

# *Farmsteads, Factories, Forts and Frontiers*

**Council for Minnesota Archaeology  
2011 Conference**

**February 18<sup>th</sup> and 19<sup>th</sup>  
Inver Hills Community College  
Inver Grove Heights, Minnesota**

**Program and Abstracts**



***CMA***

***Council for Minnesota Archaeology***

Sponsored by:

Council for Minnesota Archaeology  
Minnesota Archaeological Society  
Archaeology Department of the Minnesota Historical Society  
Inver Hills Community College Anthropology Department  
Inver Hills Community College Anthropology Small Community  
Office of the State Archaeologist

Symposium Committee:

*Patricia Emerson* - Archaeology Department of the Minnesota Historical Society  
*Jeremy L. Nienow* - Inver Hills Community College Anthropology Department  
*Bruce Koenen* - Office of the State Archaeologist

## Session Information: Friday, February 18<sup>th</sup>

8:00 - 9:00 Refreshments (HH Lobby and HH203)

9:10 - 9:25 Welcome: CMA Organizers and IHCC President Tim Wynes

### Session 1 (Room HH203): *Historical Towns and Industry*

9:30 - 9:50 *History and Archaeology at Agate Bay: Minnesota's First Iron Shipping Port* - Timothy A. Tumberg

9:55 - 10:15 *Rethinking "Hell's Four Acres": Recent Archaeological Evidence from the Historic Townsite of Agate Bay* - Amanda M. Gronhovd

10:20 - 10:40 *The Grave Lake Ice Roads* - Mike Magner

10:45 - 11:00 Break

11:00 - 11:20 *Lake Vermilion State Park: Identification of a Mid-to Late Nineteenth-Century Industrial Landscape on the Vermilion Iron Range*  
- Douglas George

cancelled *'Waste Not': Evidence of grease production as a form of economy at the Fort St. Joseph Archaeological Site (20BE23) in Niles, Michigan*  
- Chandler Herson

11:50 - 12:10 "I used to want to be a doctor but now I want to be an archaeologist": Public Archaeology at Mill Ruins Park  
- Amanda M. Gronhovd

12:15 - 1:55 Lunch (available on or off campus - see program for details)

### Session 2 (Room HH203): *Households and Farmsteads on the Frontier*

2:00 - 2:20 *A Claim Shanty and Sod Dugout Farmstead in Sac County: Early Euro-American Occupants on the Late Iowa Frontier*  
- Mark L. Anderson

2:25 - 2:45 *Building a Community From the Roots: A Study of Americanization and Ethnic Identity Through the Analysis of Log Buildings*  
- Lindsay A. Marshall

2:50 - 3:05 Break

Session information for Friday, February 18<sup>th</sup>, continued.

- 3:05 - 3:25      *Attacks on Homesteads and Farms in Milford, MN--18 August 1862*  
- Richard Rothaus
- Poster session    *A Collision of Cultures in Southwestern Minnesota Archaeological*  
*Exploration of Two Lacustrine Sites in the Lake Shetek Region of*  
*Murray County* - Patrick Bonnie and Susan Krook

**Session 3 (Room HH206): *Session: 9,000 Years on the Peninsula:***  
***The Petaga Point Archaeological Site***

- 2:00 - 2:20      *9,000 Years on the Peninsula: The Petaga Point Archaeological Site*  
- Jim Cummings
- 2:25 - 2:45      *The Geologic History of Petaga Point* - Heather Arends
- 2:50 - 3:05      **Break**
- 3:05 - 3:25      *Distinguishing Fat Rock Quartz in Petaga Point Lithic Assemblages*  
- Kent Bakken
- 3:30 - 3:50      *Ceramics From the Petaga Point Site, 21-ML-11*  
- Christy Hohman-Caine and Grant Goltz
- 3:55 - 4:15      *Big News from a Small Dig: The Kathio Archaeology Day Public*  
*Excavation Program at Petaga Point*  
- David Mather, Seppo Valppu & Jim Cummings
- 4:15 - 6:00      **Minnesota Archaeological Society &**  
**Council for Minnesota Archaeology**  
**Sponsored Reception (HH 203 and HH Lobby)**

**Conference reconvenes at 9:00am tomorrow**

## Session Information: Saturday, February 19<sup>th</sup>

9:00 - 9:50 Refreshments (HH Lobby, HH203, HH206)

### Session 4 (Room HH203): From Fluted Points to the Fur Trade

- 9:55 - 10:15 *Preliminary Results of Analyzing Lake Benton Ceramics*  
- Lindsey Reiners
- 10:20 - 10:40 *On the Trail of Nicollet: The Roosevelt Shores Site, 21-CW-273*  
- Grant Goltz
- 10:45 - 11:05 *The Fluted Points of Pine City: Reexamination of the Neubauer Collection* - Susan C. Mulholland and Stephen L. Mulholland
- 11:05 - 11:20 Break
- 11:20 - 11:40 *A Look at Two Buried Prehistoric Sites in the Driftless Area of Southeast Minnesota* - Patrick McLoughlin
- 11:45 - 12:05 *Two Newly Identified Archaeological sites at Lake Vermilion State Park, St. Louis County, Minnesota*  
- David S. Radford and LeRoy Gonsior
- 12:10 - 12:30 Reconciling Knowledge Systems through Examination of Lithic Artifacts from the Red River Valley, Minnesota.  
- Brian Hoffman, Tom Ross, Jessica Zielinski, Chelsea Starke, and Forest Seaberg-Wood
- 12:35 - 12:55 *Fifteen Forged Iron Axes of Madeline Island*  
- David H. Peterson
- 1:00 - 2:20 Lunch

### Session 5 (Room HH203): *Archaeology at the Shoemaker Site (21SN0164)*

- 2:25 - 2:45 *Archaeology at the Shoemaker Site (21SN0164): A brief history of research design, excavation and analysis* - Debra Gold
- 2:50 - 3:10 *Ceramics, Functionality, and Social Class: Piecing Together the Shoemaker Site*  
- Erica Beacom, Allison McCrory, Justin Olson, Mary Lenich, and Kelsey Milligan
- 3:10 - 3:25 Break

Session information for Saturday, February 19<sup>th</sup>, continued.

