

HUI PŌHAKU 'Ō HAWAI'I

Rock & Mineral Society of Hawai'i, Inc.



Meeting Times

MEETING

Wednesday

January 26

6:15-8:00 pm

Makiki District Park

Admin Building

NEXT MEETING

Wednesday

February 22

LAPIDARY

Every Thursday

6:30-8:30pm

Makiki District Park

2nd floor Arts and
Crafts bldg

MEMBERSHIP

DUE COSTS 2011

Single: \$10.00

Family: \$15.00

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Garnets

By Dean Sakabe

The first topic for the 2012 will be Garnets. Garnets are a group of differently colored minerals which have similar crystal structure and related chemical composition. The Garnet's name derives from the Latin word "granum," meaning grain, because of the rounded crystals and similarity to the seeds of the pomegranate.

Spessartine Garnets, Fujian
Province, China

Garnets possess a high index of refraction. Most garnets are red in color, leading to the erroneous belief that all garnets are red, but garnets occur in every color, except blue, and can even be transparent or even change color. These garnets are mostly pyrope and spessartite in composition. Garnets lack cleavage and are very durable; they have a hardness of 7-7.5. All of these are the qualities desired in gemstones, however, many people consider garnets to be inferior to other colored gems. Sadly, it could be the general widespread abundance of (lower quality) garnets, and a lower price.



The most common crystal shape for garnets is the rhombic dodecahedron, a twelve sided crystal with diamond-shaped (rhombic) faces. The Wrangell Garnet Ledge in Alaska has been producing burgundy colored garnets which have the classic crystal shape. This claim has been decided to the Boy Scouts of America.

Almandine Garnets, Wrangell Ledge, Alaska



Garnets

Emerald Creek in Idaho has been the site for the best quality six-sided Star Garnets, Asteriated Almandine Garnets. There are also four-sided star garnets at this location as well as at North Carolina and other garnet spots around the globe. Please go to this site for instructions to find the star garnets :

http://www.ehow.com/how_7552076_star-garnets-idaho.html

The colorful members of the garnet group:

Almandite: A red garnet with violet tint

Andradite: A black, brown, yellow-brown garnet

Demantoid: The most valuable garnet, being green to emerald green

Grossularite: A colorless, green, yellow, or brown garnet

Hessonite: A brown-red variety of garnet

Hydro grossular: An opaque greenish variety of grossularite

Leuco garnet: A colorless variety of grossularite

Melanite: An opaque black variety of andradite

Pyrope red garnet: A garnet with a frequently with brown tint

Rhodolite: A purplish red or rose-color garnet

Spessartite: An orange to red-brown garnet, and the best specimen comes from Namibia called "Mandarin Spessartine"

Tapazolite: A yellow to lemon yellow topaz-like variety of andradite

Tsavorite: A green to emerald green garnet

Uvarovite: An emerald green garnet that rarely occurs in gemstone quality

Grossular Garnets, Black Lake Mine, Thetford,
Quebec, Canada

A famous garnet sold for \$145,000 at the auction of the Estate of Jacqueline Kennedy-Onassis at Sotheby's on April 24, 1996. It was a striking cabochon garnet flower brooch from the 19th century.

Also in 1996, but in Central Australia, a university student unearthed what is believed to be the largest single garnet find ever. This giant rough is thought to weight thousands of tons and measures nearly a hundred feet across.



Garnets

Melanite Garnet, El Azabache Mine, Lazaro Gardenas, Chihuahua, Mexico



Hessonite Garnet, Jeffrey Mine, Quebec, Canada

At the Kunene River, on the border between Namibia and Angola, a deposit of orange to red Spessartites garnet was discovered. The

spessartite was originally named after the site of a find in Germany. However until this discovery, there were hardly any found, and very little used in jewellery. With the trade name “mandarine garnet”, this find produced fine orange garnets, although for a very short time.

Demantoid Garnets from Namibia show a vivid light green to a deep bluish-green. Their brilliance is quite striking, but they are missing the tell tale Demantoid characteristic. Demantoid garnets can be identified at first glance through a microscope. All of the Demantoid have a “horsetail-inclusions”, radial crystal rays of golden yellow Byssolith. However, these are missing in the relatively inclusion-free gemstones from Namibia. Although inclusions are normally not something one wants in gemstones, but Demantoids are different. A well-shaped horse tail inclusion in Demantoids will considerably increase the value of a stone. Many gemstone collectors are willing to pay extra for such interesting characteristics.

