

**Additional Archaeological Investigations
at 21RA54 (CoPar II) within the
Fish Creek Nature Preserve
Maplewood, Ramsey County, Minnesota**



**Prepared for
Ramsey County Historical Society
Maplewood Area Historical Society
City of Maplewood**

**Prepared By
Nienow Cultural Consultants LLC**

Final Report November 27th 2015

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at 21RA54 (CoPar II) within the
Fish Creek Nature Preserve
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**Legacy Grant No. R-HP-1407-04941
Nienow Cultural Consultant LLC License No. 15-033**

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This project was funded in part by the Ramsey County Historical Society and the Minnesota Arts and Cultural Heritage Fund as part of R-HP-1407-04941, a Heritage Partnership Program Grant administered by the Minnesota Historical Society and awarded to Ramsey County Historical Society in partnership with the Metro Area Historical Society Collaborative.



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Management Summary

In March of 2015, a partnership was formed to advance portions of the City of Maplewood's 2012 Fish Creek Master Plan. This plan included a history and archaeology section focused on 2005 archaeological efforts completed when the area had been slated for private development. Fish Creek partners met with Jeremy Nienow, Ph.D., RPA an archaeological liaison hired by the Metro Area Historical Society Collaborative to plan additional, public-focused, archaeology at 21RA54. The project area is located in Section 24 of Township 28N, Range 22W. This area is defined by State Archaeologist's Office as the Central Lakes Deciduous East sub-region.

A two day, public archaeology event was hosted at 21RA54 on July 24th and 25th, 2015 consisting of site orientation, shovel testing, and test unit excavation. A total of 68 artifacts were recovered, primarily precontact. A total of 10 shovel tests (STP) were excavated with four placed in previously plowed portions of the site and the remaining six along the south and west site boundaries. Shovel tests 1, 3, 4, 6, 7, 8, and 10 were each positive with STP1 containing the highest concentration of artifacts (n=10). Shovel testing showed the site extending to the slope edge in both directions, as well as demonstrating intact, sub-soil portions of the site exist within previously plowed portions of the site, and southern and western portions of the site have not been previously plowed. Based on the original four shovel tests from the first day, a test unit was placed immediately north of STP1. Excavation was conducted in 10cm arbitrary levels. Cultural materials were encountered in levels two through five, with the heaviest concentration of materials in level four, 30-40cmbgs.

Of the 68 artifacts, fifteen were modern in nature. These materials reflect late 19th through 20th century occupation of the surrounding landscape as its historic land use shifted from agricultural, to urban, to park/preserve. Additionally 13 lithics were recovered representing a typical assemblage for this region including debris associated with lithic reduction and reuse. One biface tip fragment was also recovered. The 39 ceramics from the site are thin-walled, grit tempered, cord-roughened sherds including one undecorated rim. Generally, thin-walled, cord-roughened ceramics are indicative of the late woodland and the sherds from 21RA54 are similar to other late woodland ceramics from the upper Midwest including Madison wares representing effigy mound culture peoples.

Based on this continued investigation of 21RA54, the site's 2005 recommendation as potentially eligible to the National Register of Historic Places stands. Recreational development in the area should avoid directly crossing the site and interpretive signage is also recommended. Finally, testing landforms similar to the one occupied by 21RA54, especially directly west of the site, is strongly recommended ahead of any planned development.

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Introduction

In March of 2015, the Ramsey County Historical Society, Maplewood Area Historical Society, and City of Maplewood entered into a partnership to advance portions of the City of Maplewood's 2012 Fish Creek Master Plan. This plan was created to provide public access, via recreation, trails, and parking, to the Fish Creek Park Preserve while still protecting its natural and cultural resources. The plan included a history and archaeology section focused on 2005 archaeological efforts completed when the area had been slated for private development. The work documented two sites, one of which, 21RA54, included materials related to the Woodland Tradition and was recommended for further testing if development proceeded.

Partnership members met on April 9th, 2015 to discuss how the Ramsey County Historical Society, as part of a larger, grant-funded group called the Metro Area Historical Society Collaborative, could assist in advancing the measures denoted in the Master Plan specifically, "Support efforts...to document and better understand the history of this site. Ideally, grants would be submitted to conduct additional archaeological work and to research and document the site history." Three research questions were developed to facilitate excavation design: 1) Does site 21RA54 extend beyond the area originally surveyed? 2) Are there intact portions of the site outside or below plowed areas? and 3) What is the relative frequency of site artifacts?

The project area is located in Section 24 of Township 28N, Range 22W. This area is defined by State Archaeologist's Office as the Central Lakes Deciduous East sub-region. The Fish Creek partners met with Jeremy Nienow, Ph.D., RPA an archaeological liaison hired by the Metro Area Historical Society Collaborative and the group planned additional, public-focused, archaeology at 21RA54. Nienow is a licensed archaeologist in the State of Minnesota and all investigations carried out were guided by the *State Archaeologist Survey Manual* (<http://mn.gov/admin/images/OSManual.pdf>).

A two-day, public archaeology event was hosted at 21RA54 on July 24th and 25th, 2015. More than 30 individuals from the community, including the Mayor of Maplewood, City of Maplewood and Maplewood Area Historical Society staff, participated. The first day consisted of site orientation and shovel testing resulting in positive tests answering research question 1. The second day consisted again of site orientation and the excavation of a 1m x 1m test excavation unit answering research questions 2 and 3. A total of 68 artifacts were recovered, primarily precontact. Materials were cleaned on August 18th, 2015, again by community and staff members at the Maplewood Nature Center.

This summary report contains information related to the results of the above investigation, as well as basic interpretation of the materials recovered, and recommendations on future development actions related to 21RA54.

