

December 16, 2015

Ms. Amy Scanlon
Historic Preservation Planner
City of Madison
Department of Planning and Development
215 Martin Luther King Jr. Boulevard
P.O. Box 2985
Madison, WI 53701

Dear Ms. Scanlon,

This letter is to notify you that an adequately documented nomination for the following property located in the city of Madison has been received by our office for nomination to the National Register of Historic Places:

Willow Drive Mounds Habitation Site Complex (North End of Willow Drive)

In accordance with "Procedures for the Certification of Local Government in Wisconsin" you are being provided a copy of this nomination for the Landmarks Commission's review and comment regarding the eligibility of this property for listing in the National Register of Historic Places.

If the Commission has comments or recommendation regarding the eligibility of this property to the National Register please forward those to Mayor Soglin, in accordance with the Certification of Agreement between the City of Madison and the Wisconsin State Historic Preservation Review Board.

If you have any questions regarding this matter, please contact me at (608) 264-6501 or by email at peggy.veregin@wisconsinhistory.org.

Sincerely,

Peggy Veregin

National Register Coordinator



The Honorable Paul Soglin 210 Martin Luther King Jr. Blvd. Room 403 City-County Building Madison, WI 53703 December 16, 2015

Dear Mayor Soglin,

This letter is to notify you that an adequately documented nomination for the following property located in the city of Madison have been received by our office for nomination to the National Register of Historic Places:

Willow Drive Mounds Habitation Site Complex (North End of Willow Drive)

In accordance with "Procedures for the Certification of Local Government in Wisconsin" a copy of this nomination has been transmitted to the Madison Landmarks Commission for review and comment regarding the eligibility of this property for listing in the National Register of Historic Places.

The report of the Commission will be forwarded to you for your recommendation regarding the eligibility of this property to the National Register. The Commission's report and your recommendation should be transmitted to our office within 60 days of the Commission's receipt of the nomination, in accordance with the Certification of Agreement between the City of Madison and the Wisconsin State Historic Preservation Review Board.

If you have any questions regarding this matter, please contact me at (608) 264-6501 or by email at peggy.veregin@wisconsinhistory.org.

Sincerely,

Peggy Veregin

National Register Coordinator

cc: Amy Scanlon, Preservation Planner, Madison Landmarks Commission

Collecting, Preserving and Sharing Stories Since 1846

NPS Form 10-900 OMB No. 10024-0018

Wisconsin Word Processing Format (Approved 1/92)

United States Department of Interior National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property		
historic name Willow Drive Mounds and Habitation Site Complex		
other names/site number Creek Group, Willow Drive Creek Group, 47DA119 -	Willow I	Drive Mounds, 47DA124
2. Location		
2. Location		
street & number North end of Willow Drive city or town Madison state Wisconsin code WI county Dane co	N/A N/A le 025	vicinity
		-
3. State/Federal Agency Certification		
request for determination of eligibility meets the documentation standards for registering p Historic Places and meets the procedural and professional requirements set forth in 36 CFI X meets _ does not meet the National Register criteria. I recommend that this property be c _ statewide _ locally. (_ See continuation sheet for additional comments.) Signature of certifying official/Title	Part 60.	In my opinion, the property
State or Federal agency and bureau		
In my opinion, the property _ meets _ does not meet the National Register criteria. (_ See continuation sheet for additional comments.)		
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Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Name of Property

County and State

8. Statement of Significance

(Mar	icable National Register Criteria k "x" in one or more boxes for the criteria fying the property for the National Register listing.)	Areas of Significance (Enter categories from instructions)
_ A	Property is associated with events that have made a significant contribution to the broad patterns of our history.	ARCHAEOLOGY/Prehistoric RELIGION ART
_ B	Property is associated with the lives of persons significant in our past.	
_C	Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components	Feriod of Significance 5000 – 400 BC 500 BC – AD 1200
<u>X</u> D	lack individual distinction. Property has yielded, or is likely to yield, information important in prehistory or history.	Significant Dates
	ria Considerations c "x" in all the boxes that apply.)	
Prope	erty is:	Significant Person
<u>X</u> A	owned by a religious institution or used for religious purposes.	(Complete if Criterion B is marked) N/A
_ B	removed from its original location.	
_ C	a birthplace or grave.	Cultural Affiliation
<u>X</u> D	a cemetery.	Middle and Late Archaic Stage
_ E	a reconstructed building, object, or structure.	Woodland Tradition
_ F	a commemorative property.	Architect/Builder
_ G	less than 50 years of age or achieved significance within the past 50 years.	

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

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Baraboo

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Name of Property

County and State

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title

Gary Brown, Facilities Planning and Management, UW-Madison

organization

Board of Regents, University of Wisconsin System

Date

7/27/2015

street & number

1220 Linden Drive

telephone

608-263-3023

city or town

Madison

state WI

zip code

53706

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 1

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

Description

The Willow Drive Mounds and Habitation Site Complex (WDMHSC) consists of two previously identified archaeological sites. The first is 47DA124, a multi-component habitation site with Middle Archaic stage (5,000 – 1,700 BC), Late Archaic stage (1,700 BC – 400 BC), Early Woodland Lake Farms phase (ca. 250 BC – AD 100), Middle Woodland stage Waukesha and/or Millville phase (AD 100 – 400) and Late Woodland Horicon phase components (ca. AD 700 – 1000). The second is 47DA119 – Willow Drive Mounds, an effigy mound group consisting of five burial mounds most likely built during the period AD 700 to 1000. The site complex is located largely on and around a former Lake Mendota beach ridge on the south shore of Lake Mendota on the University of Wisconsin – Madison main campus (Figure 1).

The site complex lies along the crest and downslopes of the east-west trending beach ridge immediately east of the Willow Creek outlet (Figure 2). Willow Creek (formerly called University Creek) drains 3.15 square miles of the west side of the City of Madison and empties into the eastern side of University Bay and its associated headland marsh. Dry land located between the creek and the University Bay Marsh harbored an archaeological site (47DA1236), which has since been damaged by soil borrowing and growth of campus facilities. The Willow Drive Mounds and Habitation Site Complex overlook Lake Mendota to the north and Picnic Point across the bay to the northwest. Picnic Point contains a number of related archeological mounds and habitation sites (Christiansen III 2005; Christiansen III and Cain 2001).

Early 20th century investigations of the Willow Creek area by Charles E. Brown suggest that prehistoric artifacts were found in the nearby cultivated fields, which have since been developed with buildings, parking lots, sidewalks, etc. Although the Willow Drive habitation area was undoubtedly substantially larger, its original extent can no longer be discerned. Prehistoric settlement activities may have extended along Willow Creek toward an inland mound group (47DA126) several hundred meters to the southwest (approximately the location of the United States Department of Agriculture's Forest Products Laboratory buildings) (Figure 3). The western boundary was effectively the original channel of Willow Creek, beyond which was the formerly much larger University Bay Marsh. The low-lying marsh area precluded habitation, but not human activities, westward other than on a sandy knoll where 47DA1236 was located and possibly along the lakeshore where the poorly defined 47DA1245 was reported. Both 47DA126 and 47DA1236 were destroyed by development in the 20th century. The north boundary of the Willow Drive habitation would have been determined by the south shore of Lake Mendota. Associated occupations could have extended eastward on level land along the south shore of Lake Mendota for several hundred meters until reaching the steep north facing slopes of Observatory Hill and Muir Woods, which drop directly to the lake (approximately at present day Parking Lot 34).

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 2

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

A few hundred meters to the east of the Willow Drive Mounds were three linear mounds designated the Picnic Grove Mounds (47DA120), one of which was plowed down before 1912; the other two were destroyed during the 1938 construction of Kronshage Hall.

Since the end of World War II, the university has expanded westward from the Bascom Hill area and developed much of the old agricultural farm. In 1959 the university opened a four-building dormitory complex along the shoreline a short distance east of the Willow Drive Mounds. The building complex, informally called the Elm Drive Dorms, included three residential dormitories and a single food service building (Feldman 1997:307-308). The former food service building was demolished in 2011. The remaining buildings (east to west) are currently named: Bradley Hall, Vel Phillips Hall and the Goodnight Hall. To the south of the mounds the university constructed the Gymnasium-Natatorium in 1962 (Feldman 1997:345-347) over one of the former university farm fields where artifacts had been found (Figure 4). In the fall of 2012 a new residence facility, DeJope Hall, opened just to the south of Goodnight and Phillips Halls. Although construction between 1959 and 2012 around Willow Drive Mounds and Habitation Site Complex has been extensive and, on occasion, invasive, the area that contains the mounds was left intact, and in the process, preserved portions of the habitation area. Minor impacts to the mounds and habitation site did occur in the late 19th and early 20th centuries including: construction of a lakeshore farm and carriage drive; use of the eastern portion of the site for a hog pasture in the 1920s and a chicken yard in the 1930s; construction of a few small storage sheds, and the creation of a golf putting practice green. At least one of two small sheds and a service drive were constructed adjacent to the mounds sometime prior to 1937 as it appears in photographs taken between 1935 and 1937. These two sheds, one built on a cement slab and the other on the ground surface, as well as the service drive, were removed recently using methods to minimize ground disturbance.

Environment and Setting

The appearance of the site during the period of significance is unknown. GLO surveyors documented the presence of an extensive marsh at the confluence of Willow Creek with Lake Mendota to the east of 47DA124/47DA119 that was dominated by "nearly all marsh growth" (Lyon 1834). To the south of the site along the section line between Sections 15 and 16, Lyon reported black and burr oak (Lyon 1834). This suggests that at the time of initial mapping, the area was an ecotone between marsh/lake settings and savannah. During the periods of significance, south-central Wisconsin experienced periods of increased precipitation coupled with cooler temperatures which led to the expansion of oak forests into a more closed mesophytic forest type (Winkler 1988). Currently vegetation within the WDMHSC is being managed primarily as a restored open oak savanna-scattered burr oaks and native grasses and forbs.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 3

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

History of Investigations

The earliest known survey of the Willow Drive Mounds and Habitation Site Complex is attributed to T.H. Lewis who mapped the mounds on October 2, 1888 (Lewis 1888). This survey was never published and Lewis never translated his notes into a formal map. Lewis sketch mapped and numbered four mounds: a goose-shaped bird effigy (No. 1), one conical (No. 2), and two effigy mounds with unusual shapes (Nos. 3 and 4) (Figure 5). He also mentioned that there was one more mound shaped like Mound No. 3, but does not provide measurements or its location relative to the other mounds. It is not clear why Lewis did not include more information about the fifth mound in his notes or sketch map, but in other instances, Lewis omitted mounds that were under cultivation or had been otherwise effaced. No contemporary maps (circa 1888) exist for the area of the site complex, but an earlier 1870 map of the University Farm suggests that the mounds area may have been uncultivated at that time (see Figure 6). Based on Lewis' notes and maps, the four mounds he recorded were arranged in an east-west orientation with the goose at the west end facing the University Bay Marsh (Figure 7). Lewis placed a small conical immediately east of the bird mound tail followed by the irregular mounds.

There are no additional published maps or mention of the Willow Drive Mounds until 1909 when Charles E. Brown included a brief description of the site in his third "addition" to the "Record of Wisconsin Antiquities" in *The Wisconsin Archeologist*. That reference simply reads "Group of three effigy mounds in wooded pasture and on the Pleasure Drive east of the creek on the Wisconsin University grounds" (Brown 1909a:120). He did not include a map of the mounds in that summary, but apparently had platted the group on June 25 of that year (Figure 8) (Brown 1909b). That map shows a portion of the shore of Lake Mendota to the north and a meandering creek to the south of the bird mound a "low creek bottom cornfield" to the south of the effigies. In addition to the mounds, Brown also provided a vague description of a camp and workshop site in an adjoining cultivated field near the mounds (Brown 1909a:120).

