

THE LAKE AGASSIZ ROCK HOUND

Volume 19, Issue 8

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Separate Ways

Redacted info for educational means from article seen at:

- <http://www.geologyin.com/2017/12/what-is-septarian-concretion.html?m=1>

From the world of bizarre-but-beautiful comes the Septarian form of concretions. By definition, a concretion is a hard, compact mass of mineral cement that precipitated or settled into the spaces between any given set of "particles", and is found in sedimentary rock or soil. Septarian concretions contain angular cavities or cracks, called "septaria"(Latin for separations.)

During its long, transformative journey, the concretion dehydrated from the outside, drawing the sand or soil particles towards the surface, and leaving spaces and gaps towards the interior. [Continued below...]



Calcite Septarian. photo: Dwead Pivate Woberts

"Nature abhors a vacuum" and so finds something else to fill it. Calcite is a common component of most soils, especially if they contain any limestone or minerals from marine shell. Calcite deposits infiltrate the interior of the rock, where the centers of the concretions shrank.

The filled cracks are highly variable in shape and volume. Since everything is subject to chance, every concretion event can be slightly or greatly different from the next. A common assumption is that concretions grow incrementally from the inside outwards. The radially oriented cracks taper towards the margins of the sections; broader in the center and tapering to points as they reach to the surface. Also, the Calcite crystals themselves grow naturally in that kind of base-to-point shape.



A vintage pair of nodules from the 1950's



Septarian from Muddy Creek, UT
Credit: Will Hough

Heart shape also crafted from UT material

This does not mean that all theories agree this is how they form. A number of mechanical accidents or pressures have been proposed. The speed rates of dehydration upon clay-rich, gel-rich, or organic-rich cores may play a part.

Shrinkage of the concretion's center; expansion of gases produced by organic matter decay may direct the formation of the calcite crystals. Brittle shock from drying too quickly, earthquake or compaction may affect the outcome.

Although Septaria usually contain calcite, many other minerals might be the filler that precipitates from circulating solutions. Siderite or pyrite coatings are also occasionally observed on the cavity walls giving rise to a chromatic spread of bright reddish and golden colors. Septarian is often referred to as "Dragon Stone" because the natural patterns make people think of dragon skin.

Please Come to the LARC

October 2019 Meeting

**Wednesday Oct 2nd 7:00 pm
Stevens Hall Room 134, NDSU**

Program:

FOSSILS FOSSILS FOSSILS

**Bring your fav's and spectacular fossils
For showin' and sharin'**

You Tube selections on Petrified Woods

Guests are always welcome!

Lake Agassiz Rock Club

President: Frank Svezia
Vice President: Nina Flippance
Treasurer: Terry Mallick
Secretary: Chris Patenaude
Youth Group/Pebble Pups: Nina Flippance
Program planning ideas/volunteers welcome

What is our Purpose?

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

Where and When Do We Meet?

The Geology Lab, Room 136, lower level of Stevens Hall, NDSU, Fargo. Time: 7:00 p.m. This placement may change soon as we are seeking a larger space for our members. Directions meanwhile:

From N. University Dr. turn West on 12th Ave N. Turn North on Bolley Dr. Drive just past Centennial Boulevard. 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 lab building to Stevens Hall back-lot. Enter E. door or call a member to hold N. door.

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. Or contact him during regular meetings.

What Happens at Meetings?

Our youth group The Pebble Pups attend their own separate group meeting, while the adults cover business. The kids join us for the main Program; a silent auction of collectable minerals; and "lunch".

What are some of our Club Activities?

Field trips are taken to areas ND, SD, and MN. We fundraise at the R.R.V. Fair. LARC sponsors a scholarship to an outstanding Geology student at NDSU each year. Personal Info lessons can be arranged for pre-meeting times. Lots of Show & Tell at meeting nights!

What are Our Club Affiliations?

We are affiliated with the American Federation of Mineralogical Societies. (**AFMS**) We are in the subsector Midwest Federation of the Mineralogical and Geological Societies. (**MWF**)

How Do We Keep in Touch?

