince of the benefits of trade with the French. These parties carried epidemic diseases with them, and the resulting outbreaks killed nearly two-thirds of the Ho-Chunk (Lurie 1980).

In 1649 the Huron abandoned their traditional lands, opening a passage along the northern shore of Lake Huron and along the islands spanning the straits between Lakes Superior and Michigan and into Green Bay. Pressure supplied by Iroquois raiders pushed refugees such as the Mesquakie, Sauk, Kickapoo, Mascouten, Illinois and Miami eastward into Wisconsin (Mason 1988). Other groups, including the Chippewa and the Huron themselves, moved along the southern shore of Lake Superior on their way eastward.

The Ho-Chunk began a push westward during this period, moving from Green Bay to the Lake Winnebago area. Though their major villages were located in eastern Wisconsin, the Ho-Chunk traveled regularly into the Driftless Area, and across the Mississippi for buffalo hunts. The following decades were witness to the partial recovery of the Ho-Chunk population. By the 1800's, villages and campsites were established across southern Wisconsin. During their period of expansion, the Ho-

Chunk successfully adopted elements of the more mobile Algonquian life style and became prosperous participants in the fur trade (Lurie 1960, 1978). They also began to mine lead in the Driftless Area, putting themselves at the center of a developing regional trade network of raw lead and ammunition (Kay 1977, Spector 1974)). This activity, though economically advantageous in the short-term, inevitably drew the attention of white settlers and led to conflict between the Ho-Chunk and Euro-Americans who wished to claim the lead district for themselves.

In 1829 and 1832, treaties were drawn up calling for the Ho-Chunk to abandon title to the lead district and relocate west of the Mississippi. A third treaty, drafted in 1837, stipulated removal of the Ho-Chunk to Iowa from their remaining territory in Wisconsin. The Ho-Chunk, suffering through another round of catastrophic epidemic disease, largely ignored these treaties, and the U.S. government began a series of forced relocations in 1840's (Lurie 1980). Many of the deported Ho-Chunk returned to Wisconsin at the first opportunity (settling in the Wisconsin, Baraboo and Fox River valleys) (Lawson 1907). In 1875, the Indian Homestead Act was passed, allowing the Ho-Chunk to remain in Wisconsin by purchasing homesteads. These homesteads, located in the poorest areas of the state, served as "home bases" while the Ho-Chunk traveled to seasonal gatherings on the Mississippi River near La Crosse and served as itinerant workers in cranberry bogs, cherry groves and blueberry fields (Lurie 1966, Wyatt 1986).

By the late 1880's, Ho-Chunk settlement was concentrated around Black River Falls, Stevens Point, Tomah and Hatfield, and many homesteaders had lost their lands at the expiration of the 20 year tax-free period on their property. Despite these hardships and upheavals, many Ho-Chunk retained the practice of traveling on a seasonal round, periodically moving to favored winter fishing and hunting grounds. The following years saw a diminishment of this custom, as the Ho-Chunk began to participate in the tourism industry, seek factory jobs and practice commercial agriculture (Wyatt 1986).

Ho-Chunk villages in the Four Lakes region are not documented prior to the 1830's. Prior to that time, Ho-Chunk settlement was concentrated between Portage and Green Bay, and down the Rock River. By 1830, five villages had been established in the Four Lakes area: Old Turtle's village on the north shore of Lake Mendota, the Four Lakes village in the area of modern Tenny Park on the Isthmus, Broken Arm's village on the south shore of Lake Monona, Spotted Arm's village on the south shore of Lake Waubesa and Mammothe's village on the south shore of Lake Kegonsa. By the time of Black Hawk's retreat along the Isthmus in 1832, only the two northernmost villages were still occupied, and a smallpox epidemic had spread through the Yahara and lower Rock River valleys (Brown Mss, Tanner 1987).