Brown's 1909 map reveals damage to the group from the construction of a turn-around loop along the drive. The loop had cut off the tip of the northern wing of the bird, which Brown recognized was bent like that of a goose. The southern wing had been reduced to a nub. Brown mapped the loop as cutting across the tail of the bird mound, but it is more likely that his cut off portion of the tail represented the eastern third of Lewis' conical mound. Consequently, Brown never realized there were originally four mounds at this group. His 1909 map did show the irregular effigies to the east, but these also had been modified since Lewis' 1888 map.

By 1909 the middle effigy, which Lewis had mapped as having distinct projections at its eastern end and numbered Mound No. 3, had become a tapered mound with an indistinct lobe projecting to the north from its eastern end. The southern horn-like projection that Lewis had mapped on this mound

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 4

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

was not observed by Brown. The eastern-most effigy, Mound No. 4, still resembled a panther in 1909, with an extra projection on the back side. However, Brown's 1909 map shows that the tip of the tail of this effigy had been scraped away and the sod piled along the northern side.

A few years later Brown (Brown 1912:9-10) published a more detailed account of the mounds and a version of his 1909 map of the Willow Drive Mounds, designating them "University Group No. 3" (Figure 9). Apparently unaware of Lewis' 1888 map, Brown referenced all three mounds as being of "curious" form and described recent damages. Brown's Mound 1 corresponded with the goose at the west end of the group, which was at that time surrounded by a dense stand of conifers. He listed the dimensions of the body as 100 feet long by 20 feet wide and two feet high, but this included the cut off tail that was almost certainly Lewis' conical mound.

Brown's 1912 description of the two other mounds in the wooded pasture to the east of the goose/conical termed them as unusual tapering forms. He recognized a projection on the north side of the eastern end of the 52 foot long middle mound (Mound No. 3). That projection likely represents the deflated northern "horn" illustrated by Lewis on the middle effigy 21 years earlier. Brown's plat of the eastern-most mound (Mound No. 4) is fairly similar to the panther-like shape recorded by Lewis although Brown did not suggest this as a possible effigy. He did record its length at 133 feet and noted that sod had been removed from one of the "extremities" thereby "mutilating" the mound. Brown concluded his 1912 description by stating that, at the request of the Wisconsin Archeological Society, wooden signs had been placed at the mound site. By 1922, the Board of Regents authorized the placement of a bronze plaque at the mound group then called the "University Creek Group" (Baerreis 1966:105). In a 1931 pamphlet of campus landmarks Brown designated these as the "Willow Drive Mounds" (Brown 1931).

In 1928, Brown visited the site area with his son Theodore and described a "wigwam" site in the "former University grove on the Lake Mendota shore near the University Creek mound group" (Brown and Brown 1928). They reported that a section of the grove about 75 feet from the lake had been fenced that year for a hog yard. Viewing the site from outside the fence, Brown noted that the hogs had rooted up the forest sod exposing hearthstones.

In 1935 Brown directed a team of university students, alumni and members of the Wisconsin Archeological Society in excavations of the bird mound (Brown 1935). Brown's unpublished fourpage report form noted that the bird mound's body was 75 feet long and 23 feet wide, with a wingspan of 90 feet and a height ranging from 2.5-4 feet at the time of the May 31 and June 1, 1935 excavations. Thus, between 1909 and 1935, the length of the bird was seemingly reduced by 25 feet. This may be accounted for by the exclusion of the cut-off tail or Lewis' small conical in the 1935 documentation. In addition, the southern wing of the bird mound had been rebuilt between 1912 and 1935, but neither this nor the northern appendage retained any semblance of a bent wing.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 5

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

Brown also noted that there was a line of spruce trees planted down the center of the bird mound and that their presence influenced the decision to excavate four pits between the trees in order to avoid the roots. These pits measured 5 feet x 9 feet (45 square feet), 5 feet x 13 feet (65 square feet), 6 feet x 12 feet (72 square feet), and 9 feet x 14 feet (126 square feet) for a total of 308 square feet (Figure 10). Several photographs of the 1935 excavation are preserved in the Charles E. Brown photographic collections in the Wisconsin Historical Society Archives, and two of these show the bird mound in the midst of a group of spruce trees on the mound (Figure 11). The total area of Mound 1 as depicted by Brown was approximately 2,157 square feet. Therefore, Brown's crew excavated approximately 14% of the mound.

Each of the excavation pits was taken to "the surface upon which this mound was constructed" (Brown 1935), which suggests that the surface coincided with the pre-mound ground surface (and habitation area) rather than a prepared surface where the original topsoil might have been removed. Brown indicated that soil toward the head consisted of a sandy clay loam, while the remainder of the body was loam and clay. The fill throughout each of the four excavation pits contained a variety of artifacts (fire-cracked rock, hammer and smoothing stones, flakes, pre-forms, stemmed and notched points, ceramic sherds, and charcoal) that he interpreted as habitation refuse.

His report includes a page with drawings (possible tracings) of nine chipped-stone implements, including four projectile points, four bifaces, and one apparent platform core, and he described the color of the flint for each (Figure 12). The points include two side notched varieties, which can now be affiliated with Middle to Late Archaic styles such as Raddatz Side Notched. One of these is broken and missing the tip, the other is smaller and may have been re-sharpened. The other two points are contracting stemmed forms, now attributable to the Early Woodland type Waubesa Contracting Stemmed. Brown inferred that all of the artifacts had been "brought to the locality in the soil used in the construction of the mound" (Brown 1935), and "all of this material evidently brought in with the soil from a neighboring camp site" (Brown 1935). While this is likely the case, it is also possible that the artifacts may have been "heirlooms," or objects that had been curated by either the buried person or the group that buried them and then added to the fill or placed with the human remains. Unfortunately, Brown's notes are not adequate to resolve this issue. His report includes a brief description of the lithic waste and pottery, the latter including grit-tempered cord-marked sherds that could represent nearly any Woodland stage, but also apparently two rims. He described one of the rims as being thin, cord roughened, and having diagonal trailed marks. It is not clear if he continued describing that rim with the comment "rim, narrow, flattened on top," or if that referred to a second rim sherd.

Brown described the only burial encountered in the bird mound, which was located in Excavation Pit 4 at the approximate center of the body near the junction of the wings. The remains were in a flexed position with the head to the southwest and Brown interpreted this to be a bundle reburial based on

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 6

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

several missing elements. Adjacent to the cranium was a jaw fragment that was identified as coyote.

Although there is no discussion of it, Mound No. 1 was clearly reconstructed following the 1935 excavations, presumably under the direction of Brown, and the result closely matched the shape depicted on Brown's 1935 map (Figure 13). This reconstruction was apparently done without the benefit of T.H. Lewis' map.

Three decades later, David Baerreis, an archaeologist in the Department of Anthropology at UW-Madison, reviewed Brown's 1935 report and available artifacts at the Wisconsin Historical Society and published his analysis in 1966 (Baerreis 1966:105-115). In doing so, he incorporated comments about the contemporary (1960s) condition of the mounds and artifacts. His opening statement placed the group along the south edge of Willow Drive and immediately east of a bridge over the creek. He also stated that as of 1966 only the bird mound was extant, an observation that almost certainly refers to the fact that the two linear mounds had been largely excavated in 1937.

Baerreis listed the remaining lithic artifacts as consisting of flakes, crude cores and other implements, nine chipped-stone "implements," and one intact core. He also noted that the ceramic assemblage from that excavation was missing. The analyzed implements included a series of diagnostic projectile points, which Baerreis identified according to 1960s typologies and provided measurements (1966:109) and another set of line drawings that compares closely to Brown's 1937 sketch except that the platform core is oriented from the top rather than the side. The points included: 1 Madison Side-Notched, 5 Waubesa Contracting Stem, and 1 Monona Stemmed indicating a Middle to Late Archaic/Early Woodland through Late Woodland presence. Other tools were described as a contracting stemmed bunt and three scrapers (Figure 14).

In addition to Baerreis' analysis, Charles F. Merbs analyzed the skeletal material recovered from Mound No. 1 (Merbs 1966). In addition to a number of measurements, Merbs concluded that the skeletal material labeled UW 1, the single burial recovered from the mound, as being a young (21-25 year old) male that was 64.5 inches tall.

In 1937, Brown obtained Works Progress Administration (WPA) funds to investigate the two other mounds that he was aware of in the Willow Drive Mound group (Brown 1937a, 1937b, 1937c). Brown reported that Mound No. 3 was about the same height (ca. four feet) as Mound No. 4 (Brown 1937a, 1937c). The center of Mound No. 3 was opened with a "broad" trench, which is depicted in one of Brown's photos from the WHS Archives (Figure 15). It is unclear exactly how much of Mound No. 3 was excavated. The photograph of the trench does not have a scale, but there is an automobile, what appears to be a Ford Model A, present in the background. The wheel base for a Model A was approximately 8 feet, and using that as a very approximate scale, it appears that the trench was between 8 and 10 feet wide. If the trench extended the entire length of the mound, it would have had

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 7

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

an area of approximately 660 square feet. Using Brown's 1909 plat of the mound, the approximate area for Mound 3 would have been 1320 square feet. Very roughly then, Brown and his crew excavated approximately 50% of the mound.

Brown's report mentions various discoveries, including a concentration of burned and natural rock on the floor of the mound at a depth of three feet and a distance of 17 feet from the west end. At a distance of 40 feet from the west end, the excavators encountered several human bones, but no cranium. Seven feet further to the east, at a depth of two feet was a flexed burial with a well preserved cranium. Brown drew a sketch of that burial, and photos were taken. That location is toward the east end of this mound at the lower "tail" end of the original effigy. The final discovery in this mound was several bones of a red fox, which may or may not have been cultural inclusions.

Mound No. 4 was excavated between August 2 and September 17 of 1937 (Brown 1937b). Brown does not elucidate his method of excavation other than to say that the mound had been staked off in 10 foot squares. Following the pace of discoveries in the mound based on dates and the associated finds, it appears that individual 10 foot squares were excavated with work beginning in the middle of the mound and then work on the west end followed by work on the east end. Photographs from the excavations do little to clarify the extent of the excavations in the mound. Brown states that excavations began on the 2nd of August and concluded on September 17th of 1937. Given the seven weeks of excavations, it seems likely that the majority of the mound was excavated. As a rough estimate, using the location of features within the mound and considering the length of time that the excavation took, it is possible that as much as 77% of Mound No. 4 was excavated. This figure is based on the overall area of Mound No. 4 which was approximately 3,275 square feet according to Brown's 1937 map and that Brown followed the same methods used in Mound No. 3 which involved trenching the length of the mound. The trench would have to be 20 feet wide.

Brown describes several features, which he numbered and plotted on a map (see Figure 16) and many of these are captured in the photographic collections. Feature 1 was a flexed burial located in the approximate center of the mound. This burial was located at a depth of 3.75 feet below the surface at the original base of the mound or in a shallow pit below the floor. A small corner-notched point was found on the ribs of the individual (Brown 1937b). Brown either sketched or traced the outline of this point on his initial report (Figure 17). That drawing suggests that the point had serrated edges. If the scale of the drawing is representative the point might represent a relatively large Honey Creek Corner Notched point a type considered to be the earliest arrow point in southern Wisconsin and affiliated with the beginning of the Late Woodland stage (AD 700 – 1100) (Boszhardt 2003). The presence of the projectile point on the ribs of the Feature 1 burial may indicate either an offering or the result of trauma.

Brown also drew a sketch of a decorated body sherd that was found near Feature 1 (Brown 1937b).

