

HUI PŌHAKU 'Ō HAWAII

Rock & Mineral Society of Hawai'i, Inc.



Meeting Times

MEETING

Wednesday
April 25, 2018

6:15-8:00 pm
Makiki District Park
Admin Building

Next Months Topic
Iron Based Minerals

LAPIDARY

Every Thursday
6:00-8:30pm
Makiki District Park
2nd floor Arts and
Crafts Bldg

MEMBERSHIP

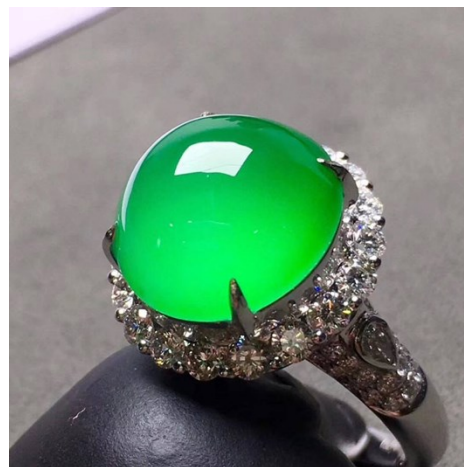
DUE COSTS 2018

Single: \$10.00
Family: \$15.00

© Rock & Mineral Society of
Hawai'i, Inc.
P.O. Box 23020
Honolulu, HI
96823-3020

Jadeite and Nephrite By Dean Sakabe

April's topic will be Jadeite and Nephrite. In other words Really Good Jade and Good Jade. Yes, as indicated these two minerals are commonly grouped together and just called Jade. Some of the time one can tell the difference between Jadeite and Nephrite, however this is primarily when one is talking about really good Jadeite and not as good Nephrite. When one is comparing good or not as good Jadeite versus good Nephrite these can be misidentified as they do tend to look similar. I would say



Green Jadeite Ring

purchase from reputable shops and the primary difference is in what you pay for your jewelry. Jadeite will cost you more than Nephrite. How much, it just depends it could be 25 times more or if one is contemplating top of the line Imperial Jadeite then you are looking at 1000 or more times what the best Nephrite would fetch.

Jadeite is a Sodium, Aluminum, Silicate, whereas Nephrite is a Calcium, Magnesium, Iron Silicate. So yes, chemically these two can be distinguished from each other. Furthermore Jadeite is composed of inter-grown and interlocking crystals which will let it become more transparent and one is also able to cut very thin pendants. Whereas Nephrite is more fibrous with growth patterns. Which makes it darker and less translucent.



Yellow Jadeite Pendant

All jade is composed of fine-grained, highly inter-grown, interlocking crystals of one or both of these minerals. Jade is not a very hard mineral, usually around a 6 – 7 on the mohs scale.

Jadeite and Nephrite

However, Jade is just about the toughest gem minerals known, primarily because of the inter-grown nature of the individual crystals. That does not mean that you should bounce your bangle on the ground, as they will eventually break, but it allows the lapidaries to cut the pendants very thin, so that the translucency and internal colors are enhanced.

Most of the Jade in the market is composed of nephrite.

Why, because there is a lot more Nephrite rough available than Jadeite.

Nephrite jade ranges in color from a somewhat greasy-appearing white (mutton fat jade), to light and dark shades of green, gray, blue-green, yellow, orange, brown, reddish-brown, and black. A dark green variety of nephrite is sometimes known as "spinach Jade". In the case of Siberian Jade there are Chromophores in the Nephrite, usually iron, which causes bright spots in the green stone. Nephrite jade is usually opaque to translucent.



Ice Jade Bangle



Madagascar Chalcedony made to look like an Ice Jade Bangle

With the exception of some really fine British Columbian Jade (i.e. Polar Jade) and some of New Zealand's Green Stone, which have excellent color and translucency.

Nephrite jewelry dating back to 8,000 BC has been excavated in China, as all Jade in China is Nephrite. China has been importing Jadeite from Burma only from around the 18th Century.

