

Lithosphere

Volume XVII, Number 8

Fallbrook, California



**Fallbrook Gem & Mineral Society's
Fall Festival of Gems**

Sunday, October 5th, 10am - 4pm
2008 Raffle Prizes - Tickets \$5
Free Admission - Fun for the Entire Family!
123 W. Alvarado St. Fallbrook, CA (760) 728-1130 www.fgms.org

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Full page, 7"x4.5" = \$120.00 for 10 months, or \$14.00 per issue.
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Contact the editor Patricia Hartman for more information at 760-723-6624 or email to gems@hitekdesigns.com. Or write to the editor at PO Box 1390, Bonsall, CA 92003.

Fallbrook Gem and Mineral Society, Inc.



October

2008

Lithosphere October 2008

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FGMS OCTOBER 9, 2008 MEETING AT 7:00PM

Gem Deposits in Tanzania and Kenya

Brendan Laurs, MS, G. G.

Apple cider, falling leaves, a chill in the evening air and “spooks”- it must be Fall descending on the good folks of Fallbrook! With all this comes our October (9th @ 7:00 PM) meeting! By that time our Fall Festival of Gems will have come and gone (successfully we are confident) leaving our monthly meeting in it's wake. Our program that evening, if you will forgive the pun, is a “real gem” titled Gem Deposits in Tanzania and Kenya, and the speaker will be the “mild-mannered Indiana Jones” (no whip), Brendan Laurs. Brendan, who is no stranger to FGMS as he's given us excellent programs in the past, recently visited these East African nations. He will be reporting to us on his travels which encompassed the tanzanite deposits in Merelani, chrysoprase from Haneti, the new Winza ruby deposit, all in Tanzania, and the John Saul ruby deposit in neighboring Kenya.

About the speaker..

Brendan Laurs is Editor of Gems & Gemology, the Quarterly Journal of the Gemological Institute of America. A special area of interest for him is the formation of colored gemstones, an interest he gained while exploring gem-bearing pegmatites of San Diego County in his “formative” years. He

earned his BS in geology at UCSB and his MS in geology at Oregon State University. He was an exploration geologist for Kennecott Exploration Company where he was assigned (I'm sure happily) to the red beryl deposit in the Wah Wah Mountains of Utah and, later, the benitoite gem mine in San Benito County, California. Brendan came to GIA in 1997 as a member of the educational staff and soon joined the team for Gems and Gemology where he is currently its Editor. In 2006 he, with Dr. James Shigley, co-chaired GIA's first Gemological Research Conference. The two of them will also co-host the upcoming 2009 GRC to be held August 21-23 in San Diego.

Next month...

For November look for Robert Weldon of GIA who's topic will be on the mining and cutting of ametrine quartz from Bolivia (the only commercial source) and it's use in jewelry created by the same company that owns the mine. Mark your calendars and plan to attend!

Submitted by Michael T. Evans

Program Chair, Fallbrook Gem & Mineral Society

The refreshments this month will be brought by

Joella Olson
Beth Parsley
Joan Mallory
Jill Lowrie

GARTH'S WORLD

Garth Bricker, FGMS Member and Museum Curator October 2008



I sent select minerals to Gene Foord, the last mineralogist in the US Geologic Survey for the US government. He answered by saying one was a very rare mineral and the first time found in the US. It was first found in

Malaya in 1996 and called malayaite 15 years before I found my piece.

My second mineral was new to science according to Gene. It was a tin mineral and there was no name for it yet in the books. My hundreds of pieces were whitish gray balls with absolutely no sign of crystals of any size. All Gene could tell me was that it was a tin mineral. I found it in 1988. In about the mid 90's I sent them to a mineral scientist in Canada. He looked at both of these minerals from the Himalaya mine and said I needed to have a single crystal 1/50th of a millimeter in size before he could characterize it with the equipment available at the time. He sent them back!

I told everyone he sent them back and said, “When they grow bigger send them back to me.” He really didn't say that. In 2007 I sent them to Tony Kampf of the LA County Museum to have him see if they were on the books by then with a name from some other place in the world. The whitish balls were a silicate according to

Tony Kampf and he turned up the name of chiavennite from Italy in 1983.

The arsenic Himalaya minerals were light gray balls I found in 1988 and now called bergslagite from Langban, Sweden in 1985.

I found out from Tony in 2007 that I had added two new minerals to the Himalaya list, which was 19 years later.

New minerals are where you find them. I was having a great time down in the bottom of Hale Creek, which is close to the Mad River in Northern Calif. In several months I'll report on of my work in Trinity County's Hale Creek inesite locality, which had the single biggest very nice inesite crystal. I had spent about 3 years in the mid 1970's digging at the old manganese mine where they were gathering manganese in the first part of the 1940's for the war effort. I was finding inesite, a manganese mineral and other minerals like smears of green copper and tan hausmanite. One chunk came up that was different.

