

THE LAKE AGASSIZ ROCK HOUND

Volume 18, Issue 04

April 2018

Best of Rock Hounding from Two Different Worlds: Geodes *and* Fossils!

Information and educational comments redacted from full article found at:
<https://english.fossil.net/information/article.php?id=340&/Minerals%20in%20fossils>

We all love geodes and the serendipity of their creation. The whimsy of Mother Nature or the fortune of placement, environment, and just the right, local mineral saturations come together. Give the inside of a mountain some pockets of space with enough time, and stuff starts to grow in marvelous ways inside the gaps. For the vast majority of situations, there was a previous magma (inside the volcano) or lava flow (outside the mountain) with gas-bubbles, which was buried by history. The bubble spaces fill with quartz, agate, amethyst, or any combination of crystal. Erosion breaks them out of their matrix and they tumble down into a new situation where we discover and crow at finding the treasure.

Another of our inner happy-places is the discovery of a rockin' fossil that transports our imagination to another universe of Space-Time. Did something live alongside dinosaurs, or deep sea monsters, turn to stone, only to reappear in our own hands? Did a water creature live in a stream that began at a melting glacier, flowed past a wading giant sloth to empty into an ocean that doesn't exist anymore? Currents may have tumbled the snail, clam or shellfish into smothering sediments to become sandwiched and preserved. We normally find them by splitting open shale, where they've been squashed into two-dimensional carbon footprints, if we're lucky.

Then there is the miraculous nirvana where the two worlds meet. An animal of the deeps gets buried in fine silt, but does not get filled with the sediment. Small body openings or other closed parts prevent the spaces from being engulfed. And the magic begins. Geology raises the land up out of the sea or lake and allows the minerals that surround the spaces to enter and grow into their crystalline forms. The result is a "Fossil Geode". Zoom in screen or get out the magnifying glass!



Right: Gypsum-filled Gastropod



Once upon a Crystal Conch



A turret from the inside!



This Sea Urchin skeleton is partially filled with calcite crystals.

Hollow spaces that escaped being filled by sediment permit groundwater seepage to grow crystalline formations.

Please Come to the LARC

April 2018 Meeting

**Wednesday, April 4th, 7:30 pm
Stevens Hall Room 136, NDSU**

Program:

September Hamilton will demo us an introduction to "Steven Universe"

Guests are always welcome!

Lake Agassiz Rock Club

President: Frank Svezia
Vice President: James Zinke
Secretary: Chris Patenaude
Treasurer: Terry Mallick
Youth Group Director: Nena Flippance
Silent Auctions: Jerry Loegering
and/or other members as happens

What is our Purpose?

To create an interest and promote a knowledge of all phases of geology in an informal setting.

Where and When Do We Meet?

The Geology Lab, Room 136, on the lower level of Stevens Hall, NDSU, Fargo. Time: 7:30 p.m.

[From N. University Dr. turn West on 12th Ave. N. Turn North on Bolley Dr. Drive just past Centennial Blv. See **Stevens Hall** on west side of Bolley, 2nd hall from the corner. To park, go into next driveway ahead, on the left. Drive west, then left again behind a laboratory building to Stevens Hall back-lot.]

How Much Are the Dues?

Single person—\$20.00; Family—\$30.00; College (any school) students and youth (if not a family member)—\$10.00 per year. Send dues to Terry Mallick, Treasurer; 416 3rd Avenue S., Moorhead, MN 56560.

What Happens at Meetings?

We cover business; then the main program; a silent auction of rocks, minerals, and fossils; and “lunch”.

What are some of our Club Activities?

Members and their families enjoy many exciting activities. Youth are always welcome. Field trips are taken to collecting areas in ND, SD, and MN. We do exhibits at the R.R.V. Fair and other events. LARC sponsors an award to an outstanding Geology student at NDSU each year. Often we offer info-lessons given just before the scheduled meetings.

What are Our Club Affiliations?

We are affiliated with the Midwest Federation of the Mineralogical and Geological Societies and the American Federation of Mineralogical Societies.

How Do We Keep in Touch?

