MWF News

APRIL 2013 - ISSUE NO. 521

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PRESIDENT'S MESSAGE

by Dennis Westman

It's show time! The 2013 Directory will be available soon.

The Lincoln, Nebraska Show and MWF Convention is almost here. It will take place on April 6 and 7 at the Lancaster Event Center. There will be two field trips on April 4 and 5. Make sure your club is represented at the delegates meeting.

The MWF 2013 Directory is being printed. Each club will receive a copy. I would suggest buying an additional copy or two. Only $4.00 at Lincoln! Would you like to have an award winning program at your next club meeting? All of the programs that are available for loan are listed in the Directory. Other organizations, like the Geological Survey, have programs. Have you ever had a speaker cancel the night before the meeting? Make up your own entertainment. Involve the whole club with, "How did I become a rockhound and what is the best rock I ever found?" Rockhounds are great at three things: collecting, talking about rocks, and eating. My club has, "What did I do on my summer vacation?" There is never a lack of speakers and what fun! Go out on a limb with an Ugly Rock program.

CONTENTS

UPCOMING EVENTS

APRIL

6: **LOVES PARK, IL.** Rock River Valley Gem & Mineral Society's Gems, Minerals, Fossils and More Open House; North Suburban Library, 6340 North 2nd St.; Sat. 11-3; Contact: Bill Horschke, 815.544.2073, whorschke@yahoo.com.

6-7: **COLUMBUS, OH.** Central Ohio Mineral, Fossil, Gem & Jewelry 39th Annual Show; Veterans Memorial, 300 W. Broad St.; Sat. 10-6, Sun. 11-5; Contact: Craig Kramer 614.436.4511, craig.kramer@wowway.com, www.ColumbusRockAndMineralSociety.org.

6-7: **LINCOLN, NE.** Lincoln Gem & Mineral Club, Inc.'s 55th Annual Show (MWF Show & Convention); Lancaster Event Center, 84th & Havelock; Sat. 9-6, Sun. 10-5; Contact: Charles Wooldridge, 402.416.3233, charles.wooldridge@nebraska.gov, www.lincolngemmineralclub.org.

6-7: **CANTON, OH.** Stark County Gem & Mineral Club's 46th Annual Gem & Mineral Show; Stark County Fairgrounds, 305 Wertz Ave. NW; Sat. 9-5, Sun. 10-5; Contact: Barry Heiks, 330.868.4047, bjheiks@frontier.com.

13-14: **MARION, IL.** Southern Illinois Earth Science Club's Gem & Mineral Show, Pavilion of the City of Marion, 1602 Sioux Dr.; Sat. 10-6, Sun. 10-5; Contact: Mike Chontofalsky, 618.532.0455, chontofalsky@att.net, www.slesclub.org.

14: **WATERLOO, IA.** Blackhawk Gem & Mineral Society's Annual Show; Waterloo Center for the Arts, 225 Commercial St.; Sun. 11-5; Contact: David Malm, 319.266.6433, davidmalm@cfu.net.

19-20: **NEW ULM, MN.** New Ulm Gem & Mineral Club's Minnesota Inventors Congress; Redwood Area Community Center, 901 Cook St., Redwood Falls, MN; Fri. & Sat. 10-6; Contact: John Davis, 507.354.1212.

APRIL - cont'd

20-21: **MINNEAPOLIS, MN.** Anoka County Gem & Mineral Club's Gem & Mineral Show; HarMar Mall, 2100 Snelling Ave. North, Roseville, MN; Sat. 10-6, Sun. 12-5; Contact: 763.421.8521.

27-28: **BENTON HARBOR, MI.** Blossomland Gem & Mineral Society's Gem, Mineral & Fossil Show & Sale; Orchards Mall, Entrance 4, 1800 Pipestone Rd., (Just North of Exit 29 off of I-94); Sat. 10-7, Sun. 11-4; Contact: Larry Kiernan, 269.756.9080, tire309@yahoo.com.

27-28: **CUYAHOGA FALLS, OH.** Summit Lapidary Club's and Akron Mineral Society's Spring 2013 Rock, Mineral and Gemstone Show; Emidio's & Sons Expo, 48 E. Bath Rd.; Sat. 10-6, Sun. 10-5; Contact: Evelyn Tryon, 330.673.9664; Gemboree76@yahoo.com, http://www.lapidaryclubofohio/.org.

27-28: **FORT DODGE, IA.** River Valley Rockhounds, Inc.'s 50th Anniversary Gem, Mineral, and Fossil Show; Iowa Central Community College Career Education Building, 330 Ave. M (Business Hwy. 20); Sat. 9-5, Sun. 11-4; Contact: Jim Baumer, 515.955.6783, jbaum@frontiernet.net, www.amfed.org/mwfiowa/rivervalley.