## Literature and Records Review



## Methods

The initial literature search for this project utilized a number of archival and database sources. Initial searches were conducted using the Wisconsin Archaeological Sites Inventory located in the office of the Wisconsin State Archaeologist at the State Historical Society of Wisconsin. Site locations and numbers were transferred from Office of the State Archaeologist (OSA) topographic maps, and information concerning precise location, cultural affiliation and prior fieldwork was then recorded for each site within a mile of the project area. An archival search was then conducted using a variety of sources including the Charles E. Brown Manuscripts and Atlas. These two sources were particularly helpful in obtaining information on prehistoric and early historic sites within the project area and within one mile of the project area (Figure 4).

## Results

### Prehistoric Sites

A total of 5 previously reported archaeological sites were identified as being within one mile of the project area. One of these sites, 47DA130 (Eagle Heights Group) is within the project area. The following table provides a summary of the pertinent information regarding these sites.

Table 1: Archaeological Sites within 1 Mile of the Project Area

Site #	Name	T/R/Sec	Quarters	Site Type	Cultural Affiliation
DA 125	Picnic Point Bay Mounds	T7N/R9E/17	NE, SW	Mound Group	Late Woodland
DA 130	Eagle Heights Group	T7N/R9E/17	NE, SE, NE	Mound Group	Late Woodland
DA 131	Black Hawk Country Club Mounds	T7N/R9E/17	SE, NW, SW	Mound Group	Late Woodland
DA132	Warner	T7N/R9E/17	NW, SW	Campsite/Village	Unknown Prehistoric
DA413	Eagle Heights Field	T7N/R9E/16	W, NE	Campsite/Village	Early Paleo-Indian

As mentioned above, the Eagle Heights Group is located within the project area and concern for the well-being of the group forms the primary motivation for the archaeological survey. Information regarding the Eagle Heights Group was first published in *The Wisconsin Archeologist* Volume 8, Number 4 in "Additions to the Record of Wisconsin Antiquities III" edited by Charles E. Brown. Brown describes the site as being a "Group of two tapering and a conical mound on the crest of Eagle Heights, on the west shore of Lake Mendota, Sec. 17," (Brown 1909:120). Although a plat was not published with this reference, the mound group does appear to have been mapped in June of 1909 by Brown and Albert Gilmore ([see Figure 5]C.E. Brown