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 8

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

That sherd was decorated with a series of twisted cord impressions arranged in four parallel lines (Figure 18). Cord impressed decoration is distinctive of the transitional Middle – Late Woodland type Lane Farm Cord Impressed in southwestern Wisconsin or the Late Woodland type Madison Cord Impressed throughout southern Wisconsin. The difference between these two types is whether the cord impressions are placed on a smoothed surface (Lane Farm) or cord-marked surface (Madison Cord Impressed). Brown's drawing and description do not clarify which surface treatment was present on the sherd, precluding definitive identification of the type represented and specific cultural affiliation.

A second flexed burial (Feature 2) was encountered in the center of the head area of Mound No. 4 at a depth of four feet. The head of this individual faced toward the lake. Remains of two other individuals were found at the opposite end of this mound and designated Feature 3. These were interpreted by Brown to have been reburials, perhaps intrusive as they were reached at a depth of only a foot. The bundle consisted of long bones with a cranium at either side. Several flakes and a decorated rim sherd were found in the fill adjacent to one of the crania. Brown drew a sketch of the rim and its profile, (1937a:2) which shows a series of oblique cord-wrap-stick impressions on the exterior surface of the lip and two horizontal rows of cord-wrap stick impressions below (Figure 19). It is not known if Brown's drawing of the rim is to scale, but the profile suggests a relatively thick vessel wall with a slightly extruded and rounded lip. The form and decorative style suggest that the rim is an example of the Middle Woodland type Kegonsa Stamped. As such the sherd almost certainly pre-dates the mound by several centuries and was likely incorporated into Feature 3 as a fortuitous inclusion from adjacent habitation refuse or perhaps it was an heirloom. Brown depicted a line of seven boulders between the Feature 1 and 2 burials, near the center of the mound head (see Figure 16).

In 1995, Midwest Archaeological Consulting (MAC) conducted a Phase I archaeological survey of a large portion of the Willow Drive Mounds and Habitation Site Complex (Karstens and Rusch 1995). They divided the area into four parcels based on ground cover and visible disturbances and utilized a 10 meter shovel test interval to test the entire area from Willow Creek to the Schuman Shelter and from the Natatorium parking lot to the point of land on the south shore of Lake Mendota (Figure 20). A total of 94 shovel tests were excavated.

In sum, a total of 416 artifacts were recovered from 44 positive tests. Karstens and Rusch summarized the investigated site area as containing an abundance of prehistoric artifacts, and that the soils throughout the project area appeared to be largely undisturbed with some areas exhibiting erosion or compaction. Although no diagnostic artifacts were recovered from the shovel tests, the grit tempered pottery indicates occupation during the Woodland Tradition. Of particular importance in the report was the plot of the distribution of select artifact types as shown in Karstens and Rusch's Figure 5 (Figure 21). The distribution of ceramics indicates four clusters of ceramics which may indicate individual activity areas. While the distribution of flakes is somewhat homogenous, two areas of

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 9

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

higher density likely reflect lithic reduction areas. The distribution of what Karstens and Rusch label simply as stone tools mirrors the ceramics distribution lending further support to the idea of discrete activity areas that are spatially segregated. This segregation could be indicative of temporal differences between occupations or just as likely, relatively contemporaneous activity areas.

In 2004, the Great Lakes Archaeological Research Center (GLARC) conducted Phase II archaeological investigations within the Willow Creek site boundaries as part of a campus-wide archaeological study (Christiansen III 2005). Eight one-meter by one-meter test unit excavations were dug within the Willow Drive Mounds and Habitation Site Complex boundaries (Figure 22) with their placement based on terrain and previous investigations (Christiansen III 2005:127). Two units were placed within the former golf practice putting green (Karstens and Rusch's Parcel 1). Four units placed in the wooded area (Karstens and Rusch's Parcel 2) between the Willow Drive Mounds and Howard Temin Lakeshore Path. Two other units were placed in Karstens and Rusch's Parcel 3 north of the lakeshore path and south of Lake Mendota (Christiansen III 2005:127).

In general, all eight test units produced artifacts and soil profiles that indicated that the site was at least 30 centimeters deep in all areas, with at least two units producing artifacts to depths as great as 70 centimeters. In some units (TU's 1, 2/3, 4, 8, and 7) some artifact mixing has occurred in the first 20 centimeters as a result of bioturbation and pedoturbation, as evidenced by the presence of historic Euroamerican materials and pre-Euroamerican contact artifacts in levels 1 and 2. However, when temporally diagnostic artifacts were recovered, as in the case of TU 2/3, some vertical integrity was observed. In TU 2/3 ceramics sherds of the Early Woodland type Dane Incised (Figure 23) were found above a corner-notched projectile point that was typed as a Brewerton Corner-Notched (Figure 23) due to its morphology and the identification of Brewerton Corner-Notched points from the Statz site (Meinholz and Kolb 1997). Of interest, the point was recovered from levels below the Early Woodland Dane Incised pottery. Brewerton points are affiliated with the Late Archaic stage but are generally distributed across the northeastern United States as far west as Lower Michigan (Justice 1987). A Late Archaic affiliation would indicate an age of ca 3500 BP. The soil profile recorded for this unit revealed a well-developed (35 cm thick) A Horizon over an undisturbed B Horizon.

The 2004 test excavations at Willow Drive found largely undisturbed soils, but no subsurface features. The absence of identified pits, hearths, or other short term activity features is likely due to the small excavated sample. Excavations conducted at other nearby sites with Archaic and Woodland components have all produced a limited number of subsurface features (For examples, see Hamilton, et al. 1995; Meinholz and Kolb 1997; Salkin 1986), so it is likely that the Willow Drive Mounds and Habitation will produce features in similar frequencies.

In June 2007, Christiansen returned to 47DA124 to do further investigations in order to clarify the site boundaries; particularly at the eastern end of the site complex (Christiansen III 2007). The 2007

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 10

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

fieldwork consisted of dividing the project area into five parcels that were named for associated buildings within the project area: Goodnight Hall, Friedrick Center, Food Research Institute, Bradley Hall, and Howard Temin Lakeshore Path (Figure 24). Currently (2015) the Friederick Center is named Vel Philips Hall and the building that housed the Food Research Institute has been demolished. Each project area was investigated through shovel testing in 10 meter intervals.

The testing revealed a continuation of the site boundaries for the Willow Drive Mounds and Habitation Site Complex to the east to Elm Drive, however, agricultural and construction activities in the past have disturbed the soils from the former Food Research Institute location east past Bradley Hall to the northern terminus of Elm Drive. A total of 30 shovel tests were excavated of which 20 were positive and produced over 585 artifacts. Soil profiles from shovel testing produced evidence of fill overlying intact soils near Goodnight Hall and Vel Phillips while other shovel tests located along the Howard Temin Lakeshore Path exhibited little disturbance. Unfortunately, the degree of disturbance and the lack of more intensive testing in the areas to the east of Goodnight Hall preclude their inclusion in the proposed National Register of Historic Places boundaries. Additional archaeological testing may yield more information that might make it possible to include other areas in the future.

Summary of Archaeological Research

The archaeological investigations at the Willow Drive Mound and Habitation Site Complex have been conducted over the past 106 years by avocational and professional archaeologists. From the above history, it is possible to make several conclusions that have relevance to the site complex.

Documentation of the mounds within the complex indicates that there were originally five mounds present in the site complex including one bent-wing goose shaped mound, one conical mound, two bifurcated-end linear mound, and one water sprit-like shaped mound. One of the bifurcated-end linear mounds was not documented by Lewis. The earliest and best map of the mounds was made in 1888 by T.H. Lewis and provides a glimpse of the mounds prior to substantial impacts by Euroamerican peoples.

The mounds, especially Mound No. 1, and peripherally Mound No. 2, were damaged by construction of a drive, presumably used for carriages or other vehicles. Brown mentions use of the area by University of Wisconsin – Madison College of Agriculture faculty and students for various purposes and his plat maps show that the mounds had suffered some deflation and loss of delineation of their outlines by the 1930s. During the Depression era, Brown was able to obtain some funding through the WPA to restore the mounds and pursued that opportunity.

Three of the four mounds were excavated between 1935 and 1937 by Charles E. Brown, University of Wisconsin – Madison students, members of the Wisconsin Archaeological Survey and workers from

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 11

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

the WPA. Based on calculations of mound area and what is known of Brown's methods, it is thought that approximately 14% of Mound No.1 was excavated in 1935, approximately 50% of Mound No. 3 was excavated in 1937, and perhaps as much as 78% of Mound No. 4 was excavated in 1937. Mound No. 2 escaped attention by Brown, probably because it had a low vertical profile. Mound No. 2 remains unexcavated and is the only mound of the group that remains unexcavated. Brown's mound excavation technique involved digging large trenches through the middle of mounds when possible. A modified version of this method was used on Mound No. 1 because of the tree plantings on the top of the mound.

Brown's excavations extended from the surface of the mounds to the original pre-mound ground surface beneath the mounds. There is no record of excavations extending below the original ground surface beneath the mounds and Brown's reports are rather specific on that point. This suggests, but does not prove, that the materials reported by Brown are from mound fill rather than intact deposits below the mounds. Photographs of the excavations in progress indicate a high degree of disturbance in at least Mounds Nos. 3 and 4. Because the WPA money was intended for restoration and the mounds do not currently show signs of being excavated, it is clear that Brown and the WPA crew members restored the mounds upon completion of excavations although no details of that work were recorded by Brown. There is no record of exactly how much of each mound was reconstructed.

Archaeological survey conducted by Brown and his son Theodore in the early 20th century and archaeological testing in the early 21st century by Karstens and Rusch and Christiansen indicate that the site complex covered at least 4.16 acres, but was perhaps much larger covering the area from west of Willow Creek to the current location of Bradley Hall and from the Lake Mendota shoreline to the area of DeJope Hall. The original boundaries will never be fully known and it may not have been possible to determine them even in Brown's time given the dense human occupation of the south shore of Lake Mendota on the University of Wisconsin – Madison campus over the last 12,000 years. Research conducted throughout the main campus in 2004 indicates that nearly every elevated location along the shoreline in the campus area has some indication of pre-Euroamerican contact habitation.

The current site boundaries are the result of archaeological survey work conducted throughout the late 1990s and early 2000s. A total of 124 shovel tests and 8 square meters of controlled excavation used to delimit the site and assess the condition of the deposits. Excavations indicate that the site is approximately 30 to 40 centimeters deep throughout much of the area. Vertical profiles in areas around the mounds and east to the Schuman Shelter display a minimally disturbed A soil horizon on top of an intact B soil horizon. Areas to the east of Goodnight Hall are disturbed to a degree, but additional archaeological testing will be required to determine their significance to the proposed National Register bounded area.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 12

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

Records exist for the recovery of over 1100 artifacts from the Willow Drive Mounds and Habitation Site Complex. In the case of Brown's work, he only described certain objects, so the record from his field work is not complete. Where possible, identifications have been made and added to the more complete information recovered in 1995, 2004 and 2007. Artifacts include 583 Prairie du Chien waste flakes, 201 Galena waste flakes, five Burlington chert waste flakes, one white chalcedony waste flake, 17 basalt waste flakes, one Hixton waste flake, seven Blue Mounds Silurian chert waste flakes, 32 flakes of unidentified raw materials, six cores, two Raddatz points, five Waubesa points, one Brewerton Corner Notched point, one Honey Creek point, one Madison Triangular point, one Monona Stemmed/Preston Notched projectile point, five bifaces, two end scrapers, two side scrapers, five utilized flakes, two retouched flakes, one denticulate, one uniface, 118 grit-tempered cord marked ceramic body sherds, 12 grit-tempered smoothed ceramic body sherds, one punctated ceramic body sherd, two cord-wrapped-object decorated ceramic body sherds, four Dane Incised ceramic body sherds, 32 exfoliated grit-tempered body sherds, and 48 pieces of fire-cracked rock.