Project Location, Historic Context and Environmental Setting

The project area is located in S1/2 of the SE 1/4 of the NW 1/4 of Section 24 of Township 28N, Range 22W, between Interstate 494 and Hwy 10/61 (Figures 1 and 2). The site has components on both City of Maplewood (formerly plowed areas) and Ramsey County (steep slope edges on east and south boundaries) owned land. The property is part of the larger Fish Creek Greenway connecting Carver Lake to the Mississippi River via Fish Creek. Archaeological work at this location was undertaken in 2005 and will be discussed in a subsequent section. The 2005 report (Summit Envirosolutions, Inc 2005) contains additional, general area history if information outside the scope of this 2015 report is needed.

Precontact Traditions

There are six generally accepted precontact traditions for Minnesota as listed on the Minnesota OSA site form beginning at least as far back as 12,000 years ago and extending until historic contact with French fur traders in the late 1600s: Paleoindian, Archaic, Woodland, Plains Village, Mississippian, and Oneota. 21RA54 has already been identified as a Woodland camp or habitation site by previous investigations. As such, the following is a general summary of the Woodland Tradition using the Author's general knowledge and various disseminated sources for information including, the OSA's website, Johnson's (1988) *The Prehistoric Peoples of Minnesota*, Gibbon and Anfinson's (2008) *Minnesota Archaeology: The First 13,000 Years* and more recently Gibbon's (2012) *Archaeology of Minnesota*. It is important to note the above listed time frames have considerable overlap from one period to the next and are not uniform over the entirety of State.

The Woodland Tradition in Ramsey County

This tradition represents a major shift in occupation and presence of Native Americans in the region. Beginning approximately 2,800 years ago, peoples in the region experienced increases in population with the advent of first horticultural and then agricultural subsistence strategies to augment those already extant systems of hunting, gathering, etc. As populations increased, settlements near favorable transportation and resource corridors shifted from seasonal to year round including the use of fortifications (by the very end of the period).

The period also witnessed the technical transition from spear/atlatl to bow and arrow weaponry – useful for both hunting and warfare. This change in technology leads to the use of smaller projectile points, invoking the first correct use of the term arrow heads. Similarly the period also saw the invention of ceramic vessels and it is these vessels and their change over time, from thick-walled, grit tempered, conoidal vessels, to thin-walled, shell tempered, globular vessels, that has greatly assisted the archaeological community in further refining their

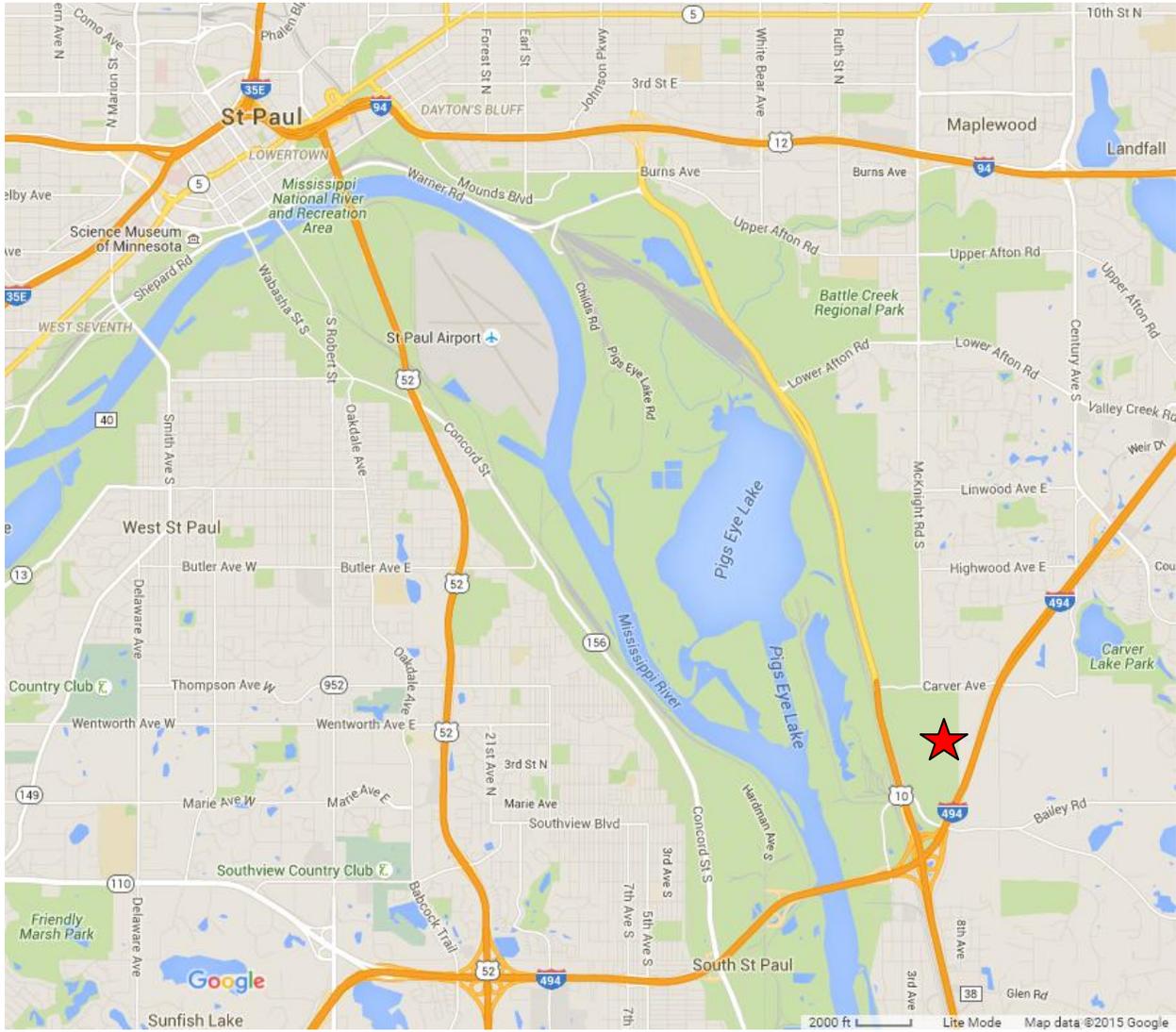


Figure 1: General Location of 21RA54.