- 3:30 - 3:50      *Cutting Back? An analysis of faunal processing at the Shoemaker Site* - Jenna Hullerman and Amanda Robinson
- 3:55 - 4:15      *Roses are Red, Violets are Blue, Metal is Rusted, Let's Learn Something New: Analysis of metal artifacts from the Shoemaker Site* - Minda Lee and Kurtis Neu

### Session 6 (Room HH206): *Archaeology at Knife Lake*

- 9:55 - 10:15      *Bifacial Production Strategies at the Wendt site, a Knife Lake Siltstone Quarry on Knife Lake, Lake County, Minnesota*  
- Mark P. Muniz
- 10:20 - 10:40      *Lillian Joyce Site* - Jennifer Rovanpera
- 10:45 - 11:05      *An examination of the efficiency of two shovel testing methodologies in the Kawishiwi District of the Boundary Waters Canoe Area Wilderness* - Tyler J. Olsen
- 11:05 - 11:20      **Break**
- 11:20 - 11:40      *Undisturbed Evidence of Lithic Manufacture Beneath a Tree Throw*  
- Philip Bauschard and Greg Schwab
- 11:45 - 12:05      *Identifying the Effects of Tree Throw on Soil Horizons and Lithic Assemblages at the Wendt Site in the Boundary Waters Canoe Area Wilderness* - Jennifer L. Norman
- 12:10 - 12:30      *Association through Lithic Technology: Preliminary Results of the AJM Site* - Andrew Kurth
- 12:35 - 12:55      *Exploring Paleo-Landscape Interpolative 3-Dimensional Reconstructive Modeling* - Cole McDonald
- 1:00 - 2:20      **Lunch**

Session information for Saturday, February 19<sup>th</sup>, continued.

**Session 7 (Room HH206): Rivers, Lakes, Forests, and Fields:  
Archaeological Survey Across Minnesota**

- 2:25 - 2:45      *2010 Mississippi River Aitkin County Survey*  
- Ann Merriman, Christopher Olson
- 2:50 - 3:10      *Archaeological Survey of the Lake Superior Region: Adventures on  
the North Shore* - Susan C. Mulholland and Stephen L. Mulholland
- 3:10 - 3:25      Break
- 3:30 - 3:50      *The Legend of Dead Man's Corner - The People, Places, and Events of  
October 12, 1918* - Steven J. Blondo
- 3:55 - 4:15      *Swift County Archaeological Survey*  
- George R. Holley, Michael G. Michlovic and Rinita Dalan
- 4:30 - 6:00      CMA Meeting (HH203)  
(executive officers meeting immediately after)

## Conference Abstracts

### *Session 1: Historic Towns and Industry*

#### **History and Archaeology at Agate Bay: Minnesota's First Iron Shipping Port**

Timothy A. Tumberg - Archaeology Department, Minnesota Historical Society

Since the summer of 2007, the Minnesota DNR has been conducting archaeological investigations at the historic town-site of Agate Bay, located along the north shore of Lake Superior within the present day limits of the City of Two Harbors. Though occupied for only a short time, the Agate Bay site has tremendous potential for historical archaeology because much of the platted town-site was capped by a wooden platform from shortly after its abandonment in the late 1880s until the 1920s, and then by a large concrete coal storage slab from the late 1920s until October 2006. This paper will provide an overview of the project's background and summarize the results of the first two years of on-site fieldwork.

#### **Rethinking "Hell's Four Acres": Recent Archaeological Evidence from the Historic Townsite of Agate Bay**

Amanda M. Gronhovd - Owner/Principal Investigator 10,000 Lakes Archaeology, Inc.

Historic accounts of the 1880s townsite of Agate Bay are rather sketchy and occasionally contradictory. According to one of the more popular accounts, during its few short years of existence, Agate Bay acquired a reputation as a rough-and-tumble frontier settlement. The location on which it stood became commonly known as "Hell's Four Acres," and included an especially notorious section called Whiskey Row. Recent archaeological investigations suggest that Agate Bay may not entirely deserve that wild and woolly reputation but that it was in fact simply a typical frontier-era settlement with no more than the usual number of saloons and other opportunities for vice. This paper will review the preliminary results of intensive archaeological investigations conducted at the site during the 2009 and 2010 field seasons.

#### **The Grave Lake Ice Roads**

Mike Magner - Minnesota Department of Natural Resources, Forestry Archaeologist

Ice roads, also known as sled roads or sleigh roads, were low-friction roadways that enabled loggers to move large loads of timber through rugged topography. Ice roads were constructed with gentle curves and minimal vertical gradient, and the remains of these grades can still be traced through the morainal topography of northern and central Minnesota. The Grave Lake ice road system, located in northern-central Itasca County, is one of the most extensive and best preserved networks of ice roads remaining in the state. The layout and engineered nature of the Grave Lake Ice Roads will be described, and the unique history of these particular grades will be explored, and strategies employed to protect and preserve the ice roads will be discussed.

#### **Lake Vermilion State Park: Identification of a Mid-to Late Nineteenth-Century Industrial Landscape on the Vermilion Iron Range**

Douglas George - Minnesota State Parks Cultural Resource Management Program, Archaeology Department, Minnesota Historical Society

Cultural resource investigations in the recently acquired Lake Vermilion State Park have identified the presence of an extensive network of late nineteenth-century mining test pits related to the identification and on-site evaluation of the iron producing potential of this portion of the Vermilion Iron Range. Surface reconnaissance of portions of the new state park by the Minnesota State Park Cultural Resource Management Program (MSPCRMP) conducted between late April and November 2010 documented the presence of several hundred hand-

excavated test pits varying in size from 4.5-10 m across with depths up to 6 m. These pits were placed in a systematic grid pattern, with regular intervals of 50-80 feet between test pits on north-south transects approximately 280-300 feet apart. The limited historical documentation discovered to date suggests that these pits were excavated between 1874 and 1880 under the direction of Professor A. H. Chester of Hamilton College, who was employed by Charlemagne Tower to assess the iron bearing potential of the Mesabi and Vermilion iron range areas. In addition to the iron ore test pits, several other test pits of a different configuration were encountered that may date to the short-lived, mid-1860s Vermilion gold rush. Limited reconnaissance on the adjacent Soudan Underground Mine State Park, a National Historic Landmark property, also documented the presence of mining test pits including several that appear to post-date the 1890 development of the hollow-core diamond drill. Evaluation of the test pits will be conducted to determine how they relate to the history of Soudan Mine and what measures Minnesota State Parks may need to take to preserve these cultural features as Lake Vermilion State Park is developed.