The diagnostic artifacts recovered indicate the presence of at least five archaeological components. From oldest to youngest, they include:

Middle Archaic stage (6000 BC – 1700 BC) – as evidenced by the presence of Raddatz/Madison Side-notched Points

Late Archaic stage (1700 BC – 500 BC) – as evidenced by Monona Stemmed/Preston points, and a Brewerton Side Notched point

Early Woodland stage (300 BC – AD 100) – as evidenced by Waubesa Points, Dane Incised ceramics

Middle Woodland stage (AD 100 - 500) – as evidenced by smooth surface ceramic sherds and a Kegonsa Stamped rim recovered from mound fill.

Late Woodland stage (AD 500 - 1050) - as evidenced by the presence of effigy mounds, cordimpressed ceramics, and Honey Creek and Madison Triangular points

While sites with that many components and that have such a shallow vertical distribution of artifacts may appear to be mixed, and therefore not eligible for inclusion on the National Register of Historic Places, horizontal artifact distributions at the Willow Drive Mounds and Habitation Site Complex suggest activity areas that would allow for archaeological components to be separated out. For example, while waste flakes were found throughout all of the areas tested, Karstens and Rusch, as well as Christiansen, identified at least three locations where higher densities of flakes could be recognized.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 7 Page 13

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

These locals are suggestive of lithic reduction areas which may reflect community patterning. In another artifact category, four clusters of Native American ceramics were identified. The distribution of stone tools mirrors the clusters of ceramics and this suggests potential patterning reflective of either temporally segregated and/or contemporaneous activity areas.

While the controlled excavation sample size is limited, the vertical artifact distribution in at least one of the test units indicates minimal vertical movement, the best example being in TU 2/3 from the 2004 excavations where a Late Archaic Brewerton Notched point was found in levels beneath Early Woodland Dane Incised ceramics.

Current Features

At the present time, the most obvious features present within the boundaries of the Willow Drive Mounds and Habitation Site Complex are the four earthen burial mounds (Figure 25). Three of the four mounds have been restored to the condition that Brown observed them in 1909 when he made his plat of the mound group. The mounds are oriented roughly west to east with the bent-winged goose mound at the western end of the group followed by a small conical mound, an unusual bifurcated-end linear mound and finally an elongated mound that has some characteristics of what has been defined as a "water-spirit." These mounds are on the western edge of the site complex that extends along and around a beach ridge that runs parallel to the south shore of Lake Mendota from Willow Creek to approximately Elm Drive. The artifact distribution used to delineate the boundaries of the complex is bounded on the west by Willow Creek, on the north by the south shore of Lake Mendota, on the south by Lot 57/Natatorium and on the east by Willow Drive and the DeJope/Goodnight Hall complex and associated parking lots.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section	8	Page	1

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

The Willow Drive Mounds and Habitation Site Complex meets the requirements for inclusion on the National Register of Historic Places under Criteria D. The site complex contains intact prehistoric archaeological deposits and earthen relief sculpture that have the potential to provide important information on prehistoric Archaic and Woodland Tradition chronology, settlement, subsistence, mobility, trade and interaction, culture history, social organization, art and religion in the Four Lakes area of south central Wisconsin. In addition, the effigy mounds meet the registration requirements of the property type, "Late Woodland Mounds" as defined in the Multiple Property Documentation "Late Woodland Stage in Archaeological Region 8"(Birmingham 1990).

Area of Significance: Prehistoric Archaeology

Middle and Late Archaic Significance

Information regarding Archaic Tradition lifeways in the Four Lakes area of Wisconsin comes largely from the excavation of three open-air multi-component sites, the Statz site (47DA642) (Meinholz and Kolb 1997), the Murphey site (47DA36) (Hamilton, et al. 1995) and the Beach Site (47DA459) (Salkin 1986), and surface finds from other sites in the region including the Horseshoe Ridge Site-47DA325 (Sanborn and Eaton 1980), Havey Site-47DA13 (Nero 1955), the Skare Site-47DA10 (Ritzenthaler 1966), the Johnson Site-47DA15 (Wendt 1985), Stevens-47DA123 (Christiansen III 2001), the Boltz Site-47DA419 (Wendt 1985), the Marquis Site-47DA7 (Maher 1959), the Hurskamp Site-47DA379 (Wendt 1985), the Acker Site-47DA414, the Bollig Site-47DA429 (Wendt 1985), and the Bollweg Site-47DA430 (Wendt 1985).

Three research problems have emerged from the results these excavations that could be addressed by material from the Willow Drive Mounds and Habitation Site Complex. They include: 1) Refining the chronology of Archaic point styles in southern Wisconsin, i.e. clarifying the distribution of various types, investigating the transmission of those point types and exploring the implications of formal and technological stylistic change over time; 2) Elucidating Archaic settlement systems in the region; and 3) revealing subsistence strategies during the period of change from pure hunting and gathering to incipient horticultural practices.

All of the pertinent literature from Wisconsin regarding Middle and Late Archaic materials lament the lack of clarity regarding the definition of various projectile point types and their chronology (Boszhardt 2003; Hamilton, et al. 1995; Meinholz and Kolb 1997; Pleger and Stoltman 2009). At the present time there are debates regarding the validity of certain types (for example Madison Side-Notched and Monona Stemmed), and the duration of certain types (for example Raddatz and Durst

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section	8	Page	2
Section		1 agc	

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

Stemmed). The source of the uncertainty comes from the lack of subsurface provenience with integrity for the various projectile point types. Deposits at the Willow Creek Mounds and Habitation Site Complex have the potential to yield morphological and chronological information regarding the Middle and Late Archaic Raddatz, Monona Stemmed, and Brewerton Corner Notched projectile points from *in-situ* contexts.

The identification of Brewerton Corner Notched points, a rare type in southern Wisconsin, at Willow Drive and at the Statz site raise questions about the distribution of certain types and technologies/styles (corner-notching verses side-notching). Is the presence of this type the result of trade, diffusion of ideas or migration? Additional investigations at the Willow Creek Mound and Habitation Site Complex could address this issue through enlarging the sample, careful metric analysis of the materials, sourcing of raw materials and tighter chronological control.

Based on excavations at the Statz and Murphey sites, Meinholz and Kolb have suggested that Middle and Late Archaic people utilized the Four Lake Area during the summer and fall and then dispersed into smaller social units and moved to locations within the Driftless Area where populations might take advantage of geologic formations that provide rockshelters and caves (Meinholz and Kolb 1997). The Statz site appears to be a series of lithic workshops where people quarried and worked local lithic resources. The Murphey site appears to be an extraction location, perhaps for nut mast (Hamilton, et al. 1995). If these interpretations are correct, they represent elements of a settlement system that is incomplete. How does Willow Drive fit into this settlement pattern? While marsh edge settings seem to be a preferred settlement location, Willow Drive represents a marsh/stream/open water lake ecotone that provides a different array of resources. Willow Drive Mounds and Habitation Site Complex has the potential to address questions regarding settlement strategies in the Four Lakes area.

Subsistence for Middle and Late Archaic peoples in the Four Lakes area is virtually unknown with the exception of the presence of hickory and walnut shell and unidentified calcined bone fragments from the Murphey site (Hamilton, et al. 1995). Intact subsurface features and middens from Willow Drive could answer questions regarding the role of various resources during a period when hunting and gathering begins to be augmented by horticultural activities such as growing squash.

Early Woodland Significance

The Early Woodland stage in south-central Wisconsin has not received anywhere near the attention that it has in southwestern Wisconsin (see Stoltman 1986, 1990; Theler 1986, 1987) and as a consequence, it is relatively poorly understood. Despite the excavation of several sites with Early Woodland components within the Four Lakes area (Baerreis 1953; Salkin 1986), the Early Woodland has attracted little archaeological attention and continues to be viewed simply as a transitional phase

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section	_8_	Page	3

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

between hunters and gatherers and more horticultural peoples or between aceramic and ceramic bearing peoples. This is unfortunate as the Early Woodland stage is transitional and by definition has the potential to yield insights into the long term effects of the adoption of radical technologies such as ceramic manufacture and agriculture on population levels and socio-political structures.

More culture process oriented research agendas could be addressed with data from the Willow Drive Mounds and Habitation Site Complex. For example, the literature regarding the Lake Farms phase borrows heavily from a culture history paradigm with an emphasis on basic description of ceramic and lithic assemblages. Although there are comparisons drawn between the Black Sand Culture of northern and central Illinois in discussions of the Lake Farms phase, there has been no effort to conduct detailed analysis of ceramic design motifs or compositional studies that might yield results regarding the relationship between the two phenomena. Diagnostic ceramics with good context from Willow Drive could provide insight into culture contact studies in the region.

Salkin (1986) has advocated a settlement pattern for Lake Farms phase that includes lakeshore and wetland exploitation with dispersion to other locations during inclement weather. This model is speculative, based almost solely on research conducted along the major riverways of southwestern Wisconsin, an environment very different from that of the glaciated portions of central and eastern Wisconsin. More extensive excavations at Willow Drive may yield insight into habitation sites and settlement patterns.

Subsistence data has also been relatively difficult to obtain for Early Woodland stage sites leaving a wide gap in knowledge regarding the interface between traditional hunting and gathering lifeways and horticultural practices. The Early Woodland diet in Illinois and other Eastern Woodlands regions indicates an increasing reliance on domesticated native cultigens such as the starchy and oily seeded plants of the Eastern Agricultural Complex. Intact deposits from the Willow Drive Mounds and Habitation Site Complex could potentially yield evidence regarding native cultigens.

The last set of research questions that could be addressed by deposits present at Willow Drive would include the ramifications of the adoption of ceramic and agricultural technologies. No research has been conducted the transition from hunting and gathering societies to agricultural societies in the Upper Midwest. Questions regarding the impact of ceramic technology coupled with the creation and adoption of native domesticates may have had a tremendous impact on the social and political structures of Early Woodland peoples. Issues such as increasing populations (ceramics allowing for the processing of starchy and oily seeds and the creation of foods such as gruel for the weaning of children) and wider resource bases are known to have profound impacts on other peoples. These topics have not been addressed in any fashion in the Upper Midwest and sites like Willow Drive may allow for such research needs to be considered.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 8 Page 4

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

Middle Woodland Significance

The Middle Woodland Stage in the Four Lakes Area is poorly known although there is some evidence to suggest that should be considered part of the Waukesha phase (Salzer nd; Stevenson, et al. 1997). Waukesha phase pottery is characterized by grit tempering and smooth exterior surfaces decorated using a wide variety of techniques. Ceramic types include several indigenous variants of more classic Illinois Havana types. Types such as Kegonsa Stamped and Shorewood Cord Roughened appear to be regional variants of Naples Stamped. Havana types typically associated with the Waukesha Phase include Havana Zoned, 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, and Norton types.

What is known of the Waukesha phase people in the Four Lakes area comes from excavations at the Outlet Site (47DA3) located where the Yahara River exits Lake Monona. Excavations conducted by Whiteford (1949), and Bakken (1950) indicate that Waukesha phase peoples, like their contemporaries in southwestern Wisconsin and Illinois interred their dead in rectangular pits covered by large conical mounds. 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. Further investigations at Willow Creek would add information about apparent Middle Woodland activities including diet, settlement system, an understanding of how these relate to nearly Hopewell burial mounds, and how the habitation remains relate to either the Millville phase (Stoltman 1990) of the Driftless Area or an as yet undefined phase for the glaciated landscape to the east.

Late Woodland Significance

The Late Woodland stage in the Eastern Woodlands was once considered a transitional phase of little interest between the cultural "climaxes" of the Middle Woodland stage (typified by the Hopewell Interaction Sphere) and the Middle Mississippian stage. In southern Wisconsin, this myth has begun to dissipate thanks in large part to recent research involving burial mound shapes, sizes and distributions (eg. Birmingham 2010; Birmingham and Eisenberg 2000; Mallam 1976; Rosebrough 2010, 2014). While this research has been particularly enlightening, it has also focused on only one line of evidence: mounds. This ritualistic and mortuary aspects of the Late Woodland represent only a fraction of Late Woodland lifeways.