The *Lake Agassiz Rock Hound* is our monthly bulletin mailed one week before each meeting. Non-members may subscribe to it for \$10.00 per year. Members are urged to send news tips and articles to the editor: Chris Patenaude P.O.Box 434, Perley, MN 56574 or email LakeAgzRC70@yahoo.com.

Rock Hound articles may be reprinted if full credit is given, unless otherwise noted.

Minutes from March 7th, 2018 Meeting

Submitted by Chris Patenaude, Secretary

Provisional text to be edited when JW makes contact

Meeting opened at 7:35 PM. Present officers, Frank S., Terry M. and Chris P. James Z. is prospecting in AZ as we speak. **Jenny W.**, our Facebook administrator, took to the whiteboard and said that our LARC Facebook Account is operational! Joining is subject to approval, since it is a public page. See full article on page three for details!

We have a new member attending, **Jane J.** Welcome!
Secretary's Report: **Merle H.** moves to approve the minutes of February's meeting as printed in the March 2018 Rock Hound. **Joe S.** second's the motion. Ayes.

Treasurer's Report: the official Membership Cards for MWF /LARC have arrived. See **Terry M.** (treasurer) to pick one up. Terry says our late member, George Weatherston's cherry-picked, modest collection has been delivered to the Club. It was his wish that we auction it off in one way or another to the benefit of the club coffers. Terry thinks it will be easiest to parcel it out gradually to our Silent Auction at the meetings. They will be marked for source so we know where they came from as we “bid” fare-thee-well to George.

Kudos to our junior member **Nicholas G.** for winning the top purple ribbon at his Science Fair. His subject was Geology, rocks and mineral types, origins and identification. He displayed some of the material he received from our Club donations. Rock on Nick!

Frank S. returned from gallivanting around the SW desert during Rock-Convention vacation. He brought back a sparkly baggie of crystals that was divvied up between the junior members. (Smiles!) At the big palooza, Frank linked up with our **Rick N.** and exchanged notes. Driving back, Frank stopped in at the **Fick Fossil & History Museum** at Oakley, KS. A great place to pull in; very warm reception to rock hounds!

Nena F. took progressive action in establishing our new youth group, linking with AFMS resources to get our own **Pebble Pups** up and running. **Terry M.** will contact NDSU and ask for use of the small “commons” on the next floor there in Steven's Hall, as a gathering spot for the troop. [cont. pg. 3]

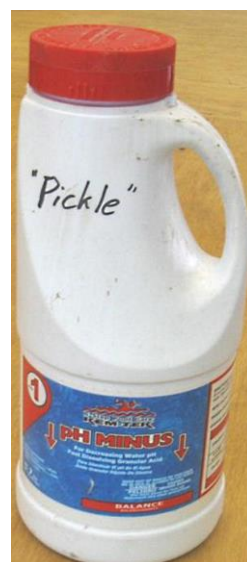
BRAD SMITH'S BENCH TIPS

Cheaper and Better Pickle

Most jewelers use a granular pickle mixed with water. The active ingredient is sodium bisulfate. This can be purchased from local stores as a common pool chemical used for adjusting the acidity of the water. It's sold under various names, so be sure to check the list of active ingredients for a brand that is 95% or more sodium bisulfate.

An added benefit is that the pool chemical is more pure in form than what is sold for jewelry use and does not cause the brown grime often found floating on the top of the pot.

See all Brad's jewelry books at [Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)



[Meeting Minutes cont.]

Merle H. formally raises the motion to create the Youth Group, in our happy excitement, we almost forgot to make it legal! **Joe S.** 2nd s. Ayes. **Ben K.** moves we supply \$50 from petty cash to the Pebble Pups for startup expenses. **Amy H.** 2nd. Ayes by hand raise and voice. It is mentioned that we could have a Kids Korner in the Rock Hound to report on activities, Pebble Pup awards or news. Good idea!

Frank S. mentions that he has found an organization that can help with printing the large format posters, maps and such we need for RRVFair displays: the Gemological Institute of America (GIA).

Frank says, regrettably, he won't be able to attend April's meeting due to appointments he just can't get out of. Warm up yer pipes, Terry! You might be leading the brass band next month.