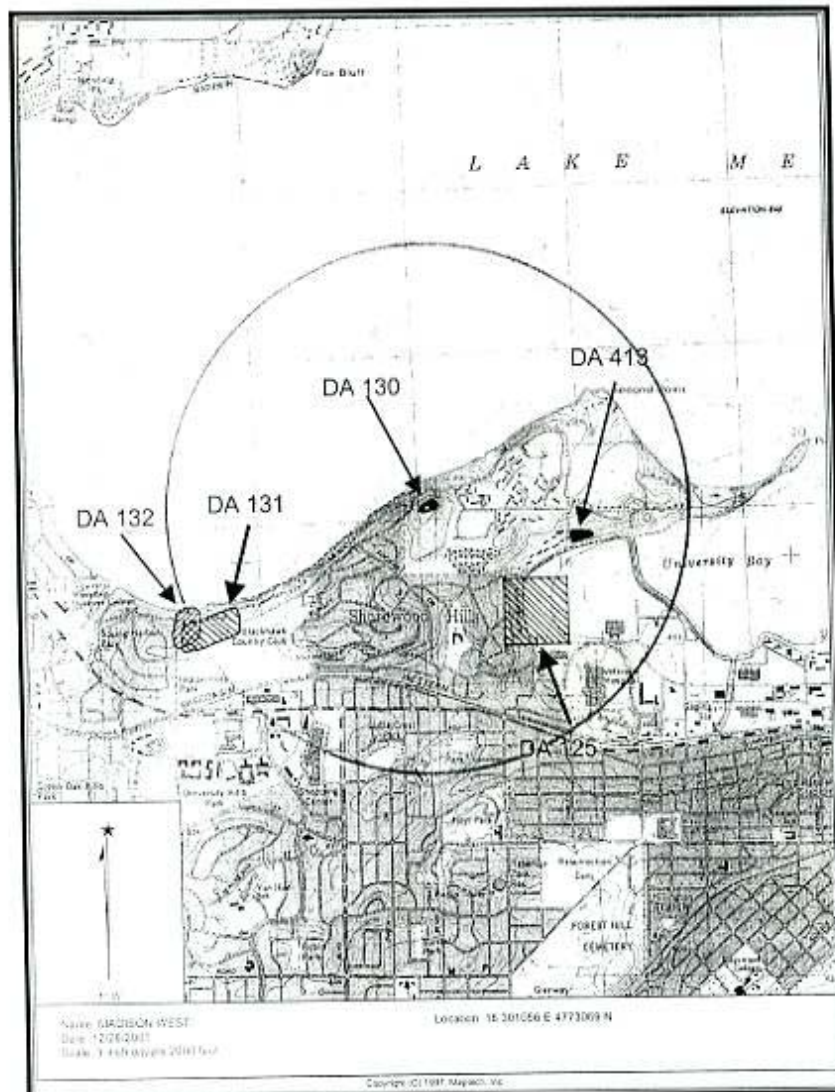


Figure 4: Archaeological Sites within 1 mile of Eagle Heights Woods

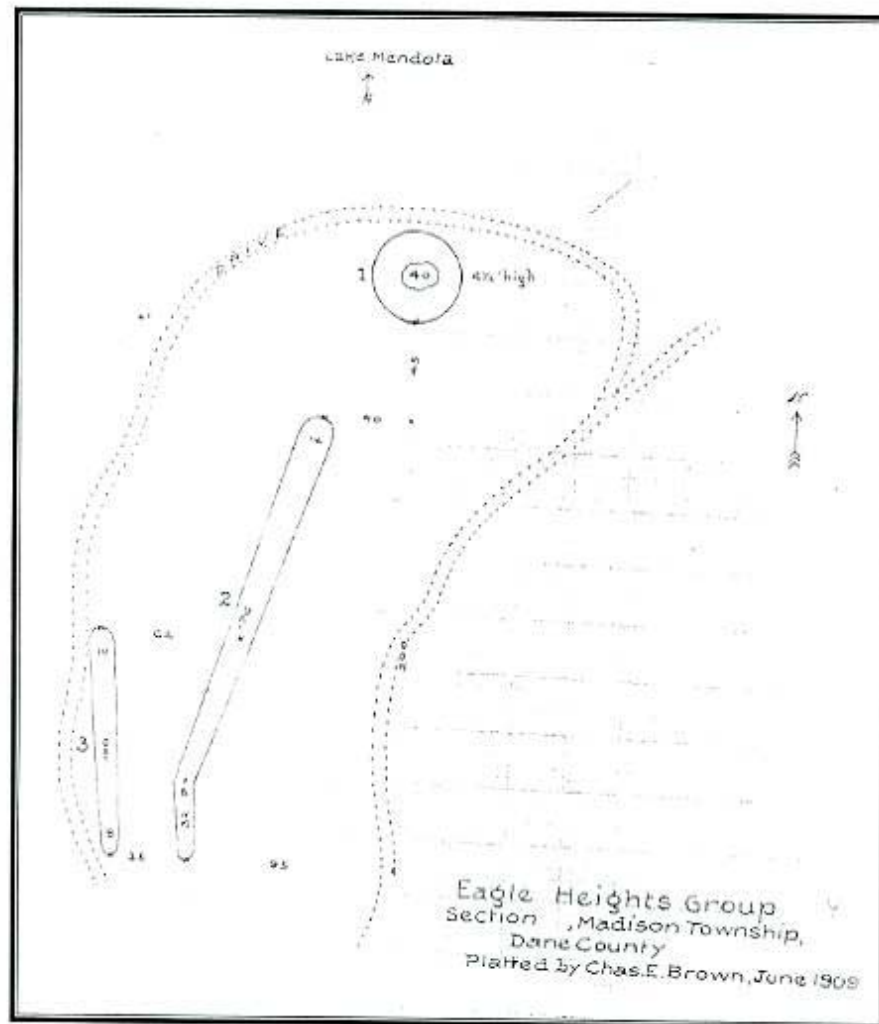


Figure 5: Charles E. Brown's 1909 Plat of Eagle Heights Group



unpublished manuscripts). On the reverse side of the plat, Brown made the following comments:

This group of mounds is located at the southwestern angle of Lake Mendota, on the crest of a high ridge known as Eagle Heights. This crest is said to be about 125 feet above the lake level. A few feet to the north of mound No. 1 the side of the ridge slopes very steeply down to the lake shore. All sides are thickly wooded.

The mounds are encircled by a drive and are surrounded by trees and wild shrubs. Mounds No. 2 and 3 are so overgrown with young trees and shrubs that it was only with difficulty that their outlines could be traced.

Mound No. 1 has been gophered into on several occasions by summer resorters, but not much mutilated. It is plain that their efforts were unproductive of results.

Master Albert Gilmore assisted in taking dimensions of the mounds.

In 1912, Brown published a more detailed account of the Eagle Heights Group in the "Undescribed Groups of Lake Mendota Mounds" (Brown 1912:15-17). In regards to the mound group, Brown wrote:

These mounds are located on the crest of Eagle Heights, a promontory on the south shore of Lake Mendota, and which now forms a part of the grounds of the University of Wisconsin. This crest is said to be about 125 feet above the level of the lake. Its northern side slopes very steeply down to the lake shore. It is thickly wooded on all sides.

The mounds are encircled by a drive. No. 1, the conical mound, lies directly at the edge of the drive. This fine mound is 40 feet in diameter and was formerly 5 feet high. A light depression on its top shows where it has been several times dug into by relic hunting summer resorters of the neighborhood in recent years. Both of the other mounds are of the tapering form. They are partly hidden by young trees and native shrubbery. The larger is 208 feet long and 14 feet wide at the broadest extremity. The smaller mound (No. 3) is 100 feet long and 10 feet in width at its broadest extremity. It lies by the side of the drive but is partly obscured by shrubbery.

It is to be hoped that these mounds will never be disturbed. From the top of the crest a fine view of the lake is to be had.

The Archaeological Site Inventory (ASI) entry for the Eagle Heights Group provides the following description:

The site consists of a group of two tapering linears and one conical mound. Linears are 175 and 100 feet long, the conical is 40 feet in diameter. The lowest linear has a "bent tail."

Additional comments: Map of this group in the UW Planning and Construction (1979:56) places these mounds incorrectly and shows two conicals and one linear instead of two linears and one conical. Correct map is from 1912 in the CEB Mss.

### Historic Sites

Raymer Drive (this history is taken from Brock 1995)

The Eagle Heights area and nearby lakeshore frontage was acquired in 1887 by George Raymer, the publisher of the Madison Democrat newspaper. Raymer, who was also a member of the University of Wisconsin Board of Regents and President for two years, ran an extensive farm at Eagle Heights in the latter portion of the 19<sup>th</sup> and early 20<sup>th</sup> centuries. Sometime after 1887 and before 1890, Raymer developed a system of dirt roads throughout his property, one of which ran up to the high point of Eagle Heights, sometimes referred to as the Eagle's Nest. The north/south road that he built along the eastern boundary of his property from University Bay Drive (then known as Isom Road) to the south shore of Lake Mendota later became part of what the Madison Park and Pleasure Drive Association (MPPDA) later called Lake Mendota Drive. Raymer's drives were privately maintained, but were open to the public.