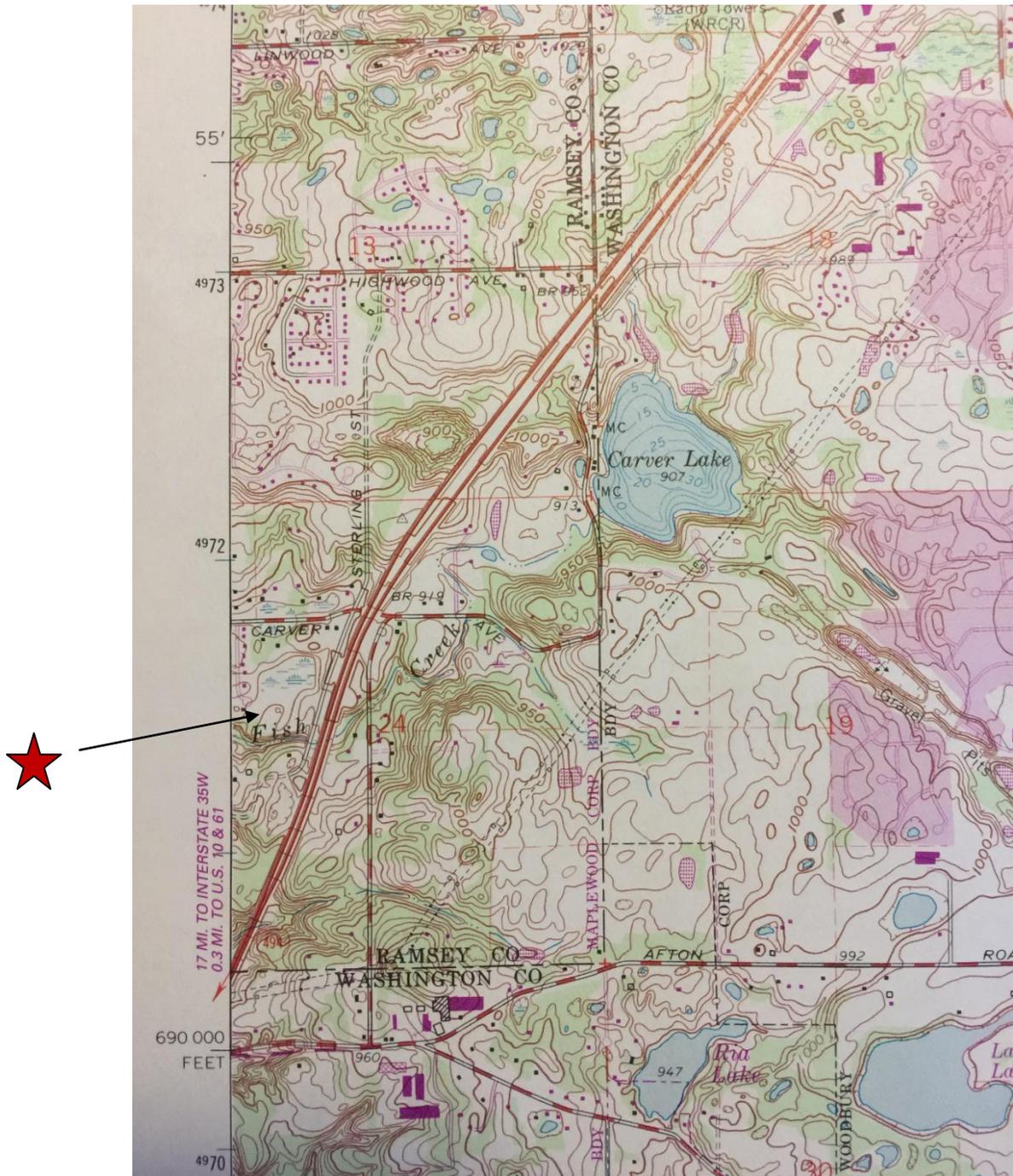


Figure 2: General Fish Creek Project Area from 1967 Lake Elmo Topo Map (Revised 1993).

understanding of group identity, cohesion, and integration throughout the region and is a major area of study. A final example representing not only identity and permanence on the landscape – but also religious practices – was the use of earthen burial mounds.

Within the region stretching from immediately south of St. Cloud through the metro area and continuing into southeastern Minnesota, the portion of the Woodland most represented is the Middle or Havana-Related Woodland. Two phases or locally discrete sequences are the Sorg and Howard Lake phases. Howard Lake, with 21AN08 the Anderson Site, the type site for the phase, is centered on the rivers, lakes, and wetlands of roughly the metro region with its greatest concentration of materials on the wet prairies and lakes of eastern and southern Anoka County. The Sorg phase concentrated materials lie to the southeast on the other side of the metro area around Spring Lake (21DK01 is the Sorg Site) in Dakota County. Diagnostic ceramics from these phases are wide-mouth vessels, with thick walls, straight rims, slightly constricted necks, slightly rounded shoulders, and subconoidal bases. The phases are associated with the Havana complex in Illinois in terms of their overall vessel shape, hence the connection to this region even farther southeast. In essence these phases represent local peoples being influenced by elements from regions outside of Minnesota.

Typical burial patterns for these peoples are groups of a few to over a dozen conical shaped earthen mounds. Heights vary from a few feet to more than 30 feet in height. Larger mounds typically contain period goods and burials, although few Howard Lake phase and no Sorg phase mounds have been excavated. The three sites with the most representative expressions of Middle Woodland mounds for the region are 21AN01 (the Howard Lake Mound Site) and 21AN08 (The Anderson Site) in Anoka County and 21RA10 (Indian Mounds Park) in Ramsey County.

