



# **Council for Minnesota Archaeology**

***2015 Conference***



**Program,  
Abstracts,  
Visitor Information**



**Stearns**  
History Museum



## 2015 COUNCIL FOR MINNESOTA ARCHAEOLOGY CONFERENCE

Welcome to the 2015 CMA Conference! This year's conference will be held on Friday, February 13 and Saturday, February 14 on the campus of St. Cloud State University. On behalf of the SCSU Anthropology Program, we are very excited to be hosting this wonderful event.

This year we would like to draw special attention to a festschrift *honoring Michael G. Michlovic* as he nears retirement! The special session is being organized by his colleagues at MSU Moorehead, friends, and former students and will lead off this year's conference. The papers highlight his outstanding accomplishments, the positive influence he has had on generations of archaeologists, and other *unique* aspects of his career.

We would like to invite everyone to attend a special all-conference session focused on developing a statewide multiple property documentation form for dealing with the ubiquitous, and often culturally unaffiliated, lithic scatter. The MPDF is currently being developed by MnDOT. Constance Arzigian and Craig Johnson will lead an open discussion session with the goal of eliciting comments, ideas, and feedback to help structure the plan and your participation is important to its success.

For the "lithic lovers" attending the conference, we will have some time on Friday afternoon for a **raw material exchange**. Feel free to bring along some rocks to trade and please remember to include the type name and provenience of where you collected your samples.

On Friday evening, from 5 – 8pm, everyone is invited to attend the **2015 CMA Conference Social Extravaganza!** We will hold this fun event at the Stearns History Museum, located at 235 South 33rd Avenue in St. Cloud. Artifacts from the Historic Little Elk River Mission and Shoemaker sites and from several Paleoindian-Archaic Knife Lake sites will be on display. Come and join us for hors d'oeuvres and drinks while you catch up with old friends and make new ones!

Finally, we would like to recognize the co-sponsors of this year's conference: the MN Office of the State Archaeologist, the Stearns History Museum, the Minnesota Archaeological Society, and the Anthropology Program and College of Liberal Arts at St. Cloud State University. We are especially grateful for the funding provided by the Minnesota Archaeological Society and the SCSU College of Liberal Arts—your contributions have made a positive and significant impact on the success of the conference.

Looking forward to seeing everyone!

Sincerely,  
*Mark P. Muñiz*  
Professor  
Director, CRM Archaeology Graduate Program  
Dept. of Sociology and Anthropology  
St. Cloud State University



## CONFERENCE SCHEDULE

Friday, February 13, 2015

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Room: Voyageurs North

Special Session: ***40 Years on the Red – Honoring Michael G. Michlovic’s Contribution to the Archaeology of the Northeastern Plains and Beyond***

9:00 Open Mic

**Mike’s Career – An Overview**

9:20 Running IV, Garry Leonard (University of Wisconsin-Eau Claire)

**Modeling Generosity of Spirit: How Mike Broke in a New Geoarchaeologist at the Rustad Site**

9:40 Dalan, Rinita A. (Minnesota State University Moorhead)

**Geophysics and Archaeology in the Red River Valley**

10:00 Toom, Dennis L. (University of North Dakota)

**Forty Years of Archeology along the James River in North Dakota**

10:20 BREAK

10:40 Fie, Shannon M. (Beloit College), Donna McMaster (Independent Researcher) and Kent Bakken (Independent Researcher)

**The Classical Period and M.G. "Buck" Michlovic's Archaeological Mafia**

11:00 Thompson, Robert G.

**Food Residues from Prehistoric Pottery, Corn, and Wild Rice in Minnesota Prehistory**

11:20 Holley, George R. (Minnesota State University Moorhead)

**An Archaeological Culture of Many Names: Sandy Lake, Wanikan, Psinomani – Let’s Call the Whole Thing Off**

11:40 Anfinson, Scott (Minnesota State Archaeologist)

**A Golf Ball on the Moon: Mike Michlovic and the Medieval Norse Occupation of Western Minnesota**

12:00 – 1:00 LUNCH

1:00 Job, Jayme (Minnesota State University Moorhead)

**Not Just Prehistory: Michael Michlovic’s Historic Legacy in Moorhead, Minnesota**

1:20 Blondo, Steven J. (MA Blondo Consulting, LLC)

**Dr Michlovic or: How I Learned to Stop Worrying and Love Archaeology**

1:40 Michlovic, Michael G. (Minnesota State University Moorhead)

**Reflections**

2:00 BREAK

General Session: ***Capturing and Managing Archaeological Data***

2:20 Bakken, Kent (Independent Researcher)

**Don't try this at home: deep excavation, in the swamp, in the winter, in Minnesota.**

2:40 Koenen, Bruce (Office of the State Archaeologist)

**Recent Developments in the State Site Files**

3:00 Bergervoet, Michael (Minnesota Department of Transportation) and Ronald Schirmer (Minnesota State University – Mankato)

**Creating a Digital, Statewide, and Accessible Archeological Database**

3:20 Wendt, Dan (Minnesota Historical Society)

**Lithic Raw Materials Represented in Minnesota Glacial Till**

Special All-Conference Session: ***Discussion Session on Lithic Scatters in Minnesota***

3:40 – 4:40 Arzigian, Constance (Mississippi Valley Archaeology Center) and Craig Johnson (Minnesota Department of Transportation)

Friday, February 13, 2015

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**Room: Voyageurs South**

Poster Session 9:00 – 12:00

*Presenters please set up posters by 9:30am and be present at your poster to discuss your topic with conference attendees between 10:00 – 11:00 am*

Balsemo, Brianna, Katrina Pasek and Cassie Vogt (St. Cloud State University)

**You Can Tell It's a Lithic, Because of the Way That It Is: A Lithic Analysis of the Little Elk River Mission Site**

Crider, Destiny (Luther College)

**Luther College Web Portal Featuring Northeast Iowa Archaeological Collections**

Ewald, Brett R. (St. Cloud State University)

**Creating a Chronological Classification and Analyses of Buttons from British Period Fur Trading Posts Throughout the Upper Midwest**

Foss, Jacob and David S. Radford (Minnesota Historical Society)

**Preliminary Results of the 2014 Surface Collection at the Minneopa Bison Pasture West Site (21BE304)**

Gold, Debra (St. Cloud State University)

**The Shoemaker Site (21SN0164)**

Holt, Laura E., Scott S. Legge (Macalester College), Edward P. Fleming (Science Museum of Minnesota), Kate A. Sinnott, Shasta E. Webb, Carol E. Mejía and Zoë A. Tomasello (Macalester College)

**Macalester's Katharine Ordway Natural History Study Area in Inver Grove Heights, Minnesota**

Mann, Rob (St. Cloud State University), Jim Cummings (Minnesota Department of Natural Resources), Jacob Fritz and Aaron Erickson (St. Cloud State University)

**On a Mission: Public Archaeology, Heritage Management, and Research at the Little Elk River Mission Site**

Suchanek, Bob (Science Museum of Minnesota)

**Surveys of Pelican Lake, Steele County Minnesota**

12:00 – 1:00 LUNCH

General Session: ***3D technology, Teaching with archaeology, CRM philosophy***

1:00 Nienow, Jeremy L. (Principal at Nienow Cultural Consultants LLC) and Drew C. Bjorklund (3-D Building Technologies, LLC)

**Archaeological Applications of 3D Terrestrial Laser Scanning**

1:20 Gold, Debra (St. Cloud State University), Jodie Kragness (St. Cloud Area School District) and Kevin Beneke (St. Cloud State University)

**Archaeology and Ancient Civilizations: Teaching Trunks for Third Grade**

1:40 Peliska, Charles, Christopher Chroninger and Peer Halvorsen

**Identifying Problems and Solutions in Contemporary Cultural Resource Management**

2:00 BREAK

General Session: ***Applications of Archaeomagnetic and Optically Stimulated Luminescence Dating***

2:20 Stillinger, Michele D. (University of Minnesota)

**Archaeomagnetic Dating: Using the record of the Earth's magnetic field stored in fired ceramics as a new complementary dating method**

2:40 Mattson, M. J. (Leech Lake Heritage Sites Program)

**Phase II Evaluation and OSL Dating of the Stephens Lake Site (21CA0425), Cass County, Minnesota**

3:00 Muñiz, Mark P. (St. Cloud State University)

**Results of OSL Dating Four Sites in the Daughter District, Boundary Waters Canoe Area Wilderness**

3:20 – 4:30 Lithic Exchange

**2015 CMA Conference Social Extravaganza!**

5:00 – 8:00 pm Stearns History Museum

Saturday, February 14, 2015

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**Room: Voyageurs North**

General Session: ***Site Specific Studies***

- 9:00 Mather, David (Minnesota Historical Society)  
**Ruth Landes and the Archaeology of Bear Ceremonialism**
- 9:20 Steinbring, Jack (University of Wisconsin-Oshkosh and Ripon College)  
**Form Correspondence in the Assessment of Cultural Affinities among Rock Art Sites of the Mid-West**
- 9:40 O'Connell, Barbara H. (Hamline University) Jim L. Jones, Jr. (Minnesota Indian Affairs Council) and Bruce Thomas (Hamline University)  
**The Minnesota Ancients: Browns Valley and Pelican Rapids**
- 10:00 Mann, Rob (St. Cloud State University)  
**Bringing the Heat: Cast Iron Stove Fragments and Other Finds at the 2014 SCSU Summer Archaeology Field School at the Little Elk River Mission Site (21MO38)**
- 10:20 BREAK
- 10:40 Erickson, Cassie, Racheal Gramith and Andrew Kitt (St. Cloud State University)  
**Historic Building Materials of the Little Elk River Mission Site (21MO38)**
- 11:00 Sutherland, Fred (Michigan Technological University)  
**Update on Jones Iron Furnace site in Aitkin, Minnesota**
- 11:20 Merriman, Ann and Christopher Olson (Maritime Heritage Minnesota)  
**Maritime Heritage Minnesota's Projects 2013-2014: 1,000 Years of Maritime History**
- 11:40 – 1:00 LUNCH
- 1:00 Monnier, Gilliane (University of Minnesota) Edward Fleming (Science Museum of Minnesota)  
**Preliminary Results of the 2011-2014 excavations at the Bremer Site (21DK06), Spring Lake, Minnesota**
- 1:20 Taft, Mara, Gilliane Monnier (University of Minnesota) and Edward Fleming (Science Museum of Minnesota)  
**Spatial Patterning and Analysis of Lithic Debris at the Bremer Site (21DK06)**
- 1:40 Palmquist, Julia M., Gilliane Monnier (University of Minnesota), Edward Fleming (Science Museum of Minnesota) and Joshua Feinberg (University of Minnesota)  
**Analysis of Archaeological Features at the Bremer Site (21DK06) using Microarchaeological Methods**
- 2:00 – 3:00 CMA Winter Meeting

