

# Lithic Materials Workshop

at Historic Ft. Snelling

Friday February 19 and Saturday February 20, 2010

Fort Snelling History Center, St. Paul, Minnesota

Hosted/Sponsored

by the Archaeology Department of the Minnesota Historical Society (MHS),

the Minnesota Archaeological Society (MAS),

and

the Minnesota Office of the State Archaeologist (OSA)

A two day event including a few posters and papers on the subject of lithic materials and identification. It is meant to be a relatively informal gathering with plenty of time to visit and share lithic samples and artifacts.



- 
- This will be an opportunity to view the ever growing MHS lithic comparative collection, which now includes many regional lithics. MHS will also have available CDs with high quality images of the comparative collection.
  - Participants are encouraged to bring samples of their own comparative collections to confirm identifications.
  - Displays of common regional lithic materials will be available for examination.
  - There will be a lithic exchange area for those wishing to trade samples.
  - Bring along your unidentified lithic artifacts for some opinions on material types.

For additional information contact:

Office of the State Archaeologist, Ft. Snelling History Center St. Paul, MN 55111 612.725.2729.

[mnosa@state.mn.us](mailto:mnosa@state.mn.us) or [bruce.koenen@state.mn.us](mailto:bruce.koenen@state.mn.us)

Final Schedule will be on line at:

<http://www.osa.admin.state.mn.us/>

## Friday, February 19

Doors open at 9am for set up.

**Lithic Exchange** - 11 am to Noon

Noon lunch break

### Papers 1 to 3 pm

**1 to 1:30 - New Discoveries in Old Till – Wisconsin Lithics**

Dan Wendt (MHS Volunteer)

A survey of lithic materials available in Western Wisconsin has documented the presence of old tills with more than a dozen lithic materials from far western sources. Younger, overlying tills have a dozen lithic materials from far northern sources. While complicating lithic analysis, this resource catchment information might yield a better understanding of procurement strategies and material selection.

**1:40 to 2:10 – Lithic Sources in Northeastern Minnesota**

Stephen Mulholland (Duluth Archaeology Center)

Workable lithic materials are available from a number of bedrock and glacial till sources in northeastern Minnesota and were utilized throughout the pre-contact period. A review of the proposed new lithic nomenclature as proposed by Brian Klawiter and Stephen Mulholland.

**2:20 to 2:50 - The Analysis of Lithic Raw Material Use Patterns in Minnesota**

Kent Bakken (Interdisciplinary Archaeological Studies, University of Minnesota)

The idea of raw material utility lets us frame a method of analysis that can be applied throughout the state and to assemblages of different raw material composition. This analysis suggests that there may be four basic raw material use patterns in regional prehistory, and that these patterns have diagnostic potential.

---

**Flint Knapping Demonstration** - 4:00 pm - Rod Johnson

Doors Close for evening at 5pm

## Saturday February 20

Doors open at 9:00am for set up

### Papers 9:30 to Noon

#### **9:30 to 10:00 – The 2009 Interagency Field Trip to Knife Lake, Superior National Forest, Lake County, Minnesota: Summary of Project and Results**

Lee Johnson (Superior National Forest)

In September 2009 archaeologists from the Superior National Forest (SNF) organized an interagency survey of high-probability locations in the vicinity of Knife Lake. Participating in the survey were archaeologists from St. Cloud State University, Minnesota Department of Natural Resources, the Minnesota State Historic Preservation Office, and the Department of Interior-National Parks. A unique survey strategy adopted for this project focused on landscapes located away from littoral areas that were recently exposed by SNF prescribed burning activities. The survey identified numerous exposed facies of high-quality metamorphosed Knife Lake Siltstone that exhibited ample evidence of quarry activity. Dense concentrations of debitage, discarded tools, and quarrying debris were observed at workshop locations adjacent to the quarry facies. Bifacial reduction strategies employed at the site suggest a Paleo-Indian temporal affiliation.

#### **10:00 to 10:30 - Geology of Knife Lake Siltstone - What is this stuff and where did it come from?**

Bill Clayton (Superior National Forest)

The Early Precambrian bedrock (Knife Lake Group) in this area has a complex geologic history, the result of weathered volcanic materials deposited in a marine environment.

#### **10:30 to 11:00 – Recognizing Paleoindian Lithic Reduction Strategies. Do we see them at Knife Lake?**

Mark Muñiz (St. Cloud State University)

Early Paleoindian flintknapping strategies include the use of intentional overshot flakes to thin their bifaces, a technique used to a much lesser extent by later populations. Overshot flakes have been observed on a number of bifaces from several newly recorded, adjacent sites on Knife Lake. This presentation describes currently known early Paleoindian biface production strategies and compares them to preliminary observations made on the Knife Lake sites.

#### **11:00 to 11:30 - Replication of Siltstone Flint Knapping Technologies**

Dan Wendt (MHS Volunteer)

Knife Lake Siltstone was used to experimentally replicate several different flint knapping strategies. A large biface reduction sequence has been replicated that qualitatively fits some of the knapping debris at the Knife Lake Quarry

sites. Fine detail in some finished paleo-Indian siltstone artifacts is hard to replicate and seems to require extreme skill or significant adaptation of knapping techniques to this challenging material.

### 11:30 to 12:00 – **Bradbury Brook and Other Siltstone Sites as Context for Knife Lake**

David Mather (State Historic Preservation Office)

The Bradbury Brook site (21ML42) was the subject of data recovery excavations in 1990, prior to expansion of T.H. 169 south of Mille Lacs Lake. The lithic assemblage consisted of weathered siltstone. The excavations revealed knapping stations where glacial siltstone cobbles were reduced. A hearth feature produced an AMS date of 9220+/-75 BP and the base of a stemmed Late Paleoindian projectile point, made of siltstone and weathered in a similar manner to the biface fragments and debitage. Bradbury Brook and other nearby sites provided a basis for Kent Bakken's later definition of the K-Pattern of Late Paleoindian/Early Archaic lithic resource use at Mille Lacs (primarily siltstone), and allowed greater recognition of early components at regional sites.

---

Noon lunch break

**Lithic Exchange** - 1 to 2 pm

**FlintKnapping Demonstration** - 3 pm – Rod Johnson

Doors Close at 5 pm

---

### **Table Space**

If you plan on bringing a poster or need a table let us know beforehand so we can make sure we have the space, but we don't want to discourage anyone who wants to participate and will try to accommodate everyone.

### **Lithic Exchanges**

The exchanges will take place in a specified area to prevent the inadvertent removal of important samples. If you bring material to trade please include or have available labels including the name of the material and geologic source or sample provenience. The first 30 minutes of the exchanges will be limited to those who have brought materials to exchange allowing them first chance at the materials. After the first thirty minutes the sessions will be open to all who are interested. You might want to bring extra, empty, sample bags and a marker.

## FlintKnapping Demonstrations

FlintKnapper Rod Johnson, Minnesota Archaeological Society President, will be on site both days to answer questions about making stone tools. Rod will give scheduled demonstrations both days, at 4pm on Friday and 3pm on Saturday.

## Minnesota Archaeological Society

The MAS will have a table set up with publications for sale. They have also donated funds for the brunch on Saturday.

## Logistics

The event will take place at the Historic Fort Snelling History Center. Follow the highway signs to historic Fort Snelling. If you haven't been here before, the History Center is an underground building, walk towards the large obelisk overlooking the river where there is a ramp heading down to the building entrance. Parking is free.

The Archaeology Department of the Minnesota Historical Society will provide light refreshments both days.

