

CRACK 'N CAB

Gem & Mineral Society of Syracuse, Inc.
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Program for January



Dr. Robert M. Ross from the Paleontological Research Institute in Ithaca, NY will talk about their new Museum of the Earth. Read the president's message on page 2 for a more complete description of the January 20th program.

Rob came in to PRI in March 1997, and is now the Director of Education, giving their educational programs guidance and direction. Rob received his

PhD from Harvard University in 1990, spent two years doing paleoceanography at the University of Kiel in Germany, and 4 1/2 years on the Faculty of Science at Shizuoka University in Japan.

Bob Livingston Skills Center News

The BL Skills Center is back in operation after the holiday break. If you are interested in taking a class or would like to teach a class contact **Betty Witworth** at 592-3473.

The 10-inch rock saw recently acquired by the GMSS for the BL Skills Center will be ready for cutting material shortly. The saw has been mounted on a table and with the addition of the required almag oil will be available for members use next week.



10 inch rock saw

Upcoming Programs

The February meeting will feature our own fellow member **Dr. Steven Chamberlain**. The topic of Dr. Chamberlain's presentation has not yet been announced.

Youth Group

Submitted by **Tim Hart**

At the past 2 meetings (Oct. & Nov.) we started a kids club meeting at 6:30 p.m. just prior to the general meeting.

At the first meeting we talked about the hardness scale that rockhounds use to help identify unknown minerals, and then we played Geology Bingo to reinforce what we learned about minerals. Bingo winners received tiger's eye stones and all who attended received samples of talc (hardness of 1) for their personal mineral collections. **Leda Gibbs** and **Nathaniel Hart** won door prizes, a nice piece of pyrite and a beautiful orthoceras fossil.

Our second meeting began with our young members creating Christmas tree ornaments out of obsidian arrowheads. Next we reviewed the information about Mohs' hardness scale that we learned at the last meeting and played Geology Bingo. **Ian & Cora Bechteller** and **Leda Gibbs** won door prizes. Everyone who attended the meeting received a sample of selenite (hardness of 2) for his or her mineral collections.

During the January meeting the kids will receive a sample of blue calcite (hardness of 3) and we'll watch a video about the Rock of Ages Quarry in Barre, Vermont. All who attend this meeting, will also receive a piece of granite from that quarry that might well have been on its way to becoming a monument. If we have any extra time at the end of the meeting we'll try to squeeze in some more of Geology Bingo.

Don't forget, the youth group meets before the main meeting at **6:30 PM**. If you are bringing youngsters with you consider arriving early to allow them to meet with others in their own group. If you are a young-at-heart adult you are welcome to join us. Mineral specimens are provided for youth group door prizes separate from the regular meeting door prizes.

Sunshine News

Bill Norris is recovering at home and in good spirits. The latest on **Dick Stimer** finds him feeling pretty good and is also at home awaiting further word from his doctors.

President's Message

Be careful what you wish for...

Did you ever wish for a stone and then find out it doesn't fit in the setting you have? So you have to go out and buy a new setting?

I have a nice shadow box, full of fossils on my wall, except for one section. I wanted to find a nice Trilobite to go in it. I found a wonderful Trilobite, but it's too big for the box. Guess I'll have to go build a custom box now, and I still have that empty spot.

Or how about wishing for a nice cabinet specimen, then when you find the perfect one, you end up needing a bigger cabinet, nicer light or stronger shelf to display it.

And do you know anyone, that when their wish for a new truck came true, they found out their garage was too small and the truck sits outside in the weather?

Well let me tell you about PRI's wishes....

The Paleontology Research Institution of Ithaca decided they would like a marine mammal skeleton to put on display at their museum someday. They added their name to a list of institutions waiting for skeletons. In May of 1999 a Northern Right Whale (#2030) was spotted entangled in fishing gear. Through out the summer, rescuers tried to free the whale to no avail. It finally died off the coast of New Jersey in October 1999 and the National Marine Fisheries Service notified PRI that a skeleton was available. And what a skeleton it was... a 45-foot long right whale.

At the time most of PRI's staff was in Colorado at a Geology convention, leaving only the junior staff manning the shop. After many phone calls to Colorado, they decided they wanted the skeleton. So the remaining staff and volunteers headed to New Jersey to begin the awful process of removing the flesh and transporting the skeleton to Ithaca. The bones were buried in sawdust and horse manure for over a year – allowing the insect life to finish the cleaning of the bones and the sawdust to soak out the oil. It became obvious the museum had no place to display a 45-foot long whale in their existing buildings.

So did PRI learn their lesson? Of course not. While the whale was still buried, they started wishing for a mammoth or mastodon skeleton casting. What they got was the Hyde Park mastodon skeleton, the real skeleton. It was painfully obvious they had no place for a mastodon and a whale.