Gem quality Jadeite is rare and the emerald-green, translucent form, referred to as imperial Jade is extremely. The small amount of Chromium in Jadeite accounts for the color of imperial Jade. Jadeite also comes in other colors such as a dark green, semi-translucent Jade, Apple Green Jade, Yellow Jade, Red Jade, Purple Jade, Moss-in-Snow Jade (white Jade with vivid green spots and streaks). Additionally there are the purer form of Jadeite i.e. Water Jade or Ice Jade these have no trace minerals which would cause color changes in the Jadeite. Hence these have no significant color.



12 ton Boulder at Polar Mountain, BC, Canada

Most of the rough Jadeite and Nephrite are classified in two very general categories. River jade, such as the Jadeite recovered from the alluvial deposits in the Uru River. These usually have a thin skin and prized for being more "compacted" by the tumbling action of the water. In other words

Jadeite and Nephrite



Guatemala Jadeite

the softer outside portion has been eroded away leaving the hard inner portion of the nugget. The other category is Mountain Jade. This is the majority of the Jade, as the name implies, this is any Jade that is mined. These tend to have a thicker rind or skin covering the jade which completely obscures the color of the jade.

One note, is that reddish orange to Brown colored Jade is only found in iron rich soil. Natural iron oxide leaches thru the skin of the jadeite and will stained the Jade. Heat may also be applied to the Jade to intensify and further saturate the orange color throughout the jade.

Jadeite is predominately mined in Burma and Guatemala. There are small deposits in San Benito Co., California and Okayama, Japan, however these deposits are not large enough for commercial mining

to take place.

The Turkish Purple Jade is a combination of Jadeite, Quartz, and Feldspar with Jadeite comprising about 60% of the mixture. It is indeed Purple, however it is not translucent, just normally a uniform purple colored stone.

Nephrite on the other hand can be found thru out the world. Northwestern US, including Alaska and California has multiple with Nephrite deposits. Western Canada, New Zealand, China, Russia, Taiwan, Japan

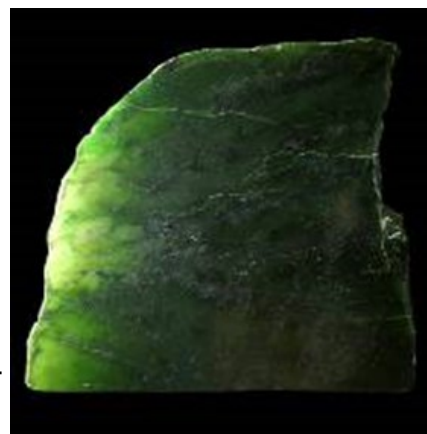
Nephrite being more fibrous is exceedingly tough. It has been used in ancient times as Adzes, Battle Axes and also knives can be made from Nephrite. Presently there are canoe makers who are more productive with their stone Adz versus a Steel Adz.

In the small town of Cowell, Australia lies some of the finest black Nephrite in the world. It is very fine-grained and overall black to olive green shades.

New Zealand Nephrite or Greenstone is formed deep in the Southern Alps. Called Pounamu in New Zealand, it is normally found in rivers. In obtaining rough Pounamu one will also know where the Pounamu was found and in which river.



Happy Camp Jade (Californite)



Nephrite, Jordsnow, Poland

In the US, most of the Nephrite has been found in Washington State or Wyoming (of which Wyoming Jade is the Wyoming State Gemstone). However in California, particularly at Big Sur, one might be able to find nuggets on the shore line. Or if they are more intrepid dive along the shore to look for jade nuggets.

Officers

President

Matthew Martin

Info@naturalhistorylab.com

Vice President/ Admin.

Jon Bly

BLYJ1966@gmail.com

Vice President/ Lapidary

Dean Sakabe

Dean.d.sakabe@verizon.com

(808) 282-6681

Treasurer

Debbie Iijima

Secretary

Blair Isitani

Newsletter Editor

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, 6:15-8 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.

Dennis Todd, a visitor from Palmerston, New Zealand will give a little talk on New Zealand. This will include the Geology of NZ, the active mines in NZ, the minerals of NZ, wherer fossils were found in NZ, and finally where earth quakes have occurred in NZ.

He will also be bringing fossils and minerals in hopes to trade for other fossils and minerals.

HUI PŌHAKU 'Ō HAWAII 
Rock & Mineral Society of Hawai'i, Inc.

P.O. Box 23020

Honolulu, HI 96823-3020