

The Rockhound Record

75th Anniversary Year - 1935 - 2010

Mineralogical Society of Arizona - December 2010 - Volume 76, Issue 10



Christmas Party

**Friday, December 10, 2010 - 6:00 - 9:00 p.m.
(replaces regular meeting)**

**Oaxaca Restaurante Y Cantina
1516 West Van Buren Street
(Northwest Corner of 15th Avenue & Van Buren)
Phoenix, AZ, 85007
(602) 258-0804**

There have been some changes regarding the party since the November meeting, so for the members who signed up, please read this notice. They serve Mexican and American food. Instead of buffet style, we can order from the menu. I have 33 members on my list so far. It might help if you call me, if you plan on coming and are not on the list yet. To view the menu, go to:

*<http://www.oaxacaphoenix.com>
(click on "Menu" link)*

Hope to see you there,

**Betty L. Deming
602-242-1553
bd_mac2003@yahoo.com**

IMPORTANT NOTICE!!

Follow the fate of the Arizona Mining and Mineral Museum on Mineral Museum Madness at:

www.minmumad.blogspot.com

New posts will continue to appear as information becomes available.



President's Message

First, let me say to you all: Have a Happy Holiday Season and a Great New Year!

Remember to sign up to work the Flagg Show. We also need some extra rock specimens to use as prizes for the wheel. If you have anything that would appeal to the people that spin the wheel, bring to the Flagg show to be used for prizes.

OBSIDIAN: Obsidian is one of my favorite materials to try to work with because of its historical uses. Obsidian was valued in Stone Age cultures because, like flint, it could be fractured to produce sharp blades or arrowheads. Like all glass and some other types of naturally occurring rocks, obsidian breaks with a characteristic conchoidal fracture, it was also polished to create early mirrors.

Modern archaeologists have developed a relative dating system, obsidian hydration dating, to calculate the age of obsidian artifacts.

ORIGIN AND PROPERTIES: Obsidian is mineral-like, but not a true mineral because as a glass it is not crystalline; in addition, its composition is too complex to comprise a single mineral. It is sometimes classified as mineraloid. Though obsidian is dark in color similar to mafic rocks such as basalt, obsidian's composition is extremely felsic. Obsidian consists mainly of SiO₂ (silicon dioxide), usually 70% or more. Crystalline rocks with obsidian's composition include granite and rhyolite. Because obsidian is metastable at the Earth's surface, no obsidian has been found that is older than Cretaceous age.

Pure obsidian is dark in appearance, though the color varies depending on the presence of impurities. Iron and magnesium typically give the obsidian a dark green to brown to black color. Very few samples are nearly colorless. In some stone, the inclusion of small, white, radially clustered crystals of cristobalite in the black glass produce a blotchy or snowflake pattern.

Obsidian is found most anywhere volcanic action has taken place. There is a lot of obsidian to be found in Arizona.

HAPPY HUNTING,
Roger Deming



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Terry Dyer
Bob Holm
David Lay

ARIZONA MINERAL COLLECTOR NUMBER 134



By Dr. Raymond Grant

If anybody in the club read last month's column, and ran out to collect basketball size garnets, please let me know. I would like to know if you found one and carried it up that hill. In that vein, what are some of the other large crystals found in Arizona?

How about eight-inch pyrite crystals, that are reported from the Three R mine, Patagonia Mountains, Santa Cruz County. Or six-inch or larger wulfenite crystals reported from the Glove mine, Santa Cruz County. Maybe everything is bigger in Santa Cruz County?

Staying with the Santa Cruz theme, quartz crystals up to two feet long from the Belmont and Lead King properties. Of course, large quartz crystals are found many places.

The largest crystals are found in pegmatites. These crystals may set records, but usually are not great looking and make good yard rock. For example, beryl as bluish-green crystals up to nine feet long, from Groom peak, the G and M pegmatite, located 15 miles southwest of Wikieup, Mohave County. I went looking for this one, but never found the mine. Spodumene crystals up to 21 feet long found in the White Picacho district, Maricopa County. One of the best minerals found in pegmatites is gem tourmaline (elbaite).