Saturday, February 14, 2015

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**Room: Voyageurs South**

Special Session: ***Archaeology of Northeast Minnesota and Beyond***

- 9:00 Radford, David S., Jacob E. Foss, and LeRoy Gonsior (Minnesota Historical Society)  
**Newly Discovered Lithic Sites at Lake Vermilion-Soudan Underground Mine State Park, St. Louis County, Minnesota**
- 9:20 Latady, Bill (Bois Forte Band of Chippewa)  
**Tribal Participation in Section 106: Identifying Historic Properties of Traditional Religious and Cultural Significance**
- 9:40 Mulholland, Susan C. (Duluth Archaeology Center) and Dan Wendt (Minnesota Historical Society)  
**Knife Lake Geoarchaology: The Story is the Stone**
- 10:00 DePasqual, Seth (Isle Royale National Park)  
**Where's the Beach? Revisiting the Archaic along Isle Royale's Relict Nipissing Shoreline**
- 10:20 BREAK
- 10:40 Olson, Samantha J. (Independent Researcher)  
**What the Future Holds for the Past: A Review of Previous Research and Recent Findings of Archaic Sites on Isle Royale**
- 11:00 Stroh, Megan (Sanford Museum and Planetarium)  
**The Grace Peninsula site (20IR239): an Archaic copper and lithic working site on Isle Royale National Park**
- 11:20 Dunham, Sean (Chippewa National Forest)  
**Archaeology on Grand Island, Michigan**
- 11:40 – 1:00 LUNCH
- 1:00 Cummings, Jim (Minnesota Department of Natural Resources)  
**Continued Research at the Seguchie Creek Site, 21 CW 008**
- 1:20 Koncur, Jasmine C. (Minnesota State University – Mankato)  
**The McClelland Site (21GD258) and the Oneota Tradition in the Red Wing Region**
- 1:40 Foss, Jacob, LeRoy Gonsior, and David S. Radford (Minnesota Historical Society)  
**The Minneopa Bison Pasture East (21BE 303) and Minneopa Bison Pasture West (21BE304) Sites in Blue Earth County, Minnesota**
- 2:00 – 3:00 CMA Winter Meeting

## **POSTER ABSTRACTS**

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Balsemo, Brianna, Katrina Pasek and Cassie Vogt (St. Cloud State University)

### **You Can Tell It's a Lithic, Because of the Way That It Is: A Lithic Analysis of the Little Elk River Mission Site**

This poster will be an overview of the lithic assemblage recovered at the Little Elk River Mission Site (21MO38), located near Little Falls, Minnesota. It provides an analysis of the "cores" and the quartz reduction process unique to this site. A typology of tools will be provided ranging from expedient tools to finely-crafted projectile points. A summary of the Winin Wabik Quartz and the other non-quartz raw materials uncovered will be discussed and sourced. Based on this information, a brief interpretation of the pre-contact uses of this site will be discussed.

Crider, Destiny (Luther College)

### **Luther College Web Portal Featuring Northeast Iowa Archaeological Collections**

The Luther College Archaeological Collection is comprised of over 50,000 cataloged lots, representing close to 1 million objects and over 300 historic and prehistoric sites. These are primarily focused on the prehistoric and historic peoples of Northeast Iowa, and span over 8,000 years of human history in the Upper Midwest. The majority of the collections originate from locations in Northeast Iowa, particularly Allamakee, Winneshiek, Clayton, Fayette, and Jones Counties. Supported in part by the State Historical Society of Iowa Historical Resource Development Program (HDRP), we have recently completed development of a web-based collections management system using the CollectiveAccess platform from Whirl-i-gig. In addition to in-house use for tracking associated documentation of archaeological projects and collection objects, the system provides a public web portal for exploring our collections. This portal provides flexibility of searching the database on the basis of 1) specific collections from donation, CRM, and field schools, 2) by object type or material class, 3) keyword, and 4) specific archaeological sites. The migration of archaeological records into the new management system is ongoing, but the large Gavin Sampson collection is used to demonstrate the new resource and to facilitate outreach to professional archaeologists and an interested public.

Ewald, Brett R. (St. Cloud State University)

### **Creating a Chronological Classification and Analyses of Buttons from British Period Fur Trading Posts Throughout the Upper Midwest**

These trading posts are located in Minn., Wis., Ont., and Man. The British Fur Trade Period in North America spans 1783, the end of the American Revolution, to 1821, when the Hudson's Bay and North West Companies merged. The trading post was the location of the inter-continental trade in furs and European manufactured goods. During this period many buttons came from the English cities of Birmingham and London. Buttons of all makes were packaged, shipped, and otherwise portaged to scattered North American interior posts. Some arrived on garments and others as "loose buttons" per dozen. Buttons were metal, non-metal, or composite. They were shank or sew-through. Certain ones exhibited elaborate design, yet others were plain. Specific buttons were manufactured for trade with indigenous peoples while others were for trading company employees. Many were for fastening garments, others simply for show. This research reviews common analyses including material, attachment, design, etc. Additionally, minor button attributes and seriation are examined. Expectations are that new insights into button characteristics will be gleaned, further defining button typology dates.

Foss, Jacob and David S. Radford (Minnesota Historical Society)

**Preliminary Results of the 2014 Surface Collection at the Minneopa Bison Pasture West Site (21BE304)**

The Minneopa Bison Pasture West site (21BE304) is a dense and expansive Archaic Period and Woodland Period lithic scatter located in Blue Earth County, Minnesota. The site was discovered in 2014 during a reconnaissance survey conducted immediately after a controlled burn of a restored prairie within Minneopa State Park. The excellent surface visibility afforded by the burn led to the documentation of over 6,300 pieces of debitage and stone tools. Artifact proveniences were recorded using highly accurate (<1 m) GPS devices, allowing for very precise artifact location data across the entire site. Much of the site was never cultivated due to the shallow soils and bedrock outcrops, which affords a unique opportunity (at least in Minnesota) to document the spatial patterning of a large precontact site that was not adversely affected by historic/modern anthropogenic activities. This poster presents the preliminary results of the artifact analysis, explores the benefits of the collection and analysis methodologies, and discusses the research avenues (and their implications) that will be available to researchers when the analysis is completed.

Gold, Debra (St. Cloud State University)

**The Shoemaker Site (21SN0164)**

The Shoemaker Site (21SN0164) is a 19<sup>th</sup> century home site on the St. Cloud State University campus. The five seasons of fieldwork at the Shoemaker Site from 2004 and 2012 uncovered evidence of two mid-late 19<sup>th</sup> century houses and additional remains from the Lower Town community. Lower Town was settled in the early 1850s by Protestants from the eastern states and defined itself very distinctly from the neighboring German Catholic Middle Town and Southern-influenced Upper Town. There was significant site disturbance as well as an abundance of artifacts from the Lower Town era and after at 21SN0164. This poster presents an overview of the site's history, excavation details, and preliminary conclusions based on five seasons of fieldwork and the ongoing artifact analysis.

Holt, Laura E. (Macalester College), Scott S. Legge (Macalester College), Edward P. Fleming (Science Museum of Minnesota), Kate A. Sinnott (Macalester College), Shasta E. Webb (Macalester College), Carol E. Mejía (Macalester College), Zoë A. Tomasello (Macalester College)

**Macalester's Katharine Ordway Natural History Study Area in Inver Grove Heights, Minnesota**

During the summer of 2013 a Phase I archaeological survey was conducted at Macalester's Katharine Ordway Natural History Study Area in Inver Grove Heights, Minnesota. The Ordway property is approximately 300 acres in size, including River Lake, a 150 acre backwater lake connected to the Mississippi River. One hundred shovel tests were placed in areas thought to be high probability for containing subsurface cultural resources. Nineteen shovel tests were positive for precontact materials in three concentrations across the property. A fourth concentration, a lithic surface scatter, was also identified. The materials recovered include lithic debitage from stone tool production, multiple types of Woodland period ceramics, large flaked cobble tools, and one subsurface burn and post-mold feature in association with Middle Woodland pottery resembling the Sorg Banded type. The successful Phase I survey identified the preliminary boundaries of four new pre-contact sites now registered with the MN Office of the State Archaeologist. This poster provides an inventory and assessment of the cultural materials recovered. Further archaeological investigation is necessary to determine eligibility for nomination to the National Register of Historic Places.



Mann, Rob (St. Cloud State University), Jim Cummings (Minnesota Department of Natural Resources), Jacob Fritz and Aaron Erickson (St. Cloud State University)

**On a Mission: Public Archaeology, Heritage Management, and Research at the Little Elk River Mission Site**

The Little Elk River Mission Site (21MO38) is the locale of an 1839-1841 Methodist-Episcopal mission complex. In 1838 renowned Ojibwe chief Hole-in-the-Day invited missionaries from the Methodist-Episcopal church to establish a mission at his village located at the confluence of the Little Elk and Mississippi rivers. The site was originally acquired by the now defunct Institute for Minnesota Archaeology (IMA) as part of a 93 acre archaeological and nature preserve known as the Little Elk Heritage Preserve (LEHP). A covenant attached to IMA's title stated that the land be "managed as to preserve and enhance its archaeological significance...for the future education of and enjoyment by the public." Today the LEHP is a unit of Lindbergh State Park. This summer St. Cloud State University initiated a long-term public archaeology, heritage management, and research program at the LEHP. This poster details our efforts to continue and fulfil the original mission of the IMA.

Suchanek, Bob (Science Museum of Minnesota)

**Surveys of Pelican Lake, Steele County Minnesota**

This poster will present the results of survey work surrounding the former Pelican Lake in Steele County Minnesota. Pedestrian survey over the gently rolling plowed fields surrounding the lake (drained shortly after 1937) has revealed an area rich in archeological resources. Predictive modeling sponsored by the Office of the Minnesota State Archaeologist in 2013 indicated a high potential for sites near Pelican Lake and local collectors have been surface collecting in the area for many years. My cousin Fred Nass has permission to collect on about 2,000 acres. My objective in accompanying Fred has been to document the sites by cataloguing the artifacts, locating high density artifact scatters, and identifying and mapping site boundaries. The advice, assistance and encouragement of Dr. Ed Fleming at the Science Museum of Minnesota have been most important in these efforts. Further documentation of these sites, including completion of state site forms and consultations with professional archaeologists will enhance our understanding of life around Pelican Lake. Surface collecting efforts will undoubtedly resume after the snow melts and the fields show us some more of Minnesota's past.

**PAPER ABSTRACTS**

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Anfinson, Scott (Minnesota State Archaeologist)

**A Golf Ball on the Moon: Mike Michlovic and the Medieval Norse Occupation of Western Minnesota**

When Mike Michlovic came to Moorhead State University in 1975 to begin his academic career in archaeology, he had never heard of the Kensington Runestone and was unaware of the massive influx of Norse immigrants into the region. Little did he know that he would soon be excavating sites associated with the Norse immigration and publishing articles on the reality of the Kensington find. This paper will review Michlovic's almost 40-year fascination with things Viking and offer a practical approach to the problem that does not rely on Medieval archaeological knowledge, Scandinavian linguistics, or stoned analysis.