As has been stated above, by end of the Woodland Tradition, Native People's social and technological lives had become increasing complex. By the end of the Tradition the bow and arrow has become the primary tool of hunting and warfare, shifting projectile points to the much smaller arrowheads we are accustomed to today. Plant domestication was also leading to the potential for much larger, sustained, social groups and further, sedentary changes to their lifestyles. Other change included thinner walled and finer tempered ceramics, and changes in mortuary practices away from conical mounds to effigy mounds. These mounds representing bird, human, turtle, fish, snake, and other mammal forms are found in Scott, Dakota, Goodhue, Houston, Wabash and Winona Counties. The Sorg Site in Dakota County (21DK01) again plays a prominent role in understanding the Late Woodland in the region as its artifact assemblages not only include those mentioned for the Middle Woodland, but extend further forward in time, denoting a period of overlapping, seasonal, and then year-round, habitual settlement. Late Woodland ceramics are thin-walled, fine-grit tempered, with cordmarking on exterior

surface of vessels that are generally more globular than earlier forms and also have constricting necks and flaring rims. The Prior Lake Effigy Mound Site (21SC16) is a representative example of Late Woodland mound building with a group of five bird effigies flying east with four linear mounds behind them. These are massive features on the landscape. The only excavated effigy mound in the State, one of the birds from this site, had a body 52 feet long, 15 feet wide, with wings spanning a total of 141 feet long and 12 feet wide. No artifacts or burials were found within the mound. There are nearly a dozen mound and mound related sites in Ramsey county, consisting of individual to clusters of mounds and likely associated habitations (Figure 3).

Brief History of Fish Creek Park Preserve Development

The Fish Creek Park Preserve is part of the larger Fish Creek Natural Area Greenway which stretches between Carver Lake in Woodbury through Maplewood and to the Mississippi River in St. Paul. The greenway's center is Fish Creek including Ramsey County's 142-acre Fish Creek Open Space and the City of Maplewood's 70-acre Fish Creek Property parcel. The creek has aspects that are historically as well as environmentally interesting including WPA era management features and a natural narrow channel carved through bedrock, an area known locally as the Fish Creek Canyon.

The city's 70 acre parcel had initially been slated for residential development as part of the Carver Crossing of Maplewood in the early 2000s. Ultimately, this effort met with financial difficulties and was not completed, however, during this period permitting and other compliance efforts were done, including a Phase I archaeological survey. The Conservation Fund purchased the site in 2011 and agreed to hold it for the following two years so the city and its primary partners, Ramsey County and Ramsey-Washington Metro Watershed District could raise the funds needed for its purchase. This was ultimately accomplished through partner contributions along with donations, grants, and bonding funding.

Environmental Setting

Soils in the project area are related to the St. Croix moraine and Grantsburg sublobe glacial events starting some 20,000 years ago. Soils fall within the Mahtomedi series, characterized as excessively drained, rapidly permeable soils on glacial moraines consisting of gravelly sand outwash, and having low to steep relief (Vinar 1977). Soil profiles for plowed site portions consisted typically of 0 to 12 cms of A horizon soil 10YR3/2 to 10YR4/2 sandy loam overlaying plowzone soils, 10YR3/4 to 10YR4/4, loamy sand down to 24 to 34cmbgs. Below the plowzone was a C horizon glacial till soil 10YR4/4 to 10YR5/4, sand and clay, to the base of excavation, generally 50 to 80 cmbgs. Soils in non-plowed locations showed a sandy loam A

