



The PRESQUE ISLE PROSPECTOR



Official Publication of the Gem City Rock and Mineral Society of Erie, PA
Monthly Meetings, First Saturday at 9:30 AM

February 2010



Last Month's Meeting:

Last month we came up with quite a few good ideas for programs, projects, and places to go. We even got some Discovery Blocks made!

This Month's Meeting:

This month our meeting will be Saturday, **February 6th**, at **9:30 AM**, at the club room at the **Renaissance Centre building** at **1001 State Street** in **downtown Erie** (southeast corner of 10th and State Streets). To find the club rooms, go in the front revolving door of the building on State Street (just south of the nut shop, which is on the corner), and look for a stairway to the basement on the right-hand side of the lobby right before the small hallway containing the elevators. If you can't take the stairs, the third elevator goes down to the basement level. At the bottom of the stairs or the elevator, you will see the entrance to our space – a door heading into what looks like, well, a restaurant, with a small mirrored lobby.

There is also a parking ramp on the south side of E. 10th Street just east of the Renaissance Centre building (toward French Street), and it is free to park there on Saturdays!

We will be watching a video program, one or two of several we discussed and sounded excited about. The club has copies of dozen or so programs, and various members have more of their own that we might be interested in seeing – if you have a DVD that you think we all might be interested in seeing, bring it along, and we'll see what interest level we generate. Then we'll vote on what to see!

We also chose a basic wire-wrapping project to make at the March meeting – see the instructions for making it online at <http://wire-sculpture.com/pages/jewelrypattern105.html>. The club has some of the wire necessary, but we'll have to see how many people are interested in making it and if we need to order more.



We talked about several places within daytrip range that we might go for field trips once the weather warms up, and will be discussing more specific plans over the next couple of months. We also seem to have quite a bit of interest in going back to Herkimer County NY over Labor Day Weekend – those who have gone on past trips have had a really good time, and those who haven't are jealous of the stories they've heard!

Board Meeting:

We didn't have a quorum of the board last month due to bad weather, so we'll try again to have a board meeting directly following the regular meeting. Primary topics are establishing a budget and any other planning for the activities of the year.

Dues are Due:

Also, now that we've entered a new Calendar Year, club Dues are due! If you joined at the show last July (2009), your dues are paid through the end of 2010; if not, it's time to pay up again for another year. Dues are as follows:

\$10.00 Junior (under 18 or full-time student)

Club Web Site address:	www.gemcityrockclub.org		
President	Kirk McFadden	2976 Clark Rd.	Erie PA 16510-4422 (814) 602-5225
Vice-president	Sarah Boesch	1223 Lake St.	Lake City PA 16423-1808 (814) 774-4234
Secretary	Harriet Beckman	1120 W. 41 st St.	Erie PA 16509-1302 (814) 868-8422
Treasurer	Val Engelleiter	132 Moorehead St.	Erie PA 16508-1859 (814) 454-1771
Newsletter Editor	Harriet Beckman	email: editor@gemcityrockclub.org	(814) 868-8422
Board Members:	Robert Gallivan	Ted Oslak	Mary Thomson

\$15.00	Individual
\$20.00	Couple (or parent and one child)
\$25.00	Family

The Membership Renewal Form has worked very well in helping your club secretary and treasurer keep track of who paid what for whom, so please do use it again when you mail in your dues or bring it in to the meeting. To remind you, the club address is

Gem City Rock & Mineral Society
P.O. Box 475
Erie, PA 16512

Please try to remember to bring your dues along to the meeting, or mail a check to the club. We will give you a month or two to get your dues in, but those not current on their dues will stop getting the newsletter and not be eligible to participate in any club activities! So please help us keep you current by renewing promptly.

Federation News:

The February American Federation Newsletter is online at http://www.amfed.org/news/n2010_02.pdf, and has an article on the AFMS / CFMS Show and Convention, June 18-20 2010, in Whittier, CA, if anyone is planning on traveling this summer. There is a note on the usefulness of Material Data Safety Sheets (MSDS), which manufacturers are required to produce for just about everything (hey, there's one for oxygen, and one for Diet Coke!) – and they can be surprisingly helpful even for non-toxic or –hazardous materials. The Conservation & Legislation article highlights the *California Desert Conservation and Recreation Act of 2010*, “that would withdraw 1.6 million acres of desert landscapes from public access. The 1.6 million acres is larger than the state of Connecticut and this legislation will close some of the best rockhound collecting areas in Southern California.” This will prohibit just about everything but walking and looking at this land – “would prohibit the use of donated or acquired lands for development, mining, offhighway vehicle use (except designated routes), grazing, military training and other surface disturbing activities. (This means Rockhounding.)” There are other bills affecting every area of the country. We should draft another letter to our representatives, explaining what this will mean to their constituents – I will happily point any volunteer to helpful samples. There was also an award-winning article on Coal, which I have included below.

