

THE ROCKHOUND RECORD

Volume 74, Issue 5 Newsletter for the Mineralogical Society of Arizona May 2008

NEXT MEETING: FRI. MAY 9TH 7 PM

MEETING TOPIC & SPEAKER **SELENITE CAVES OF MEXICO**

Bob Jones will be our speaker at the May 9th meeting. The topic is the selenite caves in Naica, Mexico. Naica is a lead, zinc & silver mine in which large voids have been found containing crystals of selenite (gypsum) as large as 4 ft. in diameter & 50 ft. long. Bob Jones has had a very busy & full life & still going strong. He is a life member of the MSA, joined in 1960, and is one of our past presidents. Bob was a science teacher for 32 years and is the author of 4 books, working on his 5th. Bob has given hundreds of lectures to gem & mineral societies, written 700 articles for Rock & Gem Magazine, & is Senior Consulting Editor of Rock & Gem since 1998. Bob had a new mineral named after him in 2003, was elected to the Rockhound Hall of Fame in 1991, and received the Carnegie Mineralogical Award in Education in 1999.



PRESIDENT'S MESSAGE

By ED NICHOLS

I have mixed feelings about our approaching summer weather. It means my wife and I have an excuse to head for the mountains more often, but the desert mineral, agate, and geology locations are off limits due to my inability to handle the heat.

Our April field trip to Hewitt Canyon was partly successful. We were able to collect nice marble samples, but I could not find a fossil location in the canyon. The canyon has changed considerably since January of 2006. Monsoon flash flooding and a huge increase in vegetation due to winter rains changes looks of terrain.

I want to thank two of our club geologists, Leo Langland for his two presentations at our meetings, and Ray Grant for his articles on Mineral Collecting and geology of Arizona. I have never been on a field trip or for that matter a fishing trip and not been fascinated by the varied geology here in Arizona. Thanks to the professional geologists and the articles they have written my enjoyment continues.

Hope to see all our members at the May 9th meeting.



ARIZONA MINERAL COLLECTOR

NUMBER 110

By Raymond Grant

This is a continuation of last month's column about "Basalt to wulfenite or how Arizona got so many minerals". The Precambrian, Laramide, and mid-Tertiary ore deposits in Arizona were all initially deposited as sulfides. Gold is an exception to this and was deposited as native gold. Pyrite, chalcopyrite, bornite, galena, sphalerite and molybdenite were the common minerals formed. Hot sulfur rich seawater leached these metals out of rocks that contained very small amounts of the metals. They were then deposited as sulfides as volcanogenic, porphyry copper, replacement or vein deposits. Because of Arizona's plate tectonic history there are a large number of deposits in the state.

When the sulfur in the sulfides reacts with air and ground water, large quantities of sulfuric acid are formed. The metals, especially copper and iron are dissolved in this acid solution and will percolate downward. If these solutions are

neutralized such as in contact with limestone, they will form carbonate minerals. If they reach the water table where conditions are more reducing the copper in solution will replace the iron in pyrite and chalcopyrite forming chalcocite. Chalcocite contains about 80% copper and forms rich supergene zones. In all the major mining districts in Arizona the early miners all went for the supergene zones which could have up to 12% copper. The present day large copper mines are generally mining lower grade primary ore.

Above the supergene zone where conditions are oxidizing is the oxidized zone. Many different minerals all containing oxygen as part of the formula can be found in this zone. There are well over 100 minerals with combinations of copper, lead, zinc, molybdenum and other elements found in this zone. The iron from the pyrite forms iron oxides that are the most common minerals in this zone. The early prospectors would search for these rusty areas as clues to rich ore below. The copper will form malachite, azurite, chrysocolla, and cuprite, Lead minerals include cerussite, anglesite, and vanadinite. Zinc minerals include smithsonite and hemimorphite.

So wulfenite (lead molybdate), that is so common in Arizona, starts as minute quantities of lead and molybdenum in basalt. The lead and molybdenum go through a series of geological processes including sea floor spreading, black smokers, subduction, igneous intrusions, weathering and oxidation and eventually form wulfenite.

MSA MAY FIELD TRIP

Saturday, May 17, 2008

Our field trip for May will be to the Mazatzal Mountains.

We go north on Hwy. 87 to the top of Slate Creek Hill. Turn left at the top of the hill. Go west 2 miles on the Old Hwy. 87 and turn right, another 1.5 miles and turn right up the hill. Road is good for cars, pickups, etc. The road winds on switchbacks to the top of the mountain where it ends at the upper end of Barnhart Trailhead.

Colorful jasper and epidote and some quartz crystals are found at several locations in this Mazatzal Mountain area.

I will have maps available at the May 9th meeting and at the meeting place on Shea Blvd. We meet on Shea Blvd. at the Shell gas station this is close to the Hwy. 87 entrance at 9:00 am and leave there at 9:30 am. It is approximately 32 miles from Shea Blvd. and Hwy 87 to the Slate Creek Hill exit.

Bring usual rock pick and lite digging tools. This 5500 hundred foot elevation is usually cool and almost always windy. A lite jacket for morning a good idea and plenty of water or your favorite soft drinks.

COALITION TRIP

PAYSON RIMSTONES ROCK CLUB

Sunday, April 27th - 10 AM
AGATE MOUNTAIN

Meet 9:45 AM @ Star Valley Circle K;
Leave Star Valley Circle K
@10:05AM

High clearance is advisable; jeeps work well. Road is better then last year.

Float material available; but boulders are there for pounding on...also light lavender amethyst material is a hike around the base of the mountain to an old mine area.

Bring usual tools; lots of water; lunch; chairs; white shirts to reflect the heat; and boots as ground is uneven to mine.

Fun for all ages!

