



THE MINERAL VEIN

Official Newsletter of

THE MINERAL SOCIETY OF MANITOBA

February 2019

FEBRUARY SPEAKER

William (Bill) Hood, P.Geo will be providing a geological and Mineralogical historical back ground on Tourmaline which involves the "Dutch East India Company" and the Crown Jewels.



Tourmaline Crystals with Lapidolite and Cleavelandite, 20cm from the Cranberry Blue Pocket. Note extremely large Lapidolite Mica Crystal to the left of the Tourmaline. Private collection; James Elliot photo

MSM JAN MEETING SUMMARY

By Jack Bauer

Now Amir travels the World sourcing specimens to grow his collection and supplement his income. He currently has plans to visit the Tucson Gem and Mineral show, near the end of January and in to Feb.

Amir prefers to focus on "facet rough" and high quality mineral crystals. Facet rough; is a loose term that refers to gem quality mineral fragments, found in the "as is" condition and sold as a parcel. Parcels could be a grouping of three pieces to as many as 33+ pieces.

Cont. on pg. 3

A BRIEF STUDY IN CRYSTALLOGRAPHY

(PART ONE)

By Jack Bauer

Crystal symmetry and natural crystal characteristics have always amazed me. I will briefly talk about crystal growth, morphology some interesting features and characteristics that unique crystals display.

Crystallography is a very important tool to help identify minerals in combination with other field tests that are available. *(cont. on page 3)*

This is a three part series delving into the history of Crystallography, watch for part two in next months newsletter.



A robot baby T-Rex in Barcelona, Spain

Cornell Rock, sent us this picture when he was in Barcelona, Spain, of a Robot baby T-Rex with a live rider on it. If you didn't look closely, you might almost think he was riding a horse. Stay tuned for the video at the May meeting when Cornel Rock will provide a presentation on his epic trip.

THE MINERAL SOCIETY OF MANITOBA

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The Mineral Vein is published monthly from September to June.

Meetings are held on the first Wednesday of each month from September to May inclusive at the Manitoba Museum in room P47 on the Planetarium level. They begin at 7:30 PM and feature announcements, an invited speaker and a raffle. Members are encouraged to bring along any new, interesting specimens, or specimens appropriate to the speaker's topic.

Field Trips take place from May to September to interesting sites in Manitoba or neighbouring provinces and states.

Membership: A single membership is \$15 while a family membership is \$20. Memberships run from October to October.

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UPCOMING EVENTS

FEBRURAY MEETING: will be on **Wednesday February 06, 2019** at 7:30 p.m. At the Manitoba Museum where William (Bill) Hood, P.Geo will be speaking.

MARCH MEETING: March 6, 2019 MSM regular monthly meeting begins at **7:00 p.m.** at the Manitoba Museum. This month speaker is Dr. Eva Pip, she will be talking about Amber.

APRIL MEETING: April 3, 2019 We will have Dr. Graham Young, *curator at the Manitoba Museum*. He will be speaking about the geology of the Legislature building, yes, where the golden boy lives.

MAY MEETING: May 01, 2019 MSM regular monthly meeting begins at **7:00 p.m.** at the Manitoba Museum. speaker will be Cornel Rock sharing his story about his Mineral journey from around the world.



Founded in 1971, the Mineral Society of Manitoba is dedicated to promoting the study of minerals, rocks and fossils for their scientific and recreational value. The Mineral Society of Manitoba hosts monthly meetings covering a variety of mineral related topics. In addition, the Mineral Society organizes summer field trips to collecting localities, and hosts educational exhibits about minerals and fossils.

JANUARY MEETING SUMMARY

(cont. from pg. 1)

Close examination and study are needed to determine how to best cut the rough stone. Type of cut design is important to consider, in order to maximize the size of the cut stone and to minimize the waste.

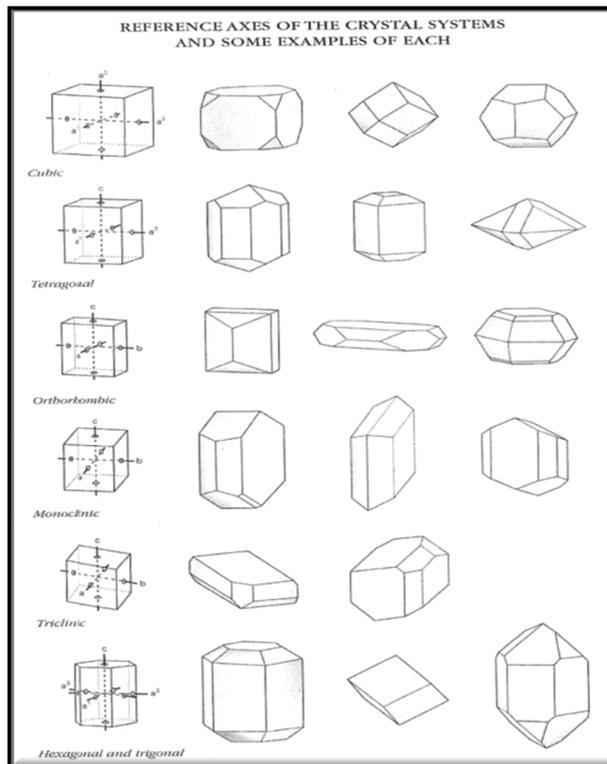
It is also important to determine the direction of the C axis and whether it is open or closed, to light. Here we are trying to determine the stones ability to transmit the light down the C axis. This would also help to determine the top of the cut stone and maximize the brilliance of the piece. This would be similar to the ability of fiber optics to transmit light. The faceting process is then used to disperse the transmitted light.

High quality mineral crystals; Here is where Amir crosses over into the mineralogical aspect of what he does. He had some very nicely terminated Topaz specimens. Natural golden yellow Spessartine garnets, some were naturally etched and others had nice Dodecahedron crystal faces. Other crystal minerals included in his inventory, were; Natural Tanzanite, tourmaline and treated quartz crystals .

Amir has been to the Munich Gem and Mineral Show and sources parcels from Pakistan. He has also been to the Emerald trade center, in Bogota. While in Columbia, he visited an Emerald Mine near La pita. The only way to get to the end of the working mine was to have air pumped in. It was quite deep and the risks were apparent, but the drive can be overwhelming.



Amir and members during his January presentation



A BRIEF STUDY IN CRYSTALLOGRAPHY

(Cont. from pg. 1)

By Jack Bauer

All crystals fall into one of six crystal systems, based on their symmetry. In crystal drawings, by convention, the C-Axis is usually oriented vertically, in the plane of the paper.

The C-Axis is important when studying the optical properties of gem quality minerals. All crystals except those in the cubic or isometric crystal system have a C-Axis.

A cubic system crystal, like diamond, garnet and spinel, has no C-Axis, because all 3 crystallographic axes are necessarily the same length. In the other crystal systems the C-Axis can be longer or shorter than the other crystallographic Axes. In many minerals, particularly those in the tetragonal, trigonal and hexagonal crystal systems, the C-Axis is associated with unique optical properties. Crystallographic Axes are not the same as the Axes of symmetry, although they may run parallel to each other.