Several times I have heard stories (but have never seen specimens) about good pink tourmaline from Arizona (maybe even gemmy crystals). They are reported, not from the White Picacho district, but from west of Wickenburg. I have not looked in that area, but here are a couple of possibilities: the Spodumene Nos. 1 and 2 located in the SE part of T7N, R4W and Vulture Spodumene deposit near the center of T6N, R5W. These locations are not too specific and I don't know if the Department of Mines has more information on these locations.

There are at least 10,000 mines, prospects, other places of interest to mineral collectors around Arizona and at least one of them has something great that has not been found.



Dues Are Due

Dues are due for the 2011 year. Please see me at the meeting or send to my address. Dues are as follows:

Families & Couples: \$20.00
Single Adults: \$12.00
Juniors (under 18 yrs): \$2.50
Life members: (Club Member 25 yrs.):
No Charge

Betty L. Deming
2922 W. Claremont St.
Phoenix, AZ 85017



Treasurer's Dream

Author Unknown

I fell asleep the other night
and while I had my snooze
I dreamed each member
stepped right up
and promptly paid his dues.
But when I found it was a dream,
I nearly had a fit.
It's up to you to make it true,
so won't you please REMIT?

From The RockCollector, 12/2005

The Night Before Christmas
(Rockhound Style with Apologies)
By Edna F. Pauli
Golden Spike Gem & Mineral Society



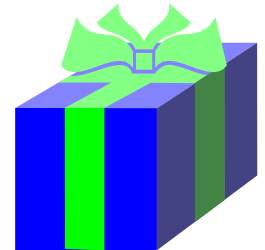
'Twas the night before Christmas and all through the house,
Note a creature was stirring, there wasn't room for a mouse
With geodes and nodules under table and chair,
A wee little mouse couldn't squeeze in anywhere.



The children were nestled all snug in their beds,
As visions of fossil fish swam through their heads.
And Mother, dreaming of Opal and me of a lap.
Had just settled down for a long winter's nap.



When out in the street there arose such a clatter,
I jumped out of bed, mad as a hatter!
Just as our clock tolled its 3:00 a.m. chime,
I opened the door and took a long look.



The sight that I saw there would make quite a book.
For parking in front with a roar and a squeak,
Was dear old St. Nick in a well-loaded jeep.
He paused just a moment to check his long list,
And make double certain no one would be missed.



There's agate, onyx, turquoise, and rhodonite,
Carnelian, crystal, sapphire, and malachite.
He named every stone I ever had heard,
And my heart was so happy it sang like a bird.



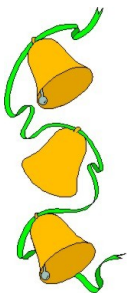
For rocks to a rockhound are really a must,
Right next to that stuff labeled, "In God We Trust."
It took quite a while to do this little chore,
But as soon as he'd finished, he came straight for our door!



And I can't understand, though I've honestly tried,
But before I could turn, he was right there inside.
He spoke not a word but went straight to his work.
And I stood there and watched though I felt like a "jerk."



For he knew what I wanted more than I did myself.
And was wise beyond reason, this right jolly old elf.
The gifts he had brought were trips for next year,
And the making of new friends from far and near.
The singing of old songs around campfires bright,
And being with the gang every rock meeting night.



He picked up his pack and prepared to depart,
And I gave him my thanks from the bottom of my heart.
For friendship we know is a wonderful gem,
And the principal key to "Peace Among Men."



He sprang to his jeep, and stepped on the gas,
And left 'mid the snowflakes which sparkled like glass.
But I heard him exclaim as he drove out of sight,
"Happy Christmas, Rockhounds, and to all a Good Night!"



RUBY THE BRIGHT RED GEMSTONE

*By Natalie Darling
from Gem & Mineral Journal, Dec. 2005
9th Place AFMS Adult Poetry Contest*

Sung to the tune of
"Rudolph the Red Nosed Reindeer"

You know Diamond & Sapphire, Emerald & Garnet,
Citrine and Topaz, Opal and Onyx,
But do you recall...The brightest gemstone of all

Ruby the bright red gemstone,
Moh's gives it a number 9
After you cut and polish it,
You can really see it shine!