So while the whale was being assembled in a temporary green house in back of the existing museum and the Hyde Park mastodon bones were being dried and readied for casting, PRI started wishing for a new museum to display these and some of their other smaller treasures in. And that is what our program this month is going to be on. How PRI's wish for a new museum has come together.

See you there...

**Jay Tinker
Club President**

Resolutions for the New Year

Submitted by **Harold Siegel**

Here is my New Years Resolution & advice for 2003!

Throw out nonessential numbers.

This includes age, weight and height.

Let the doctor worry about them (That is why we pay them).

Find and keep cheerful friends.

The grouches pull you down.

Keep learning.

Learn more about the computer, crafts, gardening, rock hounding... whatever.

Just never let the brain idle.

Enjoy the simple things.

When the children are young ...that is all that you can afford.

When they are in college ... that is all that you can afford.

When they are grown and you are on retirement ... that is all that you can afford!

Laugh often, long and loud.

Laugh until you gasp for breath.

Laugh so much that you can be tracked in the store by your distinctive laughter.

The tears happen. Endure, grieve, and move on.

The only person who is with us our entire life is ... ourselves.

Surround yourself with what you love, whether it is family, pets, keepsakes, music, plants, and hobbies ... whatever. Your home is your refuge.

Cherish your health.

If it is good ... preserve it. If it is unstable ... improve it.

If it is beyond what you can improve ... get help.

Don't take guilt trips.

Wherever you go ... do it all without guilt.

After all, remember we are just human.

All that we can really ask is that we learn from our mistakes.

Tell the people you love, that you love them ... at every opportunity.

Remember...

Life is not measured by the number of breaths we take, but by the moments that take our breath away!

Have a Healthy, Happy
and Prosperous New Year!



Web Sites – Fossils News

www.primitiveworlds.com Although this Website is a commercial site, it offers much more than an opportunity to purchase fossils. The site is maintained by some dedicated local collectors and shows some of the finest Silurian fossils ever found in the Rochester shale. While the fossils in the gallery are not for sale, a trip to this site is much like a tour of a virtual museum.

From Geoletter Nov02

This site contains information on what happened when the comet/asteroid that took out the dinosaurs hit the earth.

www.lpl.arizona.edu/SIC/news/chicxulub2.html

Sharon Ottilige reports, "While searching the web for fossil sites in Washington and Oregon, I found the following site (listed first). The directions for Old Blewett Pass were exact and we had a couple of fun hours collecting fossil leaves. The second and third sites listed also gave fossil locales by state. The second site is where I came across Fossil, OR. We stopped there and collected a few fossil leaves as well. In addition to fossil sites, I searched for geologic sites, petroglyphs, pictographs, and museums. We found a plethora of information and visited several of the sites."

<http://www.stonetrails/Walocs/Walocs.html>

<http://www.iwaynet.net/~mperona/fossil3.html>

<http://www.pressroom.com/~cromag/s-z.html>

from Dinny's Doin's Nov02

AFMS News

AFMS SCHOLARSHIP DOINGS

by Bob Livingston



Happy 2003! Starting off our "2003" year, in memory of Paul Shade, we acknowledge donations from Helen Shade of Bethesda, MD and Clyde and Nancy Shenk of Mentor, OH with credit going to the Gem, Lapidary and Mineral Society of Montgomery Co., MD. The Gulf Coast of Florida Fossil and Gem Club donated in memory of Robert "Sharky" Loster. We also received a donation direct from the Gem, Lapidary and Mineral Society of Montgomery Co., MD. We thank you all for getting us off and running so nicely for this most worthwhile program.

For "2002" here is the promised summary of donations through October 31:

Stamford Mineralogical Society was credited with four donations in memory of Herman Vener, Estelle Hoffman, Herman Blumenthal, and Hank Posthumus.

Gem and Mineral Society of Syracuse was credited with five donations in memory of **Harold Spath Sr.**, Hank Posthumus, and Evelyn Weinberger.

Gem Cutters Guild of Baltimore was credited with three donations in memory of Clyde H Barnett and Adeline Naron.

Manasota Rock & Gem Club credited with three donations in memory of Thomas Bancroft, Jr., Delores Gentry, and Albert White.

The American Fossil Federation donated in memory of Hank Posthumus.

Queens Mineral Society donated in memory of Mildred Trevis.

Gem Lapidary and Mineral Society of Washington, DC credited with an "unspecified" donation.

Last but not least was a donation by the Gem, Lapidary and Mineral Society of Montgomery Co., MD in memory of Hazel Shade.

Whether or not your club is listed here, please consider making a donation to honor a deserving past member who can live on in helping some future Earth Sciences graduate student with expenses via AFMS Scholarship program. Send check made out to "AFMS Scholarship Foundation", to Bob Livingston, Coordinator, 59 Ely Drive, Fayetteville, NY 13066-1001.