The road system devised by Raymer, 2 – 3 miles in length (paid for by himself at a cost of \$500 – 600) began at the northern end of Isom Road (a portion of present day Lake Mendota Drive leading to Eagle Heights student housing), followed a course north to what is now known as Frautschi Point (Figures 6 and 7). From there it continued south and west to a point immediately below the mounds on Eagle Heights. From there the road went north up the hill, made a complete circuit around the mounds and then headed southeast. After making a brief jog to the south and then east again, it followed the current course of Eagle Heights Road (due east) and connected with its starting point at the northeast corner of Anna Jansen's property (in 1890).

This path was visited on an annual basis by "...several hundred carriages each summer..." (Raymer 1907) a full five years before the incorporation of the MPPDA. It was largely the popularity of Raymer Drive and several other private drives that led to the creation of the MPPDA and its far more extensive pleasure drives throughout Madison. The MPPDA stemmed largely from the ideas of Edward T. Owen who proposed to build a drive across University Bay marsh to open the Picnic Point/Second Point and Merrill Springs areas to recreational travel. The initial proposal was over 14 miles long and the road was to cross a sandbar in University Bay, connect with Raymer Drive and then pass along the shore to the scenic springs near the Alfred Merrill farm (now Black Hawk Country Club). From there, it would wind south to Owen's farm (now Owen Park and Old Carriage Road Park), then east on Mineral Point Road and through