RAMSEY COUNTY

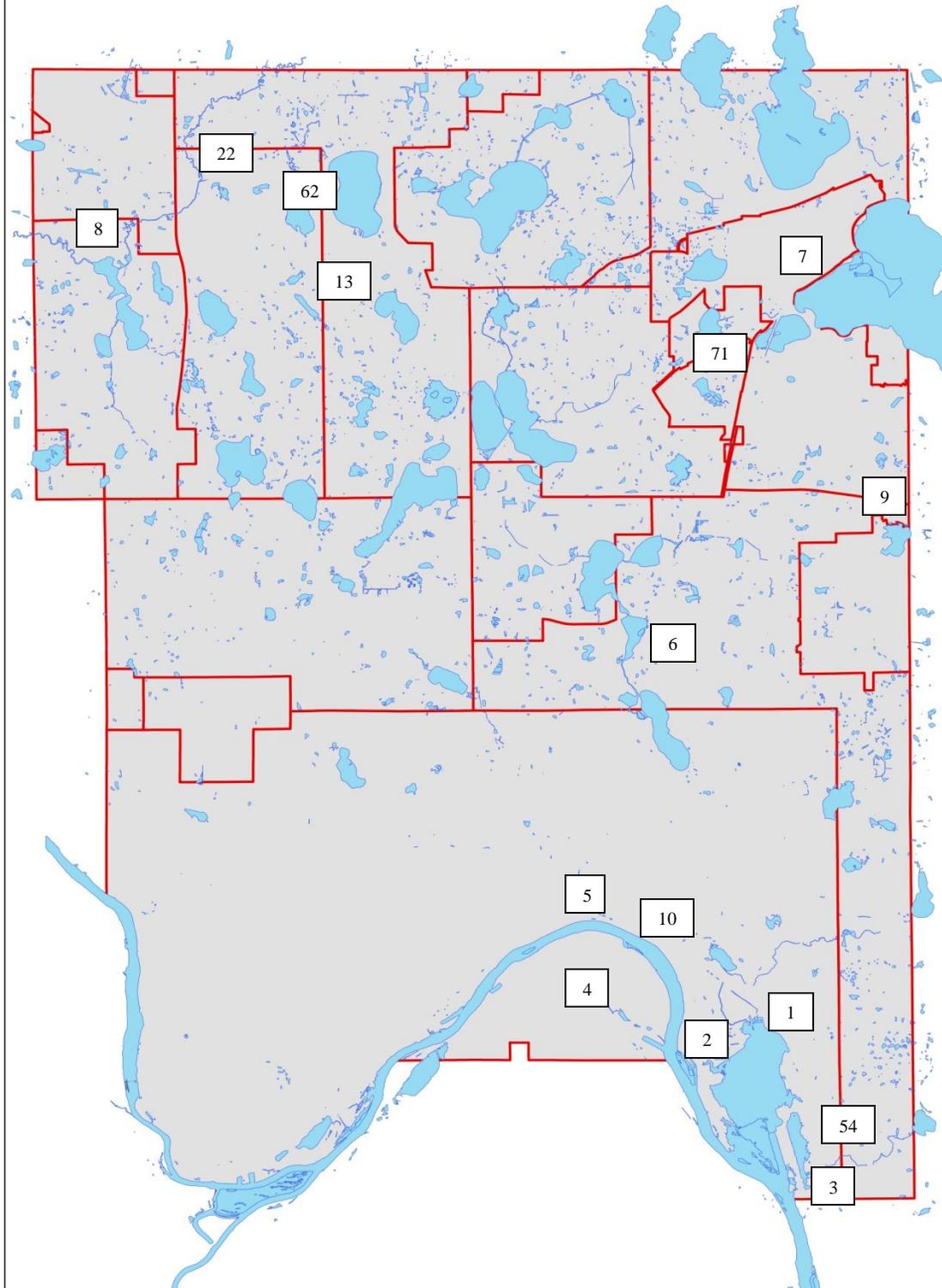


Figure 3: Representative Woodland Sites within Ramsey County including 21RA54.

horizon from ground surface extending to a maximum depth of 25cmbgs, B horizon sandy soils to a maximum of 66cmbgs and C horizon glacial till sandy soils below this. One shovel test, STP8, recorded an ash lens resting upon a buried A horizon between 21 to 42 cmbgs. This is likely related to historic landscape modification during creek restoration efforts in the 1980s and in 2006.

On October 4, 2005 a very intense fall storm event (in excess of a 100-year event) knocked large amounts of debris into Fish Creek, plugging inlets to flood flow pipeline, forcing water over earthen embankments causing considerable erosion throughout the Fish Creek ravine. Repairs reconstructed approximately 900 feet of channel and seven waterfall drop structures. Three earth dams were removed to restore and open the creek from I-494 to Highway 61.

Pre-settlement vegetation was likely Oak woodland, with bur and pin oak, aspen and hazel, and some prairie openings (Coffin 1988). Based on Bakken's (1997) lithic raw studies, materials in the area should be primarily related to the Grantsburg sublobe. These materials may include Swan River chert, Red River chert, Tongue River silica, quartz, Knife Lake siltstone, Lake Superior agate, and basalt.

Archaeological Research

Previous Archaeological Investigations

In 2005, Summit Envirosolutions, Inc. conducted a Phase I archaeological survey of the 70-acre Fish Creek site for CoPar Development (Summit Envirosolutions 2005). Because the development would impact wetlands, the Carver Crossing Maplewood project required a permit from the U.S. Army Corps of Engineers and therefore needed to comply with Section 106 of the National Historic Preservation Act of 1966, as amended. Summit was contracted to conduct this compliance work. Fieldwork was undertaken on October 5-7, 2005 with Andrea Vermeer serving as Principal Investigator / Field Director with the assistance of Kent Bakken, Ora Elquist, and John Turner. Historic structures identified earlier in the year were deemed not eligible for inclusion on the National Register. This earlier work also indicated several areas with high potential for precontact archaeological sites. Areas were both surface surveyed and shovel tested where appropriate following the standards laid out in the *State Archaeologist's Survey Manual* (<http://mn.gov/admin/images/OSAManual.pdf>).

Results from the Phase I survey included the identification and documentation of two archaeological sites, 21RA53 (CoPar I) and 21RA54 (CoPar II). 21RA53 consisted of a single Prairie du Chien chert flake recovered from a shovel test. The artifact was located in a

disturbed soils context and no additional testing in the vicinity yielded further artifacts. Based on the site's lack of integrity, and its non-diagnostic artifact unassociated with a specific historic context, it was recommended as not eligible to the National Register of Historic Places.

Site 21RA54 was identified as a subsurface artifact scatter located approximately 100 feet north of Fish Creek. Northern and eastern boundaries were identified by close interval shovel testing out to two consecutive negative tests. The southern boundary was defined by steep-sided Fish Creek valley. The western boundary extended to the edge of the project's area of potential impact, however, it was surmised the site extended beyond this. To the extent possible during the survey, the site measured roughly 25 by 30 meters. Archaeological materials were encountered to a maximum depth of 90 centimeters. Eight shovel tests recovered a total of 18 precontact artifacts including 12 ceramics, five lithics, and one piece of tooth enamel from an ungulate. Historic period materials were also encountered within the plowzone of some of the shovel tests, however these materials were not collected as they did not appear to document any substantial post-contact habitation or other activity.

Precontact ceramics included eight grit-tempered sherds, six with cord-marking and two with indeterminate surface treatment, and four sand-tempered sherds, three with smoothed-over-cord-marked surface treatment and one with indeterminate surface treatment. One sherd was noted as being well worn as if it had been in an erosive environment (stream channel or beach). Lithics included a piece of quartz and jasper likely to have been produced via flintknapping, a possible quartz bipolar core with its surfaces worn, and a quartz and unidentified chert fragment which may possibly have been flaking debris. These two fragments were thoroughly worn and could occur naturally in an erosive environment. No photographs of any of the 2005 investigation's artifacts are known to exist.

After analyzing the precontact assemblage from 21RA54, Summit concluded the site likely dated between 2,500 and 375 years ago and appeared to be a temporary campsite. Based on the presence of intact soils and a moderate density of ceramics diagnostic to the Woodland Tradition, Summit recommended the site as potentially eligible to the National Register of Historic Places. The developer revised construction plans to avoid the site and no further archaeological work was deemed necessary. However, if project plans changed and the site was to be affect, Summit did recommend Phase II archaeological testing be conducted to evaluate the eligibility of the site for NRHP inclusion.

