

THE BADGER DIGGIN'S

The Badger Lapidary and Geological Society, Inc.

Monroe, Wisconsin

Devoted to the Earth Sciences

Vol. 47, No 01

January 2012

President's Message

Happy New Year, Badgers!

First of all, I'd like to thank everyone for their support in the past election. And I'd also like to welcome our new and returning officers: past-president Dan Trocke as incoming vice president and field trip chair, Ralph Burgener as secretary, and Daisy Peterson as incoming treasurer, along with Laurie Trocke as newsletter editor and Marv Hanner as officer-at-large.

As I write, there is practically no accumulated snow on the ground, which seems to indicate that we are having an el-Niño winter and perhaps even the prospect of an early spring. But it is much too soon to be sure of that. This is, after all, Wisconsin, where two feet of snow can come from a single storm, as happened last February.

The 2012 mineral-photo calendar has been prepared by Daisy Peterson and will be distributed at the upcoming meeting (Jan. 14) to those members who requested one before the first of the month. After seeing the result, others who may wish to purchase a copy should contact Daisy or myself. The price is still around \$10 plus tax. In turn, questions have been raised about the possibility of wider distribution of the calendar (as a fund-raising opportunity), which need to be brought before the membership. There are naturally pros and cons about those choices, which will be laid out as well. But I'm surprised at the higher level of interest already shown towards the calendar.

The club officers have not yet had their annual planning meeting, which is tentatively slated for Jan. 21, but an indoor field trip possibility is to travel to

Rockford, Illinois on January 28 to see the new traveling exhibit entitled, "Ice Age Mammals," at the Burpee Museum of Natural History. Dan or I can supply details regarding this trip at the meeting; travel will likely be on your own schedule, rather than setting a formal arrival time. The exhibit originates in Canada and promises to be worthwhile.

Of course, the biggest upcoming event of the year will be the club's 42nd annual show, on March 31 and April 1, with the innovative theme of the "Agate N' Crystal Mystery." Teri Marché, show chair, will keep us informed about important dates and milestones as the show date draws near. You may want to start thinking about the kind of exhibit that you would like to assemble for the show, either along the lines of the theme or not.

All of this promises us an exciting and active year ahead. I look forward to working with each of you and welcome any suggestions about future activities or directions that you feel the club might pursue.

Jordan Marché

BLGS President



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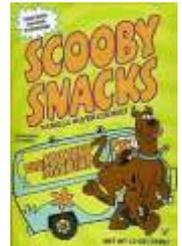
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Club Calander

Jan 14th: Meeting – 10:00 am, Monroe Public Library
Jan 28th: Field Trip (TBD)
Feb 11th: Meeting
Feb 25th: Field Trip (TBD)
Mar 10th: Meeting
Mar 31 - Apr 1: Annual Show

The January Meeting will be held at the Monroe Public Library at 10:00 in the meeting room on the second floor.

The program has yet to be determined. Snacks will be provided by Neil & Linda Triclel. Hope to see you there!



2012 Dues



Are Due!

Meeting Minutes

This month's meeting/Christmas party was held at the World Buffet in Monroe. Everyone attending enjoyed a nice meal and good company. Dan Trocke brought an awesome piece of Calcite he found in his Grandfather's basement. He believes it came from the Cave in Rock area. It was placed on the table as a centerpiece. We were all hoping it was the door prize or maybe one of the Gold Brick game gifts. No such luck.

Dan called the meeting to order. The first order of business was to nominate and elect new club officers for the upcoming year.

Nomination for the open officer positions were discussed and voted on. The new club officers are as follows:

President – Jordan Marche

Vice-President – Dan Trocke (Dan will continue as Field Trip Chair and is looking for club input for new collecting spots)

Secretary-Ralph Burgener will continue for one more year.

Treasurer-Daisy Peterson

Newsletter Editor- Laurie Trocke

Show Chairperson-Teri Marche

Officer at Large-Marv Hanner

Thank you to all the officers that are stepping down, for a great job over the last two years and congratulations and good luck to the new.