Bakken, Kent (Independent Researcher)

**Don't try this at home: deep excavation, in the swamp, in the winter, in Minnesota.**

From mid-November to mid-January of 2013 to 2014 and in April and May of 2014, a crew from Florin Cultural Resource Services, LLC undertook Phase III excavation of deeply buried deposits in the Minnesota River valley on the northern valley margin near Shakopee. The tested components of this site ranged from Early Archaic to Late

Woodland. The deposits were buried in a landscape created by the dynamic interaction of a river-bottom lake, two alluvial fans, and a wetland. Depth of excavation exceeded 3 m in some cases. In addition to the normal challenges of working in deeply buried deposits, the excavation was in or adjacent to wetlands. This introduced challenges regarding water management. Working in temperatures as low as -22° F introduced another set of challenges. This presentation focuses on the logistics of the excavation, while providing an overview of the archaeology based on preliminary analysis.

Bergervoet, Michael (Minnesota Department of Transportation) and Ronald Schirmer (Minnesota State University – Mankato)

### **Creating a Digital, Statewide, and Accessible Archeological Database**

MnDOT's Cultural Resources Unit (CRU) is currently managing multiple data inventory projects to provide centralized, dynamic, and up-to-date digital data to approved end users across Minnesota and beyond. Current projects include MnDOT's Cultural Resources Information System (CRIS), a statewide OSA-managed archeological data portal, and a pilot inventory project with Minnesota State University – Mankato (MSUM). Other partners include the State Historic Preservation Office and MN.IT. Web-based GIS interfaces will be available to end users to digitally map site locations, immediately provide attribute information, submit edits, and track projects. The MSUM "Minnesota Archeology Integrated Database" (MAID) pilot project, in conjunction with MnDOT CRU, involves the development of a web-accessible geospatial database including specific data on archeological sites, such as artifact inventories, maps, photos, field notes, etc., and environmental and historical data. The database is designed to assist researchers in accurately understanding the archeological record of southern Minnesota and assist repositories in meeting State and Federal data availability requirements. This project aims to demonstrate that this type of database can be constructed and used reliably. The intent will be to expand this pilot project in subsequent years to include data for all of Minnesota.

Blondo, Steven J. (MA Blondo Consulting, LLC)

### **Dr Michlovic or: How I Learned to Stop Worrying and Love Archaeology**

Memories of field schools, classes, and adventures with Mike (professor, mentor, and drinking buddy)

Cummings, Jim (Minnesota Department of Natural Resources)

### **Continued Research at the Seguchie Creek Site, 21 CW 008.**

In 2007 phase one and two archaeological investigations were conducted just north of the location where Seguchie Creek flows into Mille Lacs Lake, Crow Wing County, Minnesota. Pedestrian survey, shovel testing and formal excavations were conducted to assess the impact of connecting a residence to the Garrison Wastewater Treatment System. The project area is approximately 30 meters outside the previously established boundary of the Seguchie Mounds and Habitation Site, 21 CW 008. This paper summarizes recent analyses of artifacts and features encountered in the 2007 excavations, presents an overview of 21 CW 008 with the inclusion of the project area, and compares the site with others in the Mille Lacs watershed.

Dalan, Rinita A. (Minnesota State University Moorhead)

### **Geophysics and Archaeology in the Red River Valley**

Unique opportunities within the region for geophysical research and training are due in large part to the mentorship of Mike Michlovic. Under his leadership, an Anthropology and Earth Science Department was

established in 1998 at Minnesota State University Moorhead (MSUM) and an interdisciplinary curriculum developed that included courses in both geophysics (highly unusual for an undergraduate archaeology program at that time) and geoarchaeology. Mike's focus on undergraduate research and field training continued as strong hallmarks of this new program but shifted because of his keen interest in geophysical applications. Students at MSUM are able to take both a traditional archaeological field school and a field school in geoarchaeology that includes instruction in geophysical methods. Offered in alternate summers, these are not separate ventures but are often linked by common research questions and goals. Excavations have been located based on the previous season's geophysical work, and geophysical surveys have been used to understand test units in relation to overall site structure. More often, however, geophysical studies have benefited from Mike's extensive knowledge of regional archaeology, which provided the context for the development of new geophysical instruments, techniques, and applications at a number of sites in the Red River Valley.

DePasqual, Seth (Isle Royale National Park)

### **Where's the Beach? Revisiting the Archaic along Isle Royale's Relict Nipissing Shoreline**

The cultural resource program at Isle Royale National Park has given recent focus to the island's Nipissing beach, a relict Lake Superior shoreline dating to approximately 5,000 BP. The Relict Shoreline Survey project is a collaborative effort undertaken by staff from Isle Royale National Park, Grand Portage National Monument, and Superior National Forest, as well as student interns and volunteers. Little is known about the island's Archaic-period cultures relative to those more recent found along modern shores and beaches. Using GIS (including a 2004 LiDAR DEM) as a platform, coupled with conventional survey and testing methods, archaeologists investigated the probability of locating early occupation sites along Isle Royale's Nipissing shoreline. Over 700 shovel test pits have been performed during the surveys resulting in the discovery of eleven previously unrecorded archaeological sites. In 2013, excavations at Grace Peninsula unearthed materials associated with Archaic tool-making and related radiocarbon dates suggest that the site is one of the earliest on Isle Royale. This presentation will discuss the methodologies and related findings associated with the Relict Shoreline Survey Project.

Dunham, Sean (Chippewa National Forest)

### **Archaeology on Grand Island, Michigan**

This presentation will provide an overview of some of the work that I have done in the Grand Island National Recreation Area for the Hiawatha National Forest in Michigan. Grand Island is the largest island along the south shore of Lake Superior with numerous archaeological sites. The sites overviewed will include the late Archaic Popper site, the Terminal Woodland Mather Lodge site, and the nineteenth century Stone Quarry Cottage site. I have presented this material previously to the Michigan Historic Preservation Network and the Michigan Archaeological Society as an example of how contract archaeology can be used as part of broader historic preservation projects as well as for academic research.

Erickson, Cassie, Racheal Gramith and Andrew Kitt (St. Cloud State University)

### **Historic Building Materials of the Little Elk River Mission Site (21MO38)**

Historical archaeologists use a combination of documents and artifacts to tell the story of previous inhabitants. Of these artifacts, historic building materials, specifically iron nails and glass, can be used to pinpoint the location of by-gone structures. One such structure was a supposed 19<sup>th</sup> century Dakota mission site which was located in near present day Little Falls, Minnesota. During the summer of 2014 excavations were carried out on The Little Elk River Mission Site which unearthed a veritable time capsule of artifacts. While the excavations did

not reveal and features or definite remains of a structure, the small pieces of historical building materials proved that a structure had stood in close proximity to the location of the focus of the field school test units. This paper will discuss how the evolution of nail manufacture was used to confirm the dates of the mission site, as well as where the mission would have actually stood. Additionally, glass can be used to compliment the nails found at the site as both types of building materials feature diagnostic traits that aid in research. Finally, by using these diagnostic traits, an analysis of The Little Elk River Mission Site through the building materials used will bring light to a little known period of Minnesota Territorial history.

Fie, Shannon M. (Beloit College), Donna McMaster (Independent Researcher) and Kent Bakken (Independent Researcher)

### **The Classical Period and M.G. "Buck" Michlovic's Archaeological Mafia**

For years, rumors have persisted that in the period of about 1984 +/- 5, M.G. "Buck" Michlovic was the focal point of a clandestine archaeological "mafia." Documentation, however, is almost nonexistent, and the rumors are sometimes contradictory. Was it run out of a windowless basement room on the MSU campus, for example, or from a smoke filled bar in Moorhead's Old Quarter near the river? Were there in fact bloody clashes between this mafia and a rival group sometimes fashioned as UNDAR, or are these accounts generally exaggerated. Alleged participants have finally agreed to provide information on the record, citing Michlovic's impending retirement, as well as the expiration of certain unspecified statutes of limitation. The following paper attempts a preliminary synthesis of this information based on these primary sources.

Foss, Jacob, LeRoy Gonsior, and David S. Radford (Minnesota Historical Society)

### **The Minneopa Bison Pasture East (21BE 303) and Minneopa Bison Pasture West (21BE304) Sites in Blue Earth County, Minnesota**

During the 2014 field season two extensive Archaic Period/Woodland Period archaeological sites, the Minneopa Bison Pasture East site (21BE303) and the Minneopa Bison Pasture West site (21BE304), were identified along a terrace of the Minnesota River in Minneopa State Park, in Blue Earth County. A controlled burn before the reconnaissance survey allowed for excellent visibility over the project area's restored prairie, leading to the documentation of over 6,600 lithic artifacts from the surfaces of the two sites. Subsequent shovel testing and formal excavations recovered an additional 2,000 artifacts. This paper presents the preliminary analysis of the sites' occupation sequence, function, formation processes, and spatial distribution of artifacts. Early, Middle, and Late Archaic, and possibly Middle Woodland projectile points were recovered from 21BE304. Havanoid, Fox Lake, Late Woodland, and Cambria ceramics and a Late Archaic point were recovered from 21BE303. The lithic assemblage is dominated by the locally available Prairie du Chien chert, with other local and extra-local raw material types sparsely represented. Interestingly, there is evidence at the sites for utilization of Jordan Formation silicified sandstone, which can be found in outcrops throughout the project area.

Gold, Debra (St. Cloud State University), Jodie Kragness (St. Cloud Area School District) and Kevin Beneke (St. Cloud State University)

### **Archaeology and Ancient Civilizations: Teaching Trunks for Third Grade**

New Minnesota state social studies teaching standards require that students study ancient civilizations in third grade, yet few resources exist for teaching ancient civilizations at this grade level. Through a partnership between St. Cloud State University and the St. Cloud Area School District, we created four hands-on teaching trunks and an extensive accompanying curriculum to teach ancient civilizations through archaeology. In this paper we describe the development and initial implementation of this unique partnership project. Students are

introduced to the central questions and methods of archaeology with the first teaching trunk. They then learn about ancient Chinese, Egyptian and Mayan civilizations with a focus on archaeological inquiry in each unit. This project differs from traditional university and museum-based teaching trunks in several ways, including the school district involvement, the year-long, comprehensive focus on archaeology, cross-curricular lessons that integrate math, science and language arts with social studies, and curriculum supplementation with hands-on learning stations in archaeological methods and reasoning presented to third-graders by SCSU graduate students.