While the placement of burial mounds on a landscape represent an element of Late Woodland settlement (perhaps representing fair weather portions of the year and associated population

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 8 Page 5

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

aggregation), aspects of Late Woodland life such as quarrying for toolstone, collection of seasonally available resources and mitigation of inclement weather cannot be addressed through this line of evidence. The settlement system for Late Woodland peoples, in particular Horicon phase peoples or those participating in the Effigy Mound Culture, is relatively unknown. A handful of Late Woodland sites in south-central Wisconsin have been excavated and these sites have largely dated to the latter third of the Late Woodland, what Stoltman and Christiansen III (2000) have characterized as the Final Late Woodland period. These sites post-date AD 1000 and represent largely agricultural people with more sedentary lifestyles. Sites from the Horicon phase are poorly documented, but information from the habitation area of the Willow Drive Mounds and Habitation Site Complex could shed light on issues of mobility, group composition (single families versus multiple families, extended families versus nuclear families) and the role of seasonality in site location choice.

Subsistence evidence has also been sparse for Horicon phase sites. Final Late Woodland period sites have typically produced maize and native cultigens, but little is known of Horicon phase diet. Questions regarding the role of tropical and native cultigens in the diet along with the relationship between hunted/fished resources and increasing dependence on cultivated plants could be addressed with remains from intact contexts at Willow Drive.

It has been noted that burial mounds are not uniformly distributed across the Wisconsin landscape and that certain types of effigy mounds are present in a number of specific localities (Rosebrough 2010, 2014). These localities may represent macro-band territories and as such, the possibility of addressing culture process questions regarding the formation of tribal polities becomes a reality. While effigy mounds are particularly useful for such research, so are ceramic decorative motifs and analysis of toolstone exchange patterns. The recovery of ceramic rim sherds and diagnostic lithic tools can be compared to localities defined by mound distributions to further the understanding of the genesis of what Hayden (1995) has termed transegalitarian (tribal or ranked) societies. These types of analyses will also address issues regarding the amount of interaction across the Wisconsin landscape during the Late Woodland stage.

Areas of Significance: Religion and Art

The Willow Drive Mounds and Habitation Site Complex is eligible for inclusion on the National Register of Historic Places in the areas of artistic and religious significance. Artistically, the earthen relief sculptures at Willow Drive are rare forms that are distinctive to the Four Lakes region and the composition of the mound forms as a group is uncommon. In terms of religious significance, it was used for religious purposes during one of its periods of significance, the Late Woodland Stage.

Three of the four extant mounds of the Willow Drive Mounds and Habitation Site Complex exhibit

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 8 Page 6

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

rare or unique forms. At least 39 mound groups within the boundaries of the area where Late Woodland stage effigy mound construction occurred contained goose shaped effigy mounds (Rosebrough 2010). Of those 39 groups a total of 60 goose mounds are known to have been created. Those 60 mounds can be divided into 12 categories on the basis of mound form. Based on shape, the goose-shaped mound at Willow Drive is most similar to those found in a cluster of four mound groups located within the Four Lakes area that includes Willow Drive (47DA119), Moore (47DA71), Forest Hill (47DA134), and Greenbush (47DA151). It should be noted that the Forest Hill and Greenbush goose-shaped mounds are similar in form, but not identical to the Willow Drive and Moore mounds in that they have extended "necks" that are more than twice the length of their tails. Mound No. 3 has a very distinctive form, but has no direct correlate in the recorded effigy mound record. Several mound groups in the effigy mound distribution have similar features, but there is no direct match. The mound groups with the most similar mound form are Blue Mounds #2 (47DA903), Weirick (47RO30), Case (47SK17) (long bifurcated end linear), River Spirits (47DO114) (long bifurcated end linears), Joedicke I/Joedicke II (47WT38/57) (long bifurcated end linear), Stockbridge (47CT25) and Leonard Mill (47FD18). Mound No. 4 can be seen as a variation on a common theme present in many effigy mound group sculptures, that of the water spirit.

The composition of the mound group does not appear to be random, and instead has a linearity that suggests intention. The western end is marked by the goose-shaped Mound No. 1 facing Willow Creek. At the tail of the bird is the small round conical (Mound No 2). Next in line is a short bifurcated end linear mound (Mound No. 3) with projections on the eastern end that seem to conform to the shape of the head of the larger panther-like mound (Mound No. 4) on the eastern end of the group. Not only does the linear orientation of these mounds indicate group planning and continuity, but the placement of a bird at one end and a possible panther at the other could be a symbolic juxtaposition of upper and underworld spirit beings. Such spirits were likely an integral part of the Late Woodland world view including clan structure (Birmingham 2010; Birmingham and Eisenberg 2000; Radin 1915; Rosebrough 2010; Rowe 1956), affiliation, and associated societal roles of the contemporary inhabitants of the adjacent Willow Creek site. Birmingham (2010:35) affiliates geese and other waterfowl mounds as representing a world renewal theme because these birds leave in fall and return in spring. These and other birds such as eagles and hawks are affiliated with the sky, although geese are liminal animals as they also spend much of their time on the surface of water and, like some ducks, can dive beneath the water thereby presenting a spirit form that has the ability to cross between upper and lower worlds. Likewise, many have long attributed long-tailed "panthers/lizards, and turtles" to underworld/underwater spirits (Birmingham 2010; Birmingham and Eisenberg 2000; Hall 1997; Radin 1915; Rosebrough 2010; Rowe 1956).

In comparing the Willow Drive composition to other mound groups, there are only five groups that have a similar arrangement of mounds. All five groups are located in Dodge County, to the north and

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section	8	Page	_7

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

east of Dane County. These groups have linear elements within their groupings of a goose-shaped mound, a conical mound or mounds, a linear mound and a water spirit form. These groups include Schaumberg (47DO211), Nitschke (47DO27), Ehricke (47DO28), A. Clark (47DO646), and Clark (47DO144). The repetition of linear strings of these forms is curious and may represent a symbolically encoded arrangement, perhaps a representation of a story or myth.

A number of researchers have suggested that effigy mound construction and effigy mound groups are reflections of the religious beliefs of their makers (Birmingham 2010; Birmingham and Eisenberg 2000; Hall 1993; Mallam 1976). This idea is supported in part by at least two lines of evidence including: 1) the absence of burials in some of the mounds; and 2) the presence of non-burial archaeological features within and adjacent to the mounds.

It has long been known that some effigy mounds did not contain human remains (Birmingham 2010:21; Stoltman and Christiansen III 2000) and that often mound groups are located in areas of stable, renewable natural resources (Mallam 1976). Birmingham has argued that the lack of human burials in some effigy mounds "...leads to the interpretation that mounds were constructed in ceremonials and rituals that transcended the burial of the dead" (Birmingham 2010:21). This conclusion is based on the premise developed by Mallam that effigy mounds and effigy mound groups were the byproduct of "sacralizing the earth" (Mallam 1984:19) whereby Late Woodland people attempted to maintain a balance in the relationship between natural resources and humans. In this view, mound building would be considered a world renewal ritual, not solely a means of disposing of the dead. This means that the simple fact that effigy mounds were built at Willow Drive means that the builders endowed the site with a religious function.

A second line of evidence involves the presence of archaeological features or construction techniques that are not directly the product of interring the physical remains of the dead. Very early in the twentieth century investigations at effigy mounds sites such as Kratz Creek revealed the fact that some mounds were constructed with different colored soils that might be alternated with ash and charcoal filled layers (Barrett and Hawkes 1919; Bennett 1945). These soils are described as being non-local and having been selected over more locally available materials. This practice raises the question of significance if the only point of effigy mounds was to encase the dead.

Others reported finding evidence of features whose function could not be immediately determined, but did not contain human remains (McKern 1930). Investigations at the Kolterman Mound Group revealed features that contained the remains of feasts (Wittry and Bruder 1955). Given the physical evidence of behaviors that exceed a purely burial function, it is likely that effigy mounds represent a component of their builders world view.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 8 Page 8

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

An argument could be made that the fact that the outlines of the Willow Drive Mounds have been changed, and that the mounds have been reconstructed to some degree, means that their value to provide information regarding religion or world view is minimal. While there is some merit to that argument, recent archaeological investigations at two mound groups, Regula III (47WK165) and Regula I (47WK591) that have had their surface traces removed have yielded intact sub-surface features that relate to either mound construction or activities associated with the mounds (Richards, et al. 2012). In both cases, the subsurface features were not directly under the projected location of the mounds themselves, but rather, were contemporaneous with the mounds and located in the spaces in between the mounds. Brown's excavations of the Willow Drive mounds were limited almost entirely to the mounds themselves. This leaves the potential for non-mound features in the vicinity of the mounds that may relate to activities associated with mound construction or other ritual behavior.

Eligibility Statement for Criteria Considerations D

It is likely that the Willow Drive Mounds and Habitation Site Complex was used for ritual and mortuary purposes. Though cemeteries are usually not considered eligible for inclusion on the National Register of Historic Places due to criteria consideration D, the age of the site coupled with its potential to illuminate facets of Late Woodland ceremonialism, cosmology, social structure, artistic conventions a, and mortuary ritual mitigate the consideration

Summary

The Willow Drive Mounds and Habitation Site Complex was first inhabited sometime during the Middle Archaic stage (5,000-1,700 BC) and was re-visited regularly during the Late Archaic stage (1,700 BC - 400 BC), Early Woodland Lake Farms phase (ca. 250 BC – AD 100), Middle Woodland stage Waukesha and/or Millville phase (AD 100-400) and Late Woodland Horicon phase (ca. AD 700-1000). Substantial additions were made to the site complex during the Late Woodland Horicon phase with the construction of five earthen relief sculptures used for a number of purposes, the primary being as sepulchers for the dead.

Beginning in the late 19th century, modifications were made to the mounds and associated habitation area as the University of Wisconsin – Madison campus developed. Direct impact to the site complex came in the form of the construction of the UW pleasure/farm work road system built around 1868 and then the Park and Pleasure Drive around 1892 which led to truncation of the periphery of the goose-shaped mound. As the College of Agriculture expanded its on-campus experimental areas, agricultural fields encroached upon the edges of the complex, but the area of the mounds experienced only minor impacts. In the early and mid-20th century, three of the four burial mounds were archaeologically tested and yielded human remains and artifacts found in primary and secondary contexts. During the

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section	8	Page	9

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

latter half of the 20th century, the University of Wisconsin – Madison built a number of facilities in and around the site complex including roads, parking lots, sidewalks, and buildings.

The integrity and the current boundaries for the site complex were established in the early 21^{st} century through archaeological survey and testing which revealed the presence of largely intact soils in the area around the mounds and in areas in between the University of Wisconsin – Madison facilities. In addition to the intact soils, evidence for activity areas was indicated by the presence of high density clusters of certain artifact classes. The Willow Drive Mounds and Habitation Site Complex has the potential to yield important information not only on regional culture history, prehistoric lifeways and the processes that led to social and technological change in prehistory, but also in the areas of prehistoric religion and art.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section 9 Page 1

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

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National Register of Historic Places Continuation Sheet

Section 9 Page 3

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United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section 9 Page 4

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National Park Service

National Register of Historic Places Continuation Sheet

Section 9 Page 5

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National Register of Historic Places Continuation Sheet

Section 9 Page 6

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Wisconsin Word Processing Format (Approved 1/92)

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section	10	Page	1

Willow Drive Mounds and Habitation Site Complex Dane County, Wisconsin

Verbal Boundary Description:

The boundary is as follows: beginning at the intersection of the Howard Temin Lakeshore path with Willow Creek, follows the southern margin of the Howard Temin Lakeshore Path north and east to the intersection of Howard Temin Lakeshore Path and a service road extension of Willow Drive at the western end of Goodnight Hall whence the boundary continues south and east along the service road past the Schuman Shelter whence it continues south along Willow Drive to the eastern end of Parking Lot 57 thence follows the northern boundary of Lot 57 west until it intersects a small paved walking path thence north and west to the point of origin.

