The Living Stones

Livingston Gem and Mineral Society June 2010

President's Message

We had a wonderful field trip to the Cranbrook Institute of Science. Thank you, John and Peggy Petito! What a wonderful place to go - so many spectacular gems and minerals! It was the first visit there for me and my wife and we couldn't even get through the first room before it was time to go. 29 people attended the field trip and we had a terrific time. Everyone enjoyed our sack lunches and conversation, sharing what had been seen. It was just a good time all the way around. Once again, thank you, John and Peg.

Being as how this is June you've probably already experienced a lot of rock and gem shows - maybe there were more than you were able to take in. Hopefully we're all enjoying those and learning about new places to find treasures. Some of our members have found a new rock store and have been been going almost weekly which is great because they bring back the stuff to show us. It's a lot of fun for all of us. The beaches are open and so we can enjoy walking there. Some of the mines and quarries are open so it's all fun stuff to start looking forward to. Let's get going before the summer months go by.

In June we have Fathers Day and hopefully that finds everybody good and healthy, celebrating good times with families.

One of the shows this month is the M.G.A.G.S. Rockhound Seminar on the 12th and 13th . Hopefully some of you will be thinking about checking that out. They have many things going on with seminars all the through the two days.

We're still looking for people who are willing to donate to the club table at our show in September. Just contact Bryant or me or one of the other club members. We can get somebody out to pick up the stones and move them out so you have room for new stuff.

We're still checking on the Max Schultz award. Please just drop me a letter if you've received it. We just want to get our papers in order for the archives.

In June we'll be having our picnic potluck at Mary and Bill Barnett's. We are looking for someone to host the July gathering.

Planning for the 2010 show is underway. Several jobs have been filled but there are still many areas in need of volunteers. Please let Chuck or Bryant or me know if you're able to help. Then sign up on the list on the wall in the shop. We're trying to make this the best show ever!

Marv

LGMS Workshop Hours

Monday 10 a.m. to 2 p.m.
Tuesday 9 a.m. to 9 p.m.
Wednesday 2:30 p.m. to 9 p.m.

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Official Minutes of the Livingston Gem and Mineral Society
May 18, 2010

Marv called the meeting to order at 6:00p.m.
Sharon made motion to accept the April minutes, Peg seconded.
SHOP REPORT, Bob K. reports that the new saw has been cleaned and new bearings have been put in the small saw. The old blue saw is slipping and will be fixed. Al has repaired various things including a light switch and a saw. Many thanks! George & Anna brought lots of stones, etc. from Arizona. The silent auction has ended and a new one is started.
TREASURER'S REPORT: We didn't have to pay out anything this month. Took in money for silent auction, membership, etc. Marv reported that the old saw was sold. Motion passed to accept the treasurer's report.
The Cranbrook trip was excellent, 29 went. Thanks to John & Peg for getting the trip together.
Marv still needs the names of members who have received the Max Shultz award.
Sue M. reminded us of the need to wash stones between wheels and to clean machines after each use. We must also be more alert about the water and mess between the machines as you move to another machine. Bob K. Added that we must clean wheels after grinding and before going to next machine because the stone fragments will remain on the grinder.

SHOW REPORT: Date of show, Sept. 18 & 19, 2010. Chuck, Bryant and Marv are show chairmen. Chuck is also display chairnan. Dave R and Sharon K are handling advertising. Mattie volunteered to help. Much of the advertisement is already taken care of. There was discussion about the different places and businesses where we can advertise. Members are requested to take flyers to shows, restaurants, etc. anyplace you go where we can advertise. Peg will be Show Treasurer and do the admissions table. She will need volunteers to help at the table. George needs volunteers to help him with signs & banners. There will be a sign up sheet in the shop for members to sign where they can help. Anna P., Bill & Mary B will do the silent auction. Bryant and Ken will do the Club Table and they could use helpers. Isla will do the Children's Table again. Venus volunteered to help. Bryant & Marv will do the electrical and show layout. We're not sure about person for security or flourescent display yet. Chuck is ticket chairman and he needs help. We also need a person to handle the prize drawing. Sybil will be the Hospitality person again this year. There was much discussion about the need for helpers with all areas of the show. All members are requested to donate a nice product for the prize drawing. The woodcarvers will participate in our show again this year.
Many showed interest in the possibility of a field trip to Alpena, Mi. Chuck will be planning it.
Anna is going to start wirewrap classes on Tuesdays at 10:00am.
Our June meeting (15th) will be a potluck picnic at Bill and Mary B's house. There is no volunteer to host the July meeting yet. The August meeting will be at Sue & Paul M's house.
Peg made motion to adjourn the meeting and Paul seconded. While enjoying our refreshments we watched a very interesting movie about Agates of Germany.

