

Minnesota Archaeological Society

The inscriptions below are from a 1,000-year-old pot that was discovered in 1957 near Red Wing, Minnesota by an MAS member.
The thunderbird motif is representative of Middle Mississippian iconography.

Summer 2016

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Retirements Rock the Minnesota Archaeology World

Leroy Gonsier

Jim Cummings

On June 2nd, Leroy Gonsier, long-time Minnesota Historical Society archaeologist and occasional contributor to The Minnesota Archaeologist, retired after 40 years of service. Leroy started his career in archaeology as a St. Cloud State University student, digging at the Lower Sioux Agency site in Redwood County. He followed this up with work at Historic Fort Snelling, then went on to stints with the Minnesota Trunk Highway Sur



Longtime Naturalist at Mille Lacs Kathio State Park, Board Member Jim Cummings announced his retirement from the Park Service on May 10. Jim remains a very active

Cummings photos by Ron Miles

More Retirements on page 5

Archaeology Fair to Be Held at Ft. Snelling September 10-11

Arch Fair continued on page 2



Amanda Gronhovd Minnesota State Archaeologist



Amanda Gronhovd was appointed state archaeologist in March 2016, replacing long-time State Archaeologist Scott Anfinson. Amanda came to OSA with more than 20 years of experience in the archaeological and cultural resources field. She has extensive experience working for both public and private sector organizations in Minnesota and across the United States in all aspects of archaeology and cultural resources management.

She is the current president of the Minnesota Society of Historical Archaeology and holds a Master's degree in Industrial Archaeology from Michigan Technology University. She has owned and operated 10,000 Lakes Archaeology, a cultural resources consulting firm, since 2003. One of her recent accomplishments was developing the public archaeology program at Mills Ruins Park in Minneapolis. Amanda is committed to preserving and protecting Minnesota's archaeological resources for all Minnesotans, and we are happy to welcome her to the Office of the State Archaeologist.

Minnesota Archaeology Week Calendar of Events September 10th through the 18th, 2016

Cottonwood County Comfrey

Date: Tuesday, September 13, 9 AM - 2 PM

Sponsor: Winnebago Area Museum

Location: Winnebago Area Museum, 16 Main Street South

Contact: Carol A. Hill at 507-458-8263 or chilli@bevcomm.net

Note: The event is free and open to the public, donations are appreciated.

Hennepin County Minneapolis

Minnesota's Ancient Observatory

Explore early American Indian science and help build a replica of Minnesota's first known astronomical observatory.

Date: Saturday, September 10, 11:30 AM to 1:30 PM

Sponsor: Minnesota Historical Society

Location: Jeffers Petroglyphs Historic site, 27160 Co. Rd. 2, Comfrey, three miles east of U.S. Hwy. 71 on Cottonwood County Road 10 then one mile south on County Road 2

Contact: Tom Sanders, 507-628-5591, Thomas.sanders@mnhs.org

Note: The event is free with a paid admission to the site.

Minnesota Archaeology Fair

The 14th annual Minnesota Archaeology Fair will include a variety of poster and artifact displays, demonstrations and activities illustrating and explaining the archaeology of Minnesota. There will be artifact identification, a full size, replica dugout canoe, an atlatl toss and demonstrations of pottery-making and flintknapping.

Date: Saturday, September 10, 10 AM to 5 PM and Sunday, September 11, 11 AM to 4 PM

Sponsor: Minnesota Historical Society/Minnesota Archaeological Society

Location: Thomas C. Savage Visitor Center, Fort Snelling State Park

Contact: Patricia Emerson, 612-725-2410, patricia.emerson@mnhs.org

Note: The event is free and open to the public but a Minnesota State Park permit (annual pass or day pass) is needed to enter the State Park.

Evening Tour of the Jeffers Petroglyphs: New Insights on the Carvings

Tom Sanders, Jeffers Petroglyphs State Historic Site site manager, will lead an evening tour of the petroglyphs to share new insights about the carvings.