**'Waste Not': Evidence of grease production as a form of economy at the Fort St. Joseph Archaeological Site (20BE23) in Niles, Michigan**  
Chandler Herson

Excavations at the Fort St. Joseph site (20BE23) have revealed large amounts of faunal remains. A large amount of the bone assemblage consists of white-tailed deer (*Odocoileus virginianus*), and appears to have been crushed and boiled to harvest the marrow for grease production. This paper looks to examine the possibility of grease production as a form of economy at this French colonial outpost and the further possibilities for research in the surrounding regions and associated sites.

**"I used to want to be a doctor but now I want to be an archaeologist": Public Archaeology at Mill Ruins Park**

Amanda M. Gronhovd - Owner/Principal Investigator 10,000 Lakes Archaeology, Inc.

This paper will discuss the history of the Cataract Mill Complex and the public archaeology program conducted at the site in 2006 and 2007. The Cataract Mill was the first privately owned flour mill in Minneapolis' West Side Milling District. Minneapolis was the international leader in flour milling during the first part of the 20<sup>th</sup> Century, and precipitated the development of companies such as Pillsbury and General Mills.

Minneapolis' milling district was also one of, if not the, largest direct-drive water powered system in the world at its height of operation. In the 1930s however, the flour milling industry began to move eastward to locations such as Buffalo, New York, and by the 1970s few flour mills operated in Minneapolis. Despite the fall of the Minneapolis milling industry, significant archaeological resources remain along Minneapolis' banks of the Mississippi River. These resources include both above- and below-ground architectural and artifactual remains of the mills (including entire rooms buried underground), an expansive system of tunnels and turbine shafts that extends for miles under the city, and the structural remains of the canals and railroad.

The Minneapolis Parks and Recreation Board now owns the Cataract Mill site and has incorporated it into "Mill Ruins Park." In 2006 and 2007, the Minneapolis Parks and Recreation Board in conjunction with 10,000 Lakes Archaeology conducted a public archaeology program at the Cataract Mill site. This program received funding from the St. Anthony Falls Heritage Board, the History Channel and the Mississippi River Fund, and focused on bringing inner-city kids to the site to learn about their city's history, archaeology, math, and science. On Saturdays the site was open to the general public to tour, excavate and help process artifacts, drawing hundreds of visitors to the site.



## *Session 2: Households and Farmsteads on the Frontier*

### **A Claim Shanty and Sod Dugout Farmstead in Sac County: Early Euro-American Occupants on the Late Iowa Frontier**

Mark L. Anderson - Project Archaeologist, Iowa Office of the State Archaeologist

Sites 13SA46 and 13SA47 were archaeologically investigated because of the US 20-reconstruction project through northwestern Iowa. They represent a claim shanty and sod dugout farmstead respectively, dating to 1858-1870. This was the era of the Northern Border Brigade Forts in northwest Iowa, a response to the 1857 Spirit Lake Massacre and 1862 Great Sioux Uprising. These are also the last years of the frontier period in Iowa. Euro-American settlement was rapidly expanding across this region as the United States continued to extend its control over western land holdings. Sites 13SA46 and 13SA47 represent the homesteading of northwest Iowa during this time and yield a rare glimpse into the lifeways of individual settlement in the hinterland. Archaeological evidence of the residential settlements of these frontier people is somewhat scarce with limited context for their analysis. From the results of these investigations, an attempt is made to place 13SA46 and 13SA47 in a greater regional, late frontier settlement context. It is also suggested that these two site types may yet exist throughout portions of northwest Iowa and southwest Minnesota, preserved through the rural nature of this area, low modern population densities, and the unobtrusive nature of the sites themselves.

### **Building a Community From the Roots: A Study of Americanization and Ethnic Identity Through the Analysis of Log Buildings**

Lindsay A. Marshall - St. Cloud State University

The late 19<sup>th</sup> century was an era of heavy immigration by several different immigrant groups to Carver County, Minnesota. The process an immigrant went through towards identifying as an American can be analyzed through the architecture, settlement patterns, and social interactions as evidenced through letters and diaries. For the purposes of this presentation, this self-identification process is known as the Americanization process. Many of Carver County's early immigrants built log buildings upon first arriving; a number of which are still standing. An architectural checklist for documenting these log buildings was developed, and permission letters were sent to landowners for access to the land. Statistical analyses were performed on the architectural database to identify common architectural characteristics between immigrant groups. Settlement patterns were studied using the 1880 plat maps and corresponding Minnesota census records. Archival research using letters and diaries written by immigrants was also studied to understand the social interactions between immigrants. Interpreting all of these results shows that the residents of Carver County during the 1880s were somewhere in the middle of the Americanization process; no longer simply interacting with their own immigrant group, but not fully interacting with other immigrant groups in all aspects of life.

### **Attacks on Homesteads and Farms in Milford, MN--18 August 1862**

Richard Rothaus - Trefoil Cultural and Environmental

A group of related German-American immigrants settled in Milford Township in 1854 and the years following. The settlement, about seven miles northwest of New Ulm, sat tight against the reservation border. On 18 August 1862, shortly after the attack at the Lower Agency, a group of 10-20 Dakota warriors attacked a core area of about 20 houses in Milford. While the German-American population was well acquainted with their Dakota neighbors and aware of rising tensions, they were completely unprepared for this sudden and vigorous attack. A minimum of 56 settlers (men, women and children) were killed, and the remaining population fled to New Ulm. There are no recorded Dakota fatalities, and only one German-American is known to have returned fire.

In 2010 as part of an American Battlefield Protection Program grant, the author conducted archival research and field survey to clarify the events of Milford and define the battlefield. This paper will present the results of that research, including details on the Dakota warriors who attacked Milford and the context of their tactics. Field survey was able to identify remnants of homesteads, including one

where all the inhabitants were killed and we have no record of precise events.

### **A Collision of Cultures in Southwestern Minnesota Archaeological Exploration of Two Lacustrine Sites in the Lake Shetek Region of Murray County**

Patrick Bonnie and Susan Krook - Normandale Community College

Faculty and student teams from Normandale Community College have been evaluating two proximate sites in Murray County in southwestern Minnesota since 2006. These sites, historically designated 21MU0003 and 21MU0021, are on untilled private property near the shores of Bloody Lake and Lake Fremont, adjacent to the larger Lake Shetek with which these Lakes are interconnected. Site 21MU0021 is the historically relevant Hurd Cabin Site, a farmstead where some of the first European settlers were killed in the Great Dakota War of 1862.