MAY

4-5: **MARSHFIELD, WI.** Heart of Wisconsin Gem & Mineral Society's 40th Annual Gem, Mineral, Fossil, & Jewelry Show; Marshfield High School Field House, 1401 E. Becker Rd.; Sat. 10-5, Sun. 10-4; Contact: Cynthia Kelman, 715.387.8782, kelman@tznet.com, www.fromtherockroom.com.

Good news from Treasurer, Sandy Fuller and Membership Chair, Jim Marburger. All but one club have paid their dues! Way to go, Clubs!

HONOR SOMEONE'S MEMORY ...

by Marge Collins

Please consider a donation to support Earth Science and/or to honor or memorialize a friend or club member.

Donations can be sent to either the Midwest Federation Endowment Fund or the American Federation Scholarship Foundation.

Send MWF Endowment Fund donations to:

Alan Hukill, Treasurer
15785 Park Lake Rd.
East Lansing, MI 48823

Send AFMS Scholarship donations to:

Marge Collins, MWF Chairman
3017 Niles-Buchanan Rd.
Buchanan, MI 49107

MWF Endowment Fund was established in 1989 to insure that monies would be available in addition to dues income. Only interest generated by the Fund is used and any expenditure must be approved at an Executive Committee meeting. A list of special projects and other information is in the MWF Directory.

AFMS Scholarship Foundation was established in 1964 to finance scholarships from a perpetual fund. Participating Regional Federations currently award two grants of $2,000 each for two years. Our MWF Honoree chooses two students working on advanced degrees in the Earth Sciences at a college or university in our Region. More detailed information is published in the Green Pages of the MWF Directory.

Both Funds have non-profit 501(c)(3) status. Contributions are tax-exempt and you receive an acknowledgment and next of kin are notified of your donation. Send form or letter to the Fund of your choice.

Donor(s) name(s): _____ Donation: $ _____

Address: _____
(street) (apartment #) (city) (state) (zip code)

Donation is Memorial to: _____

Next of Kin: _____
(if applicable) (name) (relationship)

Address: _____
(street) (apartment #) (city) (state) (zip code)

Club Rockhound of the Year

Submitted by Lee Herrera, Chairman, Club Rockhound of the Year, on behalf to 500 Earth Sciences Club of Indianapolis

The 500 Earth Sciences Club of Indianapolis would like to recognize Ann Richardson as the 2012 Rockhound of the Year. Throughout Ann's long association with the club, she has held the positions of Secretary, Vice President, and President. Her involvement and leadership in educational outreach programs and instructional displays has been exceptional and motivational for club members. She has coordinated the "Kids Corner" at the club show for a number of years. Ann's background in teaching and her interest in the Earth Sciences enable her to relate to future and serious Geology and Paleontology enthusiasts alike.

Cancelled Stamps

Club Name _____

Responsible Person _____

Address _____

_____

Do you want a thank you letter sent? (circle one)

Yes No

Send **cancelled postage stamps** for the Endowment Fund, along with the form above, to:

Lyle Kugler
612 S.E. 3rd St.
Aledo, IL 61231.

Merits Chairman, Liz Burton, says now is the time to start putting together your club's 2013 All American Club Notebook.

Competitive Displays

by Barbara Sky

There are only two competitive exhibits for our MWF Convention in April. I failed to push you with monthly reminders, but would that have helped? We in the Midwest have gotten out of the habit of competing (or we've gotten lazy). Whatever the cause, I wish someone could tell me how to change it. Our next convention isn't until fall of 2014. Let's use the time to plan an exhibit which will show off all the hard work you do in the hobby!

What is a Rock?

by Andrew Alden, About.com Geology Guide
http://geology.about.com/od/rocks/a/whatisarock.htm

Everyone knows what a rock is, until you ask what it is exactly. After some thought and discussion, most people will agree that rocks are more or less hard solids, of natural origin, made of minerals. But all of those criteria have exceptions.

Rocks Are Hard

Not necessarily. Some common rocks can be scratched with your fingernail: shale, soapstone, gypsum rock, peat. Others may be soft in the ground, but they harden once they spend time in the air (and vice versa). And there is an imperceptible gradation between consolidated rocks and unconsolidated sediments. Indeed, geologists name and map many formations that don't consist of rock at all. This is why geologists refer to work with igneous and metamorphic rocks as "hard-rock geology," opposed to "sedimentary petrology."