Date: Thursday, September 15, starting at 6:30 PM

Sponsor: Cottonwood County Historical Society

Location: Jeffers Petroglyphs Historic site, 27160 Co. Rd. 2,

Contact: Linda Fransen at 507-831-1134 or cchs@windomnet.com

Note: The event is free and open to the public.

Faribault County Winnebago

Archaeology Week Open House

The Winnebago Area Museum will celebrate Minnesota Archaeology Week by hosting an open house on Tuesday of Minnesota Archaeology Week. This is your opportunity to learn more about Faribault County history and see archaeological displays about the past cultures of the County.

Underwater Archaeology & Maritime History of Minnesota

The staff of Maritime Heritage Minnesota (MHM) will inform you of the nearly 1,000 years of Minnesota's maritime history and nautical archaeology. Ask questions of the only underwater archaeologists in Minnesota, enjoy our large visual exhibit, and watch videos of wrecks and other underwater sites in MHM's theater.

Date: Saturday, September 10, 10 AM to 5 PM and Sunday, September 11, 11 AM to 4 PM

Sponsor: Maritime Heritage Minnesota

Location: Thomas C. Savage Visitor Center, Fort Snelling State Park

Minnesota Archaeology Week Calendar of Events Continued

Contact: Ann Merriman, 651-261-2265, mhm@maritimeheritagemn.org

Note: The event is free and open to the public but a Minnesota State Park permit (annual pass or day pass) is needed to enter the Park.

Hennepin County Archaeology, Past, Present and Future

The Hennepin History Museum will host a public excavation on the museum grounds, an exhibit of Hennepin County archaeological artifacts and on Sunday afternoon a Fireside Chat lead by Andrew Nikolai Roberts entitled *"Archaeology's Changing Role in Society"*.

Date: Saturday, September 10, 10:00 AM – 5:00 PM and Sunday, September 11, 1:00 to 5:00 PM

Sponsor: Hennepin History Museum

Location: Hennepin History Museum, 2303 Third Ave. South

Contact: Dr. Elise Schebler Roberts, 612-870-1329, Elise.Roberts@Hennepinhistory.org

Note: The event is free and open to the public, with no preregistration required. Donations will be accepted.

Pine County Pine City

Fall Gathering: Festival of the Voyageur

Two hundred years ago, fur traders celebrated the success of the trading season with a giant party. Immerse yourself in the sights and sounds created by 250 reenactors come to camp on the Snake River. Witness feats of strength and skill as contestants vie for the title of the best all-around voyageur. Shop for historic crafts and join children's activities. On Saturday evening, learn the steps of a lively country dance as live fiddle music plays.

Date: Saturday September 17, 10 AM – 9 PM and Sunday, September 18, 12 – 4 PM

Sponsor: North West Company Fur Post

Location: North West Company Fur Post, 1.5 miles west of I-35, at Pine City exit 169

Contact: Site Interpretive Center, 320-629-6356, nwcfurpost@mnhs.org

Note: The event is free but there is a charge to enter the site.

St. Louis County Duluth

Minnesota History Presented by a Forest Service Archaeologist

Lee Johnson will lecture on his work as Forest Archaeologist for the Superior National Forest. The St. Louis County Historical Society will showcase archaeological items from their collection and allow free admission to the Lake Superior Ojibwe Gallery.

Date: Wednesday, September 14 at 1:00 pm

Sponsor: St. Louis County Historical Society

Location: St. Louis County Historical Society, The Depot, 506 W. Michigan Street

Contact: Samantha M. Tubbs at 218-576-3114 or Samantha@thehistorypeople.org

Note: The event is free and open to the public up to 200 people.