It seemed to have what could have been little crystals so it got saved. You couldn't tell what the crystals looked like because they were too small but interesting. When I got back to Fallbrook I sent a piece to Tony Kampf of the LA County Museum to x-ray. He sent back word that it was a new mineral and he worked on it for 5 years trying to get good enough information to characterize it as a new mineral. He said at the time it had a perfect cleavage or the ability to split in

thin sheets like mica. He was going to the Smithsonian Institution so he took it with him after trying 5 years to characterize it. It had an area with some good crystals but they were too small to be seen without x-ray vision. It was too small! Also, the Smithsonian couldn't get a polish to make an important test because of its perfect cleavage so they gave it back to Tony and when he got home he gave it back to me to hold for 25 years.

I had given the chunk to Bob Housley to x-ray at Cal Tech and he couldn't do much more than what Tony had done. Bob and I talked about trying to get someone to zap it at an atomic lab with the new tool that shoots particles at great speed at the mineral and knocks out particles that form a pattern on a piece of film that represents the minerals in the sample. We never got that far. Tony said that he would take the mineral data and send it to the computer to check if the mineral had been found since I found at Hale Creek. Tony sent word back that it was found in Switzerland in 2002 by a Swiss fellow named Stefan Ansermet. It had been 25 years since I found it.

Tony Kampf has many contacts in the mineral world and gave me the name of the fellow who did the work on my mineral, now called ansermetite. This was Joel Brugger living in Australia but Swiss by birth. Tony gave me his e-mail address and I wrote to him telling about finding the mineral at the Hale Creek mine in Trinity County, USA, in the last half of the 1970's.

Tony had sent me information about what he found out about the mineral when he first tested it. Recently he sent me an e-mail with some photos of the crystals that showed the mineral clearly. This is the first time I had actually seen the mineral.

Joel Brugger who did the work in Australia said he was very impressed with Tony Kampf's SEM images of ansermetite taken at the LA Co. Museum. Joel said he really had a hard time photographing the mineral from Switzerland which literally exploded in the vacuum of the SEM. (Photos greatly enlarging tiny things) Tony's did not explode. Joel said that he was at a loss as to why the LA SEM didn't make the crystal explode in a vacuum. Personal communication from Joel from Australia.

A side note about this whole mineral communication was Joel Brugger's name. I signed up for a DNA test and the fellow in charge of the Bricker DNA sent me a note that the test showed that we were 8th cousins. He had papers handed down through the family saying that our family was from Switzerland starting in 1700 when Bruggers left the home country and became Brickers in the US. My family has the same records and when the head of the Bricker DNA came from New York to see me, he brought pictures of the Bricker family home in Pennsylvania and Sam Bricker's tombstone. I have the same pictures. Joel Brugger's hometown is very close to the Brugger/Bricker hometown in Switzerland back in 1700. We are wondering if Joel and we are cousins also. Minerals can become extremely interesting.

Finding new minerals is sort of like Russian roulette. You never know if you have anything or not until a mineral scientist x-rays it and says he thinks it is a new mineral and will be able to tell after more testing and then he writes back and say it was already found before or other strange events happen.

Wire Wrap Class

Bonnie Parsley will be offering a beginning wire wrap class on Saturday, October 18th from 10:00 A.M. until 2:00 P.M. at the Fallbrook Gem and Mineral Society. The fee for FGMS members is \$45.00. The fee for non-members is \$60.00. This will include sterling silver wire needed to complete one item and a choice of cabs to wrap. In order to reserve your space in the class, send a \$20.00 deposit to Bonnie at 23833 Jonathan Place, Murrieta, CA 92562. Please include your email address with your check. Reservations must be received by October 7th to give Bonnie time to order wire and

materials. You will receive a list of supplies to bring to the class when your reservation is made. The attendance will be limited, so make your reservation early. Prior students may sit in on the class for \$20.00. Wire and cabs extra.

DON'T FORGET THE FALL FESTIVAL OF GEMS!



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GARNETS-JANUARY'S BIRTHSTONE

by Ted Robles,

via The Mountain Gem 12/03
The Gem and Mineral Society
of Franklin, NC Inc.

"Garnet" is not a mineral - It is a family of minerals. Mineralogically, they are classed as Nesosilicates, which means that the silicate tetrahedrons are isolated, and the properties of the mineral are largely determined by what else is present. The various garnets range from valuable gemstones to "Leaverites," and are of many colors; while usually thought of as being "Red," some of the most valuable are green, rivaling emerald in the beauty (and cost!) The main use for commercial grade garnet is as abrasive; many tons of garnets annually are crushed to produce a durable grade of 'sandpaper'. Crystallographically, garnets appear as dodecahedrons, trapezohedrons, hexoctahedrons, and massively.

One of the problems with garnets is that in forming from the magma as it cooled, they crystallized first, and the rock solidified around them, putting literally tons of pressure on the crystals. As a result, when the crystals weathered out of the rock, they did so in the forms of shards and splinters. Relatively speaking, few large crystals of garnet survived. Chemically, (and for the Rockbound), the family is as follows:

Almandite (Almandine); Iron Aluminum Silicate. Dark red, brownish red to purple. Best

specimens from Wrangell Island, Alaska, where the local Boy Scout troop has a monopoly on their collection. They are also to be found in Connecticut, Michigan, and Idaho, where some exhibit asterism (Star Garnets).