Very few other gemstones,
Can say that they are quite as hard,
Oh, if I could only find one -
maybe in my own back yard.

Then I joined this group in town,
The gem and mineral club -
Ruby with your shine so bright,
You are closer in my sights.

Field trips and monthly workshops,
Collecting and sorting rocks-yipee
Ruby the bright red gemstone,
Someday you'll belong to me!



Rockhound Christmas Carol

Author Unknown

On the twelfth day of Christmas,
My true love gave to me,
Twelve tumblers tumbling,
Eleven perfect spear points,
Ten diamond saw blades,
Nine crystal clusters,
Eight agate nodules,
Seven sheets of silver,
Six sapphire "star" stones,
Five Golden Rings,
Four fluorescent lamps,
Three gem books,
Two trilobites,
And a branch from a petrified tree!

*Reprinted from
Rocky Tales, December 2006
via Quarry Quips. December 2004*

We are going to sell business card ads for our newsletter. If you are interested in advertising your business in this newsletter, please contact Lois Splendoria at **chimes30@q.com**. The rates are \$25 per year for MSA members and \$35 per year for non-members. Our first sponsor is Frank Burns, and a big thank you to Frank! Please remember him for your Home Inspection needs and tell your

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TURQUOISE

*Reprinted from the December 2010
Rimstones Review Newsletter
(PAYSON RIMSTONES ROCK CLUB)*

From WIKIPEDIA, the free encyclopedia

Turquoise is an opaque, blue-to-green mineral that is a hydrous phosphate of copper and aluminum, with the chemical formula $\text{CuAl}_6(\text{PO}_4)_4(\text{OH})_8 \cdot 4\text{H}_2\text{O}$. It is rare and valuable in finer grades and has been prized as a gem and ornamental stone for thousands of years owing to its unique hue. In recent times, turquoise, like most other opaque gems, has been devalued by the introduction of treatments, imitations, and synthetics onto the market.

Properties of Turquoise - Even the finest of turquoise is fracturable, reaching a maximum hardness of just under 6, or slightly more than window glass. Characteristically a cryptocrystalline mineral, turquoise almost never forms single crystals and all of its properties are highly variable. Its crystal system is proven to be triclinic via X-ray diffraction testing. With lower hardness comes lower specific gravity (2.60–2.90) and greater porosity: These properties are dependent on grain size. The lustre of turquoise is typically waxy to subvitreous, and transparency is usually opaque, but may be semi-translucent in thin sections. Color is as variable as the mineral's other properties, ranging from white to a powder blue to a sky blue, and from a blue-green to a yellowish green. The blue is attributed to idiochromatic hardness comes lower specific gravity (2.60–2.90) and greater porosity: These properties are dependent on grain size. The luster of turquoise is typically waxy to subvitreous, and transparency is usually opaque, but may be semitranslucent in thin sections. Color is as variable as the mineral's other properties, ranging from white to a powder blue to a sky blue, and from a blue-green to a yellowish green. The blue is attributed to idiochromatic copper while the green may be the result of either iron impurities (replacing aluminium) or dehydration. Turquoise is insoluble in all but heated hydrochloric acid. Its streak is a pale bluish white and its fracture is conchoidal, leaving a waxy luster. Despite its low hardness relative to other gems, turquoise takes a good polish. Turquoise may also be peppered with flecks of pyrite or interspersed with dark, spidery limonite veining.

Occurrence - Turquoise was among the first gems to be mined, and while many historic sites have been depleted, some are still worked to this day. These are all small-scale, often seasonal operations, owing to the limited scope and remoteness of the deposits. Most are worked by hand with little or no mechanization. However, turquoise is often recovered as a byproduct of large-scale copper mining operations, especially in the United States. The turquoise occurs as vein or seam fillings, and as compact nuggets; these are mostly small in size. While quite fine material—rivaling Iranian material in both color and durability—is sometimes found, most American turquoise is of a low grade (called "chalk turquoise"); high iron levels mean greens and yellows

predominate, and a typically friable consistency precludes use in jewelry in the turquoise's untreated state. Arizona is currently the most important producer of turquoise by value. Two mines exist in the state, one is the Sleeping Beauty Mine in Globe, the other is the Kingman Mine that operates alongside a copper mine outside of the city.