Test trench excavations have yielded both historic and prehistoric materials that have been cross-compared with artifacts previously found in this region. Recovered potsherds and lithics compare to ceramics and points from the later Woodland period, suggesting more or less continuous habitation of these sites for at least two millennia. Recent radiocarbon analysis of charcoal recovered at a modest depth of 30 cm indicated a date of 1314 A.D. +/- 50 years. Work at these historically and archaeologically interesting sites is ongoing, and expanded excavations are proposed in 2011 and beyond.

### *Session 3: 9,000 Years on the Peninsula: The Petaga Point Archaeological Site*

#### **9,000 Years on the Peninsula: The Petaga Point Archaeological Site**

Jim Cummings - Mille Lacs Kathio State Park, Minnesota Department of Natural Resources

The Petaga Point archaeological site, 21ML11, is located in Mille Lacs Kathio State Park, on a peninsula where the Rum River exits Ogechie Lake. The research potential of Petaga Point was first brought to the attention of the archaeological community by Jacob Brower, who conducted surveys of the Mille Lacs Locality in the late 1890s. In the 1920s and 30s the site area was owned and farmed by the John and Judith Moore family, who collected a variety of prehistoric artifacts, including several of copper. The University of Minnesota conducted surveys and excavations at Petaga Point in 1933, 1965, 1966 and 1967. These studies show Petaga Point to be a multi-component site, with features and artifacts from the Late Archaic, Middle Woodland, Late Woodland and Terminal Woodland Periods. Investigations by the Minnesota Historical Society in the 1990s yielded a point fragment indicating a Paleoindian component at a location adjacent to the previously defined site area. This paper provides a brief historical overview of archaeology at the site and serves as an introduction to four papers focusing on aspects of geological, archaeological and historical research at Petaga Point.

#### **The Geologic History of Petaga Point**

Heather Arends - Geologist, Minnesota Department of Natural Resources

The landscape currently observed in Kathio State Park is the result of glacial deposition and post-glacial erosion and modification. Petaga Point is situated on the southwestern section of the Mille Lacs Moraine. Geologic mapping of Kathio State Park (1998) and Mille Lacs County (2005) establishes a relative geochronology for the region and identifies a sequence of events that created the modern landscape of Petaga Point.

The Mille Lacs Moraine records a re-advance of the Superior Lobe after the last glacial maximum (22,000-18,000 years BP). The stratigraphy of the moraine consists of thrust silts, sands and gravel below a cap of red-brown sandy-loam (Superior Lobe till) of variable thickness (10-50+ feet).

As the glaciers receded, glacial meltwater inundated the region. Lake Mille Lacs is one of a few remaining pro-glacial lake basins currently occupied by water. A strandline on the south side of

Ogechie Lake records a paleo-lake level of 1260 feet. The strandline elevation also correlates with an abandoned outlet of Mille Lac Lake located just north of Lake Onamia. The outlet of Mille Lacs Lake shifted with the down cutting and breach of Ogechie Lake at Petaga Point which forms the modern headwaters of the Rum River.

### **Distinguishing Fat Rock Quartz in Petaga Point Lithic Assemblages**

Kent Bakken - Minneapolis, Minnesota

The Petaga Point lithic assemblages from the University of Minnesota collections were recataloged in 2010. Most of the artifacts came from the 1965 to 1967 investigations by Cooper, Bleed and Johnson. This not only provided a chance to update the lithic analysis for the site, but also the first opportunity to try to distinguish Fat Rock Quartz from other quartz. Fat Rock comes from the vicinity of Little Falls, Morrison County. It has a metamorphic structure that makes it significantly more flakable than other quartz. The results from Petaga Point suggest that it should be possible to dependably distinguish Fat Rock from other quartz. The resulting data should enable significant progress in charting the history of lithic raw material use in the Mille Lacs region, and in understanding the changing place of different kinds of quartz in regional raw material economies. This is especially helpful given the importance of quartz in the region, where it commonly constitutes the single most abundant raw material in assemblages.

### **Ceramics From the Petaga Point Site, 21-ML-11**

Christy Hohman-Caine and Grant Goltz - Soils Consulting

The Petaga Point Site is the type site for Onamia, Kathio, and Ogechie ceramics, three of the ceramic series crucial to understanding the archaeology of central Minnesota. The ceramics from Petaga, although excavated in the 1960s, have remained unanalyzed except for a brief description added to the analysis of the pre-ceramic component by Bleed in 1969.

Blead's analysis was based on information from Elden Johnson, who was the originator of the three ceramic series, and the primary excavator of the sites in Mille Lacs-Kathio State Park.

This paper analyzes the Petaga ceramic collections, compares this analysis to the information in Bleed, discusses each of the ceramic types in more detail, and makes recommendations for future research.

Discrepancies between the analysis presented in Bleed and the present analysis are discussed, including the ceramics found in association with the house floor at Petaga. Problems with definitions, particularly the expanding definition of Kathio ceramics, are noted. Future research needs include dating of the house, refinement of definitions, and vessel reconstruction.

### **Big News from a Small Dig: The Kathio Archaeology Day Public Research Program at Petaga Point (21ML11)**

David Mather - State Historic Preservation Office, Seppo Valppu - Valppu Archaeobotanical, and Jim Cummings - Mille Lacs Kathio State Park, Minnesota Department of Natural Resources

This is an update on an ongoing public archaeology program at Petaga Point, with exciting results in the field and laboratory. The program began in 2006, and has entailed one square meter of excavation per year. The focus of the dig is a burned house feature, which we had believed dated to the Late Woodland Tradition, following Elden Johnson's excavation of a complete house nearby in 1967. We recovered samples of the house's burn layer in 2008, 2009 and 2010. Archaeobotanical analysis of this material has provided information about the construction of the house (possibly a lattice of pine and spruce boughs supported by poles) and the probable season of occupation (summer). Radiocarbon dates from "our" house and the 1967 house range from approximately 1680-1720 AD, much more recent than had been thought, indicating that they are from around the time of Father Louis Hennepin's 1680

residence with the Mdewakanton Dakota in this area, as described in his 1683 best-seller, *Description of Louisiana Newly Discovered to the Southwest of New France by Order of the King*. Finally, the site stratigraphy and presence of older diagnostic artifacts from above the burn layer indicate that the structure may have been an earthlodge.