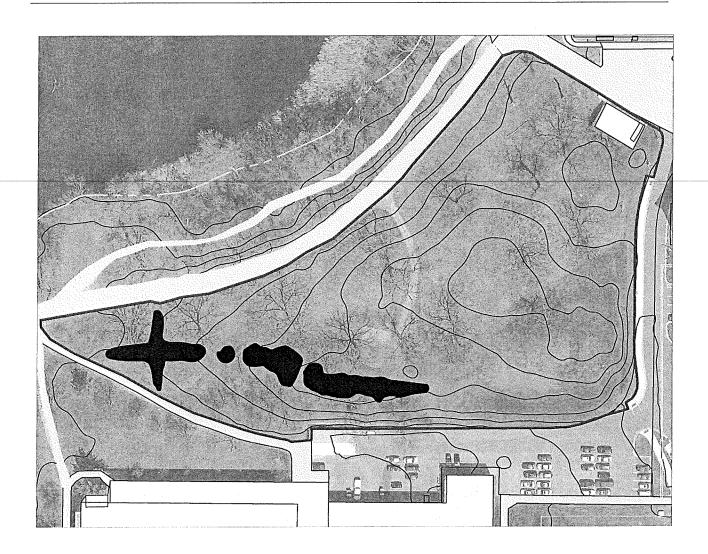
Boundary Justification:

The National Register of Historic Places boundary incorporates the entirety of 47DA119 – Willow Drive Mounds and the portion of 47DA124 that has been determined through shovel testing and excavations to have the most integrity and the highest potential to yield information important to the prehistory of the area.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section 10 Page 2



United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section photos Page 1

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

Name of Property:

Willow Drive Mounds and Habitation

City or Vicinity:

Madison

County:

Dane County

State:

WI

Name of Photographer:

George W. Christiansen III

Date of Photographs:

May 2014

Location of Original Digital Files:

1006 Connie Road, Baraboo, WI. 53913

Photo #1 (WI_Dane County_Willow Drive Mounds and Habitation_0001) Eastern end of Mound Number 1, camera facing southwest

Photo#2 (WI_Dane County_Willow Drive Mounds and Habitation_0002) Mound Number 2, camera facing southwest

Photo#3 (WI_Dane County_Willow Drive Mounds and Habitation_0003) Mound Number 3, camera at middle of mound facing north

Photo#4 (WI_Dane County_Willow Drive Mounds and Habitation_0004) Mound Number 4, camera at eastern end of mound, facing west

Photo#5 (WI_Dane County_Willow Drive Mounds and Habitation_0005) View of 47DA124 from the west end of the site, camera facing northeast

Photo#6 (WI_Dane County_Willow Drive Mounds and Habitation_0006) View of 47DA124 from the middle of the site, camera facing northeast

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section figures Page 1

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

List of Figures

Figure 1: Location of the Willow Drive Mounds and Habitation Site Complex on a USGS Madison West 7.5' Quadrangle. Note: The site complex boundaries are different than the National Register of Historic Places boundaries.

Figure 2: Location of the Willow Drive Mounds and Habitation Site Complex on the 1890 USGS 15' Madison Sheet.

Figure 3: UW-Madison Archaeological Sites, December 2014. Copies available from Historic and Cultural Resources Manager, Facilities Planning and Management, University of Wisconsin – Madison.

Figure 4: Location of the Willow Drive Mounds and Habitation Site Complex in relationship to current buildings. Note: The site complex boundaries are different than the National Register of Historic Places boundaries.

Figure 5: Sketch map of 47DA119 – Willow Drive Mounds made by T.H. Lewis 1888 (Lewis 1888).

Figure 6: Location of the Willow Drive Mounds and Habitation Site Complex relative to the location of experimental farm facilities, circa 1892.

Figure 7: Map of 47DA119 – Willow Drive Mounds drafted from T.H. Lewis' notebooks by George W. Christiansen III.

Figure 8: Plat map of 47DA119 - Willow Drive Mounds drafted by C.E. Brown, 1909 (Brown 1909b).

Figure 9: Plat map of 47DA119 – Willow Drive Mounds drafted by C.E. Brown, 1912 (Brown 1912).

Figure 10: 1935 excavation planview for Mound No. 1, 47DA119 – Willow Drive Mounds (Brown 1935)

Figure 11: 1935 Photographs of excavations in Mound No. 1, 47DA119 – Willow Drive Mounds.

Figure 12: Artifacts from the 1935 excavations of Mound No. 1, 47DA119 – Willow Drive Mounds (Brown 1935)

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page 2

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin

Figure 13: 1935 C.E. Brown Plat of 47DA119 - Willow Drive Mounds (Brown 1935).

Figure 14: Artifacts from Mound No. 1, 47DA119 – Willow Drive Mounds after Baerreis (Baerreis 1966).

Figure 15: Photograph of Mound No. 3 excavation trench. The trench originated at the west end of the mound where a pile of field stones were encountered with angular and burned surfaces (Wisconsin Historical Society Image Collection PH 3700.315h).

Figure 16: 1937 excavation planview for Mound No. 4, 47DA119 – Willow Drive Mounds (Brown 1937b).

Figure 17: Honey Creek projectile point recovered from Mound No. 4 burial, 47DA119 – Willow Drive Mounds (Brown 1937b).

Figure 18: Kegonsa Stamped ceramics from Mound No. 4, 47DA119 – Willow Drive Mounds (Brown 1937b)

Figure 19: Ceramic rim sherd recovered from Mound No. 4, 47DA119 – Willow Drive Mounds (Brown 1937b).

Figure 20: Karstens and Rusch's map of shovel testing at 47DA124/47DA119 (Karstens and Rusch 1995)

Figure 21: Karstens and Rusch's 1995 map of artifact distribution at 47DA124/47DA119 (Karstens and Rusch 1995).

Figure 22: Location of Phase II test units, 47DA124/47DA119 (Christiansen III 2005).

Figure 23: Selected diagnostic artifacts from 47DA124 recovered in 2004 (Christiansen III 2005).

Figure 24: Location of shovel tests for determining the eastern boundaries of 47DA124 (Christiansen III 2007). Note: The site complex boundaries are different than the National Register of Historic Places boundaries.

Figure 25: Map of 47DA119 – Willow Drive Mounds as surveyed in 2004 to become a cataloged burial site.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>3</u>

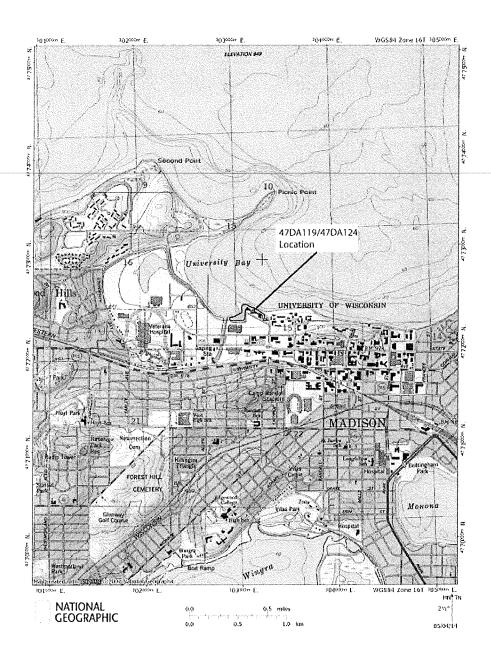


Figure 1: Location of the Willow Drive Mounds and Habitation Site Complex on a USGS Madison West 7.5' Quadrangle. Note: The site complex boundaries are different than the National Register of Historic Places boundaries.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>4</u>

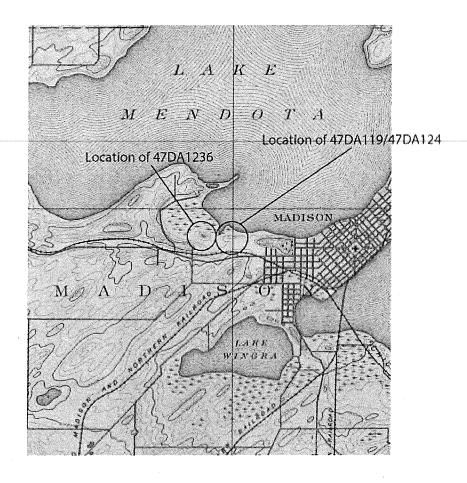


Figure 2: Location of the Willow Drive Mounds and Habitation Site Complex on the 1890 USGS 15' Madison Sheet.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>5</u>

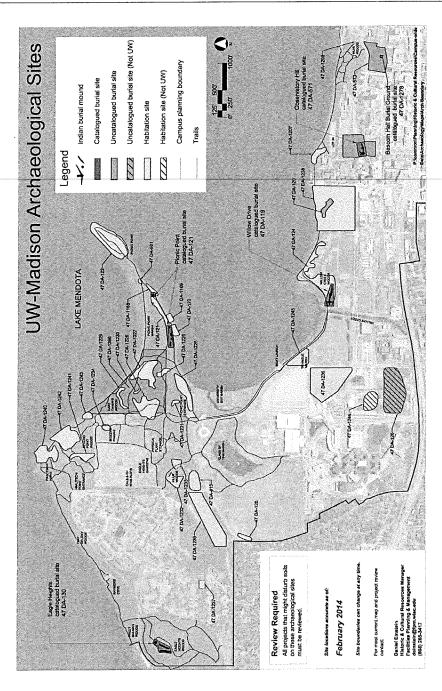


Figure 3: UW-Madison Archaeological Sites, February 2014. Copies available from Historic and Cultural Resources Manager, Facilities Planning and Management, U.W. – Madison.

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>6</u>

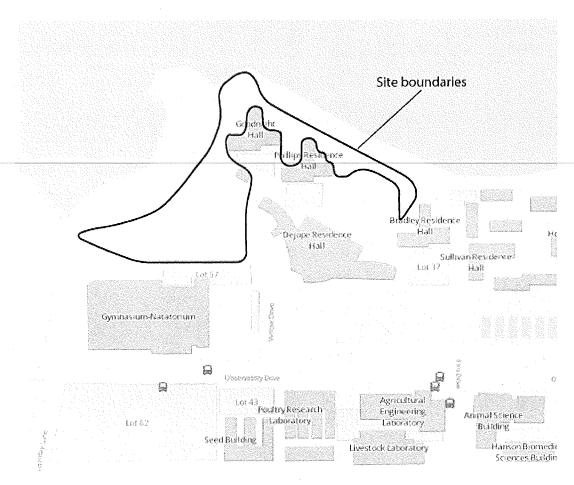


Figure 4: Location of the Willow Drive Mounds and Habitation Site Complex in relationship to current buildings. Note: The site complex boundaries are different than the National Register of Historic Places boundaries.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page 7

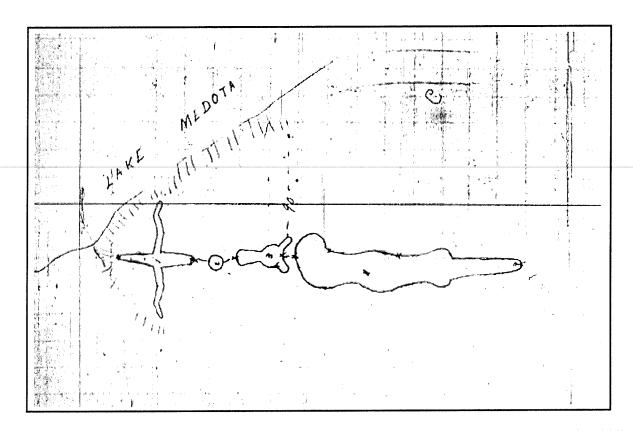


Figure 5: Sketch map of 47DA119 – Willow Drive Mounds made by T.H. Lewis 1888 (Lewis 1888).