Call if you have questions:

Lynne Wheeler 928-472-7170
Payson, AZ verizon cell 928-978-4062

ROCK SHOWS

May 3-4, 2008

Kingman Annual Show

Kingman Academy of Learning
3419 Harrison St. Kingman, AZ

Sponsored by:
Mohave County Gemstones.

Displays, silent auction, dealers, raffle
and door prizes.

Hours: Sat. 9-5, Sun. 9-4
Admission: Free

Contact: Dave or Pete at 928-692-3797
or 928-565-4321, or write Mohave
County Gemstoners Club, P.O. Box
3992, Kingman, AZ 86402, or e-mail
Dave at tpatt2ts@unneedspeed.net

May 24-25, 2008

Pinetop-Lakeside White Mountain Gem & Mineral Show

Blue Ridge Jr. High (gym & Café)
1200 W. White Blvd., Lakeside, AZ
85929

Sponsored by:
White Mt. Gem & Mineral
Club

Admission: \$2:00, students under 16
free / Parking: Free
Hours: Sat. 9-6, Sun. 9-4

Show and Dealer Chairperson: Nanz
Marshall, 5011 Forest View Rd.
Lakeside, AZ 85929, 928-537-2524

**May 24-25, 2008 Bisbee. Bisbee
Mineral**

Show. Queen Mine Tour 478 Dart
Road, Bisbee, AZ 85603
Sponsored by: City of Bisbee, Bisbee
Mining Historical Museum, and
Bisbee
Chamber of Commerce
Admission: Free
Parking: Free
Hours: Sat. & Sun. 9-5
Show and Dealer Chairperson:
Douglas Graeme, 520-432-2071,
dgraeme@cityofbisbee.com

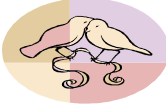
MAY EVENTS OF INTEREST

There is still time to see the rare and
beautiful Hubert C. de Monmonier
Collection on display until May 31,
2008 at **The University of Arizona
Mineral Museum at Flandrau: The
UA Science Center.**

Check out 871 mineral specimens of
extraordinary beauty from every
continent except Antarctica, including
precious metals from gold to platinum,
unusual gwindel and faden quartz
specimens, and portions of de
Monmonier's collection of 300 classic
mineralogy books. The collection is the
finest, largest, and most diverse
collection that the Museum has ever
received.

Regular Museum Hours are Thursday 9
a.m. - 3 p.m. and 6 p.m. - 9 p.m. Friday
9 a.m. - 3 p.m. and 6 p.m. - 9 p.m.
Saturday Noon - 9 p.m. Sunday Noon -
5 p.m.

Cost of Admission The cost of
admission is \$5.00 per person, age 4
and up.



IN MEMORIAM....

We have lost two more longtime members. William Rowe "Bill" Kent, 89, and Doris Lew Kent, 85, of Phoenix, passed away on March 11, 2008.

Doris was born in Jamaica, NY; Bill was born in Brooklyn, NY and served in the United States Merchant Marine during WWII. During his lifetime, Bill worked in the banking, aeronautical, and electronics industries. Doris was a secretary for many years. They relocated to Phoenix with their family from the New York City area in 1959. Bill started his hobby of collecting rocks and minerals while still residing in New York & continued his hobby in Arizona.

He and Doris joined the Mineralogical Society of Arizona in January of 1960 and were active members until late 2007.

Doris and Bill are survived by two children, Paul Kent of Phoenix, and Kathlyn Reynolds of Lititz, PA; five grandchildren, and two great grandchildren.

They're remembered as always smiling & friendly. Betty Deming remembers that several years ago Doris won a pendant in our show raffle and that she had worn it often.

Our deepest condolences to the Kent family.

MSA Contact Info:

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(Club Trips) Ed Nichols (480) 636-1251

Treasurer and Coalition Field Trip
Coordinator: Betty Deming
(602) 242-1553

Email address bd_mac2003@yahoo.com

Secretary and Vice-President: Positions
vacant. Interested? Contact Ed Nichols

Newsletter Editor: Heather Hill-Oliverson
Email address: sagegirl777@juno.com

Mineral Curator: John McLaughlin (623)
979-5246

Librarian/Door Prizes/Hospitality
Bob Holm (623) 247-1325

Refreshments: Lynne Dyer
(480) 396-2393

MSA BOARD OF GOVERNORS:

LYNNE DYER, TERRY DYER
BOB HOLM, K.J. WERNER

Say Hello to Our New Members!

Edna Luft & Scott Dickens

Bill Hornbuckle

The Oliverson Family:
Matt, Heather and Liz

Steve & Mary Pegler

**HEATHER HILL-OLIVERSON
MINERALOGICAL SOCIETY OF ARIZONA
1502 W. Washington Street
Phoenix, AZ 85007**

ADDRESS CORRECTION REQUESTED
www.azminerals.com



FIRST CLASS MAIL

Exchange Editors: Please send all newsletters to the return address listed above.

**Mineralogical Society of Arizona
Founded 1935
A Non Profit Organization**

Purpose: To promote popular interest in the various Earth Sciences, and particularly the fields of Geology, Lapidary, Mineralogy, and related subjects.

ID badges are available from the Treasurer.

Meetings: 7:00 p.m. at the Arizona Mining and Mineral Museum, 1502 W. Washington, Phoenix, AZ - on the second Friday of the month, September through June (*except February, which is the third Friday*).

Dues: Adults – Single Adults \$12.00, Juniors (18 yrs. and under) -\$2.50, Families & Couples - \$20.00.

**Mail dues to Betty Deming at
2922 W. Claremont, Phoenix, AZ 85017**

The Mineralogical Society of Arizona is a member of the American Federation of Mineralogical Societies and the Rocky Mountain Federation of Mineralogical Societies.



www.amfed.org

www.rmfmms.org

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