

# HUI PŌHAKU 'Ō HAWAII

## Rock & Mineral Society of Hawai'i, Inc.



### Meeting Times

#### MEETING

Wednesday  
January 24, 2018

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

February 2018  
Phenomena Gems

#### 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

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Hawai'i, Inc.  
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Honolulu, HI  
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### White Minerals By Dean Sakabe

The first topic for 2018 is "White Minerals." Now I could start with gemstones such as Diamonds, Silver Sapphires, Topaz, Ice Jade, Mutton Fat Jade, or even Opals. However it shall be none of these. Instead we will go on the opposite end of the spectrum; Non-precious White Quartz.

This common silicon dioxide (SiO<sub>2</sub>), is the second most abundant mineral in the earth's crust. We are talking about the non-crystalline, massive plain white quartz. So this begs the question of why quartz. Well it is white and just about everyone has some around somewhere. However in

some places other minerals grow with in the quartz. Such as in the gold mines in Northern California jewelry grade Gold in Quartz is found. In other mines crystalline gold has been found encased in quartz. Here instead of the being sent to the stamping



Gold on Quartz, Colorado Quartz mine, Mariposa, California



Elbaite in Quartz, White Rocks Quarry, Middlesex Co., Connecticut

processors for the gold to be pounded out, instead the gold is carefully acid etched out of the quartz to revile truly beautiful collector specimens.

Tourmaline is another mineral with an affinity for Quartz. Tourmalated Quartz is a staple jewelry item. Whereas most of the tourmaline is fine black crystals, one also finds Rubellite and Elbaite encased in quartz.

Finally most Chinese jewelry

## White Minerals

places will not be complete without their selection of Titanium. This of course is the golden rutilated quartz. However not the sparse thick rutile sprays. We are talking about the very thick (base side) of the rutilated quartz which is practically all golden colored.

White Marble is a metamorphic rock that forms when limestone is subjected to the heat and pressure of metamorphism. It is composed primarily of the mineral calcite ( $\text{CaCO}_3$ ) and whereas it usually contains other minerals, such as clay minerals, micas, quartz, pyrite, iron oxides, and graphite. White Marble does not contain other minerals. The marble quarries of Carrara, Italy have been producing white marble for generations. Michelangelo's David created around 1504 used white marble from the central valley in Carrara.



White marble, Lincoln Memorial

In the US, Danby Marble Quarry in Vermont has supplied white marble for use in the Jefferson Memorial and the Supreme Court Building. Not to be out done, the Calcatta Lincoln Quarry in Colorado has supplied white marble for use, appropriately enough in the Lincoln Memorial.

Calcium Carbonate forms as Aragonite and Calcite. Differing only by their crystallization. The more common Calcite forms in Trigonal crystals, whereas Aragonite forms Orthorhombic crystals. In general Calcite will form from precipitating calcium rich water inside caverns or on limestone cliffs. In caves these will be stalagmites, stalactites, flowstones, and globular egg shaped things. Aragonite on the other hand generally develop at hot springs.



Aragonite

In the Koolau's where one finds a lot of mosquito's. Scattered around the lava vesicles one can find a hydrated amorphous form of Silica, commonly called opal. Granted it is basically white patch. However it is still opal, just it is a uniform white with no color or fire at all. Just white, the outside green skin does not count as color. This opal is white.

Halite, the natural form of Salt can be found in large solid masses and as a dissolved solution in the oceans and in Salt Lakes. Halite also exists in non-arid regions, in underground deposits which can reach great depths.

Underground Halite deposits are often mined by drilling wells into the salt layer, then inducing hot water to dissolve the salt into a brine, which is then pumped out. The brine evaporates and the remaining salt recrystallizes. Halite also forms from evaporation at salt springs where saline water comes out of the ground in a salt deposit and precipitates as rounded globular masses. In Texas and Louisiana some of these salt deposits have pushed upwards through the soft ground forming salt domes. After which these are then mined.

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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, 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.

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