Winona County Whitewater State Park

Whitewater Valley Archaeology and History Festival

Celebrate the fascinating history of the Whitewater Valley with guest presenters, demonstrations, children's activities and live music. See a full event schedule at: http://www.dnr.state.mn.us/state_parks/event.html?id=47549

Date: Saturday, September 10, 10 am - 4 pm

Sponsor: MnDNR Whitewater State Park

Location: Whitewater State Park

Contact: Sara Holger at 507-932-3007 or sara.holger@state.mn.us

Note: The event is free and open to the public but a Minnesota State Park permit (annual pass or day pass) is needed to enter the Park.

Before and After Archaeology Week

Nicollet County St. Peter

Archaeology Field Work at the Treaty Site History Center and Traverse des Sioux Prairie

Come and experience some hands-on archaeology. You will have the opportunity to help collect artifacts and document disturbed areas of the site with archaeologists from Minnesota State University Mankato and the Minnesota Historical Society.

Date: Saturday, September 24, 10 AM to 3 PM

Sponsor: Nicollet County Historical Society, Minnesota Historical Society, Minnesota State University, Mankato and the Many Rivers chapter of Prairie Enthusiasts

Location: Treaty Site History Center, one mile north of downtown St. Peter at Highway 169 and 22, across from the Mankato Clinic.

Contact: Nicollet County Historical Society at 507-934-2160 or museum@nchsmn.org

Note: The event is free and open to the public. The public is welcome to arrive anytime between 10:00 AM and 2:00 PM, but they ask that you dedicate at least one hour or more. Prior knowledge of archaeological techniques is not necessary. Participants will be given instruction and supervision on site. Please wear appropriate clothing the entire event is outside.

Mille Lacs County Mille Lacs Kathio State Park

Archaeology Day

The Minnesota Archaeological Society will host a full day of demonstrations and activities highlighting archaeology and the rich heritage of the Mille Lacs area. Demonstrations of flint knapping, prehistoric pottery, birch bark canoes, primitive bows, guns of the fur trade, spears and spear-throwers and kids' activities. Displays include artifacts, books and pamphlets from the Minnesota Archaeological Society, archaeology & research of the Minnesota Historical Society, Office of the State Archaeologist, Maritime Heritage Minnesota, and St. Cloud State University. The event will take place at the Interpretive Center.

Date: Saturday, September 24, 10 AM - 4 PM

Sponsor: Minnesota State Parks & Trails, the Minnesota Archaeological Society and St. Cloud State University

Location: Mille Lacs Kathio State Park

Contact: Park Staff at 320-532-3523

Note: The event is free and open to the public but a Minnesota State Park permit (annual pass or day pass) is needed to enter the Park.

Join the Minnesota Archaeology Society

USA

Standard: \$30.00 (one person)
Household: \$40.00 (two or more)
Senior: (65 plus) \$15.00
Active student: \$15.00
Institution: \$60.00
Both USA and Canada

Sustaining: \$100. (Receive free MAS mugs.)

Benefactor: \$250. (Receive free MAS mugs plus a seat at the annual dinner meeting as an honored guest.)

Canada

Standard: \$40.00 (one person)
Household: \$50.00 (two or more)
Institution: \$70.00

•If you receive your newsletter by email and do not know when you renewed your membership, please let me know.

•Getting the newsletter by snail mail or by e-mail? Prefer the other? Let me know.

Thanks so much. Anna Morrow, anmorrow@q.com

Send your MAS news & notices to the Editor:
Deborah Schoenholz, schoe030@umn.edu



MAS Annual Meeting



Gonsier

vey and, finally, the Minnesota State Parks Cultural Resource Management Program. Happily, Leroy expressed interest in joining the Board of our organization just before his retirement. He was enthusiastically voted on to the Board at the June meeting, and we look forward to his experienced participation in the future.

Report from MAS Annual Meeting



This year's annual dinner meeting, held once again at Hamline University in April, was attended by over 30 members who enjoyed guest speaker Ron Schirmer's explanation of MAID, the Minnesota Archeology Integrated Database.