#### *Session 4: From Fluted Points to the Fur Trade*

##### **Preliminary Results of Analyzing Lake Benton Ceramics**

Lindsey Reiners - St. Cloud State University

This research presents preliminary results of analyzing ceramics from three single occupation sites of the Late Woodland Lake Benton culture located in Douglas County, Minnesota. By studying the ceramics, we may reveal whether or not Lake Benton culture is a local development or resulted from an immigrant population. My research will identify and analyze the minerals within a nearby natural clay source and 20 ceramic sherds from Dahlstrom, Hammit, and Johnsrud sites using different but complimentary techniques, scanning electron microprobe and a multi-element scan. By comparing the mineral composition of the ceramic sherds with a naturally occurring clay source close to the sites, it will provide a test of whether or not the site occupants were familiar with local clay sources and might represent a local cultural development, or if they immigrated into the area and brought with them ceramics made from exotic clays. By understanding the relationship of the ceramics to the three sites we can better understand the relationship of the site occupants to the larger region. This research was funded in part by the Riaz Malik Student Research Scholarship provided by the Council for Minnesota Archaeology.

##### **On the Trail of Nicollet: The Roosevelt Shores Site, 21-CW-273**

Grant Goltz - Soils Consulting

The Roosevelt Shores Site is a multicomponent, Woodland through Contact Period site on the western shore of Roosevelt Lake in northern Crow Wing County, Minnesota. Archaeological investigations conducted during 2009 and 2010 have recovered a wide range of Woodland Tradition materials including Havanoid, Brainerd, St. Croix, Sandy Lake, and Oneota ceramics. The Sandy Lake and Oneota ceramics are associated with French Period trade goods, including wire wound beads and two clasp knives. Several features were noted, including three hearths, one of which contained early and mid-19<sup>th</sup> century materials, including an early percussion cap. A careful examination of the journal of Joseph Nicollet (1836) places his campsite and observation station of August 15/16, 1836 very close to this site. Some of the artifacts recovered may suggest that one of the hearths could have been his campfire.

##### **The Fluted Points of Pine City: Reexamination of the Neubauer Collection**

Susan C. Mulholland and Stephen L. Mulholland - Duluth Archaeology Center

The Neubauer Collection contains the largest concentration of fluted points reported to date in Minnesota; 10 specimens were documented by Orrin Shane in the 1980s. Recent reexamination of the collection has identified additional Early Paleoindian points. All points have been photographed and documented with the collection locality known for most of the points. Identified types include Folsom, Gainey, and Holcombe; Clovis may also be present. These data indicate a concentration of activity during the earliest Paleoindian Traditions in the southeastern part of Pine County. Perhaps not coincidentally, this area was deglaciated very early in the Late Pleistocene sequence and was open to colonization from the east.

##### **A Look at Two Buried Prehistoric Sites in the Driftless Area of Southeast Minnesota**

Patrick McLoughlin - USDA, NRCS

The Upper Mississippi River Valley cuts through the rugged and unglaciated Driftless Area. This unique setting of rich and diverse natural habitats characterized by dramatic limestone bluffs, river valleys,

and forested hillsides starts at Lake Pepin, below Red Wing, Minnesota, and ends near Dubuque, Iowa. In recent years there has been an increase in funding at both the state and federal level to implement streambank protection practices along smaller tributaries of the Mississippi River in the Driftless Area. The goals of these practices are to impede erosion, improve water quality, and improve riparian and prime cold water fish habitat. This paper focuses on two buried prehistoric archaeological sites encountered in the Driftless Area of Southeast Minnesota during compliance activities for federally funded streambank stabilization projects. These stratified, multi-component sites, that appear to date from the Woodland period to possibly well into the Archaic, are helping to shed light on time periods and site types that are poorly known in the Driftless Area and Upper Mississippi River Valley.

### **Two Newly Identified Archaeological sites at Lake Vermilion State Park, St. Louis County, Minnesota**

David S. Radford and LeRoy Gonsior - Archaeology Department, Minnesota Historical Society

Archaeological assessment of the newly established Lake Vermilion State Park in St. Louis County, Minnesota, revealed two archaeological sites of particular interest along the shoreline of Lake Vermilion. Testing at the Armstrong Bay site (21SL1107) identified a lithic tool manufacture or resharpening area in association with a hearth feature. The site's complex lithic assemblage is of significance because it contains the largest number of obsidian artifacts ever found on a site in Minnesota. A sample of burned bone from the hearth feature is presently being dated which should assist with interpretations about the age of the site. The Cable Bay Quarry site (21SL1108) consists of quarried chert fragments found in association with flakes and a broken biface tool. The chert is exposed in outcrops and in boulder form. Fifty-percent of the Superior National Forest's site collections from Lake Vermilion and nearby Trout Lake contain chert similar to that found at the quarry. The chert is from the Gafvert Lake Sequence of the Lake Vermilion Formation and varies substantially in color, with a greenish-gray color being the most common. It ranges from semi-transparent to opaque and also varies in workability. How the chert from the Cable Bay Quarry site fits within established identifications of lithic raw materials in northeastern Minnesota is currently under discussion.

### **Reconciling Knowledge Systems through Examination of Lithic Artifacts from the Red River Valley, Minnesota.**

Brian Hoffman\*, Tom Ross+, Jessica Zielinski\*, Chelsea Starke\*, Forest Seaberg-Wood\*

\*Hamline University; +Upper Sioux Community

One of the trends in archaeology of the 21st century is the increasing adoption of pluralist approaches to research, interpretation, and preservation. The pluralist approach results in more powerful and meaningful understanding because of the strength gained by combining different knowledge systems. We use this pluralist approach to look at lithic artifacts recently recovered from the Slinninger Mound site (21-NR-1) in Norman County, Minnesota. Our 'mainstream' archaeology perspective examines raw material and technological choices through analysis of the chipped stone tools and waste flakes. Our 'indigenous' archaeology approach considers Dakota oral history and traditional concepts of material objects. We find that the two approaches offer distinct yet complimentary ideas about the production of lithic artifacts and enrich our understanding of the flintknappers who lived in the Red River valley 1500 years ago.

