

Vista Gem & Mineral Society, P.O. Box 1641, Vista, CA 92085



To contribute articles and event notices, email to: Rockorder@sbcglobal.net

ALL ABOUT MALACHITE

Malachite ... calcium carbonate hydroxide ... is one of Catherine "Cathy" Davis' "favorite minerals," and she will teach us all about it at our September 20th meeting program.

A native of Southern California, Cathy started her lapidary training at age nine when her father was an

instructor with the Convair club. In 1986 she joined the San Diego Lapidary Society, plus she has been a long time member of the Gemological Society of San Diego (17 years), and the San Diego Mineral and Gem Society (15 years). Currently, Cathy serves as treasurer for the San Diego County Council, a position

that she has held for a number of years.

Recently, Cathy earned a "Graduate Gemologist" diploma from the Gemological Institute of America (GIA) in Carlsbad. She has taught gem identification for two years for the San Diego Mineral and Gem Society.

Continued...

STONE OF THE MONTH

AMBER

Amber, or fossil tree sap, is a beautiful material that is cut and polished and used as a valuable gemstone. It is also a fossil and can contain many preserved insects and other animals and plants that are tens of millions of years old. The odd inclusions that are often seen in amber usually add to amber's unique look and in many cases greatly increase its value.

The fossils that are encased in amber probably got there when they flew or crawled on to the fresh seeping sap and then got stuck. The sap oozed over the trapped animals and perhaps fell to the ground and was later covered by dirt and debris. The sap later hardened and became a fossil.

The fossils are mostly insects such as gnats, flies, wasps, bees and ants. Occasionally more exotic insects are trapped in the amber such as grasshoppers, preying mantises, beetles, moths, termites, butterflies, etc. Other non-insect animals are found in amber too such as spiders, centipedes,

scorpions and even frogs and lizards. No really large animals like mammals or birds are seen in amber but feathers and fur have been seen. Invaluable plant remains have also been found in amber including flowers, mushroom caps, seeds, leaves, stems, pine needles and pine cones. The rarity of the trapped fossils controls the value of the amber more so than the quality of the amber. Remember, these are fossils and are not the same species that are alive today. Amber has greatly increased the knowledge of the evolution of insects and plants as well as enlivening the interest in paleontology in general.

Amber is often imitated by plastics, colored glasses and some modern tree resins.



However, its hardness is usually greater and it is tougher than other resins. Its low specific gravity (amber can float on salt water) and inclusions can distinguish it from plastics and glasses.

- **Color** is amber yellow to orange.
- **Luster** is resinous.
- **Transparency:** Transparent to translucent.
- **Habits** include nodules embedded in shales or sandstones and those that are washed up on beaches.
- **Fracture** is conchoidal
- **Hardness** is 2+.
- **Specific Gravity** is approximately 1.1 (extremely light and can float in salty water).
- **Streak** is white.
- **Other Characteristics:** Can be burned, **fluorescent** under UV light and is much tougher (will not crumble as easily) than modern tree resins.
- **Notable Occurrences** include all Baltic countries; Venezuela; Russia; Romania; Burma; in coal seams in Wyoming, USA and the Dominican Republic.

What's Inside

Gem ID Class	2
From the President	3
Coming Events	3
Identifying Amber	4



More about Malachite...

Cathy is an excellent instructor! I know because I have taken her course. You have probably seen Cathy at some of the gem shows where she donates her time in the gem identification booth. She also donates her time doing lapidary lectures for clubs, and at the

nursing home where her husband resides. Cathy also cares for family members.

She is one busy lady and I am so pleased she is able to come to the VGMS. Bring family, friends, relatives, or other interested parties to hear her lecture and see a

display of her malachite collection on Thursday, January 17, 2008. It will be a wonderful way for our club to start the NEW YEAR.

Carolyn Jungwirth - Programs

Did you know?

Amber was applied to cure all diseases, just like aspirin was till not long ago

CLASS TO IDENTIFY THE COMMON MINERALS AND ROCKS PRESENTED BY PALOMAR GEM AND MINERAL CLUB

Although there are thousands of minerals and rocks, the majority of the earth's crust is made up of a small number of common minerals and a couple of dozen common rocks.

This class will teach participants to identify the common rocks and minerals. The class will also present information regarding the relationship and classification of rocks and minerals. No prior knowledge of chemistry or physics is necessary to identify rocks and minerals. The class will provide a manual and teach simple methods, "rules of thumb", and observations useful to make identification. Upon completion of the class, each participant should be able to identify the common rocks and minerals just as everyone is able to identify the common animals and plants.