Next item discussed was Show business. Teri reported that things are coming together well with just a few things to get locked in. She needs to contact the Green County Homemakers to confirm with them for the food service. She has most of the dealer contracts (8 of 9) returned and is working with Jordan to arrange speakers. Neal Trickel and Will Ward will demonstrate the use of faceting and lapidary equipment. Teri will bring show flyers to the January meeting to pass out. We will also be drawing for sale spots on the club table

for those people interested. There are 10 spots available this year and will be handled the same as last year. Names will be put into a hat and drawn to fill the spaces. You must be present at the meeting to be included in the drawing. Those who win a space on the sales table are required to be at the show for set-up and tear down.

Old business was next. Jordan did a follow up on the club mineral calendar. The cost range from \$16.95 at a local printer to around \$10.00 at Wal-Mart. Daisy thought there may be a discount if we order several vs. just ordering 1. She said she would try to contact the Monroe Wal-Mart for pricing. Pictures for the calendar were reviewed after the meeting. The plan is to try to have calendars printed and available for members at the January meeting.

During the meeting it was suggested the Treasurer's position be extend for more than the present two year term and perhaps even be indefinite or until the person asked to step down. There were pro and cons for both side. This subject will be discussed at the next meeting and reviewed at the executive committee meeting next month. Remember everyone is invited to this meeting. We will also be discussing field trip options for next year and Dan would like everyone's input. If you have any suggestion for new field trip sites, please contact Dan.

Donna also reminded us, if you have not paid your membership dues, please do so ASAP.

John Peterson made a motion to adjourn the meeting and Marv Hanner seconded. Meeting adjourned.

Next was the most important part of our meeting / Christmas party. THE GOLD BRICK GAME. It was, as always, enjoyed by all. I hope everyone has a MERRY CHRISTMAS AND HAPPY NEW YEAR. See you all in January.

Submitted by,

Ralph Burgener

Upcoming Mineral Related Events

January 6–9—Mesa, AZ. The Flagg Mineral Foundation's 40th Annual Flagg Gem and Mineral Show, Mesa Community College, Dobson Rd. & Superstition Fwy. (US 60). Info.—[Info.—www.flaggshow.info](http://www.flaggshow.info).

January 27–29—Redlands, CA. MSSC Micromounters Annual Symposium, San Bernardino Cnty. Museum, 2024 Orange Tree Dr. Info.—Robert Housley, rhousley@its.caltech.edu, or 626/449-6454, or Gene Reynolds, quratzhunter1@hotmail.com.

January 28–February 11—Tucson, AZ. Arizona Mineral and Fossil Show (Tucson Show), at 4 locations; see Web site for details. Info.—mzexpos@gmail.com, or www.mzexpos.com.

February 9–12—Tucson, AZ. 58th Tucson Gem and Mineral Show™: Minerals of Arizona, Tucson Convention Ctr. Info.—[Info.—www.tgms.org](http://www.tgms.org)

music, entertainment, brat fry and refreshments 10AM-6PM. Sheboygan's Northside Beach. (920) 467-8436

Jan 6 - Feb 17 Monroe - Earth's Canvas. Naturally inspired art - an exhibit by Elsie Berget, Barb Rothwell, Terri Schmit, and Jeanne Stietz. Tue-Fri 10AM-5PM, Sat 10AM-5PM. Monroe Arts Center. (608) 325-5700.

7 Baraboo - Candlelight Ski, Hike and Snowshoe.

Join the Friends of Mirror Lake and the state park staff for a beautiful winter night. We will have two easy 1-mile trails lit by torches. One trail will be for skiers only, and the other for everyone to enjoy. A Wisconsin State Park Admission Sticker is required. Mirror Lake State Park, E10320 Fern Dell Road. Event starts at 6:00PM and ends at 8:00PM. (608) 254-2333.

7 Blue Mounds - Candlelight Ski/Hike/Snowshoe. Ski on one and two mile lit loops. Separate lit trail for hikers, snowshoers, and leashed pets. Bonfire, free hot drinks and marshmallows for roasting. Hot food and baked goods for sale. Blue Mound State Park, Event starts at 6:00PM and ends at 9:00PM. (608) 437-5711

7 La Farge - Winter Festival at the Kickapoo Valley Reserve. Outdoor & indoor events including snow sculpting, horse-drawn bobsled rides, snowshoe hike, natural ice caves presentation and hike, traditional Native American games, chili & bread contests and more Kickapoo Valley Reserve Visitor Center.. Event starts at 8:00AM and ends at 4:30PM. (608) 625-2960

13 - 14 Hartford - Seussical, The Musical, Jr..