### **Fifteen Forged Iron Axes of Madeline Island**

David H. Peterson - Two Harbors, Minnesota

Over the millennia, Madeline Island has been home for countless Native American populations. Today, the area is home to a vibrant Anishinabe population. Anishinabe ancestors have inhabited the island and area for centuries. As early seventeenth century French explorers advanced westward from the St. Lawrence River into Lake Superior, they brought iron tools. The iron axe was necessary for survival. The French, British and American fur traders closely followed the explorers trading iron axes for fur. Lake Superior commerce began in the early 1600s and continued until the mid 1800s.

Madeline Island had French, British and American forts, trading posts and villages. These immigrants brought iron axes for their personal use and as a major trade item. The Madeline Island Museum maintains a collection of fifteen forged iron axes. These artifacts with precise provenience will be compared to axes from Huronia, NorthWest Company Snake River Post and United States Sandy Lake Sub Agency Post.

The Madeline Island axe characteristics will demonstrate what government, trading company or blacksmith respectively gifted, traded or forged each axe. An exact or probable time period for each of the fourteen axes will be presented to provide its historical placement between 1600 and 1854.

### *Session 5: Archaeology at the Shoemaker Site (21SN0164)*

#### **Archaeology at the Shoemaker Site (21SN0164): A brief history of research design, excavation and analysis**

Debra Gold - St. Cloud State University

The Shoemaker Site (21SN0164) is a 19th century home site located on the St. Cloud State University Campus. Historic maps and photographs indicate that a house was first built here in the 1850s or 1860s, with another house built a decade or two later. These homes were torn down or moved when a university dorm was constructed at the site in 1915. The St. Cloud State University Anthropology program has conducted an archaeological field school at this site since 2004, seeking information about St. Cloud's first European-American community (known as Lowertown) and the subsequent occupation of the area. This paper presents an overview of the site and a brief history of excavation and research design. It sets the stage for the three papers that follow; these subsequent papers describe analysis of artifacts from the site, with an emphasis on what has been learned from our summer, 2010 excavation.

#### **Ceramics, Functionality, and Social Class: Piecing Together the Shoemaker Site**

Erica Beacom, Allison McCrory, Justin Olson, Mary Lenich, Kelsey Milligan - St. Cloud State University

Ceramics are a vital part of archaeological sites because of the variety of indicators they provide on socio-economic status, functionality, and origin of each piece. There were a variety of ceramics found at the Shoemaker Site. Our methodology included identifying different patterns, embossment, and maker's marks from comparative research and examples provided by various sources including academic books, articles, and websites. We also measured the thickness of fragments in millimeters to determine functionality and measurements. Weight distribution was also examined in the hope that differing weights would identify origins of the fragments. The identification of patterns, embossment and maker's marks showed that the majority of the ceramics were produced in the Staffordshire group of manufacturers; this allowed us to determine the inhabitants' status as middle class. We also identified three types of decoration and suggest that earthenware fragments are indicators of bakeware. Weight results showed a highly disturbed site. Thickness measurements helped identify earthenware function; other results were inconclusive.

#### **Cutting Back? An analysis of faunal processing at the Shoemaker Site**

Jenna Hullerman and Amanda Robinson - St. Cloud State University

By studying the faunal remains of the Shoemaker Site, insight was gained into the type of animals that were utilized. The topics studied were the tools implemented for animal processing, the ways in which wild vs. domesticated animals may be differentiated, the relevance of the bones' final resting place and whether this indicates their origins and the relationship between processed meat and the ethnic origins of those who utilized them. The type of faunal remains found were poultry, bovine, and fish, suggesting that the remains were used for consumption. The number of remains found were small for finding cutmarks and the rest were fragmented, leading us to no further conclusions about the cutmarks specifically. We concluded that saws, knives, and cleavers were used the most. The bones

which were processed had evidence of traditional Scandinavian cooking techniques. Information learned through excavation of the faunal remains will help for future conclusions about the site as a whole.

**Roses are Red, Violets are Blue, Metal is Rusted, Let's Learn Something New: Analysis of metal artifacts from the Shoemaker Site**

Minda Lee, Kurtis Neu - St. Cloud State University

The metal artifacts analyzed from the Shoemaker Site included both square and round nails as well as flat pieces of metal. Nails were analyzed to help date the house construction and well as to try to understand the use of woodwork in the interior of the house. Flat sheet metal was (some decorative and some more basic) was also examined to try to identify its use. We found that the site was heavily disturbed due to dorm construction, landscaping, and natural processes, and this proven disturbance affects our conclusions.

*Session 6: Archaeology at Knife Lake*

**Bifacial Production Strategies at the Wendt site, a Knife Lake Siltstone Quarry on Knife Lake, Lake County, Minnesota**

Mark P. Muñiz Associate Professor - St. Cloud State University

In September 2010, St. Cloud State University partnered with Superior National Forest to investigate several sites located on Knife Lake, in the Boundary Waters Canoe Area Wilderness. Previous investigations indicated that these sites were a possibly related complex of occupations focused on a Knife Lake siltstone quarry and adjacent campsites. This paper presents preliminary results of an ongoing analysis of the lithic technology recovered from these sites. The analysis is focused on the production of bifaces and prismatic blades with the goal of determining if it is possible to establish a cultural affiliation based on unique flintknapping strategies. Preliminary results indicate that bifacial flaking characteristics at the Wendt site show similarities to Agate Basin and Parkhill phase sites in Wisconsin, Michigan, and Ontario, while prismatic blade production is also characteristic of a Paleoindian lithic technology.

**Lillian Joyce Site**

Jennifer Rovanpera - St. Cloud State University

This presentation represents the preliminary results from the Lillian Joyce site located on the north arm of Knife Lake in the Boundary Waters Canoe Area Wilderness, Lake County, Minnesota. The site was excavated for the first time in September 2010. The purpose of the excavation was to determine the age of the site and the site's function. The preliminary results will focus on the lithic material from the sites, its sources and whether bifacial reduction or core reduction was the primary activity at the site.