Respectfully submitted, Violet Porritt, Secretary

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Officers and Chairpersons

President: Marv Martin, 517-521-3135

Vice President: Bryant Hiiter, 248-889-3974

Secretary: Violet Porritt, 810-235-6286

Treasurer: Peggy Petito, 248-887-8847

Second year Directors:

David Riggs, 810-632-7146

Bill Barnett, 734-449-2907

First year Directors:

Ken Blake, 810-750-6078

John Petito, 248-887-8847

Sunshine and Hospitality: Mary Barnett, 734-449-2907

Shop Chairpersons:

Bob Krautheim, 810-701-3776

Chuck Amberger, 248-446-0818

Marv Martin, 517-521-3135

Newsletter and Membership:

Isla Mitchell, 248-685-7804

Chuck Amberger, 248-446-0818

Library: Bryant Hiiter 248-889-3974

General Membership Meetings are held monthly on the 3rd Tuesday at 6 p.m. (Except in January and February when they are held in the shop at 1 p.m.)
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Coming Shows

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Jewelry, Rock, Gem and Mineral Show, "Forty Niner Miners"

June 4-6, 2010

Fulton County Fairgrounds, Wauseon, OH

Information: 517-263-1669 or rychard@tc3net.com

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M.G.A.G.S. Rockhound Seminar

Webberville High/Middle School

June 12 & 13, 2010

Information: www.mgags.org, or webmaster@mgags.org, or 313-421-8159

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Gem, Mineral, Fossil, Show - Swap

Lawrence County Rock Club, Inc

June 25 - 27, 2010

Monroe County Fairgrounds, West of Bloomington, IN

Information: www.lawrencecountyrockclub.org or 812-295-3463

Advice for Rockhound Watchers

Can you spot a rockhound? The species isn't rare.
You can tell him by his honest face, and his willingness to share.
You can tell him as he saunters by, his eyes glued to the ground.
No matter where he goes, he's sure there's gemstones to be found.
You can tell him by his friendly smile, he's an all-round pleasant guy;
But the sure-fire way to spot him, is the flashy bola tie!!

From Eureka News 1/86 via Quarry Quips 4/01
via Beehive Buzzer 11/01

About Igneous Rocks

By Andrew Alden, _About.com Guide

At the most general level, rocks fall into three great categories, and they're pretty simple to tell apart. You won't even need a rock hammer or hand lens, though they are fun to have.

Igneous rocks are the first great class.

Origin of Igneous Rocks

Igneous rocks begin as hot, fluid material, and the word "igneous" comes from the Latin for fire. This material may have been *lava* erupted at the Earth's surface, or *magma* (unerupted lava) at shallow depths, or magma in deep bodies (plutons). Rock formed of lava is called *extrusive*, rock from shallow magma is called *intrusive* and rock from deep magma is called *plutonic*.

Igneous rocks form in three main places: where lithospheric plates pull apart at mid-ocean ridges, where plates come together at subduction zones and where continental crust is pushed together, making it thicker and allowing it to heat to melting.

People commonly think of lava and magma as a liquid, like molten metal, but geologists find that magma is usually a mush — a liquid carrying a load of mineral crystals. Magma crystallizes into a collection of minerals, and some crystallize sooner than others. Not just that, but when they crystallize, they leave the remaining liquid with a changed chemical composition. Thus a body of magma, as it cools, evolves, and as it moves through the crust, interacting with other rocks, evolves further. This makes igneous petrology a very complex field, and this article is only the barest outline.

Igneous Rock Textures

Tell the three types of igneous rocks apart by their texture, starting with the size of the mineral grains. Extrusive rocks cool quickly (over periods of seconds to months) and have invisible or very small grains, or an aphanitic texture. Intrusive rocks cool more slowly (over thousands of years) and have small to medium-sized grains. Plutonic rocks cool over millions of years, deep underground, and can have grains as large as pebbles — even a meter across. Both intrusive and plutonic rocks have phaneritic texture.

Because they solidified from a fluid state, igneous rocks tend to have an equigranular texture, a uniform fabric without layers, and the mineral grains are packed together tightly. Think of the texture of a piece of bread as a similar example.

In many igneous rocks, large mineral crystals "float" in a fine-grained groundmass. The large grains are called *phenocrysts*, and a rock with phenocrysts is called a porphyry; that is, it has a porphyritic texture. Phenocrysts are minerals that solidified earlier than the rest of the rock, and they are important clues to the rock's history.