Each session will last approximately two hours depending upon the participant's progress. Six

sessions will be required to complete the class. A manual will be provided to each participant attending the class. The manual outlines the information presented in the classes and includes tables useful for identification of rocks and minerals. This will be a "hands-on" sample identification class with instruction limited to information and methods necessary to identify rocks and minerals.

Theoretical and technical aspects of mineralogy and petrology will not be discussed. Each student should bring a notebook for taking notes. A ten-power hand lens and pocket knife will be useful and if a student does not own these items, they will be provided for use in the class. Each class will be limited to six participants and there will be a sign-up sheet for future classes if more than six people desire to take the class.

Classes will be held in the Palomar Gem and

Mineral Club's shop on Sunday afternoon from 1 to 3 PM. The fee will be \$42 to club members and \$62 to non-members for the entire course of six sessions.

The non-member fee includes the annual dues for a single Palomar Gem and Mineral Club membership. The first class will begin on Sunday February 24, 2008.

There will be no class on Sunday March 2nd because that is the club's annual show. The class will resume on March 9th and the course will end on April 6, 2008.

The class instructor will be Eugene Ciancanelli, Registered Professional California Geologist. Participants planning to attend the class should contact him preferably by e-mail at gene100@mac.com or else by telephone at 760-489-0969.

***For more information, call Diane Hall (760) 741-0433 or e-mail dhall13@cox.net** or call AnnieHeffner at (760) 855-8067*

By the time you read this it will be 2008 and we will all be another year older than we were at this time last year. Time seems to go by much faster after you retire. All in all, it has been a very good year and we've had some good times along with a few sad times.

The annual Christmas party was a great success, as usual, and we had more to eat than there were people to eat all the delicious food that so many folks brought. It was wonderful, but if we ate like that everyday we would weigh at least three hundred pounds in a very short time.

The gift exchange was a hoot and everybody seemed to really enjoy it. Of course, not everybody got the gift they started out with or maybe not even the one they wanted, but still we had a wonderful time and it was a fun way to celebrate an early Christmas.

I hope that every club member gets a chance to at visit Quartzite for at least one day during the month of January. If you haven't been there before, you are in for a treat. If you are an old-timer, it will be a chance to see old friends and perhaps find a few bargains to bring back with you. Either way, it is a trip well worth making.



Our January program is scheduled to be on malachite by Cathy Davis and should be well worth your time and effort to attend. Also, it's not too early to start thinking about a few items you might donate for the silent auction in March, which will be upon us before long. We seem to always to have an excellent auction that is well attended by all the other clubs. Anything you donate is always deeply appreciated. In closing, I hope that everyone got everything he or she wished for Christmas and had a wonderful New Years night. Enjoy the coming year!

Ray Pearce, VGMS President

COMING EVENTS

Jan. 1-27 – Laughlin, NV "Clouds Jamboree" at Avi Resort & Casino

Jan. 4-6 – Mesa, AZ 36th Flagg Gem & Mineral Show Mesa, AZ, 9 a.m. to 5 p.m.

January 19-20 -- Exeter, CA

Tule Gem & Mineral Society Gemboree
Veteran's Memorial Bldg. On Highway 65
Hours: Sat. 10 - 5, Sun. 10-4
Marshall Havner (559) 562-4133
Email: mdhavner@verizon.net

Jan 23-27--QUARTZSITE, ARIZONA: 42nd annual show, "QIA Pow Wow"; Quartzsite Improvement Association; 235 E. Ironwood Dr.; Wed. 9-5, Thu. 9-5, Fri. 9-5, Sat. 9-5, Sun. 9-5; free admission; more than 400 vendors, rocks, gems, minerals, beads, wire wrap supplies, jewelry, fossils, lapidary, field trips, displays, demonstrations; contact Diane Abbott, P.O. Box 881, Quartzsite, AZ 85346-0881, (928) 927-6325; e-mail: powwow@qiaaz.org; Web site: www.qiaaz.org

January 25-27 2008, Redlands, CA

The Mineralogical Society of Southern CA
43rd. Pacific Micromount Conference San Bernardino County Museum
2024 Orange Tree Lane (exit North on California St. from I-10)

Month of Feb – Tucson Gem & Mineral Shows

Identifying True Amber - Succinite □

Reprinted with permission from the author, Gary Platt

Since the screening of 'Jurassic Park' interest in the mineral amber has grown significantly. Unfortunately so has the quantity of fake amber coming on to the market. Some of these pieces have insect inclusions skillfully placed in the body of the matrix.

The British Natural History Museum recently discovered that a fly preserved in amber thought to be one of the oldest known examples of this particular species was in fact a fake and probably no more than 150 years old. (More about this fly later). Evidence of this nature, that even the best can be fooled, should alert all collectors to the possibility of being misled or simply cheated.