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page 8

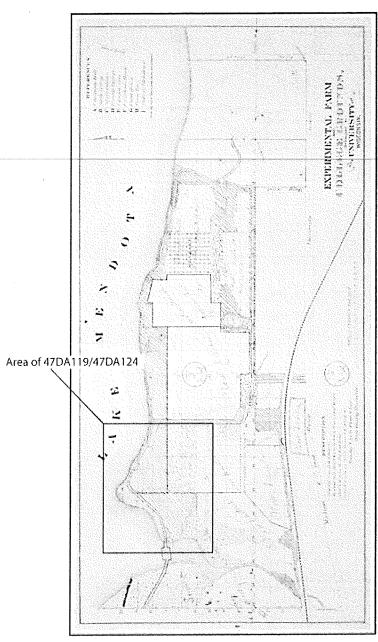


Figure 6: Location of the Willow Drive Mounds and Habitation Site Complex relative to the location of experimental farm facilities, circa 1892.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>9</u>

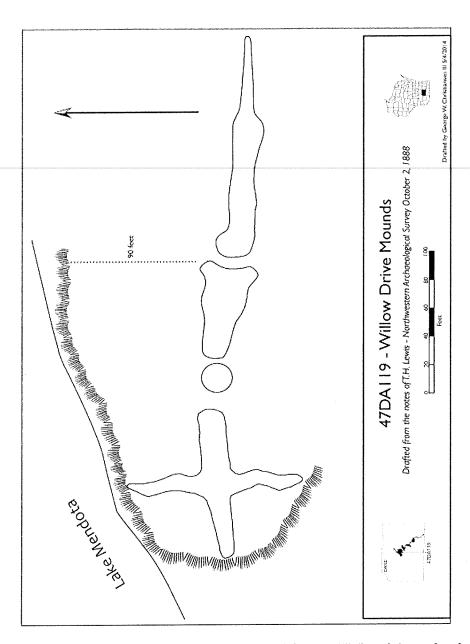


Figure 7: Map of 47DA119 – Willow Drive Mounds drafted from T.H. Lewis' notebooks by George W. Christiansen III.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>10</u>

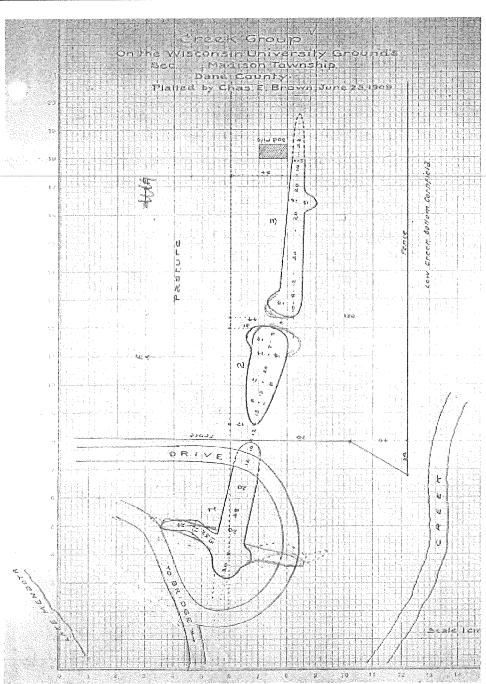


Figure 8: Plat map of 47DA119 - Willow Drive Mounds drafted by C.E. Brown, 1909 (Brown 1909b).

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>11</u>

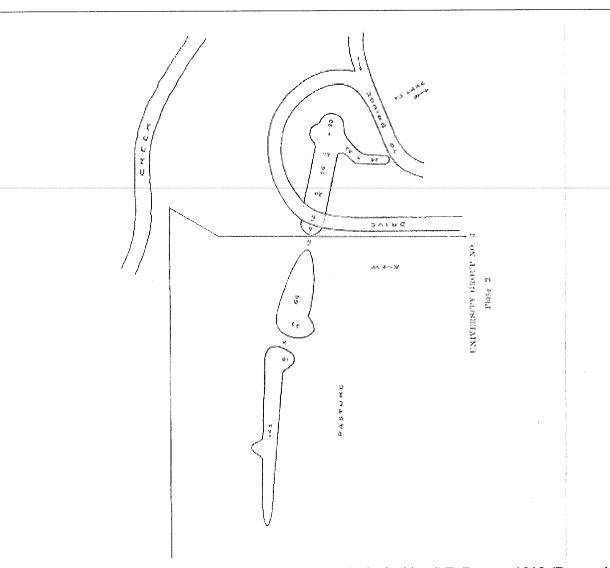


Figure 9: Plat map of 47DA119 – Willow Drive Mounds drafted by C.E. Brown, 1912 (Brown 1912).

United States Department of the Interior National Park Service

Transfer Turk Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>12</u>

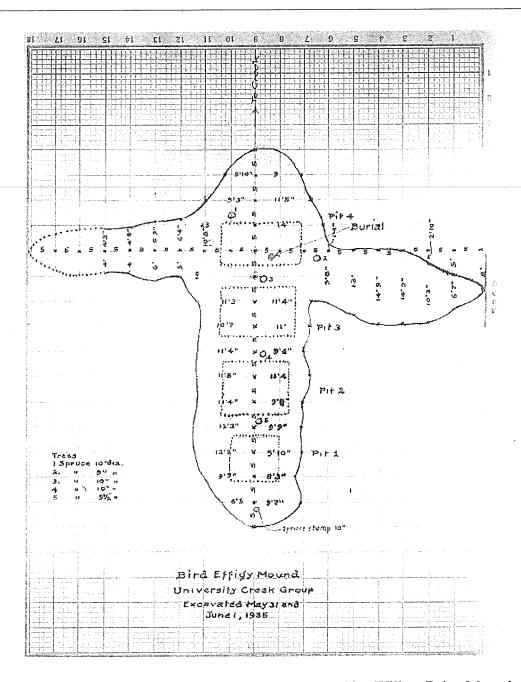


Figure 10: 1935 excavation planview for Mound No. 1, 47DA119 – Willow Drive Mounds (Brown 1935)

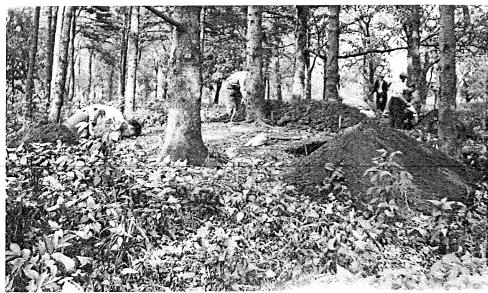
United States Department of the Interior

National Park Service

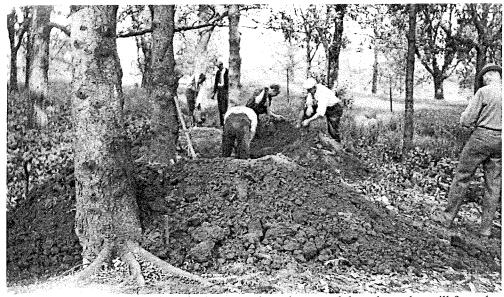
National Register of Historic Places Continuation Sheet

Section **figures** Page 13

Willow Drive Mounds and Habitation Complex Dane County, Wisconsin



1935 excavations in Mound No.1 – view appears to be from the east end of the mound towards the west showing Pit 1 in the foreground (Wisconsin Historical Society Collections Image PH3700.315c1)



1935 excavations in Mound No.1 – view is from further west along the mound then above, but still from the east to the west showing work on Pit 2 (Wisconsin Historical Society Collections Image PH3700.315c2)

Figure 11: 1935 Photographs of excavations in Mound No. 1, 47DA119 – Willow Drive Mounds.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>14</u>

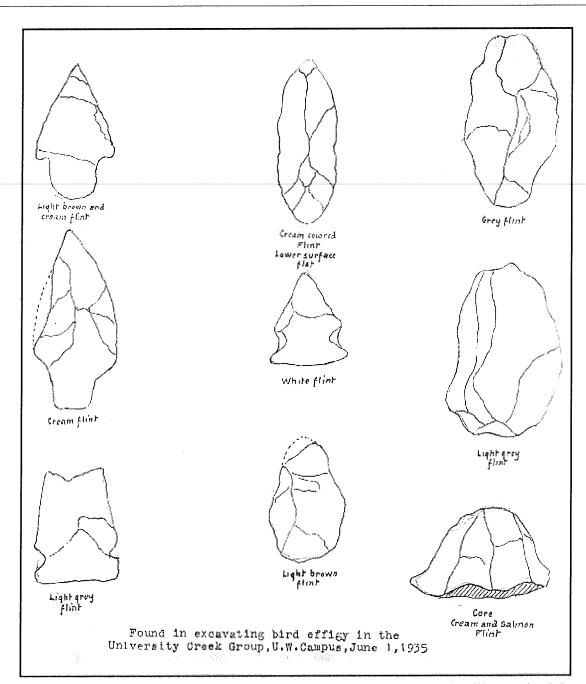


Figure 12: Artifacts from the 1935 excavations of Mound No. 1, 47DA119 – Willow Drive Mounds (Brown 1935)

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>15</u>

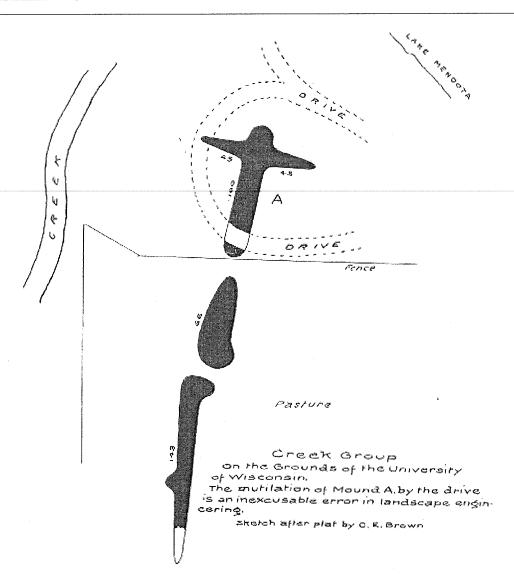


Figure 13: 1935 C.E. Brown Plat of 47DA119 - Willow Drive Mounds (Brown 1935).

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>16</u>

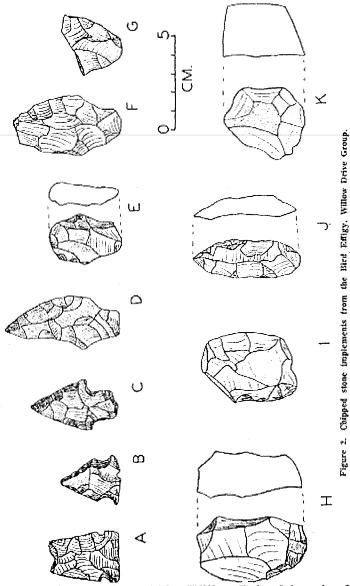


Figure 14: Artifacts from Mound No. 1, 47DA119 – Willow Drive Mounds after Baerreis (Baerreis 1966).