Some extrusive rocks have distinctive textures. Obsidian, formed when lava hardens quickly, has a glassy texture. Pumice and scoria are volcanic froth, puffed up by millions of gas bubbles giving them a vesicular texture. Tuff is a rock made entirely of volcanic ash, fallen from the air or avalanched down a volcano's sides. It has a pyroclastic texture. And pillow lava is a lumpy formation created by extruding lava underwater.

Igneous Rock Types: Basalt, Granite and More

Igneous rocks are classified by the minerals they contain. The main minerals in igneous rocks are hard, primary ones: feldspar, quartz, amphiboles and pyroxenes (together called "dark minerals" by geologists), and olivine along with the softer mineral mica.

The two best-known igneous rock types are *basalt* and *granite*, which differ in composition. Basalt is the dark, fine-grained stuff of many lava flows and magma intrusions. Its dark minerals are rich in magnesium (Mg) and iron (Fe), hence basalt is called a *mafic* rock. So basalt is mafic and either extrusive or intrusive. Granite is the light, coarse-grained rock formed at depth and exposed after deep erosion. It is rich in feldspar and quartz (silica) and hence is called a *felsic* rock. So granite is felsic and plutonic.

These two categories cover the great majority of igneous rocks. Ordinary people, even ordinary geologists, use the names freely. (Stone dealers call any plutonic rock at all "granite.") But igneous petrologists use many more names. They generally talk about *basaltic* and *granitic* or granitoid rocks among themselves and out in the field, because it takes lab work to determine an exact rock type according to the official classifications. True granite and true basalt are narrow subsets of these categories.

But a few of the less common igneous rock types can be recognized by non-specialists. For instance a dark-colored plutonic mafic rock, the deep version of basalt, is called gabbro. A light-colored intrusive or extrusive felsic rock, the shallow version of granite, is called felsite or rhyolite. And there is a suite of *ultramafic* rocks with even more dark minerals and even less silica than basalt. Peridotite is the foremost of those.

Where Igneous Rocks Are Found

The deep sea floor (the oceanic crust) is made of basaltic rocks, with ultramafic rocks underneath. Basalts are also erupted above the Earth's great subduction zones, either in volcanic island arcs or along the edges of continents. However, continental magmas tend to be less basaltic and more granitic.

The continents are the exclusive home of granitic rocks. Nearly everywhere on the continents, no matter what rocks are on the surface, you can drill down and reach granitoid eventually. In general, granitic rocks are less dense than basaltic rocks, and thus the continents actually float higher than the oceanic crust on top of the ultramafic rocks of the Earth's mantle. The behavior and histories of granitic rock bodies are among geology's deepest and most intricate mysteries.

The Livingston Gem and Mineral Society is a nonprofit organization and member of the Midwest Federation of Mineralogical Societies and the American Federation of Mineralogical Societies. Our purpose is to promote, through educational means, public interest and increased knowledge in the fields of mineralogy, archaeology, paleontology, and the lapidary arts. This society was established in 1970. Annual dues are $15 per person or family. Annual shop fees are $10.00 per person. There is an additional fee of $1.00 per day for workshop use. Annual dues and annual shop fees are due on January 1 of each year. The Livingston Gem and Mineral Society publishes The Living Stones. Non copyrighted articles may be reprinted provided that they are properly attributed. Newsletter deadline is the 1st of each month. Articles or correspondence can be sent to LGMS, Hartland Consolidated Schools, 9525 E. Highland Rd. Howell, Michigan 48843-9098.

Livingston Gem and Mineral Society
9529 E. Highland Road
Howell, MI 48843-9098

Next General Meeting
6 P.M. ~ June 15, 2010

Potluck Gathering at

Mary and Bill Barnett's home
428 East Shore Drive, Whitmore Lake, MI 48189
734-449-2907

Please bring a dish to pass along with your own table service, a drink, and your own chair.

Directions:

1. Take US 23 south to exit 54.
2. At the end of the exit turn left onto Whitmore Lake Road.
3. Go 1/10 mile to M36 (McDonalds).
4. Turn left on M36 and continue .7 mile, passing the child care center, up the hill to East Shore Drive on the right.
5. Turn right on East Shore Drive and continue 1.2 miles to 428 on the left. (Note the numbers are 5 digits in Livingston County and change to 3 digits in Washtenaw County.)
The lake will be on your right. It is a long ranch house with a split rail fence.