**An examination of the efficiency of two shovel testing methodologies in the Kawishiwi District of the Boundary Waters Canoe Area Wilderness**

Tyler J. Olsen - St. Cloud State University

In the fall of 2010, I and fellow graduate students from St. Cloud State University joined Heritage Resource managers from the United States Forest Service [USFS] to investigate several sites in the Boundary Waters Canoe Area Wilderness [BWCAW]. Of interest to the USFS with respect to these sites were determinations of site foci, natural processes affecting site context, and site boundary delineations. Determining site boundaries allowed this researcher to also compare two shovel testing strategies: systematic and stratified sampling. Three previously identified sites in the BWCAW were separated by two topographic saddles, and the relationship of these sites to each other was not well defined. The saddles were bisected lengthwise to create two sampling universes in each, with one half

to be investigated via each sampling strategy. It appears that the saddles not only form a natural topographic break between the previously identified sites, but also contain two new archaeological sites. The shovel testing methodology comparison yielded mixed results. Systematic sampling was effective locating subsurface cultural deposits but time consuming. Stratified sampling was also effective at locating subsurface cultural deposits and more time-efficient, but required more planning through consideration of existing data on cultural material distribution.

**Title: Undisturbed Evidence of Lithic Manufacture Beneath a Tree Throw**  
Philip Bauschard and Greg Schwab - St. Cloud State University

The Lillian Joyce Site is located on the shore of Knife Lake in the Boundary Waters Canoe Area Wilderness of the Superior National Forest, Lake County Minnesota. At this site a downed tree with an exposed root mass and associated tree bowl were excavated, with the lithic assemblage provenience consisting of arbitrary levels from the root mass and adjacent tree bowl. Five random samples of artifacts were taken proportionately from each of the collected strata, measured for their basic linear dimensions and mass, and then subjected to significance tests to determine if there were any differences between the samples. Results of the tests indicate significant size distinctions between some of the deepest lithic artifacts and the shallower assemblage. This may indicate that this deep context was undisturbed by the tree-throw event. Independent analyses of the tree throw debitage further indicate that, without differentiation between artifact locations, the population of debris represents multiple lithic reduction strategies. It is proposed that the different technological strategies that are represented at the site originate from separate lithic reduction events.

**Identifying the Effects of Tree Throw on Soil Horizons and Lithic Assemblages at the Wendt Site in the Boundary Waters Canoe Area Wilderness**  
Jennifer L. Norman - St. Cloud State University

The overall research goal of this thesis is to analyze how tree throw affects archaeological sites in order to gain a greater understanding of site formation processes influenced by this significant environmental factor. This research focused on whether we have the ability to determine if tree throw had previously affected undisturbed areas adjacent to modern tree throws areas, which have been significantly disturbed in recent years by wind and fire events. This paper will present the preliminary methods and results of the effects of tree throw on soil horizons and lithic assemblages at the Wendt site in the Boundary Waters Canoe Area Wilderness located within the Superior National Forest, Lake County, Minnesota. Recognizing potential tree throw effects, and the fact that tree throw is an important factor in site formation processes, is vital to continuing accurate research in these forested regions.

**Association through Lithic Technology: Preliminary Results of the AJM Site**  
Andrew Kurth - St. Cloud State University

This paper presents the preliminary results from the 2010 excavation of the AJM site, located on Knife Lake in the Boundary Waters Canoe Area Wilderness, Lake County, Minnesota. Located 400 meters west of a large Knife Lake Siltstone (KLS) quarry, the AJM site is situated on a topographically level peninsula along the shoreline of Knife Lake. Research by Mulholland and Menuey (2000) suggests that a high frequency of KLS debitage may be representative of a Paleoindian association, even among sites within the area of the KLS bedding plain. The research presented in this paper focuses on an attribute analysis of 214 lithic artifacts recovered from the AJM site in fall 2010. This research attempts to determine if a Paleoindian presence at the site can be established based on the type of lithic technology used. Initial results of this analysis indicate that the AJM site debitage is not indicative of bifacial reduction technology commonly associated with the Paleoindian Tradition. However, flakes recovered at the AJM site that have morphological similarities to flakes recovered from other nearby sites may prove to be a better indicator for a Paleoindian presence.



## Exploring Paleo-Landscape Interpolative 3-Dimensional Reconstructive Modeling

Cole McDonald - St. Cloud State University

Current geoarchaeological research makes use of stratigraphic profiles and fence diagrams to estimate the space between excavated units. These profiles provide more information that can be utilized to provide a higher resolution estimation of that unexcavated space than fence diagrams provide. Applying this model to a grid coordinate system, a 3-Dimensional reconstruction can be interpolated giving a more realistic overview of the paleotopography. This paper defines the specific methods for utilizing multidisciplinary tools to create an application that will process data from the field and generate an estimated paleo-landscape model using adjacency bias weighted medians to create best fit curves, and short-, mid-, and long-frequency wave propagation to more accurately represent the topographic surfaces. This model will allow for more precision when selecting locations for secondary excavation units on a site, thereby preserving more of the archaeological record for future researchers, while allowing more data to be collected. This technique also has the capability to create interactive 3D landscapes which will eventually provide the ability to layer in point-plotted artifacts as oriented photographs and a user friendly interface for manipulating the data in the reconstruction.

## *Session 7: Rivers, Lakes, Forests, and Fields: Archaeological Survey Across Minnesota*

### 2010 Mississippi River Aitkin County Survey

Ann Merriman and Christopher Olson - Maritime Heritage Minnesota

Maritime Heritage Minnesota (MHM) completed a side and down imaging sonar survey of 104 miles of the Mississippi River in Aitkin County (as well as a small portion of Itasca County when the river meandered across the county line), in August 2010. This remote sensing survey resulted in 244 marked anomalies. After MHM reviewed the 31 hours, 50 minutes of recorded data, it was determined that 40 anomalies require further scrutiny and three new maritime archaeological sites were designated. Screen caps of the 40 anomalies, the three new archaeological sites, and the known steamboat wreck sites of the *Andy Gibson* and *Swan* in Aitkin were taken. MHM has also conducted historical research, primarily using newspaper accounts, to document the histories of the steamboats that worked in Aitkin County and Itasca Counties, and to investigate the area north of Jacobson known as "Mississippi Landing," where two confirmed archaeological sites are located. This paper provides the details of the most promising anomalies that may be the remains of the steamers *Walter Taylor*, *Fawn*, and *City of Aitkin/George Houghton*. This project was made possible with funds secured under the Minnesota Historical and Cultural Grant program, aka "The Legacy Amendment."