Shop Hints

Stabilizing Porous Stones

If you would like to try your luck at stabilizing porous stone, like turquoise, so it can be cut and polished, the Silvery Colorado Rock Club offers this hint: Take a jar with a lid and add one pint of acetone. To this, add the complete contents of both the resin and hardener tubes of epoxy glue. Mix well. Add well-dried stones. Cover the jar and let it sit for at least four days. Remove the stones and allow a week for them to dry. They should now be stabilized and ready to work.

From Conglomerate, via Lodestar 11/02

Winter Field Trip

Submitted by Loren Patterson

Cathy and I recently went to see the 3D film now showing in the Imax theatre at the MOST. The film takes you on an underground ride in something like an ore car but more like a roller-coaster ride. The images were not as sharp as I recall when I first saw the film in Rochester but still pretty thrilling. I suspect it may be a problem with the 3D spectacles provided.

In the exit hall of the theatre, we found two excellent cases of mineral specimens, nicely labeled with two plaques crediting them to **John Davis** and **Gene Ridall** respectively. However, there was no word of their club affiliation or a phone number for anyone looking for more information to call.

ASBESTOS

By Carl Miller

Asbestos is not actually a mineral; it is a term for certain minerals with microscopically fibrous crystals. In fact, asbestos is not even a mineral name approved by the IMA. It is commonly any one of a large number of minerals that is part of the Kaolinite-Serpentine group or part of the Amphibole group. Kaolinite-Serpentine group minerals with asbestiform occurrences include Antigorite, Clinochrysotile, Lizardite, Orthochrysotile, and Parachrysotile. Amphibole group minerals with asbestiform occurrences include Actinolite, Byssolite, Tremolite and Ferroactinolite. There are even a few non Kaolinite-Serpentine or Amphibole group minerals that can be asbestiform and can be considered "asbestos". Asbestos minerals are all part of the silicate class. The mineral that people most commonly think of as "asbestos" is actually chrysotile or parachrysotile. Chrysotile is named for its crystal structure and gets its name from the Greek root words chrysos "gold" and tilos - "fiber."

In addition to the many asbestiform mineral species names, asbestos has been known by many other names. Some of them are: Salamander's Wool, Mountain Flax, Mountain Leather, Amianthus, Chrysotile, Common-Asbestos, Mountain Cork, Devil's Felt, Rock Cork, Lizard's Hair, and Woolstone.

Asbestos was known and used for many years without knowing what it actually was. It was thought to be magical because it would not burn or deteriorate. This came from the fact that as early as 4000 BC asbestos was used for wicks in lamps and candles because it wouldn't burn away. Embalmed bodies of Egyptian pharaohs were wrapped in asbestos clothes to offset the ravages of time. Its name is the same as its Greek root, *asbestos*, meaning "unquenchable" or "inextinguishable". The Greek used it for wicks, and also used it in their cloth for blankets, tablecloths, and clothing. The Romans used it in their building materials and in cloth.

The Romans would clean asbestos napkins by throwing them into a fire, from which they would amazingly come out whiter. The Romans named asbestos, amiantus, which means "unpolluted". Charlemagne's tablecloth was made from woven asbestos.

At the turn of the first millennium asbestos was commonly used in the Mediterranean manufacturing. They used chrysotile from Cyprus and tremolite from upper Italy for making cremation cloths, mats and wicks for temple lamps. Although asbestos was widely used for thousands of years, no one really knew what it was.

It was commonly thought to be of supernatural origin or the wool of a lizard. Tartar scientists concluded that asbestos was made "of the root of a tree." Finally, in the late 13th century Marco Polo visited asbestos mines in China and concluded that asbestos was actually stone. This started to lie to rest the commonly held myth of that time that asbestos was the hair of a woolly lizard.

Some forms of asbestos are extremely hazardous to health. The tiny crystal fragments can become airborne and can be inhaled. This can lead to many types of lung problems including asbestosis and cancer. The negative effects to health have actually been noted for thousands of years. In the 1st century BC the Greek geographer Strabo noted a sickness of the lungs in slaves that wove asbestos cloth. In the 1st century AD the Roman naturalist Pliny the Elder noted that slaves working in asbestos mines died young of lung disease. Mineral specimens of asbestos should be kept sealed in clear containers for viewing unless an expert has looked at the specimen and assured you that it is not of a dangerous variety.

A couple of pieces of interesting asbestos trivia: In 1724 Benjamin Franklin brought a purse made of asbestos to England to show off. It is now in the Natural History Museum. The Wicked Witch of the West's broom in the movie 'The Wizard of Oz' was made of asbestos.

Submitted by Carl Miller (RGMS President)

From The Collecting Bag Aug02

Giant Crystal Cave Discovered

By BBC News Online's Jonathan Amos

A gigantic cave of crystals has been discovered in an old silver mine in Spain. The geode, which is eight meters (26ft) long and crammed full of gypsum prisms, has been put under police guard to prevent souvenir hunters from raiding the extraordinary natural phenomenon.