Treatments - Turquoise is treated to enhance both its color and durability (i.e., increased hardness and decreased porosity). As is so often the case with any precious stones, full disclosure about treatment is frequently not given. It is therefore left to gemologists to detect these treatments in suspect stones using a variety of testing methods—some of which are necessarily destructive. For example, the use of a heated probe applied to an inconspicuous spot will reveal oil, wax, or plastic treatment with certainty.

Waxing and Oiling - Historically, light waxing and oiling were the first treatments used in ancient times, providing a wetting effect, thereby enhancing the color and luster. This treatment is more or less acceptable by tradition, especially because treated turquoise is usually of a higher grade to begin with. Oiled and waxed stones are prone to "sweating" under even gentle heat or if exposed to too much sun, and they may develop a white surface film or bloom over time. (With some skill, oil and wax treatments can be restored.)

Valuation and Care - Hardness and richness of color are two of the major factors in determining the value of turquoise; while color is a matter of individual taste, generally speaking, the most desirable is a strong sky to "robin's egg" blue (in reference to the eggs of the American Robin). Whatever the color, turquoise should not be excessively soft or chalky; even if treated, such lesser material (to which most turquoise belongs) is liable to fade or discolor over time and will not hold up to normal use in jewelry. Turquoise is treated in many different ways, some more permanent and radical than others. Controversy exists as to whether some of these treatments should be acceptable, but one can be more or less forgiven universally: This is the *light* waxing or oiling applied to most gem turquoise to improve its color and luster; if the material is of high quality to begin with, very little of the wax or oil is absorbed and the turquoise therefore does not "rely" on this impermanent treatment for its beauty. All other factors being equal, untreated turquoise will always command a higher price. Bonded and "reconstituted" material is worth considerably less. Being a phosphate mineral, turquoise is inherently fragile and sensitive to solvents; perfume and other cosmetics will attack the finish and may alter the color of turquoise gems, as will skin oils, as will most commercial jewelry cleaning fluids. Prolonged exposure to direct sunlight may also discolor or dehydrate turquoise. Care should therefore be taken when wearing such jewels: cosmetics, including sunscreen and hair spray, should be applied before putting on turquoise jewelry, and they should not be worn to a beach or other sun-bathed environment. After use, turquoise should be gently cleaned with a soft cloth to avoid a build up of residue, and should be stored in its own container to avoid scratching by harder gems. Turquoise can also be adversely affected if stored in an airtight container.

General Meeting Minutes

November 12, 2010

Presented by Lois Splendoria, Secretary

The meeting was called to order by president Roger Deming at 7 p.m. Roger and Bob Holm introduced six visitors. Betty Deming presented the treasurer's report and reminded the group that dues are due for next year.

Roger reminded the members that we need mineral donations for the Wheel at the Flagg Show. He also said that the material at our storage area needs to be sorted before the show. There were two signup sheets at the front table, one for volunteers for the Flagg Show and another for the Christmas party. Roger asked everyone to note on the signup sheet how many miles they drive to work at the Flagg Show and how many hours they work.

Discussion followed about where to have the Christmas party, and whether to have a potluck again this year or go to a restaurant. It was decided to have it at Oaxaca at 15th Avenue and Van Buren. Joanne Hesterman announced that she needed museum flyers delivered to Arizona Mills Mall and asked if someone who lives in that part of the city could volunteer to deliver them.

Betty made an announcement about the Coalition Field Trip on Saturday, November 20, to Diamond Point to collect crystals. Details were in the November newsletter. Roger announced that there was a hike at Saddle Mountain on Saturday, November 13.

Roger announced that the club pins ordered to celebrate the club's 75th anniversary should be here before December. Price will be \$2 each for members and \$3 each for non-members. They cost 68 cents each to produced. There is a project under way to put all of the club's newsletters on CD to use as a resource for field collectors, since many field trip locations are outlined in these past publications.