Rocks Are Solid

Well, some are far from completely solid. Many rocks include water in their pore spaces. Many geodes—hollow objects found in limestone country—hold water inside them like coconuts. And the fine lava threads called Pele's hair, and the fine open meshwork of exploded lava called reticulite, are barely solids.

Then there's the matter of temperature. Mercury is a liquid metal at room temperature (and down to 40 below zero), and petroleum is a fluid unless it's asphalt erupted into cold ocean water. And good old

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WHAT IS A ROCK? - CONT'D

(Continued from page 4)

ice meets all the criteria of rockhood too, in permafrost and in glaciers.

Rocks Are Natural

Not entirely. The longer humans stay on this planet, the more that concrete accumulates. Concrete is a mixture of sand and pebbles (aggregate) and a mineral glue (cement) of calcium silicate compounds. It is a synthetic conglomerate, and it acts just like the natural rock, turning up in riverbeds and on beaches. Some of it has entered the rock cycle to be discovered by future geologists.

Brick, too, is an artificial rock—in this case, an artificial form of massive slate. (See the *Artificial Rocks Gallery* for more examples.)

Another human product that closely resembles rock is slag, the byproduct of metal smelting. Slag is a complex mixture of oxides that has many uses, such as in road building and concrete aggregate. It too has surely found its way into sedimentary rocks already.

Rocks Are Made of Minerals

Many are not. Minerals are inorganic compounds with chemical formulas and mineral names, like quartz or pyrite (see "What Is a Mineral?"). But what about coal? Coal is made of organic material, not minerals. The various types of stuff in coal are instead called macerals. Similarly, what about coquina, a rock made entirely of seashells? Shells are made of mineral matter, but they aren't minerals any more than teeth are.

Rocks like these are not controversial, but they have their own category: biogenic rocks. Perhaps concrete and slag could be added to that category too. Concrete would fit in with the others, being essentially sedimentary, but slag would probably be a biogenic igneous rock.

Finally we have the exception of obsidian. Obsidian is a rock glass, in which little or none of its material has gathered into crystals. It is an undifferentiated mass of geological material, rather like slag but not as colorful. While obsidian has no minerals in it *per se*, it is unquestionably a rock.

HOW TO LOOK AT A ROCK

by Andrew Alden, About.com Geology Guide
http://geology.about.com/od/rocks/tp/rocks101.htm

People don't usually look at rocks closely. So when they find a stone that intrigues them, they don't know what to do, except to ask someone like me for a quick answer. After many years of doing so, I hope to help teach you some of the things that geologists and rockhounds do. This is what you need to know before you can identify rocks and give each one its proper name.

Where Are You?

The first thing I ask a questioner is, "Where are you?" That always narrows things down. Even if you aren't familiar with your state geologic map, you already know more about your region than you suspect. There are simple clues all around. Does your area contain coal mines? Volcanoes? Granite quarries? Fossil beds? Caverns? Does it have place names like Granite Falls or Garnet Hill? Those things don't absolutely determine what rocks you might find nearby, but they are strong hints.

This step is something you can always keep in mind, whether you're looking at street signs, stories in the newspaper, or the features in a nearby park. And a look at your state's geologic map is intriguing, no matter how little or how much you know.

Make Sure Your Rock Is Genuine

Make sure you have real rocks that belong where you found them. Pieces of brick, concrete, slag and metal are commonly misidentified as natural stones. Landscaping rocks, road metal and fill material may come from far away. Many old seaport cities contain stones brought as ballast in foreign ships. Make sure your rocks are associated with a real outcrop of bedrock.

There is an exception: many northern localities have lots of strange rocks brought south with the Ice Age glaciers. Many of the state geologic maps show surface features related to the ice ages.

Now you will start to make observations.

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HOW TO LOOK AT A ROCK - CONT'D

(Continued from page 5)

Find a Fresh Surface

Rocks get dirty and decay: wind and water make every kind of rock slowly break down, the process is called weathering. You want to observe both fresh and weathered surfaces, but the fresh surface is most important. Find fresh rocks in beaches, roadcuts, quarries and streambeds. Otherwise, break open a stone. (Don't do this in a public park.) Now take out your magnifier.

Find good light and examine the rock's fresh color. Overall, is it dark or light? What colors are the different minerals in it, if those are visible? What proportions are the different ingredients? Wet the rock and look again.

The way the rock weathers may be useful information—does it crumble? Does it bleach or darken, stain or change color? Does it dissolve?

Observe the Rock's Texture

Observe the rock's texture, close up. What kind of particles is it made of, and how do they fit together? What's between the particles? This is usually where you may first decide if your rock is igneous, sedimentary or metamorphic. The choice may not be clear. Observations you make after this should help confirm or contradict your choice.