Due to technological difficulties, screening of the "Steven Universe" presentation will be delayed to next meeting.

MWF April 2018 Calendar

(Edited for time and proximity to Fargo;
notably locations in IL and OH. See complete calendar at:
<http://www.amfed.org/mwf/Calendar/April.html>)

- 5-7: WYOMING, MI** Indian Mounds Rock & Mineral Club Annual Show. Thurs & Fri 9:30 am - 9 pm. Sat 9:30 am - 7 pm. Roger's Plaza Town Center, 28th & Clyde Park. Contact Kreigh Tomaszewski, 653 Burton SE, Grand Rapids 49507; (616) 243-5851; kreigh@gmail.com
- 7-8: LINCOLN, NE** Lincoln Gem & Mineral Club Annual Show. Sat 9 am - 6 pm; Sun 10 am - 5 pm. Lancaster Event Center, 84th & Havelock. Contact: Jayne Beer, (402) 466-6628
- 7: LOVES PARK, IL** Rock River Valley Gem & Mineral Society Open House. 10 am - 3 pm. North Suburban Library, 6340 N2d St., Loves Park. Contact: Duane Cushing, 11717 Waidi Ave, Machesney Park 61115; (815) 218-5011; tdc78@comcast.net
- 7-8: LINCOLN, NE** Lincoln Gem & Mineral Club Annual Show. Sat 9 am - 6 pm; Sun 10 am - 5 pm. Lancaster Event Center, 84th & Havelock, Lincoln. Contact Jayne Beer, (402) 466-6628; jbeer60070@aol.com
- 7-8: COLUMBUS, OH** Columbus Rock & Mineral Society Annual Show. Sat 10 am - 6 pm; Sun 11 am - 5 pm. Northland Performing Arts Center, 4411 Tamarack Blvd, Columbus. Contact: Craig Kramer; (614) 436-4511; show-info@columbusrockandmineralsociety.org
- 14-15: DECATUR, IL** Central Illinois Gem & Mineral Club Annual Show. Sat 9 am - 5 pm; Sun 10 am - 4 pm. Lester Building, Progress City, 4140 E 2nd Progress St., Decatur. Contact: Tony Kapta, 1483 E. Wood St., Decatur 62521; (309) 830-6516; tkapta@comcast.net
- 15: WATERLOO, IA** Black Hawk Gem & Mineral Society Annual Show. 11 am - 5 pm. Waterloo Center for the Arts, 225 Commercial St., Waterloo. Contact: David Malm; (319) 266-6433; davidmalm@cfu.net
- 21-22: EAU CLAIRE, WI** Chippewa Valley Gem & Mineral Society Annual Show. Sat 9 am - 5 pm; Sun 10 am - 4 pm. Eau Claire Expo Center, Lorch Ave, Eau Claire. Contact: Paul Tubbs, 619 Van Buren St., Eau Claire 54703; bizpam1@gmail.com
- 28-29: FT. DODGE, IA** River Valley Rockhounds Annual Show. Sat 9 am - 5 pm; Sun 11 am - 4 pm. Webster County Fairgrounds, 22770 Old Highway 169, Ft. Dodge 50501; (515) 955-2818; midnightwriter@frontiernet.net

LARC's FACEBOOK Announced

The club now has a public Facebook group, which can be located by searching "Lake Agassiz Rock Club" from within Facebook. As it is a public group, anyone (even non-members) may request to be added. The group is actively moderated to keep out spammers and other unpleasantness. Joining will be a matter of moderator approval in order to cull trolls or commercial advertisers. Hobbyist rockhounds offering their wares is one thing; odd "shops" from all over just plugging their biz is another.

Anyone in the Facebook group is welcome to post news articles and photos related to geology, rock hounding, favorite collectable pieces or scene shots of fieldtrips. Club events and meetings that are open to the public will be shared in the group's calendar.