Holley, George R. (Minnesota State University Moorhead)

### **An Archaeological Culture of Many Names: Sandy Lake, Wanikan, Psinomani – Let’s Call the Whole Thing Off**

Labels for a Late Prehistoric ceramic culture, purportedly centered on Mille Lacs, Minnesota, have changed but not our understanding. From the perspective of the margins, west and southwest of the cultural center where Mike Michlovic has dealt with this problem, I argue that we should clean the slate and start over. In part, the problem with the culture of many names is three-fold. (1) It has become such an inclusive entity that flattens variation across a large area. For example, ceramic categories assigned to this culture represent a nearly complete litany of the Late Prehistoric ceramic repertoire for the Midwest and Plains. (2) The characterization of the culture as hunting-gathering, rice gatherers is based on unpublished data from the cultural center, which is diametrically opposed to the bison hunting farmers of the west notion. (3) The presumption that this culture is “Woodland” has resulted in a characterization that is not valid in time or adaptation. How can a culture, if indeed it represents a single entity, which emerged after the denouement of the Cahokian world, and who interacted with other non-Woodland cultures such as Oneota and the Northeastern Plains be characterized as Woodland?

Job, Jayme (Minnesota State University Moorhead)

### **Not Just Prehistory: Michael Michlovic’s Historic Legacy in Moorhead, Minnesota**

Although much of his career has dealt primarily with prehistoric archaeology, Mike Michlovic is also responsible for recognizing the importance of historic archaeology in the Red River Valley, and for fostering an appreciation for the early history of the area among his many students. Beginning in the mid-1990’s, Mike carried out excavations first at the historic “Point” community of Moorhead (21CY5), and then at the Historic Probstfield Farm (21CY67) site, just north of town. He continued his work at Historic Moorhead in the early 2000’s, and his legacy of local, historic archaeology lives on in current projects being carried out by his students and colleagues within the wider community.

Koenen, Bruce (Office of the State Archaeologist)

### **Recent Developments in the State Site Files**

Begun in 1957 by Elden Johnson the State Site File has evolved through the years from a set of index cards to an electronic file. New technology has the potential to increase the availability of this data and to record sites with much more accuracy. Anyone who has worked extensively with the site files realizes that the information in them is not always clear or precise. Following a summary of what’s new with the site files suggestions will be made as to how to complete more informative and accurate site forms using recent examples from the files.

Konkur, Jasmine C. (Minnesota State University, Mankato)

### **The McClelland Site (21GD258) and the Oneota Tradition in the Red Wing Region**

There is a long history of Oneota studies in the Red Wing, Minnesota, region, but most have been closely intertwined with the Silvernale phase, either because of site location or actual cultural linking. This has created a literature rife with speculation about the relationship between Silvernale and Oneota. While there are some Oneota sites known to exist near sites with Silvernale phase materials, there are many others away from Silvernale sites that have not yet received detailed analysis. The McClelland site (21GD258) is one of many single component Oneota sites in tributary valleys outside the Mississippi trench. The McClelland assemblage can be used to help construct the framework for a better understanding of the Oneota tradition within the Red Wing region separate from the Silvernale phase. This analysis will help develop a more comprehensive understanding of the unique characteristics of Oneota tradition in the Red Wing Region.

Latady, Bill (Bois Forte Band of Chippewa)

### **Tribal Participation in Section 106: Identifying Historic Properties of Traditional Religious and Cultural Significance**

Identifying places of traditional and religious significance to Tribes is critical when inventorying cultural resources within an Area of Potential Effect. Federal Agencies must make a “good faith effort” to identify cultural resources and that measurement is generally met through conducting a Phase I reconnaissance. Archaeological survey is one way to identify and document cultural resources, but coordination and consultation with Tribal members can provide significant information on locations of ancestral use, landscape features of cultural significance, and/or natural resources of traditional importance. Given that many project locations lack specific ethnohistoric information, oral interviews are often one of the only mechanisms available to document the presence of traditional use areas. While the scientific perspective may be different from the traditional perception, employing both is the best way to achieve a more complete understanding of the historical record. The author will describe several projects in Northeastern Minnesota where oral interviews were employed with positive results.

Mann, Rob (St. Cloud State University)

### **Bringing the Heat: Cast Iron Stove Fragments and Other Finds at the 2014 SCSU Summer Archaeology Field School at the Little Elk River Mission Site (21MO38)**

The Little Elk River Mission Site (21MO38) is the locale of an 1839-1841 Methodist-Episcopal mission complex. In 1838 renowned Ojibwe chief Hole-in-the-Day invited missionaries from the Methodist-Episcopal church to establish a mission at his village located at the confluence of the Little Elk and Mississippi rivers. The site was originally acquired by the Institute for Minnesota Archaeology (IMA) as part of a 93 acre archaeological and nature preserve known as the Little Elk Heritage Preserve (LEHP). Today the LEHP is a unit of Lindbergh State Park. In 2014 St. Cloud State University initiated a long-term public archaeology, heritage management, and research program at the LEHP. This paper summarizes the 2014 field work and findings. Among the most intriguing artifacts are several fragments of a cast iron stove, thought to have been brought to the mission overland via oxcart. In addition to the comforts that such an item might have provided the missionaries, it may have also been a material symbol of the spiritual and technological “enlightenment” they hoped to confer upon the Ojibwe. They abandoned the stove when they left the site in 1841.

Mather, David (Minnesota Historical Society)

**Ruth Landes and the Archaeology of Bear Ceremonialism**

Ruth Landes (1908-1991) was a cultural anthropologist who in the early twentieth century worked with the Ojibwe at Red Lake, and Manitou Rapids on the Rainy River, and with the Mdewakanton Dakota at Prairie Island. She was a student of Franz Boas and Ruth Benedict, and a contemporary of A. Irving Hallowell, the author of "Bear Ceremonialism in the Northern Hemisphere" (*American Anthropologist*, 1926). Her writings include brief but important accounts of bear ceremonialism as practiced in Minnesota. These are useful references for interpretation of archaeological finds of bear bones in ritual settings. This paper presents Landes' observations on bear ceremonialism in the context of Hallowell's overview, and in comparison with examples of bear ceremonialism as expressed in Minnesota's archaeological record.

Mattson, M. J. (Leech Lake Heritage Sites Program)

**Phase II Evaluation and OSL Dating of the Stephens Lake Site (21CA0425), Cass County, Minnesota**

The Stephens Lake Site was initially identified during Phase I subsurface testing conducted by the United States Department of Agriculture (USDA) Forest Service in 1983. The site is located on a terrace above a relict beach that is currently 1.2 to 1.7 miles from the current Mississippi River flowage. In 2012 further Phase I subsurface testing was conducted by the Leech Lake Heritage Sites Program (LLHSP) in order to relocate the site and further define the site's boundaries. This subsurface testing was followed by a 2012 Phase II evaluation of the site. The results of the 2012 Phase I testing and Phase II evaluation suggested a potential late Paleoindian/early Archaic component. In 2013 the LLHSP conducted additional Phase II investigation of the site along with the extraction of OSL dating samples. The cumulative results of the 2012 and 2013 investigations and OSL dates support the interpretation that the site presents evidence of habitation during the late Paleoindian/early Archaic period and possibly earlier. In addition, the OSL dating provided further insight into the formational periods of the Bena Dune Fields.

Merriman, Ann and Christopher Olson (Maritime Heritage Minnesota)

**Maritime Heritage Minnesota's Projects 2013-2014: 1,000 Years of Maritime History**

Maritime Heritage Minnesota will present findings from our 2013-2014 nautical archaeological fieldwork seasons and our maritime historical research. We will provide a synopsis of MHM's findings – the identification and analysis of wrecks and sites – from Lake Minnetonka, White Bear Lake, Lake Waconia, the Headwaters Mississippi River in Aitkin, and Lake Superior. To date, 36 wrecks have been located in Lake Minnetonka, 4 wrecks are known in White Bear Lake, and Lake Waconia has proved challenging. MHM's continued documentation of the NRHP-listed *Andy Gibson Wreck Site* and the Red Mill Wreck in Aitkin will also be discussed. MHM will also present data accumulated through two dugout canoe projects that have identified and documented nine of the oldest known watercraft in Minnesota. MHM's projects were funded by the George W. Neilson Foundation, the Mankato Area Foundation, and the Minnesota Historical and Cultural Heritage Grants Program, part of the Arts and Cultural Heritage Fund of the Clean Water, Land and Legacy Amendment.

Monnier, Gilliane (University of Minnesota) Edward Fleming (Science Museum of Minnesota)

**Preliminary Results of the 2011-2014 excavations at the Bremer Site (21DK06), Spring Lake, Minnesota**

In 2011, the University of Minnesota and the Science Museum of Minnesota initiated a project designed to clarify the Native American prehistoric occupation at the Bremer Site, located on the southern shore of Spring Lake near Hastings, Minnesota. Excavations at the site by the Science Museum in 1956 had revealed at least

three components: a Middle Woodland, Havana-like component, a Late Woodland component characterized by thin, Bremer Triangular Punctated and Madison ceramics, and an Oneota component. The main goals of our excavations from 2011-2013, which were carried out as an archaeological field school through the University of Minnesota, were to document the spatial and chronological patterning at the site through systematic shovel test survey and excavation of areas of interest. In 2014, we returned for a short, 2-week excavation season funded by the Minnesota Historical Society, targeted for the study of site formation processes using the methods of microarchaeology. This paper presents the preliminary results of the 2011-2014 excavations and laboratory analyses.

Mulholland, Susan C. (Duluth Archaeology Center) and Dan Wendt (Minnesota Historical Society)

#### **Knife Lake Geoarchaology: The Story is the Stone**

Knife Lake siltstone is a preferred lithic type for the Paleoindian of northeastern Minnesota. Quarries on the Canadian side of Knife Lake are well-known; a few quarries on the American side were known prior to the 2009 discovery of a complex of new quarry sites. In 2012, a geoarchaeological approach to characterizing the bedrock layers in the U.S. quarry district was initiated. Description of stratigraphic sequences and details of the siltstone layers was conducted to characterize layers and correlate to cultural usage. Field and lab work from 2012 to 2014 has indicated a focus on higher quality layers with finer texture, less fractures, and better knapping characteristics. The evidence of cultural usage ranges from intensive removal from specific locations (bedrock quarry features) to extensive sampling/testing over a wide area. Both quarry and workshop sites have been identified in different physical settings, contributing to a growing picture of the cultural landscape involved in KLS extraction. In order to understand the cultural use of the Knife Lake bedrock sources, the geoarchaeological context is crucial.

Muñiz, Mark P. (St. Cloud State University)

#### **Results of OSL Dating Four Sites in the Daughter District, Boundary Waters Canoe Area Wilderness**

In September 2014, a total of 14 sediment samples were collected from four sites (AJM, JJ, Lillian Joyce, Wendt) in the Daughter District, BWCAW and dated with the optically stimulated luminescence (OSL) technique. The results provide a chronological framework for the depositional history of the sites and surrounding landscape and minimum ages for the artifact deposits that range from the Paleoindian through Archaic periods.