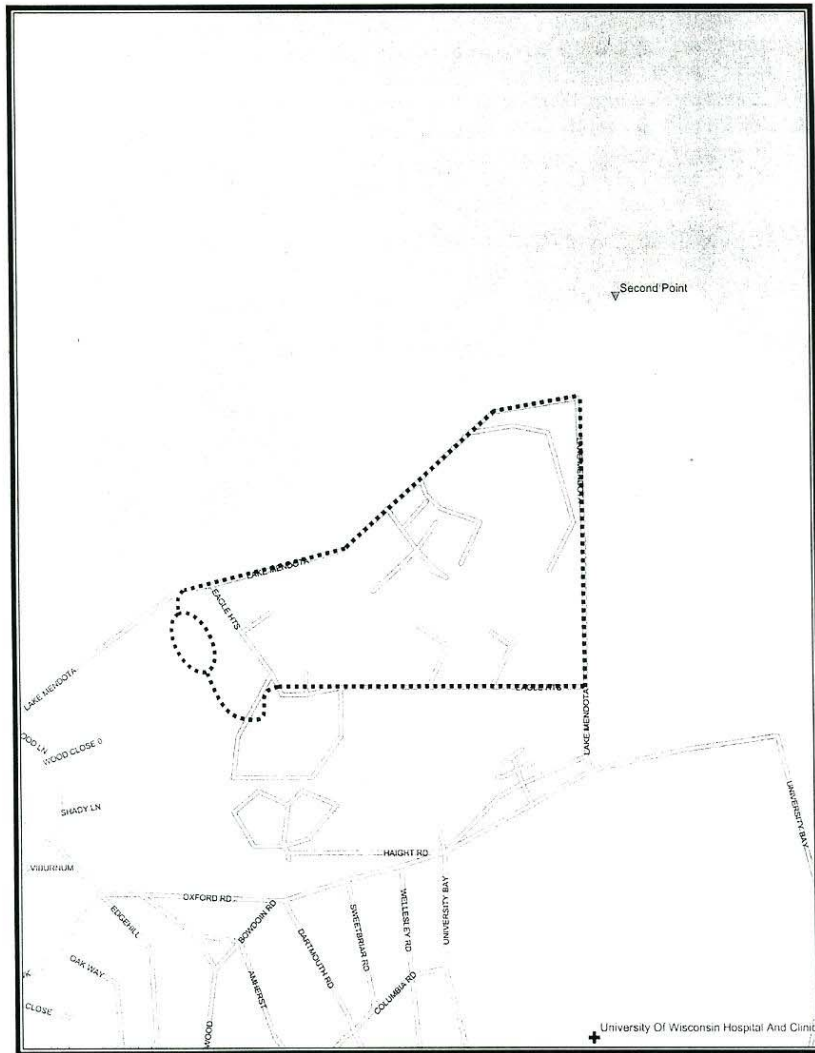


Figure 7: Location of Raymer's Drives to Modern Street Designations

the woods at Sunset Point (now Hoyt Park) to University Heights. A modified version of this plan was open to the public on October 15, 1892. The drive stretched from the western end of the University's pleasure drive (beginning at Willow Creek Bridge) over the marsh at University Bay to Eagle Heights and the Merrill Farm. From there, a new road ran south to the Sauk Road (University Avenue). The details of this drive and others in Madison exceed the scope of this paper and those interested in pursuing the general topic of pleasure drives in Madison are referred to Mattern (1994, 1995), Waldelich (1995), and Broadway (1994).

The University of Wisconsin purchased Eagle Heights from Raymer in 1911 after which he retired and moved to California. The College of Agriculture used most of the Raymer land for research and development until 1939. During the 1920's Charles E. Brown noted that the mounds of the Eagle Heights Group were said to be under the "care" of the Madison Boy Scouts. In 1939, Edward J. Young sold Picnic Point to the University of Wisconsin for \$205,000 and 28-acres that included the Eagle Heights promontory. Young had intended to build a house on top of the hill and in 1948 had a large area of woods cleared for the purpose. However, Young died in 1948 before construction could begin. His widow, Alice Young held unto the property, with the hopes of developing approximately 100 house sites. This never came to pass and the Eagle Heights property was sold to Thomas Brittingham Jr. in 1951. Brittingham donated the land to the University of Wisconsin. The University now manages this area under the guidance of the Campus Natural Areas Committee.

## Archaeological Testing

### *Methods*

Two primary archaeological methods were used in the course of fieldwork: pedestrian survey and shovel probing. Pedestrian survey involved a physical walkover of the project areas where the ground surface was visible. Where multiple transects were required, 5-meter intervals were used. Areas subjected to disturbance by modern construction activities and areas with slopes greater than 15% were visually inspected.

The second method involved the excavation of small tests 30 centimeters in diameter to a depth of 50 centimeters. These tests were excavated at 10-meter intervals where conditions warranted. Proveniences were kept through a process of designated shovel test transects and numbered tests within those transects.

The vast majority of the surface of the portion of Eagle Heights Woods that was examined was not visible due to fallen leaves. Therefore, shovel testing was utilized heavily throughout the project area. A series of shovel tests were placed around the top of the hill at 10-meter intervals. Utilizing these shovel tests as a baseline, transects were extended to the south from these tests to encompass the entire top of the hill (Figure 8).