The meeting included election of officers, as required by MAS bylaws every two years. We welcome Dan Wendt as President, Rod Johnson as Vice President, and Pat Emerson as Secretary. The Treasurer's position will be filled by Pat and Rod together going forward.

Thanks to Ron Schirmer, Jim Cummings as Emcee Extraordinaire, the great staff at Hamline, and all our members who planned and decorated the event.

Photos by Deb Pommer

Cummings

member of the Minnesota Archaeological Society and will hopefully continue his traditional position as emcee at our Annual Meeting, where many members have enjoyed his panache and easy humor. Jim, with National Register Archaeologist David Mather, has excavated and investigated at the Park's Petaga Point for years, among other sites of interests. His educational brochure about the Point can be found at http://files.dnr.state.mn.us/publications/state_parks/petaga_point.pdf.



Archaeology @ Vadnais Lake

Interested in helping at an ARCHEOLOGY DIG? Come to the shores of Vadnais Lake just East of Lake Wabasso, Ramsey Co. We have already found two new sites!!!

Join us to learn more about archeology as we search for Native and Euro American artifacts to increase our knowledge of past history around Vadnais Lake! Assist archaeologist Jeremy Nienow, PhD., RPA with an archeological shovel testing survey: Aug. 27-28th, Sept. 17-18th, & 24-25th.

Participants must be able to stoop, use a shovel and be outdoors for the times indicated. For full day participants bring a lunch. Water, sunscreen, bug spray, and gloves provided. A donation of \$10 per session is suggested to offset program costs.

Kids and Scouts 12 to 18 -- free!
Bring family and friends. It's educational and fun too!

For more information Contact:
John Vadnais 651 587-2727, vadnaisj@yahoo.com or
Lu Slaten 651 482-8435, slatenews@juno.com

This program is partially funded by the Minnesota Historical Society via the Minnesota Legacy Amendment, Shoreview Historical Society, and North Lake Owasso Neighborhood Group (NLONG).

A DStretch Application of the Konkle Cave Pictographs (21Hu0162)

Robert “Ernie” Boszhardt

Honorary Fellow, University of Wisconsin

In 1995, the author reported pictographs adjacent to Konkle Cave (21Hu0162) along Winnebago Creek, a Driftless Area stream, in the southeast corner of Minnesota. The small cave (approx. 7m deep x 2m wide x 2.5m high) is a formed in sandstone that is capped by sandy limestone deposit, on which a set of red images had been painted just east of the cave opening. In this exposed position, the glyphs were very faded and specific design elements and motifs were unclear. The site form described the panel as “three apparent red pictographs, possibly more” (Boszhardt 1995). At that time, two color slides were taken (Figures 1 and 2) that, along with the original field notes, are curated at the Mississippi Valley Archaeology Center (MVAC) at the University of Wisconsin La Crosse. A facsimile drawing of the glyph panel was also created the following winter by projecting the slides in a dark room and tracing visible stains (Figure 3). The 1995-1996 images illustrate the vague nature of the eroded pictographs.



Figure 1

In 2004, rock art researcher Jon Harman began to develop a decorrelation application, which had originally been designed for enhancing aerial photographs, into a user friendly rock art imagery enhancement program called DStretch. It is provided as a free (www.dstretch.com) plugin to Image J, a program written in JAVA language. The DStretch plugin allows investigators to open digital images and select a series of color decorrelation buttons (e.g., LDS, LAB, LRB, LRE, and YRD, YYE, YRE, YBK, RGB, etc.), each of which transforms the color levels from the original image, enhancing some hues while reducing others. The program also allows more advanced users the opportunity to experiment with other variations, and Harman has released several upgraded iterations since the initial launch. The potential success of any DStretch application is greatly dependent on the quality and resolution of the original digital image. Applications of DStretch on both digital camera and scanned slide images from selected pictograph sites in southwestern Wisconsin found the program to work well on enhancing red-based pigments, among others (Boszhardt 2013; Schrab and Boszhardt 2016).