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>17</u>

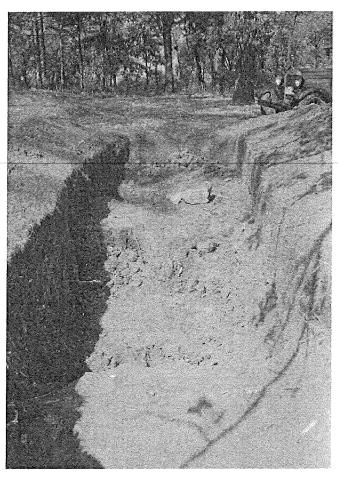


Figure 15: Photograph of Mound No. 3 excavation trench. The trench originated at the west end of the mound where a pile of field stones were encountered with angular and burned surfaces (Wisconsin Historical Society Image Collection PH 3700.315h).

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>18</u>

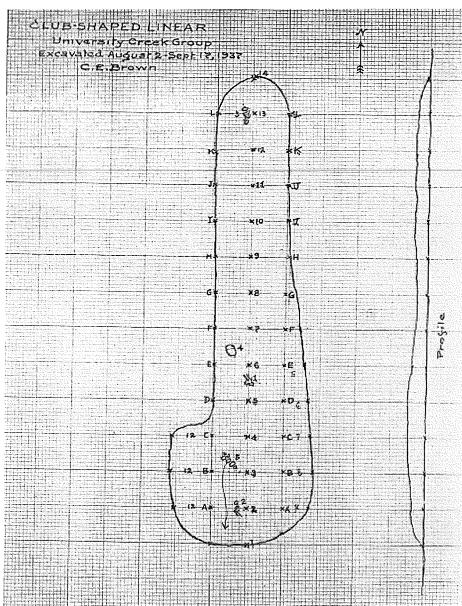


Figure 16: 1937 excavation planview for Mound No. 4, 47DA119 – Willow Drive Mounds (Brown 1937b).

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>19</u>



Figure 17: Honey Creek projectile point recovered from Mound No. 4 burial, 47DA119 – Willow Drive Mounds (Brown 1937b).

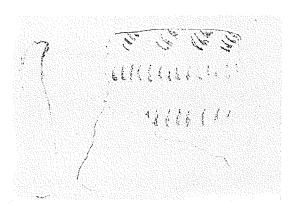


Figure 18: Kegonsa Stamped ceramics from Mound No. 4, 47DA119 – Willow Drive Mounds (Brown 1937b)



Figure 19: Ceramic rim sherd recovered from Mound No. 4, 47DA119 – Willow Drive Mounds (Brown 1937b).

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>20</u>

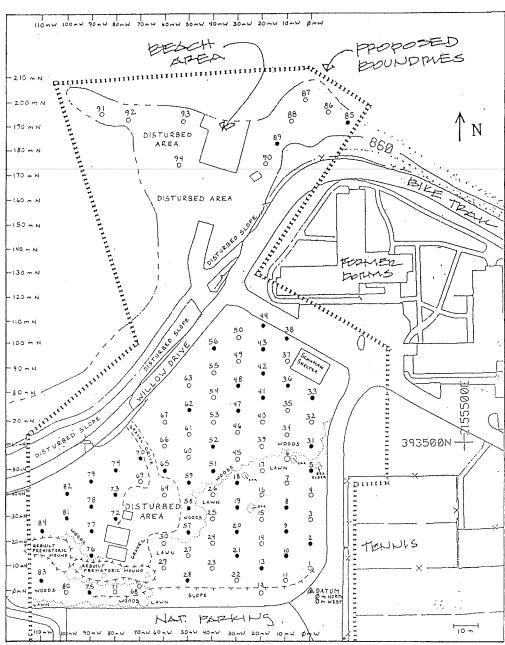


Figure 20: Karstens and Rusch's map of shovel testing at 47DA124/47DA119 (Karstens and Rusch 1995)

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>21</u>

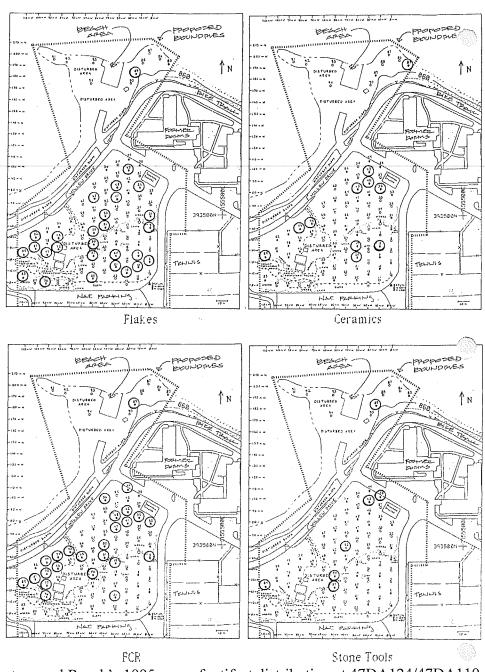


Figure 21: Karstens and Rusch's 1995 map of artifact distribution at 47DA124/47DA119 (Karstens and Rusch 1995).

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>22</u>

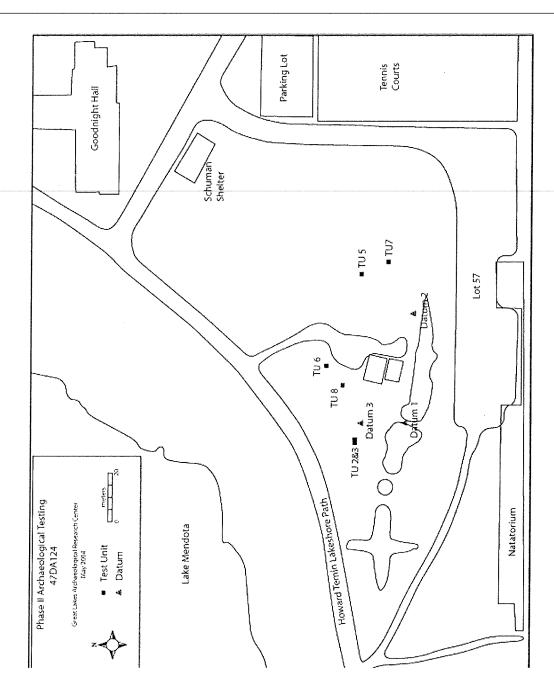
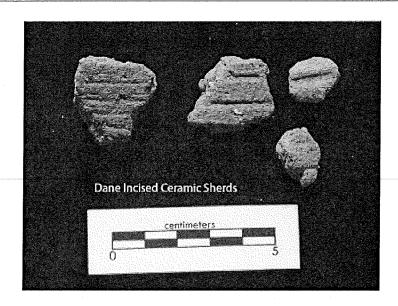


Figure 22: Location of Phase II test units, 47DA124/47DA119 (Christiansen III 2005).

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>23</u>



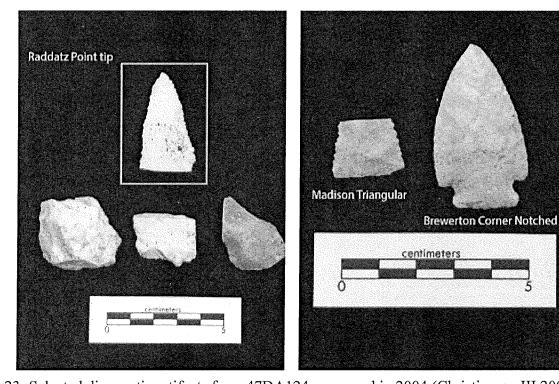


Figure 23: Selected diagnostic artifacts from 47DA124 recovered in 2004 (Christiansen III 2005).

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>24</u>

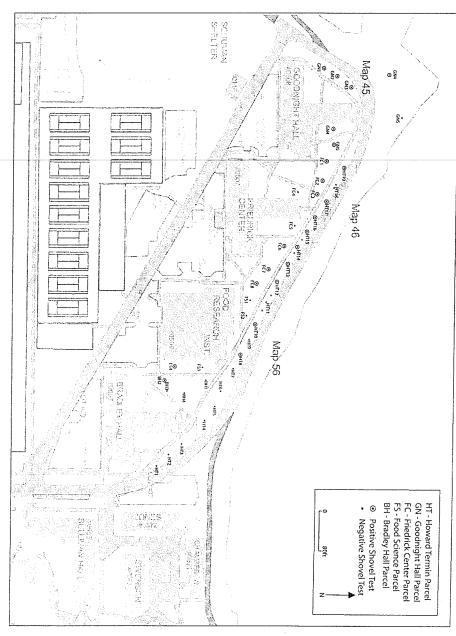


Figure 24: Location of shovel tests for determining the eastern boundaries of 47DA124 (Christiansen III 2007). Note: The site complex boundaries are different than the National Register of Historic Places boundaries.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Section <u>figures</u> Page <u>25</u>

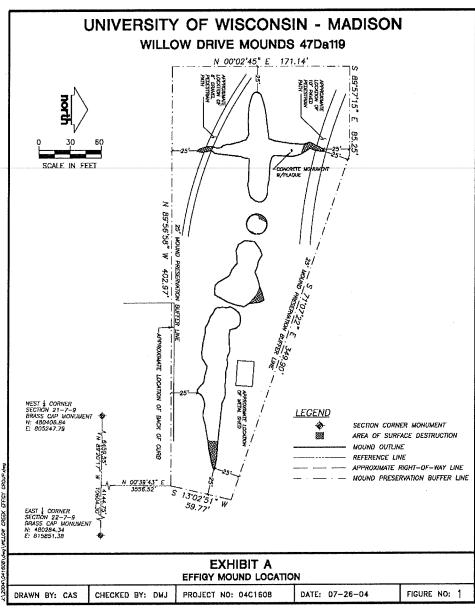


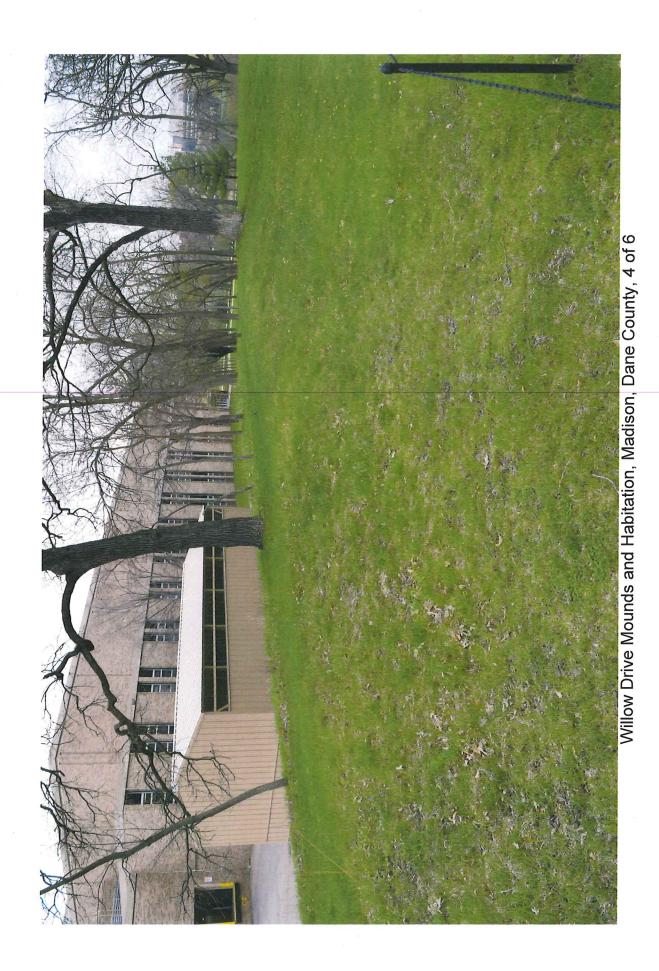
Figure 25: Map of 47DA119 – Willow Drive Mounds as surveyed in 2004 to become a cataloged burial site.



Willow Drive Mounds and Habitation, Madison, Dane County, 1 of 6









Willow Drive Mounds and Habitation, Madison, Dane County, 5 of 6