Presented by Stagekids Productions in cooperation with North Shore Academy of the Arts & Schauer Community School of the Arts. Adapted from the musical by Stephen Flaherty and Lynn Ahrens.. Performed by a cast of local youth. Fri 7PM, Sat 2PM. Schauer Arts & Activities Center, 147 N Rural St. (262) 670-0560.

21 - 22 Antigo - Langlade County Trailblazer

Challenge Sled Dog Races. The Antigo/Langlade County Chamber of Commerce will host the 2nd Annual Langlade County Trailblazer Challenge Sled Dog Races. (888) 526-4523

21 Dodgeville - Candlelight Ski/Hike/Snowshoe.

Walk, ski, or snowshoe a trail lit with glowing candlelight. Warm up by the bonfire after enjoying the trail Governor Dodge State Park, 4175 Event starts at 6:00PM and ends at 9:00PM. (608) 935-2315.

21 Madison - Isthmus Beer and Cheese Fest. Alliant Energy Center, 1919 Alliant Energy Center Way. Event starts at 2:00PM and ends at 6:00PM. (608) 267-3976.

21 Waukesha - Waukesha JanBoree Ice Sculpting

Contest. Amateur ice sculpting competition on the sidewalks of Historic Downtown Waukesha. A portion of a weekend full of winter activities. See up to 40 large blocks ice sculpted into works of art. A part of the Waukesha JanBoree 802 N. Grand Avenue. Event starts at 10:00AM and ends at 2:00PM. (262) 549-6154

21 Whitewater - Kettle Moraine XC Ski and Annual

Candlelight Ski. Enjoy the Purple Trail in its candle lit glow. The DNR will build a large campfire, so don't forget the marshmallows! Noridc Trail - Kettle Moraine State Park. For more information call (262) 495-8600

Upcoming Local Events for January



January 2nd, 2012 – Pasadena, CA
Wisconsin vs Oregon in the 98th
Annual Rose Bowl!



1 Milwaukee - Cool Fool Kite Festival. Free to the public. Starts at noon following the Polar Bear's jump into Lake Michigan, and will run until around 5PM. Kites and hot food are available for purchase or bring your own. Free hot chocolate, coffee and snacks will be served while it lasts, compliments of Caribou Coffee. Local ice carvers will also be on hand, and for the first time allowing the public to try their hand at carving. Horse drawn carriage rides will also be available from Milwaukee Coach and Carriage. Veteran's Park. For more information call (414) 277-9121

1 Sheboygan - Polar Bear Swim. On New Year's Day at 1PM, 400 daring swimmers charge into Lake Michigan. 10AM registration at the Armory where there's

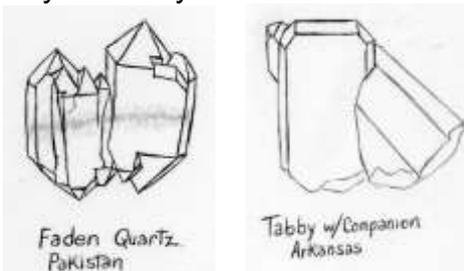
THE MANY FACES OF QUARTZ

Text and images by Teri Marché

Over the Christmas holiday, 2010, I was finally able to achieve a long-standing goal of going to Arkansas to hunt for some of its world famous quartz. Along with Roy and Dave Zimmerman and his wife Jane LaGace, I spent a week in the Mt. Ida area visiting several mines, including the Miller Mt, Arrowhead, Sweet Surrender, and Brewster Mt. Dave and I also made a Christmas Day visit to the Avant area on the north shore of Lake Ouachita for wavelite, another wish fulfilled!

While there, I received an education in quartz crystallography. I already knew that quartz crystals are typically six-sided, with a six-sided pyramidal termination. I knew they come in a variety of named color forms, such as amethyst, citrine, rose, and smokey. Thanks to BLGS club member, Marv Hanner, I was aware of the phenomenon of twinning, with features not immediately apparent to the untrained eye. I could, however usually pick out a Brazil Law twin by the subtle markings on one of the pyramidal faces. That was fun. Still I had a lot to learn as it turned out, and quartz fanatics Dave and Jane were just the ones to teach me!