Rhodolite; Iron Magnesium Aluminum Silicate. Rose-red to purplish-red. The type locality is Macon County, North Carolina; they can also be found in Africa and India. The unique rose-colored stone characteristic of the Macon County locations is among the most beautiful of garnets.

Pyrope; Magnesium Aluminum Silicate. Deep Red, fiery red to purplish. This is the stone commonly thought of as "garnet". The type location is Macon County, North Carolina. It is also found in Kentucky, Arkansas, Arizona, and New Mexico, but most of the gem quality stones come from Bohemia and Africa.

Spessartite; Manganese, Aluminum Silicate. Orange, red, orange to deep purple. Where it occurs, it is frequently large enough to cut into interesting gems. Gem quality material is to be found near Amelia, Virginia and Garnet Hill, Near Ely Nevada; it is also to be found in Brazil and Madagascar.

Grossularite; Calcium Aluminum Silicate; When it is transparent, it can be a valuable gem. The variety "Tsavorite" rivals Emerald in beauty and price, and excels it in durability. It is a much sought-after gemstone, and is mostly found in Africa. Massively, grossularite varies from translucent to opaque, much of the latter being found on the northern California and southern Oregon coasts. It also frequently occurs as microcrystalline crust on limestone and amphiboles.

Andradites; Calcium Iron Silicate. Ranges from yellow-green to black. The transparent variety is a gemstone of some interest; the black is - black. There is a fine example of the latter is our museum. It is found from California to Pennsylvania, from Italy to Russia, and from India to Brazil.

Uvarovite; Calcium Chromium Silicate. When large enough to cut, it is an attractive gemstone; nevertheless it is probably (because of its rarity) more valuable as a museum specimen. It is found in Quebec, Oregon, California, and Russia, but usually as druses. The largest crystals, but of less than gem quality, are found in Finland.

Kimseyite; Calcium Zirconium Titanium Magnesium

Iron Niobium Aluminum Silicate. This is a 'curiosity'; found only in one locale in Arkansas, it rivals Tourmaline as the 'garbage gem'. It is a dim brown. Scarcely a gemstone, it is notable mostly because of its complex composition. It is a garnet because it looks like one, Crystallizing in trapezohedron-modified dodecahedrons.

It is interesting mainly because of its rarity. But even though January may not be your birth month, garnets are attractive gems, probably less valued than their beauty calls for because of the relative abundance. If you own a handsome piece of garnet jewelry, wear it; it is no less a gem because it is more abundant than ruby it may superficially resemble. So, don't apologize-"It's only garnet," rather, announce it! "It's Rhodolite!" Or "It's Spessartite!" Garnets are gems, and should be worn with pride, even if you weren't born in January.

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90703

October

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4 Board Meeting 10:00 – 12:30
5 Fall Festival of Gems & Minerals 9:00am-4:00pm	6	7	8	9 Gem & Mineral Meeting Pot Luck 6:00PM	10	11 Workshop 9:30 am – 1:00pm Potluck Lunch 1:00 pm
12 Workshop 9:30 am-1:00 pm Pot luck lunch 1:00 pm	13	14	15	16	17	18
19	20	21 Beginning Beading Brigade 6:00 pm – 9:00pm	22 Beading Brigade 10:00am – 4:00 pm	23	24	25
26	27	28	29	30	31	

2008

November

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Board Meeting 10:00 – 12:30
2	3	4	5	6	7	8 Workshop 9:30 am – 1:00pm Potluck Lunch 1:00 pm
9 Workshop 9:30 am-1:00 pm Pot luck lunch 1:00 pm	10	11	12	13 Gem & Mineral Meeting 7:00pm	14	15
16	17	18 Beginning Beading Brigade 6:00 pm – 9:00pm	19 Beading Brigade 10:00am – 4:00 pm	20	21	22
23	24	25	26	27	28	
30						

2008

Legal Information

The Fallbrook Gem and Mineral Society is a §501(c)(3), non-profit, educational and recreational organization dedicated to promote the study of mineralogy and allied earth sciences; to study and practice the art of lapidary; and to promote good fellowship.

Regular meetings are held at 7:00 pm on the second Thursday of each month, except February (generally the third Thursday) and July and August (no meetings), at 123 W. Alvarado St. The public is invited to attend our museum located at 123 W. Alvarado. The museum is open Thurs., Fri., and Sat. 11am to 3pm and during special events in the downtown area or by appointment. Annual dues are \$25 for adults, \$20 for each additional adult in the same household; \$6 per child to age 17. The initiation fee is \$6 per person. Membership fees must be submitted along with an application, obtainable from the Society or its web site.

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Exchanges: Free reciprocal exchanges for the bulletins of other gem and mineral societies are welcomed. **Please send all exchange bulletins to the FGMS Office.**

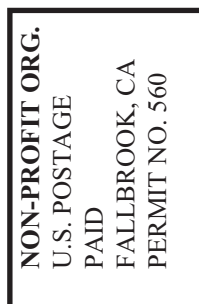
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