

# The CHIP & LICK newsletter



**VOLUME 54, NUMBER 10**

**December, 2008**



## *Purpose and Memberships*

The objectives of the Miami Valley Mineral and Gem Club are:

- To promote interest and increased knowledge in the fields of mineralogy, geology, and the lapidary arts.
- To further the art of mounting and setting stones.
- To encourage the collecting, identifying and displaying of specimens in these fields.

The annual dues are \$10.00 for an individual membership, \$15 for a couple, or \$17 for a family membership.

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This club is a member of the Midwest Federation of Mineralogical and Geological Societies (MWF), which is a member of The American Federation of Mineralogical Societies (AFMS). **MEETINGS:** Second Sunday of the month except July and August.

**PLACE:** Small Business Development Center, 300 E. Auburn Ave., Springfield, OH 45505. Phone: 322-7821

**TIME:** 2:00 P.M.

**Editor:** Tom Bolka  
2275 Caestrano Dr.  
Xenia, OH 45385

**WEB SITE:** [www.mvmgc.org](http://www.mvmgc.org)

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# MIAMI VALLEY MINERAL AND GEM CLUB, INC.

## **2008 OFFICERS**

President	Tim Fosberg	849-4471
Vice President	Andreas Ruben	390-2081
Corresponding Secretary	Katrin Ruben	390-2081
Recording Secretary	Phil Lind	408-3744
Treasurer	Joyce Perry	372-8228
Editor	Tom Bolka	372-3365
Librarian	Joyce Perry	372-8228
Curator-Historian	Tim Fosberg	849-4471
Trustee (2005)	Marie Shinabarger	426-2289
Trustee (2006)	Becky Dobbs	372-9022
Trustee (2007)	Hugh Fulton	322-1021
Trustee (2008)	Hugh Fulton	322-1021
Trustee (2009)	Udean Babyak	

## **2008 COMMITTEES**

Anti-Litter	All Members
Canceled Stamps	Kay Faux
Chaplain	Udean Babyak
Field Trips/ Safety	Phil Lind
Field Trips/ Safety	Tom Bolka
Field Trips/ Safety	Clyde Spencer
MWF Liaison	Hugh Fulton
Photographer	Andreas Ruben
Program	Andreas Ruben
Refreshment	Joyce Perry
Scholarship	Joyce Perry
Show Chairman	
Spring Banquet	Udean Babyak
Sunshine	Joyce Perry
Swap	Hugh Fulton
Webmaster	Katrin Ruben
Christmas Party	Katrin Ruben

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**Special club-member news!**

### **December Birthdays**

Hugh Fulton - 11th

### **December Anniversaries**

None

Remember that this months meeting will be on the 14<sup>th</sup> at 1:00pm. It will be the annual holiday dinner. Everyone should carry in a side dish or dessert. Tim will be bringing turkey. Also bring your own table setting and silverware.

*Merry Christmas and Happy New Year!*

## Mineral of the month – Galena



**Galena** is the natural mineral form of lead sulfide. It is the most important lead ore mineral.

Galena is one of the most abundant and widely distributed sulfide minerals. It crystallizes in the cubic crystal system often showing octahedral forms. It is often associated with the minerals sphalerite, calcite and fluorite.

### **Lead ore deposits**

Galena deposits often contain significant amounts of silver as included silver sulfide mineral phases or as limited solid solution within the galena structure. These argentiferous galenas have long been the most important ore of silver in mining. In addition zinc, cadmium, antimony, arsenic and bismuth also occur in variable amounts in lead ores. Selenium substitutes for sulfur in the structure constituting a solid solution series. The lead telluride mineral altdgaitite has the same crystal structure as galena. Within the weathering or oxidation zone galena alters to anglesite (lead sulfate) or cerussite (lead carbonate). Galena exposed to acid mine drainage can be oxidized to anglesite by naturally occurring bacteria and archaea, in a process similar to bioleaching.

Galena deposits are found in Wales, it occurs most notably in the Mississippi Valley type deposits of the Lead Belt in southeastern Missouri, and in similar environments in Illinois, Iowa and Wisconsin. Galena also was a major mineral of the zinc-lead mines of the tri-state district around Joplin in southwestern Missouri and the adjoining areas of Kansas and Oklahoma. Galena is also an important ore mineral in the silver mining regions of Colorado, Idaho, Utah and Montana. Of the latter, the Coeur d'Alene district of northern Idaho was most prominent.

Galena is the official state mineral of the U. S. states: Missouri and Wisconsin.

**Color** - Lead gray, silvery, **Crystal Habit** - Cubes and octahedra, tabular and sometimes skeletal crystals, **Crystal system** - Isometric hexoctahedral, **Twining** - Contact and penetration, **Cleavage** - Cubic, **Fracture** - Subconchoidal, **Luster** - Metallic, **Streak** - Lead gray, **Specific Gravity** - 7.2-7.6, **Fusibility** - 2

## Galena uses

One of the earliest uses of galena was as kohl, which in Ancient Egypt, was applied around the eyes to reduce the glare of the desert sun and to repel flies, which were a potential source of disease.