Website: > <http://www.lakeagassizrocks.com/> <
Facebook: > [lakeagassizrocks.com/about.php](https://www.facebook.com/lakeagassizrocks/about.php) <
The Lake Agassiz Rock Hound is our monthly bulletin e-mailed 7 days before meetings. Paper copy free to active members **without** computer access. \$15 dollar subscription/ yr. for hardcopy to members who want one in addition to their e-addy. **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.

LARC is an all-inclusive, diverse group. We welcome and respect every person in regard to age, gender, heritage, language, social class or disability. Discrimination or ill will towards another will not be tolerated. We are here to support any and all who love the hobby.

Minutes from Sept 4th, 2019 Meeting

Submitted by Chris Patenaude, Secretary

First meeting of the new school season! As a change of format the first half of the meeting was relaxed chatting, sharing, show-n-tell, hounding discoveries, whatever. A nice YouTube selection about dino-eras played in the background. Casually coming around to the "business meeting" by 8:10 pm., we announced and explained about the new *Activity Committee* that has volunteered to assemble. They'll organize interesting Club attractions. **Dina S., Amy H., Cam L. and Jeanie W.** will be checking out leads and feelers for better demos, speakers & action themes to enjoy on meeting nites.

First they start a new "opening" for each gathering. A pre-arranged theme will be announced, and those members who wish will bring pass-around samples to share according to the topic. October 16th will be National Fossil Day. So bring **Fossils**. Each person's items will be placed in a tray, say a cardboard box-lid or cut down "flat", with a few notes on what they are, where they were found or some other detail of interest about the items.

Up front on the main podium we will keep a Sign Up sheet, and we hope to gather volunteer presentations from the membership. Please include what it is and time of year you will be happy to present your demonstration; or share photos of a rock hounding trip; shortcuts or tips in lapidary; a talent or skill in jewelry to show off. Your choice.

Also there will be a Suggestion Basket for ideas you would LIKE to see or hear, or do, or go on, or learn about. This will give the Activity Committee a direction to go, the right speakers to seek out etc. This is also a place to comment on topics that have been suggested, such as would we want, or not (?) to explore fringe, crossover things like metal detectors or how to sew beadwork with your own cut beads...

Membership fees were next. As encouragement to pay up sooner than later, any member would get a free Rock Club slogan T-shirt from the leftover stock from the Fair. **Terry M.** gives the Treasurer's report & the totals from the RRVF. As expected, with the storm events and coming indoors, the totals were down from previous years by about a third.

Ongoing discussion continues on whether indoors or outdoors methods at the Fair would be better for the future. Outside we have single, peg-down, large tent-rental available for a strong price; but it alleviates damage loss of working with small E-Z Ups. Outside makes more money. Outside is a physical heat and weather struggle.

Inside is so comfortable with AC. Cost is higher for the two-stall space we need. Better area use = picking those two spaces across the aisle from each other, not "next to" on the same side of the traffic lane. We would 'infer' the whole traffic lane between the sets as part of our *Impression of Space*, even tho our tables would be legally inside the boundary lines on the floor. (and so on)

Merle H. moves to accept Treas.' Rpt. **Terry H.** 2nd s. Ayes

As to expanding into other venues instead of just the RRVF... **Dan E.** gave us an experience based overview of options at the Fargo Island Park events held at several times during the year. Usually 2-day "do's" Art Fests, Kids' Days, Historical Celebrations... easier to get Volunteers to sign up for just 48 hours. The I.P. units are generally 11'X11'...we'd still need two...a thought...

Rick & Glenda N. donate a nice 5lb. bag of Rock Chips for the Pickin' Activity. Thanks guys!

We have been approached for BD parties and school presentations. So there's need of one more 'committee' to keep that organized. Volunteers encouraged to step up. This makes things really happen!

A move to close the Bz meeting is raised.

Randy E. and **Dan E.** both call "Second!" Ayes.