In some case copal, which is tree resin which has not yet fully fossilized to amber and may be anything up 3-4 million years old is described as true amber. Debate still rages in the UK about certain Kenyan deposits as to whether they should be called copal or amber and I have heard of similar arguments concerning deposits found in South America.

There are a number of simple tests that can be carried out on amber to check its authenticity. I have listed here all the basic methods I have come across. More sophisticated and complex tests are possible but they require access to laboratory equipment. These more complex tests include Refraction Index, Precise Specific Gravity and Melting Point.

When examining a specimen you should try at least 3 of the following methods detailed here. If the item in question fails any one of the tests, it could well mean the piece is not true amber.

Test 1 ... HARDNESS

Amber has hardness on Moh's scale in the region of 2 - 3. Using appropriate scratch sticks it should be reasonably straightforward to test

the sample under question.

Test 2 ... HOT NEEDLE

Heat a needlepoint in a flame until glowing red and then push the point into the sample for testing. With copal the needle melts the material quicker than amber and emits a light fragrant odor. Amber when tested does not melt as quickly as the copal and emits sooty fumes.

Test 3 ... SOLUBILITY

Copal will dissolve in acetone. This test can be done by dispensing the acetone from an eyedropper onto a clean surface of the test specimen. Place one drop on the surface of the test piece and allow to evaporate, then place a second drop on the same area. Copal will become tacky; amber will remain unaffected by contact with acetone.

Test 4 ... UV

Copal under a short-wave UV light shows hardly any color change. Amber fluoresces a pale shade of blue.

Test 5 ... FRICTION

Rub the specimen vigorously on a soft cloth. True amber may emit a faint resinous fragrance but copal may actually begin to soften and the surface become sticky. Amber will also become heavily charged with static electricity and will easily pick up small pieces of loose paper.

Test 6 ... TASTE

An antique trader who specialized in amber beads introduced this test to me. She explained that one of the most reliable tests she used was to taste the amber specimen after washing it in mild soapy water and then plain water. Whilst she could make no distinction between copal and amber, she could easily identify plastics and other common substitutes because of their unpleasant or chemical taste. Amber has hardly any taste at all. As a method for identification I have not

seen this procedure recorded elsewhere. I can vouch for its effectiveness as a non-destructive method of differentiating between amber and certain other substances often misleadingly labeled amber.

TEST 7 ... FLOTATION (Specific Gravity)

Mix 23gms of standard table salt with 200ml of lukewarm water. Stir until completely dissolved. Amber should float in such a mixture and some copals together with various plastics sink.

TEST 8 ... INCLUSIONS

Infrequently amber contains Flora or Fauna inclusions. Correctly identifying the trapped Insect or plant should be an excellent indicator of a piece's authenticity. Most inclusions from ancient amber are of species that are now extinct or significantly changed. Frequently present in Baltic amber are tiny [stellate hairs](#) which are released by oak buds during their early growth and some time after. [If you go to <http://www.gplatt.demon.co.uk/identify.htm> you can click on [stellate hairs](#). - Ed.]

TEST 9 ... POLARIZED LIGHT

Place the suspect piece of 'amber' between two sheets of polarizing glass or plastic. (Kokin Filter Systems who sell lens accessories for cameras sell such products). Rotate one of the polarizing lenses slowly through 360 degrees. In the body of the amber a display of rainbow colors should cycle through the transparent parts of

Continued on p. 6

it Was A Surprise!

Betty Kramer accomplished something that is hard to do: She put one over on Montie.

Surreptitiously, she arranged for a gathering of friends at the Sun Hing Buffet December 9 to celebrate his 60th birthday. Over thirty well-wishers ... half of them VGMS members ... enjoyed the fete.

The cake was apropos, featuring



what looked like a photo ... but was actually part of the cake ... of a miner and his burro in the desert. The cake, by the way, was delicious, as was the buffet fare.

Good going, Betty!

By Sharron Smith



identifying Amber continued

the material. This is due to interference patterns being induced in the polarized light because of the internal strains and stresses within the amber itself. My general experience with this method is that genuine amber and copal always show these color changes, where as some acrylics, polymers and certain plastic do not. Amber, which has been drilled and then later filled with a contemporary inclusion and resin also, reveals its self via the clear disruption of the color display. Essentially; an amber piece which does not show interference patterns is unlikely to be true amber.

TEST 10 ... KNIFE CUT

With a sharp knife, try to shave off a tiny piece of the amber from an unobtrusive section. Real amber fractures and splinters. Plastic and polymers actually cut

and tiny shaved pieces can be removed without any splintering of the material.