Galena is a semiconductor with a small bandgap of about 0.4 eV which found use in early wireless communication systems. For example, it was used as the **crystal** in crystal radio sets, in which it was used as a point-contact diode to detect the radio signals. The galena crystal was used with a safety pin or similar sharp wire, which was known as a "cat's whisker". Making such wireless sets was a popular home hobby in the North of England during the 1930s. Derbyshire was one of the main areas where Galena was mined. Scientists that were linked to this application are Karl Ferdinand Braun and Sir Jagdish Bose. In modern wireless communication systems, galena detectors have been replaced by more reliable semiconductor devices, though silicon point-contact microwave detectors still exist in the market. (From Wikipedia)

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## Murphy's Lesser Known Laws

1. Light travels faster than sound. This is why some people appear bright until you hear them speak.
2. Change is inevitable, except from a vending machine.
3. Those who live by the sword get shot by those who don't.
4. Nothing is foolproof to a sufficiently talented fool.
5. The 50-50-90 rule: Anytime you have 50-50 chance of getting something right, there's a 90% probability you'll get it wrong.
6. If you line up all the cars in the world end to end, someone would be stupid enough to try to pass them, five or six at a time, on a hill, in the fog.
7. The things that come to those who wait will be the scraggly junk left by those who got there first.
8. The shin bone is a device for finding furniture in a dark room.
9. A fine is a tax for doing wrong. A tax is a fine for doing well.
10. When you go into court, you are putting yourself into the hands of 12 people who weren't smart enough to get out.

Source: AFMS Newsletter 02/08

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## Mines and Minerals of Socorro Peak, New Mexico

by *Ramon S. DeMark*

The Socorro Peak mining district is quiet today, but 120 years ago it was a different story. The town of Socorro, also known then as the "Gem City" was alive with mining and smelting activity, and there was great hope for a bright future (Silver City Southwest Sentinel, 1889).

During the early 1880s as many as 150 oxen and mule teams were busy hauling lead and silver ores from the Magdalena district (Kelly, Graphic, and other mines west of Socorro; Eveleth, 1983). They pushed through Blue Canyon on the south side of Socorro Peak ("M" Mountain) to the busy smelters of Gustav Billing in Park City, 2 mi west of Socorro. The ores from the Socorro Peak district also added to the activity. The Socorro Chieftain (1892) cites that "768,410 oz of silver came from Socorro Mountain mines: one half from Tarrance and the rest from Merritt, Silver Bar, and New Find." Enthusiasm was riding high during this time. The Socorro Tunnel Mining Company of New Mexico

prospectus (Robinson, 1881) uses the word "immense" on many occasions to describe the ore body and cites the "extensive deposits of auriferous rock that occurs." With regard to the mines on Socorro Peak, the Socorro Chieftain also writes: "It is a well known fact that these claims are permeated with an inexhaustible supply of silver in a chloride form." This is not exactly true because in 1904, Fayette Jones reported: "This once prominent smelting plant is now practically dismantled and with the dying fires of its stacks, the life of the Socorro district passed out."

Today we can still see the dumps of the mine shafts and the tunnels that fired the dreams of the early prospectors, miners, and residents of Socorro. On the east face of Socorro Peak they remain a silent testimony to the activity that once dominated the area. Much of the production history of these mines has been lost, and little of the mineralogy has been documented. In *Rocks and Minerals* magazine geologist and mineral collector Will Moats offers the most comprehensive information on the minerals of Socorro Peak (Moats, 1991).

These days the mines of Socorro Peak beckon to the mineral collector, but access to the mines is only possible through the written approval of the Energetic Materials Research Test Center (EMRTC), an affiliate of the New Mexico Institute of Mining and Technology. With the approval of EMRTC, I was able to visit the following Socorro Peak mines in preparation for this presentation: May Flower, Socorro (Woods) Tunnel, Silver Bar, Dewey Load, Merritt, Torrance, and the Maine Tunnel.

In most cases, hazardous underground conditions, vertical shafts, and collapsed drifts prevent underground inspection and collecting, but the mine dumps can produce most, if not all, of the minerals of interest to collectors (primarily microminerals).

Minerals collected during this investigation include: mottramite, mimetite, vanadinite, wulfenite, willemite, hemimorphite, bromargyrite/ chlorargyrite, barite, malachite, cerussite, chrysocolla, calcite, quartz, and gypsum. Caledonite, descloizite, and linarite (Moats, 1991) and argentite/acanthite and fluorite (Lasky, 1932) have been reported but were not observed.

#### Acknowledgments

I would like to thank EMRTC director, Dr. John Meason, and associate director of administration and support, Mr. Rudy Correa, for granting permission to visit and collect at the Socorro Peak mines. I would also like to thank EMRTC engineer and raconteur, Mr. Alan Perryman, for his helpful assistance and for his company while visiting the mines. (From News Nuggets – April 2008)

### A little Humor!!!



"The last thing I remember is being thrown into the dryer."