The Eastern Federation Newsletter, online at <http://www.amfed.org/efmls/effeb10.pdf>, has more specifics on the 2010 EFMLS Convention March 5-7 hosted this year by the Delaware Mineralogical Society in Stanton, Delaware, which is about 30 minutes from Philadelphia – road trip anyone? The article has more details on their show and convention activities, and on other things of interest in the area. There's another article on the Wildacres sessions, this year April 23-29 (guest speaker Bob Jones, editor of Rock & Gem Magazine and great speaker) and September 6-12 (guest speaker Lisa Carp, gemologist and educator, on gems and the jewelry trade), and a link to a YouTube video on Wildacres at http://www.youtube.com/watch?v=kac0qhJG0OM&feature=channel_page if you want to get a better idea of the ambience. There are listings of new additions to the EFMLS Library – and we can borrow any of these titles for club viewing for only the cost of return postage, so that's a pretty terrific deal! The listings include 10 new videos of talks given at The 36th Rochester Mineralogical Symposium (2009), most of which I'd like to see – maybe we need to set up a TV night or Saturday sometime other than a meeting?

Coal - by Brett Whitenack , McPherson Gem & Mineral Club from the Post Rock, Nov, 2008; 2nd Place - AFMS Original Adult Articles Competition, 2009

No one knows for sure who first discovered that the black, brittle rocks found in outcrops would burn and could be used for fuel. The earliest recorded mining of coal took place in China 10,000 years ago. Coal outcrops were mined in Great Britain during the Bronze Age, 2000-3000 BCE (Before Common Era), and the Romans used it across their empire. In the Americas the Aztecs used it for heat and also fashioned hard coal into ornaments.

The use of coal didn't really take off until the Industrial Revolution, however, up until then most mining was done by taking advantage of seams of exposed coal or digging shallow surface mines to obtain it. The Industrial Revolution changed that when coal began to be in great demand as the fuel to power steam engines used in manufacturing, and later, coal-fed steam engines were built for the railways and steamships.

Because of the great demand for coal, new mines were opened up that went deeper into the earth. These mines continued to be the main source until the twentieth century, when open pit strip mining became popular, but at an environmental cost.

What exactly is coal? It has been defined as a sedimentary rock of organic origin and is composed of the remains of plants that lived and died millions of years ago in swampy regions. Their remains were buried, and over the course of millennia, they were compacted, and through a process called coalification were turned into one of five grades of coal.



The first grade, peat, is the accumulation of partially decayed organic vegetative matter. It is the lowest grade of coal and burns with only about half the heat value of high grades of coal. Lignite, the next lowest rank, is often called brown-coal and has a high percentage of volatiles. It also contains a lot of moisture and is mainly used in production of electricity where mines are close to the power plants.



The next two grades are related and sometimes hard to tell apart. Sub-bituminous coal is a grade that is between lignite and bituminous coal. It is used mostly as fuel for steam-electric power generation. Bituminous coal is a soft grade of coal and is also used as fuel in steamelectric power generation. It is also used for heat and power applications in manufacturing, and to make coke, an altered form that is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace.

The highest grade of coal is also the best and is known as anthracite. It has the highest carbon content and contains the fewest impurities of all coals. It burns the cleanest and is primarily used for residential and commercial heating. From the late 1800s until the 1950s, it was the most popular fuel for heating homes and other buildings in the northern United States. Many can still remember when the coal wagon would deliver a supply to the home.



Coal was first mined in the state of Kansas near Fort Leavenworth and in Cherokee County in the 1850s from shallow, open mines. Several of these shallow coal mines were opened up in the southeast part of the state shortly before and after the Civil War to provide fuel for the railroads, since coal was less bulky and provided more energy than wood. The room and pillar method was introduced in Cherokee County in 1874 by the Scammon brothers from Illinois, and within a few years underground mining became the preferred method of mining in the state. Peak years for production were 1917 and 1918, with about 7.25 million tons produced each of these years.

In the early 1930s open pit strip mining again became popular, and numerous mines were opened up throughout southeast Kansas. During the 1960s and 1970s Big Brutus became a fixture near West Mineral and was the second largest coal shovel in the world. It was shut down due to high operating costs; it cost twice as much to operate as the coal it produced was worth.



The mines in the region continued to operate until the last one was closed down in the 1980s, after regulations and environmentalists made it more cost effective to import coal rather than to mine it. One of the issues with the open strip mines was that they leave deep ditches and high ridges. Before land reclamation laws were enacted, this land was abandoned and left to grow back to trees and brush while the trenches filled with water. In the 1990s a couple of coal mines were reopened and worked on a limited basis. The only bituminous coal mines still in operation today are very small, and they are found in Bourbon, Crawford, and Linn counties.

Another issue was that waste piles left behind contained massive amounts of iron pyrite. Pyrite is iron sulfide, and when it is exposed to water and oxygen it undergoes a chemical reaction that produces sulfuric

acid; water, soil, and the areas surrounding mines that are polluted with sulfuric acid become unfit for agriculture and other uses. Today a concern is sinkholes, which are the result of abandoned mines collapsing and leaving large, gaping holes in the earth. These can swallow up buildings or equipment and seem to occur especially after heavy rains.