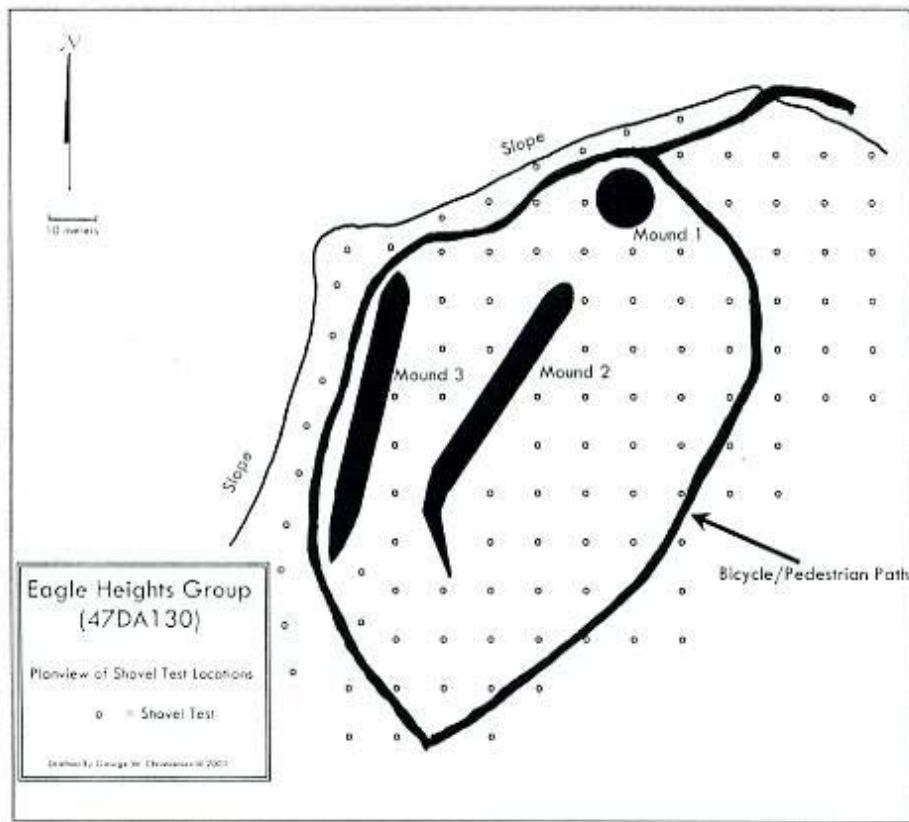


Figure 8: 2001 Plat of Eagle Heights Group with Locations of Shovel Tests

## **Results**

### ***Raymer Drive***

Preliminary fieldwork on the Eagle Heights promontory commenced in May of 2001 with a cursory pedestrian survey prior to the emergence of the under-story foliage. It became clear after archaeological testing in November of 2001 that the currently extant path that encloses the Eagle Heights Group is only partially a dirt path. There are numerous areas where asphalt and coal ash are emerging on the surface as well as contexts that are buried. These materials suggest that the current path runs roughly on the same alignment as the original 1890's/early 1900's Raymer Drive.

As such, the Eagle Heights promontory and Raymer Drive may represent significant properties under National Register of Historic Places Criterion A: Event (properties can be eligible for the National Register if they are associated with events that have made a significant contribution to the broad patterns of our history), Criterion B: Person (properties may be eligible for the National Register if they are associated with the lives of persons significant in our past) and Criterion C: Design/Construction (properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction).

At this time Archaeological Research, Incorporated recommends that the hiking path in Eagle Heights Woods undergo a Determination of Eligibility for inclusion on the National Register of Historic Places. This process would allow for evaluation of the property within its appropriate local, state and national historic context as well as provide an opportunity to evaluate the integrity of the resource.

### ***Eagle Heights Group (47DA130)***

The primary reason for the 2001 Eagle Heights survey was to provide options to the University of Wisconsin – Madison for the re-location of the current hiking path away from the Eagle Heights Group. Although the Eagle Heights Group is not a "cataloged" burial site (i.e. it has not been surveyed by a state certified land surveyor), the University of Wisconsin has expressed interest in moving the paths to a minimum safe distance of 5 feet from the mounds. In order to provide areas where re-location of the trail will not damage other potentially significant archaeological sites, shovel testing was undertaken over the 2.5-acres that surround the trail and mound group.

The first task was to make a current map of the Eagle Heights Group mounds (Figure 8). To that end, a Brunton Pocket Transit and tape were used to map the dimensions of the mounds and their relative positions to each other and the current trail system. Upon completion of the map, a total of 131 shovel tests were excavated at 10-

meter intervals over the entire area with the exception of the mounds and a five-foot buffer zone around the mounds. All tests were negative revealing an absence of cultural material on the promontory surrounding the mounds.

At this time, there does not appear to be any archaeological issues limiting decisions that the University of Wisconsin might make regarding the realignment of the current trail system in the vicinity of the Eagle Heights Group. We do, however recommend that the Eagle Heights Group (47DA130) be formally cataloged and the mound group undergoes a Determination of Eligibility for inclusion on the National Register of Historic Places.