### Archaeological Survey of the Lake Superior Region: Adventures on the North Shore

Susan C. Mulholland and Stephen L. Mulholland - Duluth Archaeology Center

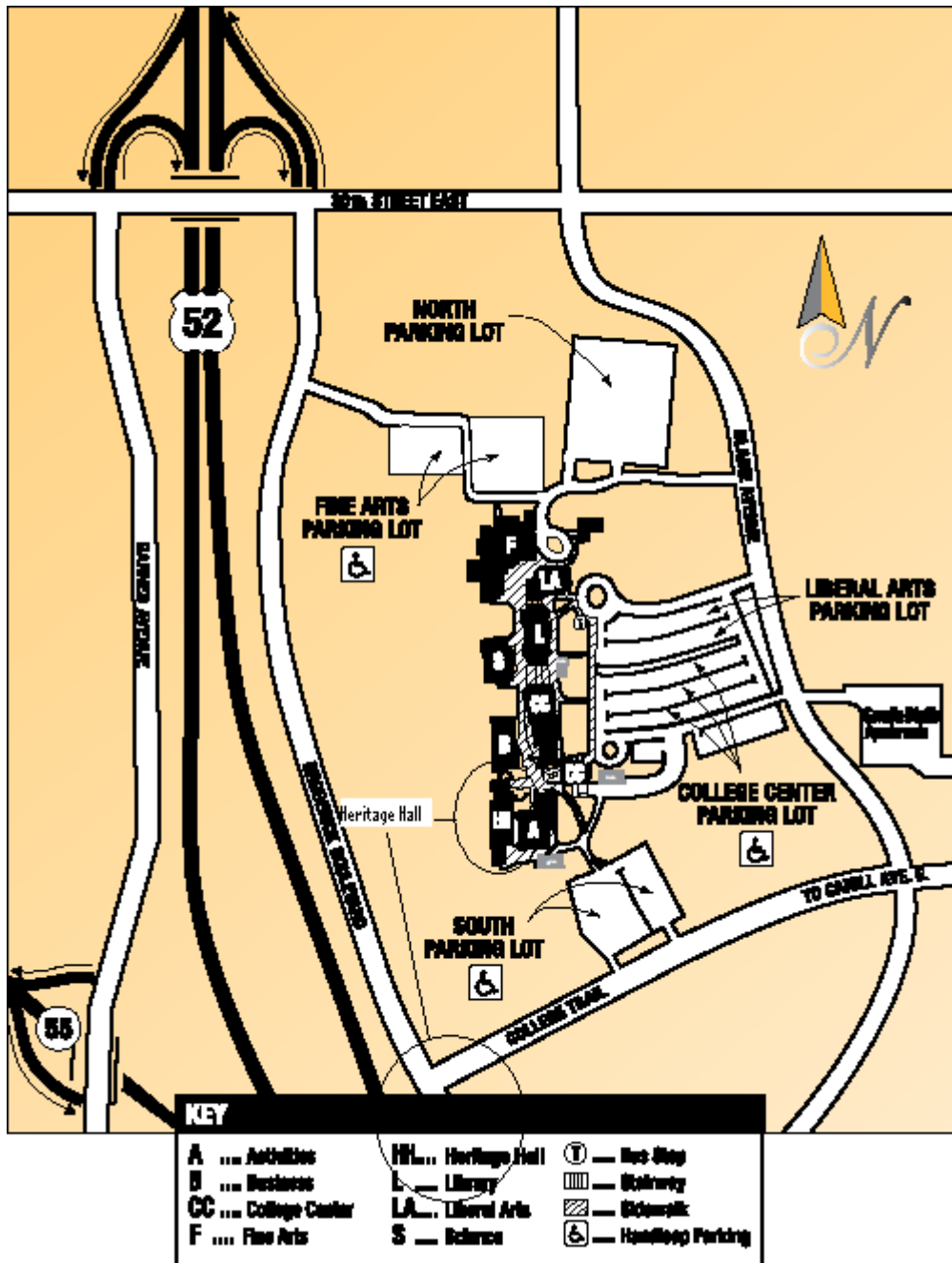
Archaeological survey for prehistoric sites in SHPO Region 9, the Lake Superior region, was conducted with funding from the Arts and Cultural Heritage Fund of the Minnesota Legacy Amendment, approved by voters in 2008. Areas in Cook, Lake, St. Louis, and Carlton Counties were selected based on topography (slope, water), glacial shoreline features, ownership, and access. Few sites were located during field survey but many sites were identified from information supplied by avocational archaeologists, private collectors, and the general public. These disparate results highlight the importance of a dialog with various stakeholders in order to record archaeological site information.

### The Legend of Dead Man's Corner - The People, Places, and Events of October 12, 1918

Steven J. Blondo - Blondo Consulting

October 12, 1918 saw a series of fires culminating in the worst natural disaster in the state of Minnesota. The Fires destroyed entire industries and towns, killing 453 people outright and numerous others as a result of injuries sustained. Recovery and rebuilding took years and though the area





Parking is available in five parking areas (North, Fine Arts, Liberal Arts, College Center, and South). The south parking lot is the closest to Heritage Hall. Parking is free and buildings are open during the time of the conference. IHCC does have classes Monday through Saturday. The "Main floor" of Heritage Hall is the second floor. The main entrance, lobby, and presentation rooms are all on the second floor.

## Variety of Food Offerings in the Immediate IHCC Surroundings

1. Caribou Coffee  
9008 Cahill Ave Inver Grove Hts, MN 55076  
(651) 455-9786

3. Papa Murphy's Take 'N Bake  
3045 80th St Inver Grove Heights, MN 55076  
(651) 552-1300

1. Ruby Tuesday  
9051 Buchanan Trl Inver Grove Hts, MN 55076  
(651) 455-1272

3. Mc Donald's  
3075 80th St Inver Grove Heights, MN 55076  
(651) 306-1378

1. Super Wok  
9030 Cahill Ave Inver Grove Hts, MN 55076  
(651) 457-8877

3. Egg Roll's House  
3035 80th St Inver Grove Hts, MN 55076  
(651) 306-0150

2. A & W All-American Food  
9061 Buchanan Trl Inver Grove Hts, MN 55076  
(651) 552-7701

2. Subway  
9061 Broderick Blvd Inver Grove Heights, MN 55076  
(651) 256-0275

3. Papa John's Pizza  
7834 Cahill Ave Inver Grove Heights, MN 55076  
(651) 450-9002



The closet hotels are north of IHCC at the intersection of HWY 52 and Upper 55<sup>th</sup> Street.

For additional information on hotels in the area please use this link:  
<http://www.mapquest.com/print?a=app.searchresults.b8666fbe7f67fad71681c7d0>