Igneous rocks cooled from a fluid state and their grains fit tightly. Igneous textures usually look like something you might bake in the oven.

Sedimentary rocks consist of sand, gravel or mud turned to stone. Generally they look like the sand and mud they once were.

Metamorphic rocks are rocks of the first two types that were changed by heating and stretching. They tend to be colored and striped.

Observe the Rock's Structure

Observe the rock's structure, at arm's length. Does it have layers, and what size and shape are they? Do the layers have ripples or waves or folds? Is the rock bubbly? Is it lumpy? Is it cracked, and are the cracks healed? Is it neatly organized, or is it jumbled? Does it split easily? Does it look like one kind of material has invaded another?

Some kinds of structural features, like concretions, folds, ripples and slickensides, appear in this gallery of geologic features and processes.

Try Some Hardness Tests

The last important observations you need require a piece of good steel (like a screwdriver or pocket knife) and a coin. See if the steel scratches the rock, then see if the rock scratches the steel. Do the same using the coin. If the rock is softer than both, try to scratch it with your fingernail. This is a quick and simple version of the 10-point Mohs scale of mineral hardness: steel is usually hardness 5-1/2, coins are hardness 3, and fingernails are hardness 2.

Be careful: a soft, crumbly rock made of hard minerals may be confusing. If you can, test the hardness of the different minerals in the rock.

Now you have enough observations to make good use of the quick rock identification tables. Be ready to repeat an earlier step.

Observe the Outcrop

Try to find a larger outcrop, a place where clean, intact bedrock is exposed. Is it the same rock as the one in your hand? Are the loose rocks on the ground the same as what's in the outcrop?

Does the outcrop have more than one kind of rock? What is it like where the different rock types meet each other? Examine those contacts closely. How does this outcrop compare to other outcrops in the area?

The answers to these questions may not help in deciding on the right name for the rock, but they point to what the rock means. That's where rock identification ends and geology begins.

Getting Better

The best way to take things further is to start learning the most common minerals in your area. Learning quartz, for instance, takes only a minute once you have a sample.

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BECOMING A ROCKHOUND

by Willis and Joyce Smith

Looking back, remember when:

You attended your first club meeting
Were welcomed by a friendly and encouraging group
Who shared their knowledge of rocks, minerals, and fossils too.

How about that first field trip – *"What am I looking for?"*
Lugging the bucket or sack of marvelous discovery back to the truck
Sitting on the tailgate munching lunch and discussing special finds
Carrying it all (mud, leave-er-rites, cockaburrs, ticks) back home.

Next club meeting everyone brought their prize finds and identified each

Those members who had not gone along on the trip became anxious
Discussions began in earnest on location of next field trip.

Overnight field trips present another aspect of the hobby.
Besides putting in a long day of scouring the site
The evening potlucks offered great social time
And sleeping (in close quarters) became a challenge
The snoring sometimes caused a pillow fight.

Club shows are always an exciting time.
Meeting fellow "friends of the earth" who display their hobby
And never lack for an audience to hear and learn
Hours of work to present it to the public, but happy to share.

Can this hobby continue, or are we becoming dinosaurs
Soon to be extinct, replaced by field trips *via computer*
Club members only conversing via *e-mail*
Rock shows folding as active club members die off.

It's a different world from when I began this journey
Of the friends made along the way; many are gone
The special "finds" were not always a rock
But the friends made --- I can remember them.

I CAN REMEMBER WHEN!

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How to Look at a Rock - cont'd

(Continued from page 6)

A good 10X magnifier is worth buying for close inspection of rocks. It's worth buying just to have around the house. Next, buy a rock hammer for efficient breaking of rocks. Get some safety goggles at the same time, although ordinary glasses also offer protection from flying splinters.

Once you've gone that far, go ahead and buy a book on identifying rocks and minerals, one you can carry around. Visit your nearest rock shop and buy a streak plate—they're very cheap and can help you identify certain minerals.

At that point, call yourself a rockhound. It feels good.

What is it?

Submission of Articles

DUE DATE	FOR
December 1	January Issue
January 1	February Issue
February 1	March Issue
March 1	April Issue
April 1	May Issue
May 1	June Issue
August 1	September Issue
September 1	October Issue
October 1	November Issue
November 1	December Issue

Material may be e-mailed to Sharon Marburger at mwf.editor@windstream.net, or submitted via the U.S. Mail (see address on page 1). Acceptable e-mail formats include MS Word (.DOC & DOCX), Adobe (.PDF), rich text format (.RTF), or plain text (.TXT). Pictures must be in png, jpg, tiff, or gif format. If e-mailing an article, it may be included within the body of the e-mail message or sent as an attachment.

Thank you for your submissions!