## Summary and Recommendations

Archaeological Research, Incorporated conducted a Phase I archaeological survey of a 2.5-acre area surrounding the Eagle Heights Mound group in Eagle Heights Woods on the University of Wisconsin – Madison campus. Campus land managers were concerned that the proximity of a hiking path to this prehistoric cemetery area might be causing damage to prehistoric and historic archaeological resources. Results from this survey will assist land managers with relocating the path to provide improved site preservation.

An updated plat of the Eagle Heights Group was made in addition to the excavation of 131 shovel tests placed throughout the uppermost portion of the hill. All shovel tests were negative indicating a lack of prehistoric cultural material in the vicinity of the mounds. Historic literature search and pedestrian survey indicate that the current trail system is placed roughly on the same alignment as Raymer Drive, one of the earliest segments of what was to become the Lake Mendota Drive segment of the Madison Park and Pleasure Drive network. ARI believes that the intact portion of Raymer Drive may be significant under Criterion A, B, and C of the National Register of Historic places and should undergo a Determination of Eligibility.

We make the following recommendations at this time:

1. **Trail Relocation.** Portions of the hiking path that encircles the Eagle Heights Group should be moved away from Mounds 1, 2 and 3 where it encroaches on the five-foot buffer zone. The path should be moved from the northern portion of conical Mound No. 1, from the northern end of linear Mound No. 2 and from western edge and southern end of Mound No. 3.
2. **Trail Reconstruction.** Care should be taken in relocating the trail segment such that any intact portion of Raymer Drive not be impacted by the creation of a new trail.
3. **Mound Group Cataloging.** Qualified surveyors under the supervision of qualified archaeologists should survey the Eagle Heights Group and the site



should go through the cataloging process so that the mounds are afforded the maximum extent of protection from the State of Wisconsin.

4. **Determination of Eligibility.** The Eagle Heights Group should undergo a Determination of Eligibility for inclusion on the National Register of Historic Places. The mounds are to a large degree undisturbed and are likely to be significant under Criterion D (the potential to reveal information important to regional prehistory).
5. **Determination of Eligibility.** The portion of Raymer Drive that is located within the Eagle Heights Woods should also undergo a Determination of Eligibility for inclusion on the National Register of Historic Places. This segment predates Lake Mendota Drive segment of the Madison Park and Pleasure Drive Lake Mendota Association and was in part, the impetus for the creation of the park and pleasure drive system in Madison. A significant local individual, George Raymer, was responsible for the development of this public facility.
6. **Campus Wide Survey.** A campus wide archaeological survey is needed for the UW-Madison. Based on the results of the 2001 Picnic Point survey, the Eagle Heights Woods survey, the Howard Temin Lakeshore Path survey, and the 2000 survey of the Wingra Woods in the Arboretum, and the extensive literature searches conducted for these four surveys, it has become obvious that there are numerous archaeological resources on University of Wisconsin property, many of which have not yet been discovered. Of the sites that are known, many are poorly documented with inadequate legal descriptions and poorly defined boundaries. It is grievous to note that many of these sites have been damaged, destroyed or otherwise mutilated by unchecked and unsympathetic developments since the founding of the University. A campus wide survey would aid in responsible facilities development, provide numerous educational opportunities for the student body and the general public and foster better relationships between the University of Wisconsin and both local (Native American tribes, concerned student groups such as *Wankshiek*) and global academic communities.
7. **Cultural Resource Management and Stewardship.** Based on the volume of archaeological and historic resources located on the Madison campus, we recommend that the University of Wisconsin seriously consider the formation of an advisory group or position to address and aid in prehistoric and historic cultural resource management and stewardship issues. Such an advisory group should have a composition that includes at least one qualified (qualified in the sense that they meet the Secretary of the Interiors standards and are familiar with cultural resource management laws, rules, guidelines etc.) archaeologist, a qualified architectural historian and personnel familiar with the needs of the University. This advisory group would be responsible for the creation and

implementation of a management plan that would emphasize the protection of all archaeological sites on University property and the development of selected resources for public outreach.

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