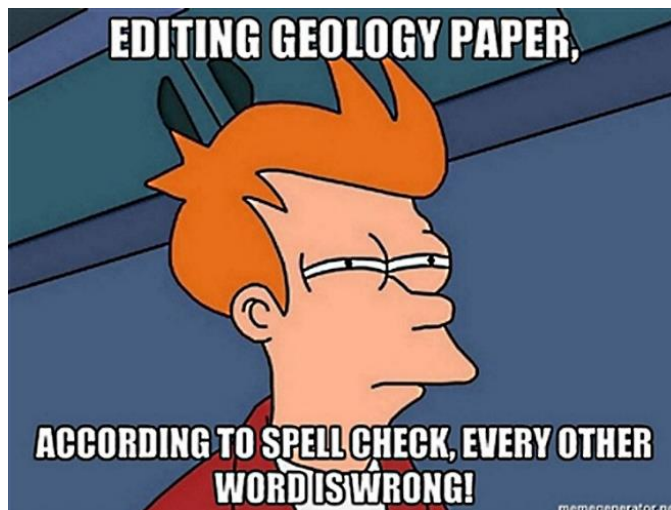
In the interest of membership privacy, any holiday party dates or locations, newsletters, trips, and other member-only perks will not be shared. For personal and family security aspects, photos from any club event containing people will also not be shared. No selfies or of other persons should be posted or identified that could be captured for public misuse. The guidelines for posting are also located on the group page for future reference.

Jess W. will be one of our moderators; Mike K. will be the other moderator at this time. Jenny W. is our Administrator. Contact those persons to volunteer for moderator status, we can expect to use more as we grow.

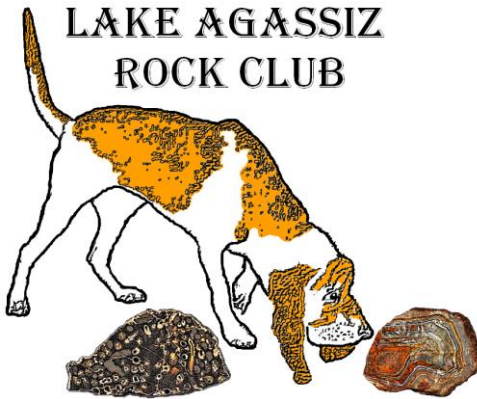
Talk to these members in person at the Club meetings to get their contact information. Personal members' emails cannot be posted publicly in this publication, as any copies, e- /or printed, could end up anywhere. Alternatively, members can e-mail the secretary at the Club addy posted on page 2 of every Rock Hound, and your query will be fwd'd privately to the person.

**As with other phases of nature, I
have probably loved the rocks
more than I have studied them.**

John Burroughs



Lake Agassiz Rock Hound
 P.O. Box 434
 Perley, MN 56574



So What Izzit? Laker? Prairie? Or Fairburn?

Often our eyes are caught by a delightful stone. It glows, it blushes. The heart skips a beat, we just *must* touch it or pick it up! Our senses say Agate! ... but then we pause... here in the upper Midwest, it could be any of several varieties. What are the next words to come out of your mouth in order to sound smart to the friends at your elbow, eh? Best chances are it is one of three kinds that occur most frequently in our region; a "Lake Superior", a "Prairie" agate or a "Fairburn". Here's how to confirm or possibly eliminate those popular options.

"Lakers" are not named for the lake, but for the L.S. geo-rift & magma deposit that gave them form. That rich matrix supplies the LS agates and 'Iron Range' with deep red shades. Ensuing glaciers broke them out and scattered Lakers to MI, WI, MN, IA and southern Canada.

Characteristics include lush red, orange and yellows of fine or thick banding interspersed with grey, black or tan stripes. Iron content and oxidization regulate the color intensity.

Fortification Patterns, rings that surround a defined center, are often smoother than FB, like 'eyes'. Some LS laid flat "in vitro" forming straight, parallel bands over much or part of them.



Fairburns are found in SW S.D. too far west for Lakers. Parallel bands; smooth exterior; melted, cracked look w/ "thumb-print" indentations; **holly-shaped** "forted" pattern/ surrounded center; lighter reds, tans, greens.



Prairie Agates are *not* Fairburns. Found in SD, ND, MN, MT, NE, IA. They have cloud shaped patterns. Most 'banding' is fluffy, irregular.