## TRILOBITES

Trilobites lived in the ancient seas for 340 million years, first appearing during what is known as the Cambrian Explosion, when oxygen released by plants made development of sophisticated animals possible. These widespread marine animals were outnumbered by many other soft-bodied species, but their hard shells, or *carapaces*, made good fossils. These facts, and the variety of forms they evolved over time, make them excellent index fossils to the drift of continental masses.

Trilobites belong to Arthropodia, the phylum of creatures with jointed legs such as spiders, insects, shrimp, and their relative, the modern horseshoe crab, which trilobites resemble. Their name, three lobed, refers to the plainly visible division of their bodies into the center axis -- called an *axial lobe* -- and the *pleural lobes* to either side. Most of them were not large, though some reached 70 centimeters (a little over two feet) in length.

Physically, trilobites are notable for two innovations. The first one is their carapace, which incorporated the mineral calcium carbonate to give it strength. This resulted in the growing trilobite having to *molt*, or shed its carapace, many times during its life. The resulting cast-off shells are part of the fossil record along with the remains of the creatures themselves. The second -- and possibly the most crucial from a human perspective -- innovation is that they are the first life form to develop eyes. While these were compound eyes, very similar in form to the ones insects have today, ultimately they led to the binocular vision which is our primary way of perceiving the world.

Trilobites reached the apex of their development by the end of the Cambrian Period, about 500 million years ago, but they were abundant through the end of the Permian Period (230 million years ago), when about 90 to 95% of marine species became extinct.

Information for this article came, in part, from *Trilobites*, by Riccardo Levi-Setti. Source -- Mama's Minerals



## Fieldtrip Report(s)

On November 13<sup>th</sup> my son and I traveled to Southern Illinois (Hardin County) to see an acquaintance about some fluorite. I had heard that he was still mining fluorospar so we contacted him and had to go check it out. After we arrived and made friends with his dogs, we spent a good bit of time looking at spectacular samples and talking about his operations. We even were able to look at his personal pictures of the work going on

around his claim. The art of cleaving fluorite octahedrons was demonstrated. We were amazed. At the end of the visit I came away with some very nice pieces, one has cubes at 4 inches!

On the way back home I had some time to stop by Knob Creek in Jefferson county Kentucky to search for geodes. But the weather was very cold and rainy so I only spent about 15 minutes there. I was able however to come away with some nice smaller geodes about the size of an apple. Several were lined with quartz crystals. One even has crystals with a slight amethyst color.

## Meeting minutes

### MIAMI VALLEY MINERAL & GEM CLUB MINUTES

November 9, 2008 MINUTES

President, Tim Fosberg, called the meeting to order at 2:00 pm with members present from the MVGMC and the Dayton Gem and mineral club. Due to the nature of this meeting at Wittenburg we dispensed with the normal procedures and quickly turned the meeting over our host. Therefore no further minutes were taken.

## Regional Events

### DECEMBER:

**13-14: HOPKINS (MINNEAPOLIS), MN. Anoka County Gem and Mineral Club WINTER SHOW. NEW LOCATION, NEW HOURS!** Eisenhower Community Center, 1001 Highway 7. Sat. 10:00-4:30, Sun. 11:00-4:30. Dealers will be selling minerals, fossils, rocks, gems, jewelry, agates, petri-fied wood, and fluorescent minerals and equipment. Admission: FREE, plus FREE parking! CON-TACT: Martha Miss, 8445 Grange Boulevard, Cottage Grove, MN 55016, (651) 459-0343, [rockbiz8@cs.com](mailto:rockbiz8@cs.com).

**13-14: SHEBOYGAN FALLS, WI. Glacial Drifters Geologic Society 4TH ANNUAL ROCK, FOSSIL, MINERAL, AND JEWELRY SHOW.** Sheboygan Falls Municipal Building, 375 Buffalo Street. Sat. 10:00-5:00, Sun. 10:00-4:00. 13 dealers selling rocks, mineral specimens, fossils, and jewelry. Additional features: club sales table; mineral, fossil, and lapidary displays; demonstration of silver smithing; Kids Activity Area; and food! *Gold Panning Competition!* Specialist will be on hand to answer questions about polishing and identifying your rocks or fossils. Admission: Adults and Students \$2, Children under 12 FREE, plus FREE parking! CONTACT: Kevin Ponzio, (920) 980-6413, [earthprospect@verizon.net](mailto:earthprospect@verizon.net), or Rich Gall, (920) 207-4405, [richgall@yahoo.com](mailto:richgall@yahoo.com).

### JANUARY:

**24: LINCOLN, NE. Lincoln Gem and Mineral Club ANNUAL INDOOR SWAP.** Bethany Park Shelter House, 6500 Vine Street (65th and Vine Streets). Sat 1:00-5:00. CONTACT: Pat Akins, Jr., 5017 NW 6th Street, Lincoln, NE 68521, (402) 477-1322.

### JANUARY-FEBRUARY:

**MOUNT CLEMENS, MI. Macomb County Gem and Lapidary Society 3RD ANNUAL ROCK AND MINERAL WORKSHOP.** Classes to assist students, grades 3-6, in Science Olympiad Competition. CONTACT: Richard Brzozowski, 40217 Spitz Drive, Sterling Heights, MI 48313, (586) 264-5576.