Nienow, Jeremy L. (Principal at Nienow Cultural Consultants LLC) and Drew C. Bjorklund (3-D Building Technologies, LLC)

#### **Archaeological Applications of 3D Terrestrial Laser Scanning**

Less than a decade ago 3D terrestrial laser scanning was considered too expensive, cumbersome, and technical to be practically applicable for incorporation into traditional archaeology practices. Today, as archaeologists begin to use other aspects of 3D environments, they are increasingly using 3D laser scanning to document and analyze their surroundings. This paper provides a brief explanation of 3D terrestrial laser scanning's history and traditional applications as it has begun to transition out of the architectural/engineering industries and into ours. The presenters (one an archaeologist the other an architect) will demonstrate a series of current application case studies for the technology, specifically from architectural, archaeological, and museums contexts. Discussion will include some of the essential costs and benefits to incorporating this tool into one's archaeological tool kit, and will provide built in time for questions



O'Connell, Barbara H. (Hamline University) Jim L. Jones, Jr. (Minnesota Indian Affairs Council) and Bruce Thomas (Hamline University)

### **The Minnesota Ancients: Browns Valley and Pelican Rapids**

Two of the oldest early Holocene (10,000-8,500 BP) human skeletons from the North American mid-continent are from Minnesota. These include the Browns Valley and Pelican Rapids skeletons. Both skeletons were accidentally unearthed in the 1930s. Detailed, descriptive monographs by Albert Jenks were published in the mid-1930s. After rediscovery of the "lost" Browns Valley Ancient One in the late-1980s, AMS dating confirmed the early Holocene dates and initiated their restudy on the cusp of the passage of NAGPRA. Six years later the recovery of the Kennewick Man skeleton refocused the discourse of the study of ancient skeletons in North America around race and ownership, creating an adversarial relationship between tribes and scientists. The objective of this presentation is to summarize the results of the past 25 years of continued study of the Minnesota Ancient Ones as part of a collaborative relationship with the Minnesota Indian Affairs Council. This includes study both before and after repatriation of the Ancient Ones to a consortium of tribes in Minnesota and the Dakotas who claimed an ancestral relationship and reburied these individuals in 1999. Restudy includes the following: AMS dating, cranial metric biodistance statistics by multiple researchers, DNA haplotypes and forensic sculpture facial reconstructions.

Olson, Samantha J. (Independent Researcher)

### **What the Future Holds for the Past: A Review of Previous Research and Recent Findings of Archaic Sites on Isle Royale**

Whether it was the abundance of natural resources, or more recently, as a vacation destination, research facility, or as a wilderness area, there has been great interest in Isle Royale for thousands of years. This rich history has enchanted archaeologists and visitors alike in search of a more intimate understanding of the Isle and the people who have used it. There have collectively been hundreds of archaeological sites found on the island; however, this paper will primarily focus on the "Old Copper Culture" of the Archaic. It will review previously discovered sites as well as the preliminary findings of two new sites (WW.04 and GC.08) in Washington Harbor. These sites were discovered within the last three seasons using GIS and phase I survey techniques. The sites have yet to be excavated, however, were subject to shovel testing and metal detection and the results were exceptionally promising.

Palmquist, Julia M. (University of Minnesota), Gilliane Monnier (University of Minnesota), Edward Fleming (Science Museum of Minnesota) and Joshua Feinberg (University of Minnesota)

### **Analysis of Archaeological Features at the Bremer Site (21DK06) using Microarchaeological Methods**

The Bremer site is a multicomponent pre-contact site located in southern Minnesota. The site was excavated from 2011 to 2014 as a joint effort between the University of Minnesota and the Science Museum of Minnesota. As part of the ongoing analysis of the site I conducted the analysis of the archaeological features that were excavated. I used ethnohistoric accounts of Native American activities as well as archaeological data to create a set of expectations for identifying features at the site. This information allowed me to create models for specific feature categories, and to aid in identifying activities that would create the features. I then applied a microarchaeological approach to better understand the nature of the features. Specifically, I used flotation to recover micro-artifacts and charcoal present in the features, and magnetic susceptibility of sediments to understand soil formation processes. This paper demonstrates the usefulness of approaching feature analysis from a new perspective, using a combination of traditional and nontraditional methods.

Peliska, Charles, Christopher Chroninger and Peer Halvorsen

### **Identifying Problems and Solutions in Contemporary Cultural Resource Management**

This presentation will be focusing on different aspects of solutions to problems in contemporary Cultural Resource Management from the viewpoint of experienced Archaeological Field Technicians. It is an attempt to bring these problems and suggested solutions to the foreground and start a proactive discussion with the hope to change conditions in the field with improvements for Cultural Resource Management Companies, Archaeological Field Technicians, and the resource itself. Topics will include an introduction from a field tech's point of view, as well as aspects on training, experience, professionalism, compensation and solutions to various other problems that arise in giving our time, sweat, tears, blood and joints in an effort to discover and conserve North America's archaeological and cultural heritage.

Radford, David S., Jacob E. Foss, and LeRoy Gonsior (Minnesota Historical Society)

### **Newly Discovered Lithic Sites at Lake Vermilion-Soudan Underground Mine State Park, St. Louis County, Minnesota**

Archaeological survey of ten miles of Lake Vermilion shoreline in Lake Vermilion-Soudan Underground Mine State Park in St. Louis County, Minnesota resulted in the identification of 16 American Indian lithic scatter sites. Archaeologists from the Minnesota Historical Society recorded these sites while reviewing proposed development of state park facilities, including: boat-in campsites, picnic sites, foot trails, and a water access. Many of these sites were found on landforms (terraces, points of land, etc.) that would typically be considered "high potential" for containing precontact archaeological sites. However, a subset of the lithic scatter sites were identified in atypical topographic settings (high slope, uneven ground, etc.), but were located at, or near, outcrops or large boulders of Lake Vermilion Formation Chert. Lake Vermilion Formation Chert, while not a high-grade lithic raw material, is represented at most of the sites located in the new state park and in about one-half of the lithic sites found on Superior National Forest lands elsewhere on Lake Vermilion and the adjacent Trout Lake. While few of the sites in the park have yielded diagnostic artifacts or radiometrically datable materials, there is important information that can be learned regarding precontact land use, lithic raw material choices, trade/exchange, and chert quarrying activities on Lake Vermilion.

Running IV, Garry Leonard (University of Wisconsin-Eau Claire)

### **Modeling Generosity of Spirit: How Mike Broke in a New Geoarchaeologist at the Rustad Site**

I discovered the Rustad Site, located on the banks of the Sheyenne River about 45 minutes SW of Fargo-Moorhead, quite by accident in the early 1990s. The significance of the site, however, became apparent only after Mike Michlovic agreed to visit the site. Several years of archaeological investigation led by Mike, and geoarchaeological investigation conducted by me, as part of my dissertation work on the Sheyenne Delta, ensued. In fact, my dissertation would have been a very dull thing had the Rustad Site not been found. During the period we worked together Mike taught me what it really means to be a geoarchaeologist at the same he was teaching his own students how to conduct archaeological fieldwork. I cut my professional teeth on that project. From landowner relations to working on an interdisciplinary team, to writing successful NSF grants; Mike patiently and generously mentored me through every step. Mike explained what archaeologists need from their geoarchaeological colleagues and how best to deliver it. More importantly, he modeled how to treat people, colleagues, students, and the community, not just how to do research. In these lessons he led by example. Those lessons have served me well my entire career and I will never forget them. I strive to treat the students and new colleagues that I encounter with the same generosity of spirit that Mike showed me.

Steinbring, Jack (University of Wisconsin-Oshkosh and Ripon College)

**Form Correspondence in the Assessment of Cultural Affinities among Rock Art Sites of the Mid-West**

Investigations of rock art sites in the Mid-Western States have frequently shown similarities of such precision that relationship seems likely. Some of these will be explored while adding archaeological findings and geographical factors in tests of affinity and its depth. Sites in Minnesota, Wisconsin, Ontario, Saskatchewan, Alberta, Iowa and Missouri will be included.

Stilling, Michele D. (University of Minnesota)

**Archaeomagnetic Dating: Using the record of the Earth's magnetic field stored in fired ceramics as a new complementary dating method**

The Earth's magnetic field strength and direction is dynamic, both temporally and spatially. Under the right circumstances, these variations can be recorded in heat treated geologically based materials that contain magnetic minerals, such as ceramics. These minerals will align and fix their magnetization with the Earth's field while they are cooling down from high temperature, acting as a recording of the ancient field at that moment in time. Measurements of this ancient field stored in artifacts of a known age can be compiled to create regional reference curves of field variation through time, which can subsequently be used to date artifacts of unknown age. This is particularly useful in situations where other absolute dating techniques, such as radiocarbon, cannot be performed. Archaeomagnetic research in North America has lagged behind Europe and the Near East, where reference curves now span nearly 8000 years. Fortunately, the first stages of compiling a magnetic reference curve for the Midwest covering the Mississippian Cultural Periods (~700-1600 C.E.) is currently underway. This research will provide a new, cost-effective, alternative dating technique that may help answer questions of cultural interaction, exchange, and technological development in the region.

Stroh, Megan (Sanford Museum and Planetarium)

**The Grace Peninsula site (20IR239): an Archaic copper and lithic working site on Isle Royale National Park**

The Grace Peninsula site (20IR239) is one of the few investigated Archaic sites at Isle Royale National Park. It exists on a Nipissing relict shoreline, which corresponds to a date of around 6000-4000 radiocarbon years before present. Analysis of copper and lithic artifacts suggest that the Grace Peninsula site corresponds to other major Isle Royale Archaic sites located above Nipissing relict shorelines. The artifact assemblage also informs interpretations about the technological organization of Archaic groups utilizing the site. The presence of all stages of copper tool production indicates that the Grace Peninsula site was a place to refine raw copper into forms that were easily transported or into tools for immediate use. Also, a small proportion of high quality lithic materials originating from the northern shores of Lake Superior exist at the site. This suggests that Archaic groups were transporting the high quality materials to Isle Royale and maintaining them as needed. However, the Grace Peninsula site has a much higher proportion of locally available low quality lithic materials that were used expediently. It appears that this pattern of a curated toolkit, supplemented by a local expedient toolkit, is repeated at other Archaic sites on Isle Royale.

Sutherland, Fred (Michigan Technological University)

**Update on Jones Iron Furnace site in Aitkin, Minnesota**

Fred Sutherland will present an update of the research conducted on the Jones Iron Furnace site after finding the ruins in the fall of 2012. He located the site from a series of intriguing newspaper accounts while researching the development of iron mining on the Cuyuna Iron Range in Central Minnesota. In 1913, inventor John T. Jones

sought to build one of his experimental iron smelting furnaces on the recently developed Cuyuna Iron Range. Local newspapers report that a site was selected just north of Aitkin, Minnesota and that the facility was under construction. However, by the spring of 1914 the articles about the furnace cease and no further mention of Jones or his furnace appeared in local records. Since 2012, comparisons of the ruins to Jones' patents provided clues about the type furnace that was under construction. A remote sensing study of the ruins and surrounding land was conducted in 2014 with the help of a Minnesota Legacy Grant administered by the Aitkin County Historical Society. The results of this study have located artifacts and possible features related to the furnace ruins.