Research Design and Methodology

Ahead of the 2015 archaeological investigation, a series of research questions were generated to guide site methodologies. These again were done as part of a Partnership between the City of Maplewood, the Maplewood Area Historical Society and the Ramsey County Historical Society. Ramsey County Historical Society, as part of a larger, grant-funded group called the Metro Area Historical Society Collaborative, was interested in assisting in advancing the measures denoted in the Fish Creek Master Plan specifically, "Support efforts...to document and better understand the history of this site. Ideally, grants would be submitted to conduct additional archaeological work and to research and document the site history." Three research questions were developed: 1) Does site 21RA54 extend beyond the area original surveyed? 2) Are there intact portions of the site outside or below plowed areas? and 3) What is the relative frequency of site artifacts? These efforts were not intended to supplant a formal phase II evaluation of 21RA54, but rather to involve the public in better understanding and documenting the site.

Excavation procedures followed standard archaeological protocols for work conducted on public, non-federal property. Jeremy Nienow is a licensed archaeologist in the State of Minnesota. All soils were screened using 1/4" mesh screening. Shovel testing was conducted primarily in natural strata when discernible. Unit excavation was conducted using arbitrary, 10 cm levels beginning at ground surface. Each excavation location was thoroughly documented via field notes, photography, and GPS coordinates. Copies of all documentation were shared electronically with partnership members.

Prior to beginning work, efforts were made to find the 2005 precontact artifact assemblage. The Minnesota Historical Society was contacted to see if materials were curated there and it was determined they had not been (at the time the property was privately owned and curation was not required). Next, Summit Envirosolutions was contacted and they stated they had no remaining materials from the project. Finally, efforts were made to contact the developer. Unfortunately, the developer was no longer in business and current contact information was unavailable.

Artifacts recovered during the 2015 project, along with original notes, photographs, and a copy of this report are house at the Ramsey County Historical Society (See Appendix A for scanned copies of field notes). The Ramsey County Historical Society is a qualified repository with the Minnesota Office of the State Archaeologist (OSA). Additional copies of this report were given to each partnership member, as well as the OSA.

Site Conditions

Weather during the two days of project was sunny, hot, and humid. Ample breaks were given for the participating public, and a shade canopy erected on the second day during unit excavation. The site had no surface visibility, therefore only subsurface testing was completed. The area was primarily fallow field, which had been marked and mowed prior to work to allow access. Edges of the field were piled with down brush, however, areas two to five meters from slopes on the south and west boundaries of the site were still accessible for testing.

Archaeological Results

A two-day, public archaeology event was hosted at 21RA54 on July 24th and 25th, 2015. Although the weather was hot and humid, more than 30 individuals from the community, including the Mayor of Maplewood, City of Maplewood and Maplewood Area Historical Society staff, participated. The first day consisted of site orientation, placement and excavation of 10 shovel tests primarily focused on answering research question #1. The second day consisted again of site orientation and the excavation of a 1m x 1m test excavation unit focused on answering research questions #2 and #3. Excavations were carried out with direct supervision of Jeremy Nienow, under MN State Archaeological License No. 15-033. A total of 66 artifacts were recovered, primarily prehistoric. Materials were cleaned on August 18th, 2015, again by community and staff members at the Maplewood Nature Center. Artifacts were analyzed by Jeremy Nienow in consultation with OSA staff and comparative collections available at the Minnesota Historical Society Archaeology Department Laboratory located at Fort Snelling.

Shovel Testing

A total of 10 shovel tests (STP) were excavated with four placed in previously plowed portions of the site and the remaining six along the south and west site boundaries (Figure 4, Table 1). Shovel tests 1, 3, and 4 were each positive with STP1 containing the highest concentration of artifacts (n=10). These tests were placed to assist in volunteer orientation to the site as well as traditional archaeological methods and practices. Once these tests were completed, four additional shovel tests (STP 5, 6, 7 and 8) were conducted along the southern boundary of the site, between three and five meters from the slope. Here again, three of the shovel tests (STP 6, 7, and 8) were all positive. After these shovel tests, two final tests were placed along the western border of the site, between three and five meters from the slope. Only one of these tests, STP10) was positive. Shovel testing was able to definitively show the site extending to the slope edge in both directions, effectively answering research question #1. Furthermore, shovel testing showed intact, sub-soil portions of the site exist within previously plowed portions of the site's southern and western portions of the site have not been previously plowed, however, they likely have been impacted by erosion and flood mitigation efforts.