The other type of coal used in Kansas was lignite, and mines were opened up during the 1850s in the Cretaceous Age Dakota Formation in north central Kansas. Small mines were opened up mainly in Cloud, Ellsworth, and Republic counties, but are no longer worked today.

Coal mines in Kansas are being looked at again as a source of coal bed methane, a source of natural gas that can help ease the rising energy costs and reduce the state's dependence on importing this energy from other places.

References:

Belt, Mike. "Mining's Legacy: A Scar on Kansas." 20 March 2007. The Lawrence Journal-World. 16 October 2008 <http://www2.ljworld.com/news/mining/>

Brady, Lawrence L. "Mining History in Kansas." 12 Dec 2005. United States Department of Transportation – Federal Highway Administration. 16 October 2008 <http://www2.ljworld.com/news/mining/>

Buchanan, Rex C., Tolsted, Laura L., and Swineford, Ada, 1986, Kansas Rocks and Minerals: Kansas Geological Survey, Educational Series 2.

Upcoming Shows in the area:

The shows within driving distance are pretty much over for the rotten-driving season; they'll start up again next spring. Plenty of shows in Florida, Texas and California, though, not to mention the Tucson shows start January 30th, and Quartzite started up January 1st! Locally, we can start to look forward to:

February 27-28, Berea, OH – Intergalactic Bead & Jewelry Show. Cuyahoga Fairgrounds, 164 Eastland Rd., Berea, Ohio 44017. <http://beadshows.com/index.jsp>

March 12-14, Berea, OH -- Show and sale; GemStreet USA; The Cuyahoga County Fairgrounds, The Arts & Craft Bldg, 164 Eastland Rd.; Fri. 10-6, Sat. 10-6, Sun. 11-5; fine gems, jewelry, beads, fossils, minerals; contact Jane Strieter Smith, (216) 521-4367; Web site: www.gemstreetusa.com

March 27-28, Hamburg, NY - Show, "Trilobites: Under the Seas of Western New York"; The Buffalo Geological Society; Market & Grange Bldgs., The Fairgrounds in Hamburg, 5600 McKinley Pkwy.; Sat. 10-6, Sun. 10-5; adults \$5, children 12 and under free; demonstrations, beads, jewelry, private gem collections, unique gifts, children's mini-mine, "Grandpa's Corner"; contact Steve Birtz, 2230 Fix Rd., Grand Island, NY 14072, (716) 773-6386; e-mail: SBirtz@aol.com .

March 27-28, Sayre, PA: 41st Annual Che-Hanna Rock & Mineral Club Show sponsored by the Che-Hanna Rock & Mineral Club. Athens Twp. Volunteer Fire Hall, 211 Herrick Ave.; Sat. 9-5, Sun. 10-5; adults \$3, students \$1, children under 8 free; Carnegie Museum exhibits and silent auctions, Paleontological Research Institute fossil exhibit, kids' activities, club displays, retail dealers; contact Bob McGuire, 224 Church St., Lopez, PA 19628, (570) 928-9238; e-mail: uvbob@epix.net

April 17-18, Pittsburgh, PA -- Show; Monongahela Rockhounds; West Mifflin Volunteer Fire Co. #4 Skyview Hall, 640 Noble Dr.; Sat. 10-6, Sun. 10-4; free admission; contact Bret Howard, (724) 327-8618; e-mail: show@monongahelarockhounds.org; Web site: www.monongahelarockhounds.org

April 24-25, Cuyahoga Falls, OH -- Show, "Gemboree"; Akron Mineral Society & Summit Lapidary Club; Emidio & Sons Expo Center, 48 E. Bath Rd.; Sat. 10-6, Sun. 10-6; adults \$5, students and seniors \$4, children \$1; lapidary demonstrations, art and educational displays, gem identification, geode cracking, gem mine, make-and-take projects for children, dealers, door prizes, silent auction; contact Evelyn Tryon, 2028 Tallmadge Rd., Kent, OH 44240, (330) 673-9664; e-mail: etjtryon@juno.com; Web site: www.LapidaryClubofOhio.org

If you're planning to travel elsewhere, check out the complete online listings at the Lapidary Journal Calendar (<http://www.lapidaryjournal.com/cal1.cfm>), and especially the Rock and Gem Magazine Calendar (<http://www.rockngem.com/showdates/showdates.shtml>). There are lots more shows outside daytrip range!

We will have Work Sessions on some Saturdays, depending on interest. Check the club web site or call me (Harriet) at 868-8422 or Bob Gallivan at 454-6770 to find out about any specific Saturday, or to let us know you're interested.



GEM CITY ROCK & MINERAL SOCIETY

Membership Renewal Form 2010



Name: _____

Address: _____

City & State: _____ Zip: _____

Phone: _____

Email: _____

How would you like to receive the newsletter? Email Snail Mail

- Junior (under 18 or full-time student) \$10.00
- Individual \$15.00
- Couple (or parent and one child) \$20.00
- Family \$25.00

Names of additional family members who are members:

Bring completed form with dues to next meeting, or mail to:

Gem City Rock & Mineral Society
P.O. Box 475
Erie, PA 16512