Taft, Mara (University of Minnesota), Gilliane Monnier (University of Minnesota), Edward Fleming (Science Museum of Minnesota)

#### **Spatial Patterning and Analysis of Lithic Debris at the Bremer Site (21DK06)**

The Bremer Site (21DK06) is a multi-component Middle and Late Woodland site located on a terrace overlooking Spring Lake in Dakota County, Minnesota. It has recently been re-excavated by the University of Minnesota and the Science Museum of Minnesota. I am completing an attribute analysis of the chipping debris and lithic tools, as well as a special analysis of the artifact distribution through time and space at the site. I aim to better understand the activities that took place at Bremer, as well as raw material availability and lithic tool production. This is done by analyzing chipping debris attributes such as flake size, typology, raw material type and special analysis of the artifact distribution using ArcGIS. Thorough lithic analysis has rarely been completed, to this extent, on Midwestern archaeological assemblages. Completion of this analysis will greatly increase our understanding of past activities at Bremer.

Thompson, Robert G.

#### **Food Residues from Prehistoric Pottery, Corn, and Wild Rice in Minnesota Prehistory**

Food residues from pottery provide a unique avenue of research into prehistoric activities. Residues provide a matrix which holds opal phytoliths intact, and generally free from taphonomic processes since their original deposition. Assemblages of phytoliths can provide identification which can be specific to varieties of corn being used in a pot, or whether *Z. palustris* or *Z. aquatica* is present. The geography of Minnesota makes it central to the use of both wild rice and corn in the midcontinent. The history of the use of these plants is more complex, and more important, than our understanding of two decades ago.

Toom, Dennis L. (University of North Dakota)

#### **Forty Years of Archeology along the James River in North Dakota**

Over the past 40 years, sporadic yet intensive archeological research has been conducted by professionals along the James River valley in North Dakota. Virtually all of this work was related in one way or another to the Garrison Diversion project of U.S. Bureau of Reclamation. With fieldwork conducted in roughly 10-year increments, the research completed to date permits us a reasonably good look at the last 5,000 years of prehistory in this small and unassuming riverine setting of the northeastern Plains.

Wendt, Dan (Minnesota Historical Society)

### **Lithic Raw Materials Represented in Minnesota Glacial Till**

Minnesota has few primary bedrock sources of lithic materials leaving people in the past few options other than glacial till as a source of toolstone. Glacial till in Minnesota has a surprising variety of materials that were utilized. Glaciers in different episodes moved materials not only south but also displaced materials far southeast and southwest of known primary sources. At present, the ability to identify materials in till is incomplete and the known geology present in potential source areas is far more complex than is reflected by current understanding of identified materials. An estimated 2/3 of the cherts collected in Minnesota till remain unidentified. Recent collaboration with Canadian researchers and limited field trips have verified that many primary sources of these unknown materials lay in the numerous Paleozoic formations in the Hudson Bay Basin in Ontario, and in the Williston Basin of in southern Manitoba. Strategies are suggested for Minnesota lithic analysts to make sense of sites acknowledging a partial knowledge of till sources. Recently acquired primary source materials at the MHS help expand the foundation of identified reference materials. Descriptive analysis of unidentified chert samples including microfossil characterization can be used to build tentative identification hypotheses.

### **CMA ALL-CONFERENCE SPECIAL DISCUSSION SESSION**

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#### **Discussion Session on Lithic Scatters in Minnesota**

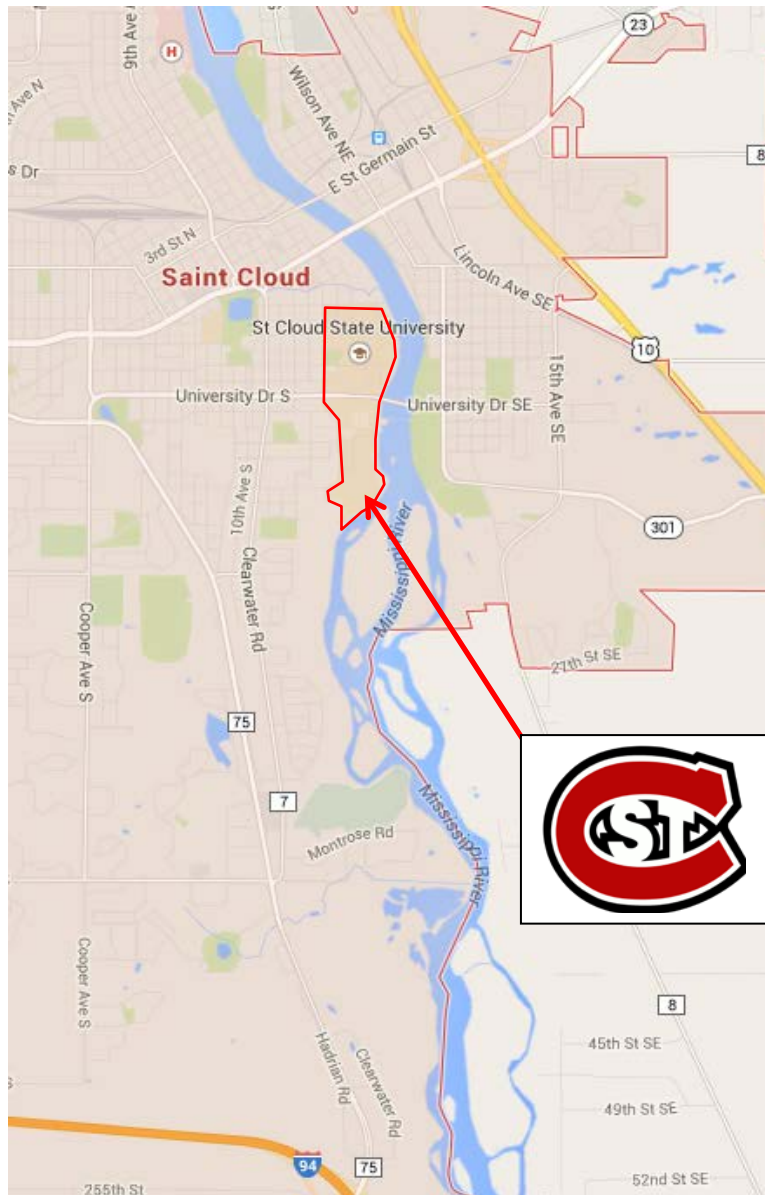
Arzigian, Constance (Mississippi Valley Archaeology Center) and Craig Johnson (Minnesota Department of Transportation)

MnDOT has contracted to prepare a Multiple Property Documentation Form for evaluating the eligibility to the National Register of Historic Places of lithic scatters in Minnesota, those ubiquitous sites that contain predominantly lithics. Since these are the most common site type, we are potentially losing a significant component of settlement and extractive systems if they are ignored. Yet their typically small size, low artifact density, lack of stratigraphy, often limited diversity of materials, and frequent absence of projectile points or other diagnostic artifacts makes their study difficult, and nomination to the National Register problematic. We would like to invite the CMA conference participants to join in a discussion of these sites and their potential research value, with these questions as starting points:

- What have you been able to learn from these kinds of sites (whether or not you recommended that a site be considered eligible)?
- What more did you learn from Phase II or III excavations that was not known after the initial discovery? What kinds of additional material were recovered that gave you new information? Reference to specific sites or projects as examples would be useful.
- Have you been able to argue for a temporal association in the absence of projectile points? What other information could provide a cultural context?
- Is there potential one day for lithic artifacts beyond projectile points to be culturally or temporally diagnostic? As, for example, overshot flakes are proposed for Clovis technology. Where should we focus to build understanding for future interpretive potential?
- Are there examples of landscapes of structured activities centered on lithic acquisition or use? (Similar to the quarry / workshop / campsite example at Silver Mound, WI.) What economic landscapes might we anticipate and look for, such as seasonal rounds, hunting patterns or trails?
- Have you observed differences across different regions and landscapes in Minnesota? If so, how? Do the differences depend just on raw material or are there other regional patterns, such as reduction technologies?

- What needs to be recorded at these sites to address these questions, and what is feasible in the field, given typical constraints of time and funding.
- Is there value in piece plotting surface collections? If so, what? Examples?
- Is just mapping the site location and landscape setting with GPS enough?
- Should the level of lab analysis focus on gross scale morphology (flake types) or more detailed attributes?
- Is time intensive lab analysis worth conducting on these sites, such as high-magnification usewear or technological studies of manufacture?
- How do we deal with our partial understanding of the dozens of raw materials that occur in Minnesota tills?

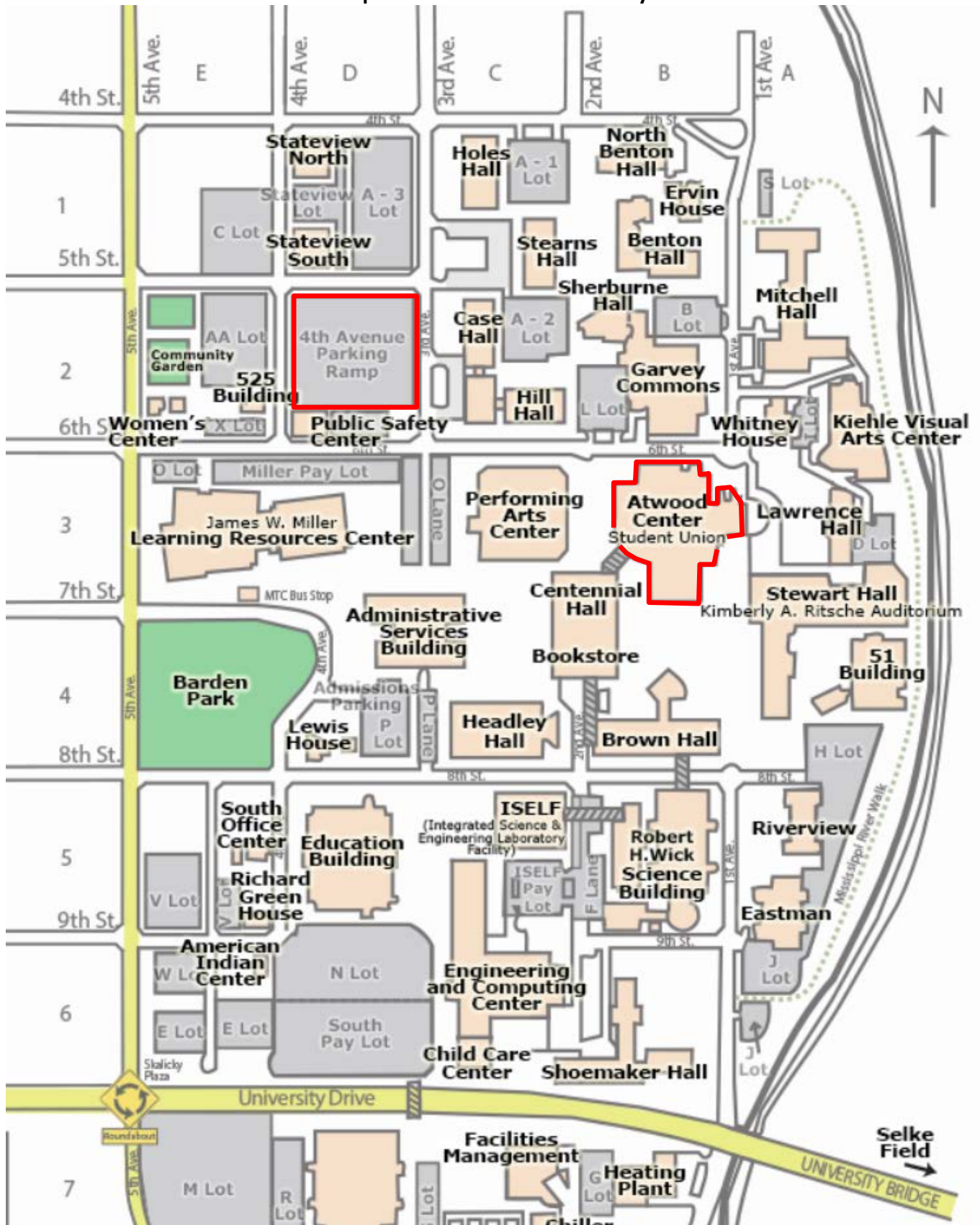
**St Cloud State University  
720 4th Avenue South  
St. Cloud, Minnesota 56301-4498**