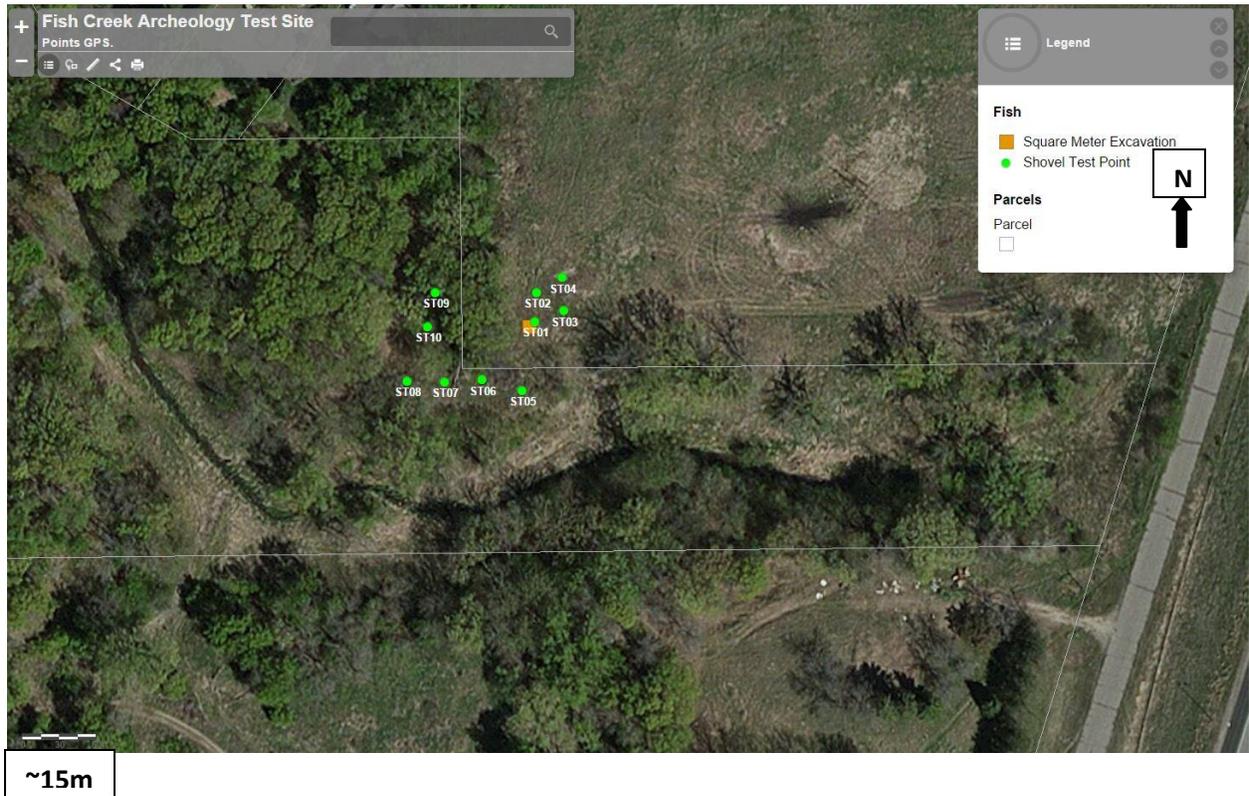


Figure 4: Site Map for 2015 21RA54 Investigations.

Table 1: 2015 Artifacts from Shovel Testing and Excavation Unit.

Prov.	Lvl	Depth	P. Historic			Historic				Total	Notes
			Ceramic	Lithic	bone	Ceramic	Metal	Glass	Other		
STP 1			4	4			2			10	Cord-roughened, quartz shatter, heat-treated cochoran shatter, siltstone biface tip, siltstone shatter, wire nail head, twisted wire with eye
STP 3			4	1			4			9	Cord-roughened, Prairie du Chein chert shatter, three sheet metal frags, 1 hand wrought sq. nail
STP 4			4					1	1	6	3 cord-roughened, 1 cord-impressed milk glass fragment, tin foil
STP 6			4				1			5	Cord-roughened, Pos. metal button
STP 7			2							2	Cord-roughened
STP 8			1							1	Cord-roughened partially smoothed
STP 8		30-43cmbgs	1							1	Cord-roughened
STP 8 Wall		0-61cmbgs	2							2	Cord-roughened
STP 8		61-70cmbgs	1	1						2	Cord-roughened, quartz shatter
STP 10		40-47cmbgs	1							1	Cord-impressed
Unit 1	2	10-20cmbgs	3	2		1			1	7	Cord-roughened, whiteware fragment, quartz tertiary flake, Prairie du Chien chert cortex shatter, porcelain doll fragment
Unit 1	3	20-30cmbgs		2			1		1	4	Quartz shatter, sheet metal, left toy arm
Unit 1	3	20-30cmbgs	1		1			2		4	Green bottle glass, clear bottle glass, mammal,
Unit 1	4	30-40cmbgs	11	2						13	Un-decorated cord-roughened rim, 9 cord-roughened, one cord-impressed, one quartz secondary flake, one quartz shatter
Unit 1	5	40-50cmbgs		1						1	Quartz tertiary flake
			39	13	1	1	8	3	3	68	

Unit Excavation

Based on the original four shovel tests from the first day, a test unit was placed immediately north of STP1. Excavation was conducted in 10cm arbitrary levels. Cultural materials were encountered in levels two through five, with the heaviest concentration of materials in level four, 30-40cmbgs. Level five saw a dramatic reduction in materials, and level six (50-60cmbgs) was culturally sterile. Unit excavation was halted at 60cmbgs. Floor plan drawings, detailed notes and photographs were taken of each level. The north and east walls of the unit were profiled, drawn, and photographed (See Appendix A). Wall profiling denoted a constant plowzone at 28cmbgs, followed by 12 to 27cms of B Horizon soils to a maximum depth of 55cmbgs, below which were C Horizon soils to 62cmbgs. The test excavation successfully answered research questions #2 and #3 noting cultural materials below the plowzone, including the site's highest densities of materials.

Artifact Analysis

The two days of excavation resulted in the collection of 68 artifacts. Fifteen of these objects were modern in nature including: one whiteware fragment, one green and one clear bottle glass fragments, one milk glass fragment, one porcelain doll fragment, one plastic figurine arm, one piece of tin foil, and eight metal fragments including a possible button or snap backing, a wire nail head, a fragment of twisted wire with an eye, one hand wrought square nail, and miscellaneous sheet metal fragments (Figure 5). These materials reflect late 19th through 20th century occupation of the surrounding landscape as its historic land use shifted from agricultural, to urban, to park/preserve. One partial mammal scapula element was also recovered. This artifact may be either historic or precontact in nature based on its provenience (Unit 1, Level 3: 20-30cmbgs within the plowzone). The remainder of the materials collected are likely precontact in nature. This list includes 13 lithics and 39 ceramic pot sherds. These materials represent a large increase in artifact assemblage and density of the site based on the 2005 excavations.

Lithics

The 13 lithics found at 21RA54 represent for the most part a typical assemblage for this region given the expectations listed in Bakken's (1997) lithic raw studies for materials primarily related to the Grantsburg sublobe. As was stated above, these materials may include Swan River chert, Red River chert, Tongue River silica, quartz, Knife Lake siltstone, Lake Superior agate, and basalt. Raw materials present in the assemblage include quartz (n=8), siltstone (n=2), Prairie du

Chien chert (n=2), and heat-treated Cochrane Chert (n=1) (Figure 6). The quartz and siltstone materials are likely local to the area with the Prairie du Chien and Cochrane cherts coming from



Figure 5. Example Modern Materials from 21RA54.