Prehnite with Grossular Garnet, Vesper Peak, Snohomish Co., Washington

So should you be offered a Demantoid, take a look at it through a microscope. If the stone is of Russian origin, you may see some fibers and strands similar to a horsetail. In this case, you will have reliable proof about the origin of the stone, thereby proving it is among the rare and valuable gemstone of the world, with a comparable price.

If one happens to take a wrong turn somewhere, and you end up in the Adirondacks, you can try and visit the Woodrow estates. Or for a very nominal fee, go to the Garnet Mine Tours. Here the self proclaimed hardest garnet in the world is only found on Gore



Garnets

Mountain, making the garnet extremely rare. The Barton garnet has an unusual and beautiful ruby red color that flashes in the sun. In 1969, the Governor of New York, Nelson Rockefeller, made the Barton garnet the New York State Gemstone. <http://garnetminetours.com/mines.html>

In Ely, Nevada there is a Garnet Hill Recreation Area. Here one can work the rhyolitic volcanic rock searching for the garnet vugs. http://nevada-outback-gems.com/Rockhound/Nevada_garnet_Ely.htm

I would give directions for the Ant Hill garnets, which is close by four corners, but it is on Navaho land, and hard to get to. These are small Pyrope garnets that ants bring to the surface when digging out of their homes. Optimum word is small, since as the ants have to bring them to the surface, they cannot be large.

If one finds oneself in western North Carolina, particularly the Ashville, Franklin, Hiddenite areas, you will find numerous "Mines" one can go to. Yes, you will primarily be drawn to the Ruby and Sapphire mines, this is natural, who wouldn't? However, do not turn down the opportunity to go to the Rhodolite mines. There are quite a few of them. From here, it's the same Rock Hound drill:

Get Bucket (or dig your dirt into buckets)

Screen dirt

Enjoy finding stuff

Go back to step one.

This site lists the mines in Western North Carolina. <http://www.ashevillenow.com/outdoor-activities/gem-mineral-mining/western-nc-gem-mines/>

Tsavorite Garnet, Merelani Hills, Arusha, Tanzania



Color Change Garnet, Tanzania



WE HAVE A FACEBOOK PAGE! LET'S GO LIKE IT!

HTTP://WWW.FACEBOOK.COM/PAGES/ROCK-AND-MINERAL-SOCIETY-OF-HAWAII/103902329673700?v=WALL&REF=SGM
 MAHALO TO MARKUS FOR ESTABLISHING OUR *ROCK FACE!*

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The Rock & Mineral Society meets on the 4th Wednesday of each month (except for adjusted dates in November and December) at the Makiki District Park, 7:00 - 9:00 pm. Enter from Keeaumoku Street. Parking is free but limited.

The Newsletter is published monthly, some days prior to the meetings and is distributed in electronic format by email (Adobe Acrobat PDF file attachment). Printed copies are "snail" mailed to those who do not have email. The electronic format usually contains full-color images; the print version may be limited to B&W due to reproduction costs.

DOOR PRIZES

Please note that we have instituted door prize drawings at our monthly meetings. Because of Hawaii's gambling laws, these drawings cannot be conducted in the common "raffle" format where tickets are sold. Rather, each *paid* member attending the meeting will receive a drawing ticket upon request. A voluntary donation of \$1.00 is requested and encouraged. Drawings will be conducted at the end of the meeting with available prizes awarded in random order. You must be present to win. Please remember: if you win a prize, please bring one to the next meeting. This helps to keep our drawings going. Thank you.

Parking at Makiki Park

Parking along Keeaumoku St. starts at 5:30

After that, good luck because it drops off really fast!



Mele Kalikimaka!

Thank you for participating in a superfun Holiday Party! Prizes and laughter were appreciated by all!

We had a lovely 2011, and we wish all of you a wonderful 2012. Hau'oli Makahiki Hou!

Grossular Garnets with Vesuvianite, Jeffery Mine, Quebec, Canada





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