Election of officers for 2011 was held. The members voted unanimously to elect Roger Deming as president, Ed Nichols as vice president, and Betty Deming as treasurer. The office of secretary was open with no candidates, since Lois Splendoria wishes to concentrate on the newsletter duties. One of our new members, Julia Tamasiunas, volunteered to be the secretary. Everyone thanked her profusely, including the newsletter editor, who offered to talk to her after the meeting to explain more about the position.

Our speaker for the evening, Jeff Cornoyer, Exploration Geologist for Rosemont Copper, was introduced. He presented an excellent program on the Rosemont Project. To read more about this, visit <http://www.rosemontcopper.com/>. After the program, the raffle was held and the meeting was adjourned.

PHOENIX AREA'S LARGEST GEM AND MINERAL SHOW

39th FLAGG GEM AND MINERAL SHOW (JEWELRY, GEMS, BEADS, FOSSILS, MINERALS, LAPIDARY SUPPLIES)

A GREAT FAMILY EVENT JANUARY 7, 8, 9, 2011 9 AM TO 5 PM EACH DAY

FREE PARKING FREE ADMISSION



FREE MINERAL SAMPLES FOR CHILDREN AND TEACHERS

BOOTHS BY LOCAL MINERAL AND LAPIDARY CLUBS, THE ARIZONA MINING AND MINERAL MUSEUM AND THE SUPERSTITION MOUNTAIN LOST DUTCHMAN MUSEUM

For more information, visit:
<http://www.azminfun.com/pdf/activities/FlaggFlyer2011.pdf>

LET'S GO TO A SHOW!

December

December 10-12, 2010 Tombstone

Tombstone Gem Show's 1st Annual

Miners' Mania Tombstone Territories RV Resort, 2111 E. Hwy. 82

Sponsored by: Rhinestone Cowboy, 520-457-9505

Website: www.tombstonegemshow.info

Admission and parking: Free

January

January 7-9, 2011 Mesa

Annual Flagg Gem & Mineral Show,

Mesa Community College, 1833 W. Southern Ave., west parking lot, Mesa, AZ

Sponsored by: Arizona Mineral and Mining Museum Foundation

Website: www.flagshow.info

Hours: Fri.-Sun. 9-5

Admission and parking: Free

Show Chairperson: Ray Grant, 480-814-9086, raycyn@cox.net

Dealers Contact: Lavone Archer, 480-969-0483, elabaso4@cox.net

Free samples and activities for children.

January 14-16, 2011 Globe

54th Annual Gila County Gem & Mineral Society Show

Gila County Fair Building, Hwy. 60, 3 miles north of jct. U.S. 60-70, Globe, AZ, 85501

Show site phone: 928-425-5924

Sponsored by: Gila County Gem & Mineral Society, P.O. Box 487, Miami, AZ 85539

Hours: Fri., Sat. 9-5, Sun. 9-4

Admission: \$2.00 donation, children free

Parking: Free

Show Chairman: Val Latham 602-466-3060, val65@cox.net

For a complete listing of shows for the 2010-2011 season, go to:

<http://www.admmr.state.az.us/Publications/circ136showlist2010-2011.pdf>

EDITOR'S NOTE: I wonder what will happen to all this good information once the Mineral Museum and its staff are no longer with us??? Tell them how much you appreciate them while they are still around. - *Lois Splendoria*

NEW 2011 SLATE OF OFFICERS

PRESIDENT - ROGER DEMING

VICE PRESIDENT - ED NICHOLS

TREASURER - BETTY DEMING

SECRETARY - JULIA TAMASIUNAS

LOIS SPLENDORIA
MINERALOGICAL SOCIETY OF ARIZONA
1502 West Washington
Phoenix, AZ 85007

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listed above.**

First Class Mail

Mineralogical Society of Arizona
Founded 1935
A Non Profit Organization
www.mineralogicalsocietyarizona.org

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: Families & Couples - \$20.00, Single Adults - \$12.00, Juniors (18 yrs. and under) - \$2.50. Please mail your dues to:

Betty Deming
2922 West Claremont
Phoenix, AZ 85017-1629

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UPCOMING MEETINGS	
FRIDAY	DECEMBER 10, 2010 CHRISTMAS PARTY
FRIDAY	JANUARY 14, 2011



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