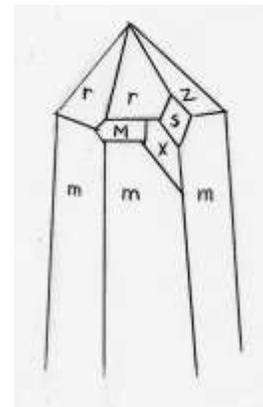
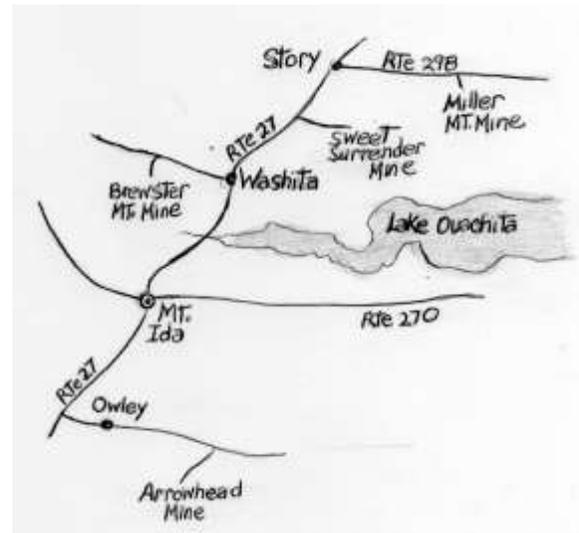
Dave had already introduced me to Faden quartz, very flat, clear crystals growing in a group up and down along a single, straight, milky growth line. Now he and Jane taught me more. I guess I had heard of Tabby crystals before, but now they made it clear that these are flat crystals, like the Faden quartz, but growing in a single direction like any other crystal. We found a few nice ones and they made an impression.



However, the single most outstanding bit of knowledge gained on that trip concerned crystals with extra faces, and it turns out that Arkansas is a most excellent place to see this. All the faces of quartz crystals are given letter designations, and while there have apparently been many systems proposed, I will follow the one first proposed in a

1951 United States Geological Survey Bulletin by Engle, and cited in my copy of Staebler and Wilson (2008). In this system the long, side faces of the crystal are designated *m*-faces, and the faces on the pyramidal termination are either *r*-faces or *z*-faces. These are common to pretty much all quartz crystals. The fun comes in when extra faces appear. These seem to be mostly concentrated where the side *m*-faces meet the termination *r*- and *z*-faces.

Most commonly seen were the lovely little rectangular to square *s*-faces. It seems that the Arkansas quartz fields are especially well known for this. As we cleaned the worst of the red clay from the day's collections every evening, it became a challenge to spot *s*-faces on the crystals. Sometimes there were two or occasionally even three on the same one. These got an especially good scrubbing and careful consideration. Actually, given the season, it was rather like opening Christmas presents! Given Jane's discriminating eye, and the fact that all of her and Dave's collections had to be packed onto an airplane into



Canada, many slightly damaged, but otherwise characteristic crystals with *s*-faces went into my and Roy's buckets. Merry Christmas again!

It was only after getting home and some more careful work with the specimens that I made another discovery. One crystal in a cluster had *x*-face! When I communicated this to Dave he was amazed, saying that they were so rare, he had never seen one. However, spurred on by my discovery, he went back and examined his previous collections and found several of his own.

There are also *c*-faces, and *M*-faces, and *a*-faces. If you want to know more about them a good source is The Quartz Page, www.quartzpage.de, which will tell you way more than you ever knew there was to know about quartz in all its forms

This trip reinforced for me the value of direct experience in learning, and it should be a lesson too for anyone who wants to teach anyone anything. Virtual experience is just no substitute, whether it be digital, print, or film. There is nothing like being there for learning to occur. For rockhounds, this means collecting trips. Whether you find prime specimens or not, being in the field is educational in itself. If our clubs are to be more than social societies, we must make field trips a priority, difficult in these days of litigation and MSHA regulation, but not impossible.