MWF October 2019 Calendar

(Edited for time and proximity to Fargo; &/or included for popularity. See complete calendar at:)

<http://www.amfed.org/mwf/Calendar/October.html>

5-6: SPRINGFIELD, IL Lincoln Orbit Earth Science Society Annual Show. Sat 10 am - 6 pm; Sun 10 am - 4 pm. Orr Building, Illinois State Fairgrounds, 801 E. Sangamon Ave, Springfield. Contact: Ed Wagner, (309) 838-7782;

loesseditor@gmail.com www.loess.org

6-7: OMAHA, NE Nebraska Mineral & Gem Club Annual Meeting. Sat 10 am - 6 pm; Sun 10 am - 4 pm. Westside Middle School, 8601 Arbor St., Omaha. Contact: Bruce Sturges, (402) 680-4051; bsturges@yahoo.com www.nerockgem.org

11-13: WARREN, MI Michigan Mineralogical Society Annual Show. Fri 9 am - 6 pm; Sat 10 am - 7 pm; Sun 11 am - 5 pm. Macomb Sports & Expo Center, Bldg P, 14500 E. 12 Mile Rd., Warren. Contact: John Peters, (313) 255-7774;

joopett13@hotmail.com www.michmin.org

12-13: CLEVELAND, OH Parma Lapidary Club Annual Show. Sat 10 am - 4 pm; Sun Noon - 4 pm. Parma Lapidary Club, 2130 W. 110th St., Cleveland. Contact: Amanda Balog,

parmalapidary@yahoo.com www.parmalapidary.org

12-13: COLUMBUS, NE The Loup Valley Gem & Mineral Society Annual Show. Sat 9 am - 5 pm; Sun 10 am - 4 pm. First United Methodist Outreach Center, 3602 -16th St., Columbus. Contact: Greg Johnson, (402) 270-0791;

loupvalleynew@gmail.com

18-20: FORT WAYNE, IN Three Rivers Gem & Mineral Society Annual Show. Fri & Sat 10 am - 6 pm; Sun 10 am - 5 pm. Allen County Fairgrounds, 2726 Carroll Rd., Fort Wayne. Contact: Russell Greim, (260) 403-0450;

3riversshow@gmail.com www.3riversgem_mineral.tripod.com

19-20: SPRINGFIELD, MO Ozark Mountain Gem & Mineral Annual Show. Sat 10 am - 5 pm; Sun 10 am - 4:30 pm. Springfield Expo Convention Center, 333 S. John Q. Hammon Parkway, Springfield. Contact: Larry Lillich,

omgms.57@gmail.com www.omgms.rocks

18-20: MASON, MI Central Michigan Lapidary & Mineral Society Annual Show. Fri 6 - 9 pm; Sat 10 am - 6 pm; Sun 11 am - 5 pm. Ingham County Fairgrounds, Main Arena, 700 Ash St., Mason. Contact: L. Roger Laylin, (517) 349-3249 www.michrocks.org

19-20: COTTAGE GROVE, MN Minnesota Mineral Club Annual Show. Sat 10 am - 5 pm; Sun 10 am - 4 pm. National Guard Training & Community Center, 8180 Belden Blvd., Cottage Grove. Contact: Maureen Scaglia, mascaglia@comcast.net

19-20: DES MOINES, IA Des Moines Lapidary Society Annual Show. Sat 9 am - 5 pm; Sun 10 am - 4 pm. Iowa State Fairgrounds, Knapp Animal Learning Center, North Gate at E33rd St. & E. University, Des Moines. Contact: Ken Belzer, dmls.2019show@dmlapidary.org