Anyone wishing to find out more about amber in general or these test methods specifically would do well to consult one of **three books** currently available on amber, they are:

Life In Amber

George O. Poinar, Jr.
Stanford University Press
ISBN: 0-8047-2001-0

Amber: The Golden Gem of the Ages

Patty C. Rice
The Kosciuszko
Foundation, Inc.
ISBN: 0-917-00720-5

Amber: Window to the Past

David Grimaldi
Harry N Abrams
ISBN: 0-8109-1966-4

Now back to the fly I mentioned earlier. I am

afraid that only the eighth and ninth tests would have identified this particular fake. The item consisted of a block of true amber into which had been drilled a hole large enough to receive the dead fly. Resin, which had been melted, was then poured back over the insect, encasing it in an apparently genuine amber prison.

The author is always interested in discussing and listening to stories about amber. Please feel free to contact him through any of the following:

Garry Platt

81 Buxton Road
Furness Vale
High Peak, Derbyshire.
SK23 7PL.
United Kingdom
Tel No: +44 (0)1663
745367.
E Mail:
garry@gplatt.demon.co.uk



- Amber stores static electricity, named elektron by the ancient Greeks. Elektron evolved into the English term "electricity."
- When rubbed, the gem attracts lint. Amber was used to remove lint by the Phoenicians & Etruscans & was therefore nicknamed "Straw Thief" in Turkey.
- Amber is the lightest weight & softest of all gems (a diamond is hardest). It is one of only a handful of gems of vegetative, not mineral, origin. The others are pearl, jet & coral.
- Amber is warm against the skin. In contrast, minerals and glass are heavier and cooler than room temperature. Stones like jade, lapis and turquoise feel cool or even cold to the touch, but amber feels warm. This, along with its obvious sunny color, is why it is known as "sunshine" to Lithuanians.
- True amber is light enough to float in salt water, if not weighed down by other substances (like silver), but it won't float to the top, it floats like soap would in a bathtub. This quality probably helped in its discovery—inhabitants of the Baltic Sea area can still find raw amber washed up on the shore after storms.

**The Rockorder
Bulletin of Vista Gem & Mineral Society
P.O. Box 1641
Vista, CA 92085-1641**

Membership in this Society is open to anyone interested in mineralogy, gemology, and related educational subjects. Regular meetings are held

The **3rd Thursday** of each month except July and August at

**Gloria McClellan (Senior) Center
1400 Vale Terrace
Bregle Terrace Park
Vista, CA
7:30 P.M.**

Please send exchange Bulletins to:
Cherie Wilson
4904 Amador Dr.
Oceanside, CA 92056-4969

**Vista Gem & Mineral Society
Officers for 2007**

- President Ray Pearce 726-7570
- 1st Vice President Barbara Gelman
- 2nd Vice President..... Cherie Wilson 941-7073
- Treasurer Mary Anne Mital 758-4599
- CFMS Rep Fred Wilson 433-8446
- County Council Rep Ray Pearce
- Secretary Debbie George,

Committee Chairpeople

- Programs Carolyn Jungwirth
- Publicity Lois Harr 724-0395
- Bulletin Co-editor..... Dawn Zimmer
- Bulletin Co-editor Aleta Dirdo 726-4486
- Lapidary School Fred Wilson, Ray Pearce
- Educational Svcs Carolyn Elliott 295-6505
- Sunshine Carol Pelly 630-5674
- Field Trips Ray Pearce 726-7570
- Field Trips Monte Hazen 940-0379
- Hospitality Ruby & Ernie Schmidt 724-4737
- Hospitality Sue Wilson 433-8446
- Hospitality Ellie Page
- Membership Sharron Smith 724-8673
- Finance Director Calvin North 433-9527
- Ways & Means Laura Stearn

Application for Membership Vista Gem & Mineral Society

All information for club use only

Date _____

Last Name First Nickname

Spouse and Children

Street Address City Zip Phone

E-mail address

Are you willing to take part in Committee work? _____

Please list any special talents and abilities _____

Dues (includes bulletin):	Family (husband, wife & children under 18)	\$25.00 year
	Couple	\$22.00
	Single member	\$12.00

Please make checks payable to Vista Gem & Mineral Society
P.O. Box 1641, Vista, CA 92085-1641
For more information phone (760) 724-0395 or (760) 758-4599

VISTA GEM & MINERAL SOCIETY
P.O. BOX 1641
VISTA, CA 92085-1641



Jan 17 – VGMS meeting

Jan – Quartzite shows

Feb – Tucson Gem & Mineral shows