**From I-94:** Take Exit 171 (CR 75) and head north; turn right on 22<sup>nd</sup> St. South for 1 block and then turn north (left) on Clearwater Rd at the stop light; continue heading north and turn east (right) on University Dr South; head north on 5<sup>th</sup> Ave South at the roundabout and take that 4 blocks and then turn east (right) onto campus at 6<sup>th</sup> St South, you will see the 4<sup>th</sup> Ave Parking Ramp on your left (there is free on-street parking in the neighborhood directly west of campus)

**From US Hwy 10:** Exit on State Route 23 and head west across the Mississippi River; turn south (left) at the stop light for 5<sup>th</sup> Ave South; continue south for 5 blocks and turn east (left) onto campus at 6<sup>th</sup> St South, you will see the 4<sup>th</sup> Ave Parking Ramp on your left (there is free on-street parking in the neighborhood directly west of campus)

# Map of St. Cloud State University





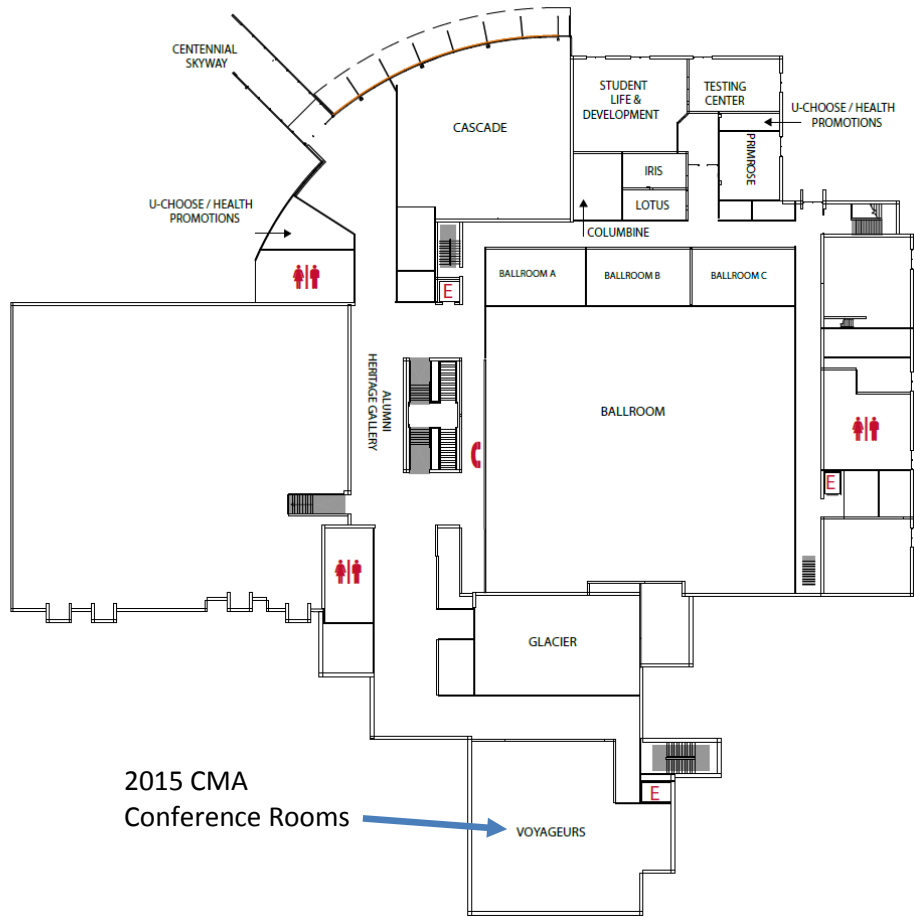
# Atwood Memorial Center Map

# UPPER LEVEL

ATWOOD MEMORIAL CENTER

RESTROOMS  
 ELEVATOR  
 ATM  
 COMPUTER  
 PHONE  
 WHEELCHAIR ACCESS

REVISED 8/2013



## ATWOOD MEMORIAL CENTER FOOD OPTIONS



**6TH STREET GRILL**  
**Monday-Thursday:** 7:30 a.m. - 10:30 a.m. and 11:00 a.m. to 7:00 p.m.  
**Friday:** 7:30 a.m. - 10:30 a.m. and 11:00 a.m. to 3:00 p.m.  
**Saturday - Sunday:** CLOSED

6th Street's new menu boasts breakfast sandwiches, omelets, and skillet, as well as an innovative build your own burger menu for lunch.



**SUBWAY**  
**Phone:** 308-SUBS (7827)  
**M-F:** 7:00 a.m. - 10:00 p.m.  
**Sat:** 8:00 a.m. - 9:00 p.m.  
**Sunday:** 12:00 p.m. - 10:00 p.m.

Get your sandwiches and wraps here. *Eat Fresh!*



**EINSTEIN BROS. BAGELS**  
**Monday-Friday:** 7:30AM-2:30PM

Enjoy fresh coffee, bagels, sandwiches, fruit cups, and more.



**PIZZA HUT EXPRESS**  
**Monday-Thursday:** 10:30AM-2PM, 5PM-8PM  
**Friday:** 10:30AM-3PM  
**Saturday:** 11AM-3PM  
**Sunday:** CLOSED

Grab a pizza or signature pasta, or snack on The Hut's famous breadsticks.



**WOW CAFE & WINGERY**  
**Monday-Thursday:** 11AM-11PM  
**Friday:** 11AM-10PM  
**Saturday-Sunday:** 2PM-9PM

WOW offers signature wings, wraps, and salads in a sports-themed atmosphere.



**CARIBOU COFFEE**  
**Monday-Thursday:** 7AM-9PM  
**Friday:** 7AM-4:30PM  
**Saturday:** 8AM-2:30PM  
**Sunday:** 12PM-7PM

Minnesota's staple coffee shop, offering premium beverages, hot sandwiches, and fresh bakery items.

**MEIN BOWL**

**Monday-Friday:** 10:00AM-7PM

Now operated by Hissho Sushi! Try the fresh-daily sushi, or delve into an array of Asian cuisine.



**NOODLES AND GREENS**

**Monday-Friday:** 10:00AM-2PM

We've updated Wall of Greens! Get the salads you love, or build your own fresh-tossed pasta.



**BURRITO BOWL**  
**Monday-Friday:** 10:00AM-7PM

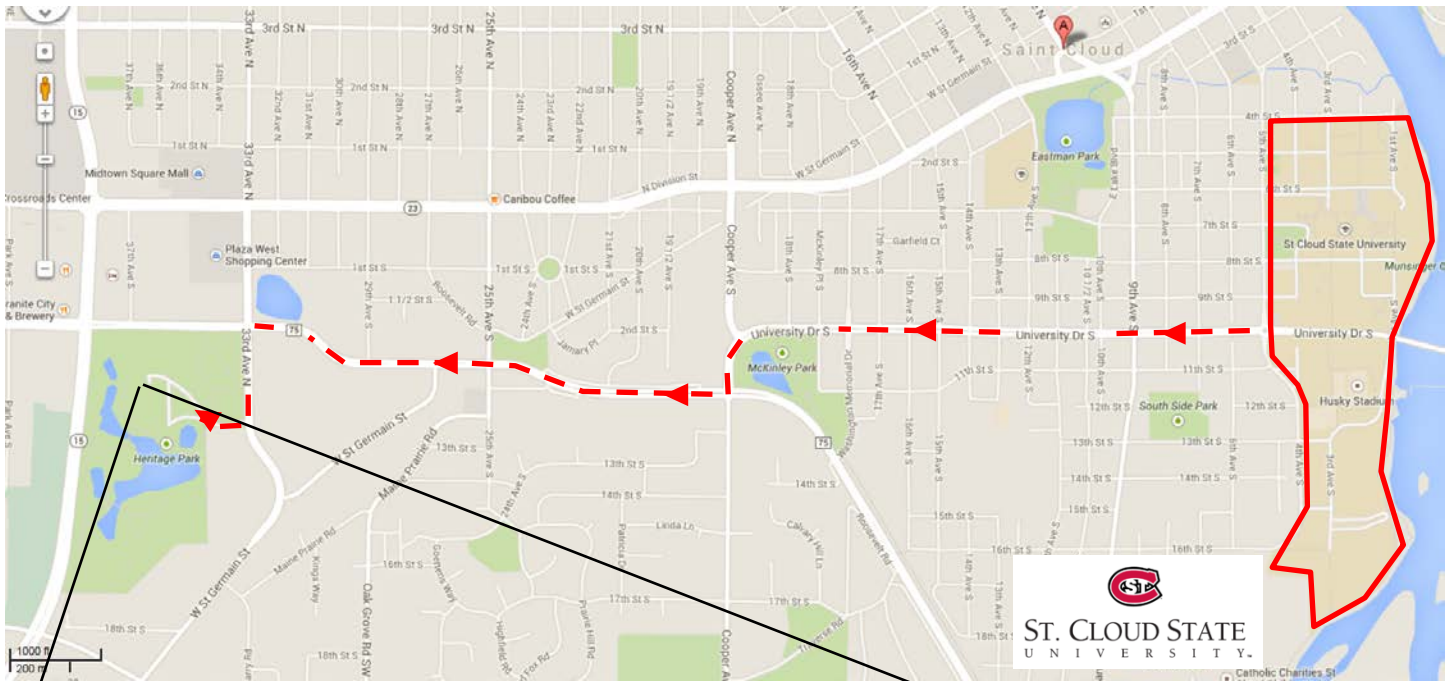
Grab a burrito or bowl with all of the freshest classic ingredients.