The other lesson is that one never stops learning. Pretty much everything I know about rocks and minerals, I learned in this club, an education that only started when I was well over 50 years of age. I shall ever be grateful to members past and present for sharing that knowledge with me.

As for Arkansas, I do not know whether it was because of the winter season, or if it was a general trend, but many of the mines and miners seem to be in economic trouble. I expect the economy is squeezing many of them, and not only federal, but also state regulations are creating difficulties. However, since much of that regulation concerns either safety, or environmental reclamation, I am rather ambivalent on this subject. Most mines will now only allow one to hunt the spoil piles. If you want to do any actual digging, your only chance is to have all the proper equipment with you: steel-toed shoes, hardhats, and safety glasses. Without that, you don't stand a chance of being allowed to actually dig.

On our day at the Arrowhead Mine, the sale to a new owner was finalized, with the property seemingly slated for the owner's private use. We may have been the last of the public to dig there. Time will tell. Brewster Mountain mine was our best site; access may be obtained through the Dee and Gee Crystal Shop north of Washita on HWY 27. A visit to that shop can be a real delight; Dee is great fun, and they still have some "Blue Phantom" quartz for sale. (Oh, that's another thing I learned about, but that will be another story!)

At the January meeting I will have a bunch of quartz points with *s*-faces to share with everyone.

Reference

Staebler, G. A. and Wilson, W. E. (2008). *American mineral treasures*. East Hampton, CT: Lithographie, LLC.

Tech researcher documents first natural U.P. earthquake

By Stacey Kukkonen, DMG Writer

HOUGHTON - A slight shaking felt and large noise heard the morning of Oct. 4 in Menominee has been confirmed to be an earthquake, said a Michigan Technological University researcher.

"We concluded from the observations in the field that large pieces of rock had moved and based on the reports of local residents, they felt shaking and heard it as well," said Wayne Pennington, chair of geological and mining engineering and sciences at Michigan Tech.

"That's sufficient to classify it as an earthquake." Pennington said the rumble shook homes and sounded like an explosion, but the only mark left behind was a 361 foot-long crack in the forest.

The earthquake was unlike a natural tectonic earthquake, where the movement is on faults as a result of stresses deep within the Earth's crust. This earthquake was a result of a concentration of stresses on the Earth's surface, he said.

"Technically, it was an earthquake," Pennington said.

"And I would guess it was an earthquake with a magnitude of 1 or 2."

Earthquakes in the Upper Peninsula are extremely rare, Pennington said, however, there are a few on historic record which are associated with mine collapses which are not considered natural earthquakes.

"This is the first clearly documented case of an 'earthquake' in the Upper Peninsula," he said.

Pennington said while the next step is to figure out why this event happened, more earthquakes in the future seem unlikely.

"This one was unusual," he said. "Just because this one occurred doesn't mean there's a greater likelihood of more."

Pennington visited the 361-foot long, 4- to 5-foot high, almost 30-foot wide site Oct. 10, which is located in a wooded area. In about a year or two, the crack will fill in due to erosion and natural weather occurrences. Trees around the area are tipping away from the crack, he added. Under the 20 feet of soft clay exists flat lying limestone at depths of about 10 to 20 feet, and some loose or erratic pieces of limestone can be observed at the surface, he said.

"We know from quarry operations where limestone is

quarried that sometimes when you uncover an area of limestone that's been buried under tens of feet of rock, sometimes it will experience what is called a pop-up," he said.

In the case of most pop-ups observed, the limestone has been lying under additional layers of limestone, and quarrying (or the retreat of a glacier) results in the sudden release of overburden weight holding the rock in place, Pennington said. The top layer will suddenly buckle very violently like a small explosion, resulting in a mound of limestone that once was flat.

"We're pretty sure that's what happened to this limestone under the clay, however, we do not know why that happened now and in that location," he said.

Pennington said scientists will continue looking into this natural phenomenon.

In the future, Pennington hopes Michigan Tech will be able to study the earthquake more and there are plans to write a short paper.

"We'll report it so that the next time something like this happens, scientists can find some the scientific literature what our observations were from this site," he said.

First published on October 16, 2010 in The Mining Gazette.

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Christmas 2011

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