Figure 6. Example Lithic Materials from 21RA54.

nearby areas to the east and south of the project area. No diagnostic lithics were recovered with the collection primarily stone tool reduction debitage consisting of secondary flakes (n=1), tertiary flakes (n=2) and shatter (n=9). In addition to these, a siltstone biface tip fragment was also recovered, suggesting tool retouch / repurposing going on at the site. These materials are also similar in general composition to those recovered at the site in 2005.

Ceramics

A total of 39 ceramics were recovered from 21RA54 (Figure 7). Collectively, the sherds were all grit tempered and cord-roughened, with three sherds showing evidence of cord-impression which could indicate decoration or simply be part of the manufacturing (fabric bag) process. Typically the sherds are relatively thin and made from a hard paste. The vast majority of the sherds are not exfoliated and there are few signs of the erosional weathering noted on materials from the 2005 excavations. A single rim sherd was recovered. The sherd is undecorated and its vessel lip circumference suggest a large vessel. Generally, thin-walled, cord-roughened ceramics are indicative of the Late Woodland beginning after 900 A.D. and the sherds from 21RA54 are similar to other Late Woodland ceramics from the upper Midwest including Madison wares (Howell N.D.: 130-132; Theler and Boszhardt 2003: 153) representing effigy mound culture peoples (Anfinson 1979: 73-78; Stoltman and Christiansen 2000: 505).

Madison ware ceramics were recovered in Minnesota at the Sorg Site, 21DK1, discussed in the precontact context listed earlier in this document. This ceramic interpretation would fit nicely with a southeastern Minnesota through western Wisconsin area of origination for the lithics discussed previously and would give the site an overall Middle Phase (A.D. 700 to A.D. 1100) Late Woodland Tradition, camp site interpretation. There are 72 recorded, known sites in Ramsey County. On the whole, the known archaeological sites of Ramsey County are historic in nature (n=39 or 54%). The majority of these are tied to residential, commercial, and agricultural ventures from the mid 19th century through the early part of the 20th. After these sites, the next largest group are prehistorically unaffiliated sites (n=16). These typically include a scatter of lithic materials or even an individual lithic artifact, and it is thus not possible to tie them specifically to a chronological period. After these two groups the next largest group (n=13) are Woodland Tradition sites typically small habitation or campsites where the archeological assemblage contains both lithic debitage from making, sharpening, or using stone tools as well as ceramics for cooking, storing, or transporting materials; burial mounds; or even larger villages.



Figure 7: Example Ceramics from 21RA54

Conclusions and Recommendations

Summary

In March of 2015, a partnership was formed to advance portions of the City of Maplewood's 2012 Fish Creek Master Plan. Fish Creek partners met with Jeremy Nienow, Ph.D., RPA an archaeological liaison hired by the Metro Area Historical Society Collaborative to plan additional, public-focused, archaeology. A two-day, public archaeology event was hosted at 21RA54 on July 24th and 25th, 2015 consisting of site orientation, shovel testing, and test unit excavation. A total of 68 artifacts were recovered, primarily precontact in nature. Shovel testing showed the site extending to the slope edge in both directions, as well as demonstrating intact, sub-soil portions of the site exist within previously plowed portions of the site, and southern and western portions of the site have not been previously plowed. Text excavation recorded cultural materials were between 10 and 50cmbgs, with the highest concentration of materials 30-40cmbgs, an area below the plowzone.

A total of 68 artifacts primarily precontact in nature were recovered. Historic materials reflect late 19th through 20th century occupation of the surrounding landscape as its historic land use shifted from agricultural, to urban, to park/preserve. Precontact lithics represent a typical assemblage for this region including debris associated with lithic reduction and reuse. One biface tip fragment was also recovered. Ceramics from the site are thin-walled, grit-tempered, cord-roughened sherds including one undecorated rim and three cord-impressed sherds. Generally, thin-walled, cord-roughened ceramics are indicative of the Late Woodland and the sherds from 21RA54 are similar to other Late Woodland ceramics from the upper Midwest including Madison wares representing effigy mound culture peoples.

Recommendations

Based on this continued investigation of 21RA54, the site's previous recommendation as potentially eligible to the National Register of Historic Places is strengthened. Previously, the site was generally assigned to the Woodland Tradition and its associated materials were noted as eroded. With the 2015 excavations, the site assemblage has grown significantly and can more reliably be placed in the Late Woodland, although the site lacks a diagnostic lithic component. However, Arzigian (N.D.) in the drafted National Register of Historic Places, Multiple Property Documentation Form, proposed for *The Woodland Tradition in Minnesota* (ca. 1000 B.C. - A. D. 1750) specifically cites ceramics, their geographical and chronological association both within Minnesota and the Upper Midwest as a primary statewide research theme. Furthermore she lists as an example question for this research "How are Late Woodland corded ceramics in the southern part of the state related to the corded-ware

horizons found across the Midwest?" (Arzigian N.D.: 13). This is a question potentially answerable through continued research at 21RA54.

Given the site's soil integrity, demonstrated through both shovel testing and a test unit, and its potential to meaningfully contribute to the archaeological knowledge of the state and region, the site is clearly still potentially eligible to the National Register. There are only a handful of Late Woodland sites in Ramsey County. Finally, the site's location within a greenway space likely to not be developed upon in the near future, makes it an excellent candidate for long-term, sustained, research.

Recreational development in the area should avoid directly crossing the site and interpretive signage is recommended to alert the public to the site's cultural and historic value. Ahead of any additional trails through untested portions of the Fish Creek Greenway, archaeology prospection should be conducted, especially on landforms similar to the one occupied by 21RA54, including the area immediately west of the site across a small ravine.

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