**FRESHENS FRESH FOOD STUDIO**  
**Monday-Friday:** 10:00AM-7PM

Freshens has expanded! Stop by and get a savory or sweet crepe, a signature salad served in a crispy flatbread, or the same smoothies and yogurts you love. For breakfast, grab a savory breakfast crepe or smoothie.

**Directions to Stearns History Museum  
235 33rd Ave S  
St. Cloud, MN 56301**



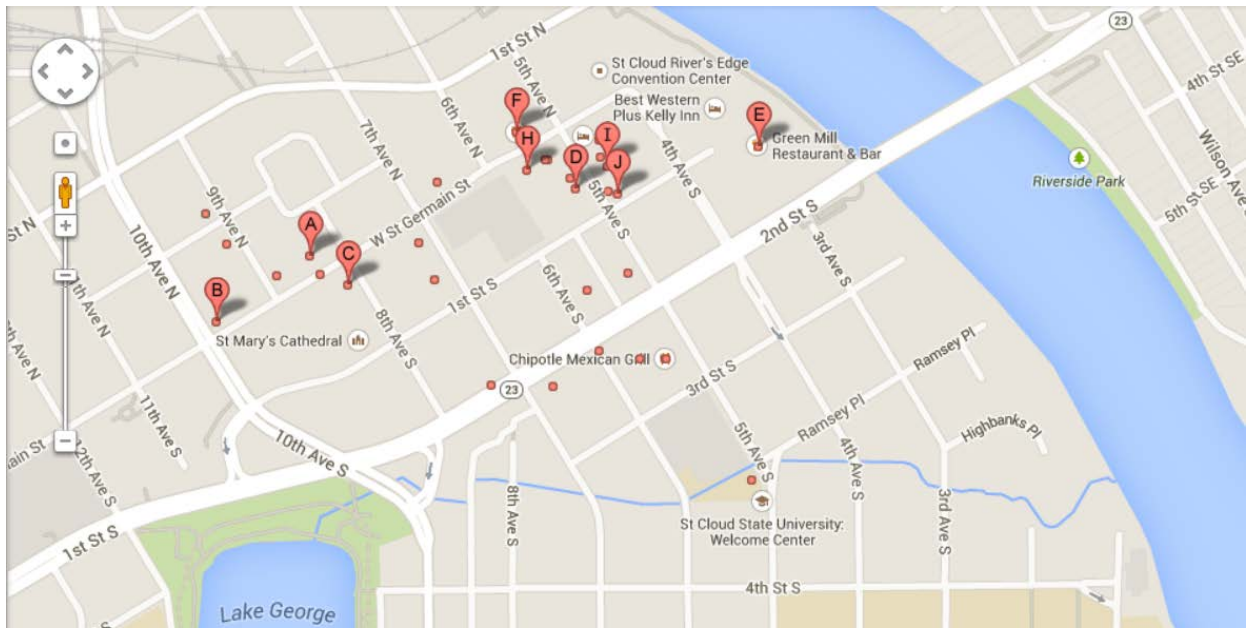
**Driving Directions from SCSU**

- Drive west on University Ave S and follow around the “Cooper Ave curve” (1.2 miles)
- Turn right onto County Hwy-75/Roosevelt Rd which becomes “2<sup>nd</sup> Street South”, continue to follow County Hwy-75 (1 mile)
- Turn left onto 33rd Ave S (.2 mile)
- 235 33rd Ave S is on the right, behind the St. Cloud Skate Park

**Driving Directions from Downtown Saint Cloud**

- Drive west on 1st St S/MN-23. Continue to follow MN-23 (1.7 miles)
- Turn left onto 33rd Ave S (.4 mile)
- 235 33rd Ave S is on the right, behind the St. Cloud Skate Park

## Off-campus Dining Options near SCSU



**A White Horse**  
 809 West Saint Germain Street, Saint Cloud, MN  
 (320) 257-7775 · [whitehorsemn.com](http://whitehorsemn.com)  
 4.3 ★★★★★ 46 reviews · \$\$  
 thai steak salad · beer on tap · garlic sirloin steak ·  
 fried green beans · criss cut fries

**B Jules' Bistro**  
 921 West Saint Germain Street, Saint Cloud, MN  
 (320) 252-7125 · [julesbistrostcloud.com](http://julesbistrostcloud.com)  
 4.3 ★★★★★ 19 reviews · \$\$  
 the paramount theatre · glass of wine · gluten free ·  
 homemade soups · chili

**C Sawatdee**  
 800 West Saint Germain Street, Saint Cloud, MN  
 (320) 240-1454 · [sawatdee.com](http://sawatdee.com)  
 3.8 ★★★★★ 22 reviews · \$\$  
 sweet sticky rice · thai iced tea · fresh spring roll ·  
 thai delight · country style curry

**D House of Pizza**  
 19 5th Avenue South, Saint Cloud, MN  
 (320) 252-9300 · [houseofpizzamn.com](http://houseofpizzamn.com)  
 4.3 ★★★★★ 47 reviews · \$\$  
 garlic cheese bread · grilled chicken  
 cordon blue · sundried tomato chicken penne ·  
 spinach tortellini alfredo · roasted red peppers

**E Green Mill Restaurant & Bar**  
 100 4th Avenue South, Saint Cloud, MN  
 (320) 259-6455 · [greenmill.com](http://greenmill.com)  
 3.8 ★★★★★ 22 reviews · \$\$  
 deep dish · waitress

**F Mexican Village**  
 509 West Saint Germain Street, Saint  
 Cloud, MN  
 (320) 252-7134 · [mexicanvillagelstcloud.com](http://mexicanvillagelstcloud.com)  
 3.6 ★★★★★ 35 reviews · \$\$  
 rice & refried beans · chicken breast grilled · vanilla  
 ice cream · onions & peppers · chicken or steak

**G Subway**  
 720 4th Avenue South, Saint Cloud, MN  
 (320) 308-7827 · [subway.com](http://subway.com)  
 2 reviews · \$

**H Erbert & Gerbert's**  
 516 West Saint Germain Street, Saint Cloud, MN  
 (320) 253-9963 · [erbertandgerberts.com](http://erbertandgerberts.com)  
 4.1 ★★★★★ 9 reviews · \$  
 the jacob bluefinger · bottled water · halley's comet ·  
 cookie · shortcake

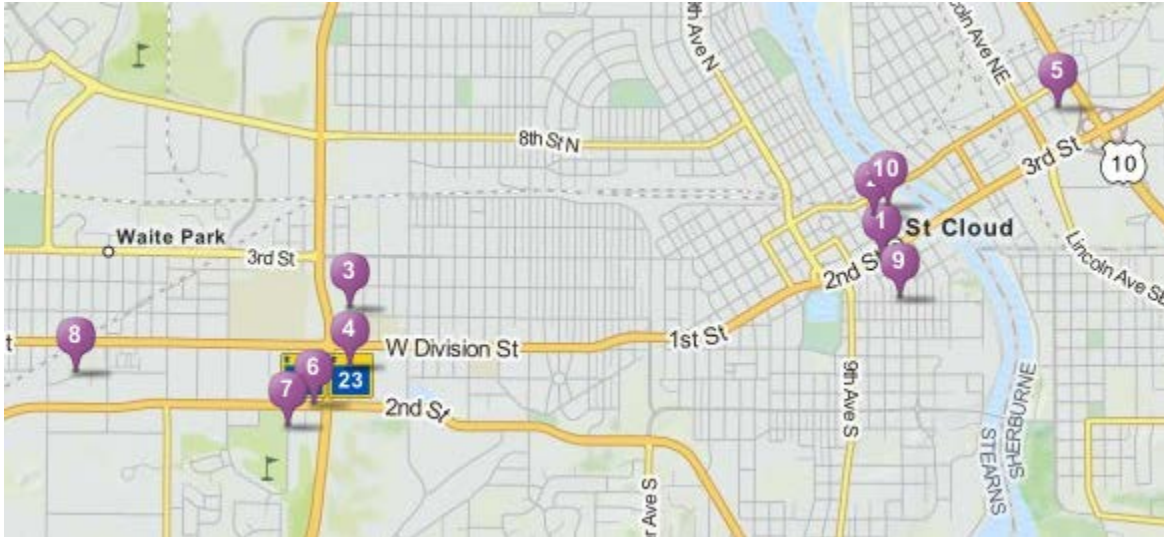
**I D B Searles**  
 18 5th Avenue South, Saint Cloud, MN  
 (320) 253-0655 · [dbsearles.com](http://dbsearles.com)  
 3.5 ★★★★★ 17 reviews · \$\$  
 the feast burger · triple grilled cheese · dance clubs ·  
 mashed potatoes · wild rice pilaf

**J Subway**  
 30 5th Avenue South, Saint Cloud, MN  
 (320) 257-7002 · [subway.com](http://subway.com)  
 3 reviews · \$

### Other Saint Cloud Dining Recommendations:

- **Old Capital Tavern** - 2 North Benton Drive, Sauk Rapids, MN 56379 **GREAT FOOD & BEER!!**
- **Granite City Food & Brewery** – 3945 2<sup>nd</sup> St South, St. Cloud, MN 56301
- **Perkins** - 118 6th Avenue South, Saint Cloud, MN
- **Star of India** - Division Place Shopping Center, 2812 Division Street, Saint Cloud, MN 56301 (delivery through [fooddudesdelivery.com](http://fooddudesdelivery.com))

## Hotels near SCSU



**1 Grandstay Residential Suites St Cloud**  
213 6th Avenue South  
Saint Cloud, MN 56301  
(320) 251-5400

**2 Le St. Germain Suite Hotel**  
404 West Saint Germain Street  
Saint Cloud, MN 56301

**3 Homewood Suites St Cloud**  
115 37th Avenue North  
Saint Cloud, MN 56303  
(800) 426-7866

**4 Days Inn St Cloud**  
70 South 37th Avenue  
Saint Cloud, MN 56301

**5 Country Inn & Suites Saint Cloud East**  
120 7th Avenue Southeast  
Saint Cloud, MN 56304

**6 Fairfield Inn & Suites By Marriott St. Cloud**  
4120 2nd Street South  
Saint Cloud, MN 56301  
(320) 654-1881

**7 Country Inn & Suites Saint Cloud**  
235 Park Avenue South  
Saint Cloud, MN 56301

**8 Motel 6 St Cloud - I-94 Waite Park**  
815 1st Street South  
Waite Park, MN 56387

**9 Heritage House Bed & Breakfast**  
402 6th Ave S  
Saint Cloud, MN 56301  
(320) 656-5818

**10 Radisson Suite Hotel**  
404 W St Germain St  
St. Cloud, MN 56301  
(320) 654-1661

Another recommended location to stay is the **Best Western Kelly Inn**, located along the Mississippi River in downtown St. Cloud at 100 4th Avenue South (just east of the #1 pin in the map above and adjacent to the Green Mill Restaurant)