26: WOODBURY, MN St. Croix Rockhounds Semi Annual Show. 9 am - 1 pm. Valley Creek Mall, 1750 Weir Dr., St. Paul. Contact: David Rusterholz, (715) 760-0479

sararaptee@yahoo.com www.evansvillelapidarysociety.com

26-27: CUYAHOGA FALLS, OH Summit Lapidary Club and Akron Mineral Society Semi-Annual Show. 10 am - 5 pm both days. Emidio & Sons Expo Center, 48 East Bath Rd., Cuyahoga Falls. Contact: Gujo Kotch, (330) 929-3798;

gemboree@outlook.com www.summitlapidaryclub.com

26-27: EVANSVILLE, IN Evansville Lapidary Society Annual Show. Sat 10 am - 5 pm; Sun 10 am - 4 pm. CK Newsome Community Center, 100 E. Walnut St., Evansville. Contact: Sara Rappee, (812) 589-3079,

sararaptee@yahoo.com www.evansvillelapidarysociety.com

26-27: DAVENPORT, IA Blackhawk Gem & Mineral Club Semi Annual Show. Sat 10 am - 5 pm; Sun 11 am - 4 pm. Mississippi Valley Fairgrounds, 2815 W. Locust St., Davenport. Contact: Craig or Kellie Moore, (563) 299-5740;

kalsinean@gmail.com

BRAD'S BENCH TIPS

TAPERED REAMERS

A tool you don't see often these days is a tapered reamer. They're particularly useful for making an irregular hole round or for enlarging a hole to an exact diameter. For example, the small set in the yellow pouch is for holes in the range of 0.3mm to 2.5mm. They are great for sizing a tube to fit a hinge pin. Other times when I'm drilling a hole for riveting sheet metal and can't find the exact size drill, I simply drill the holes with a slightly smaller bit and enlarge them with a reamer until the wire just fits.

For larger hole sizes in sheet metal up to 14 ga, I really like the reamer with the black handle. It makes quick work of sizing holes from about 3mm to 12mm. You can find them in well-equipped hardware stores.

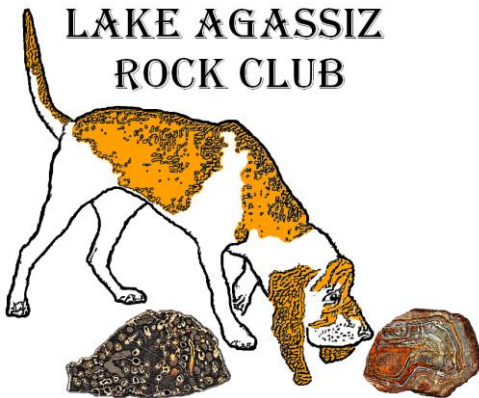
You may never use the large diameter reamers, but when sawing out some rings from 4mm thick sheet, I found they worked well for rounding and sizing the hole.



Work Smarter & Be More Productive With Brad's
"How To" Jewelry Books
[Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)



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Don't Be an Amber Gambler

(The driver in such a rush, they clip the Yellow Light)

Amber is fossilized tree resin (not sap), it's been appreciated for color and beauty since archaic eras 13,000 years ago. Used in perfumes, folklore medicine and as jewelry, this material needs to be archaic, 20K yrs. or more, in order to be called Amber. The word ultimately derives from Arabic [عنبر](#) ('anbar).

Heated above 200 C, Amber melts into "oil of Amber". Dissolved with turpentine it forms "Amber varnish". Created as early as the Renaissance, painters used the varnish in their masterpieces for effect, but were so aware of the explosive dangers in making it that they left the complex job to trained varnish-makers.

A lot of Amber sold today is fake or at least artificially toyed with. Large pieces are usually "pressed" Amber, made of smaller bits, then heated to make one big piece. Some frauds sink a small piece of real Amber into plastic, so that when tested with a hot needle, the "piney" smell of Amber drifts up. The fakers are getting better. Even experts can be fooled. Buyer beware, and only in person.



Classic Specimen



When it was revealed in 2006, this preserved lizard, named *Yantarogekko balticus*, was the oldest fossil gecko ever discovered. Credit: Wolfgang Weitschat



Ant in Baltic Amber



A tick trapped in amber was entangled in a feather that might well have belonged to a dinosaur.