The geologist who announced the find, Javier Garcia-Guinea, wants to turn the site into a tourist attraction. He told BBC News Online that up to 10 people could sit inside the geode an object normally small enough to hold in your hands.

"Bending your body between the huge crystals is an incredible sensation," he said. "When I was young, I dreamt of flying, but never to go into a geode internally covered with transparent crystals."

The transparent crystals may have formed when much of the water in the Mediterranean evaporated about 5 or 6 million years ago. Rumors of the existence of a giant gypsum geode had been circulating among mineral collectors since December. But it was only on 28 May that Javier Garcia-Guinea, from the Spanish Council for Scientific Research (CSIC) in Madrid, finally managed to track down the cave.

Continued on page 5 – Crystal Cave

EFMLS News

SAFETY FIRST

by Bill Klose, EFMLS Safety Chair

COLLECTION SAFETY

As we form our mineral, fossil and rock collections, we pride ourselves in knowing what everything is, where it came from, how fragile or sharp it is and hopefully if any hazards are associated with any of the specimens in it. If you follow the auctions on the Internet, you will see many wonderful specimens from long ago played out or closed locations. Many of the descriptions of these specimens declare "from an old" or "estate" collection and do not provide any other data because of the lack of or loss of labels. Occasionally these specimens are so classic, that there is little doubt as to what they are or where they came from and if any hazards are associated with them. Most probably relatives of the original collector, who have no knowledge of or interest in them are disposing of these items. Many times collections just end up as land fill to dispose of them.

We are now aware of the hazards of disposing of household and industrial cleansers and chemicals because of strict labeling and disposal laws and education. But what about those rocks and minerals that have been dumped in back yards and landfills that may contain hazardous or break down into hazardous chemicals?

And what about the specimen that may represent one of the finest examples of its "species" or the fossil that is the original specimen ("type") of a species new to science, to which all other specimens of that species are compared. Many scientists described new species from specimens found in private collections.

Even if unlabeled specimens find their way into another collectors holdings, not knowing what it is may lead to it's destruction or create a hazard to the new owners health. Many minerals, such as sulfates and salts, will absorb moisture from the air and with time break down. Unstable Pyrite and Marcasite will break down into sulfuric acid and destroy specimens, labels, specimen boxes, and storage units. I have seen entire cabinets filled with white powder, where fine pyritized specimens from Alden, New York, France, and other locations once resided, because they were not properly stabilized. Some minerals are affected by sunlight or even indoor lighting and will alter into other chemicals (i.e. Eglestonite) or lose their color with prolonged exposure (i.e. Kunzite). Rocks that are poisonous can enter the water table or body tissues if not properly identified, labeled, handled, and stored. Some highly toxic or radioactive minerals are quite pretty or very plain and give no hint that they are dangerous and can enter the body if licked or the dust given off from them is inhaled.



The key to avoiding these problems is to properly label everything in a collection with name, location, geological age and formation when available or if a fossil, and any special handling instructions or hazards. The labels should be tied to a catalog and specimen by a permanent catalog number. If the specimen is valuable, have a price and date of purchase on the label or clearly identify as RARE. This information may also help appraise a collection for donation or sale. Type specimens of fossils should also be clearly identified on the specimen and label, with the original reference describing the new species sited on the label and in the catalog. It may be prudent to donate "type" specimens to a museum that provides specialized storage for such materials. Bear in mind that there is only one specimen of each species, the "type", and as such it is priceless and irreplaceable.

Proper storage of specimens is very important. Make sure that the containers and paper that you place or wrap specimens in is suitable for long-term storage and free from acids and other chemicals that in time could damage the specimens. Do not wrap specimens in newspaper or place in colored specimen boxes (i.e. some blacks) that give off chemicals. Consider the weight of your specimens when placing them on glass shelves in display cabinets. Also consider the weight of the total collection on the storage unit and the floor weight limit it is standing on. Keep your collection in areas that do not get too cold or hot, are dry, dust free, insect free and away from areas that tend to flood. Keep small, sharp, heavy, and hazardous specimens away from small children.

For a good indoor winter project, label and properly store your collection, so it can be safely enjoyed for years to come.

Crystal Cave – continued from page 4

"The crystals are absolutely transparent and perfect," he said. The geologist has searched the international literature and can find no other object to compare in size.



The geode - essentially a rock cavity that has become lined with crystalline deposits - is eight meters in length, 1.8 meters wide and 1.7 meters high (26 feet by 6 by 6).

The crystals of gypsum - hydrous calcium sulphate - are about half a meter in length.

<http://news.bbc.co.uk/1/health/tech/787776.stm>

from EFMS Website via The Leaverite Jan03