Figure 2



Figure 3

In 2015, the author obtained scans of the original 1995 Konkle Cave pictograph slides from MVAC and applied the DStretch program to both. The scans were high resolution TIF files (scanned at 4000 dpi that created 63 mb files), but as second generation images from pre-digital age color slides, they are not as clear as could be obtained by rephotographing the site with modern digital cameras. Despite this limitation, several DStretch settings (e.g. RGB0, YRD, and LRE) greatly clarified the nature of the glyphs (Figures 4 - 6).

The panel is clearly arranged in a horizontal manner. At either end are the least distinct (most eroded?) glyphs, although the one of the left end may represent a relatively small human while the one at the right end appears to represent a quadruped with legs beneath the body. Alternately, the right most glyph is positioned slightly higher than the others and might represent a bird with descending wing feathers. The clearest glyph is the second from the left end and consists of a distinct human form with a circular head and long rectangular body. Two eyes were drawn within the



Figure 4



Figure 5

head and two short legs extend beneath the body. A “V”-shaped design element to the right of the shoulder area may indicate a bent arm, but might also be associated with two parallel vertical lines beneath. To the right of these are two problematic motifs, yet both appear to have partial circles at their tops that may indicate heads of two more human figures. Below these are vertical and horizontal lines and smudges that may also represent human bodies similar to the clearer example to the left.

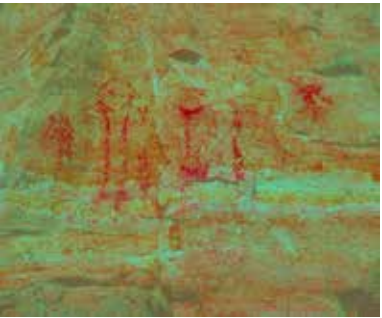


Figure 6

Mark Dudzik’s review of the 55 Minnesota rock art sites known in the mid-1990s included the Konkle Cave pictographs in his “Southeastern Riverine” region, which he described as “indistinct” based on the site report (Dudzik 1995:103). The nearest other recorded rock art sites in that region were Reno (21Hu0022) and La Moille (21Wn0055) Caves, both consisting of petroglyphs on sandstone outcrops along the Mississippi River. These included humans, thunderbirds, rattlesnakes, bison and other quadrupeds, and abstract designs, including maces (Lewis 1890).

In 2005, MVAC documented black pictographs and associated petroglyphs in Big Room Cave, an upland sandstone cavity toward the head of the Root River Valley (Sprengelmeyer 2006). Those consisted of abstract bison and humans along with a series of oval and diamond “vulvas.” In adjacent northeast Iowa, the historically famous Paint Rock contained a series of red pictographs, of which Ellison Orr could only make out two apparent bison heads in 1911 (Hancock 1913:301). Several pic-

tograph sites are recorded within the Driftless Area of southwestern Wisconsin, including Samuel’s Cave, Gottschall Rockshelter, Tainter Cave, and others (Schrab and Boszhardt 2016). However, none of the recorded glyphs for any of the sites in this region compare closely to the human form at Konkle Cave.

The DStretch application to scans of 20-year-old slides of the Konkle Cave glyphs has clarified the nature of the panel, demonstrating at least one human figure. Assuming the glyphs remain, modern high resolution digital photography would likely bring out further details of this panel.

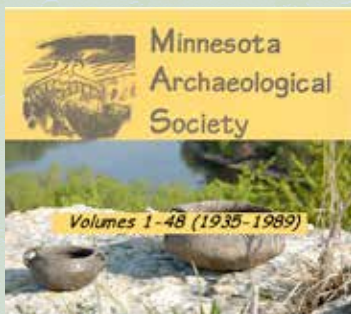
Acknowledgements: Thanks to Michael Bednarchuck at MVAC for providing the scans of the original 1995 slides, and to Bruce Konan of the Minnesota State Archaeologist Office for providing a copy of the state site form for Konkle Cave.

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