



December 2018 MONTHLY BULLETIN

A non-profit group founded in March 1956, organized to educate the general public and members' knowledge of Mineralogy, Gems, Jewelry Making, Fossils and related earth sciences.

MEETINGS: The meetings are the first Tuesday of each month except June, July, August and December. The Clubs annual holiday party is in December and the annual picnic is in June which includes a silent auction. Visitors are always welcome.

The meetings are at the Indian Creek Community Church, 12480 Black Bob Road in Olathe, Kansas. We meet downstairs in room 018 which is located at the bottom of the staircase. 6:30 to 7 PM is not structured, as member's fellowship and have a raffle. At the end of the raffle anyone who purchased tickets - and did not win anything - can go take one item from the table. The meeting starts at 7 PM followed by the guest speaker. Information is available at our website: olathegemclub.com.

DUES: \$10.00 per year for individuals / \$5.00 per year for minors / children under the age of 12 are free.
(Due by May meeting, and delinquent by September meeting)

OFFICERS and CHAIRPERSONS 2018 – 2019:

President: Deborah Bryant (816)337-1527

Vice President: Tammy Shaw (816)674-1368

Secretary: Vikki Ritter (913)827-2724

Treasurer: Barbara Crompton (913)492-6783

Bulletin: M John Robinson (913)669-8284

Website and Editor: Dan McDaniel (913)963-5357

Membership Chairman: M John Robinson (913)669-8284

Field Trip Coordinator: Lesilee Hartman (785)380-6016;

Field Trip Assistant: Larry Wells (913)787-5138

Programs: Tammy Shaw, VP

Librarian and Historian: Norman Onnen (816)645-1333

Gem Show Chairman: Norman Onnen

Raffle: **Lisa Hulbert (thanks for Volunteering!)**

Association Delegates: Norman Onnen & Larry Wells

Alternate Assoc. Delegate: Deb Bryant, **one open position. If you want to learn how our club works this is a great way to get started!**

PRESIDENTS MESSAGE

Members are encouraged to bring ideas to the table! If you have an idea for a meeting topic or field trip or presenter please share! We need everyone to participate if we are going to have a successful club!

Because the Club is growing in membership we will be having 3 people, instead of two, bringing snacks in the future to make it more affordable. There are just a couple spots left if you can help out! **Looking for one more person for our Jan 8th meeting!**

We have **15 new members!** Please introduce yourself if you see a new face! Julie will be getting updates to the member directory soon!

Our **Holiday Party** will be a Saturday Dec. 1st. If you have not yet signed up yet Email Deb at Motochef1@outlook.com. We have 51 signed up for our Holiday Party so far and will be at HyVee on 119th and Ridgeview again this year. A separate earlier email was sent with a list of who is signed up. Rebecca Francis is hosting a Pre Party event in her home/work studio 4 to 530pm right next to the HyVee.

January meeting is scheduled for Tuesday, January 8th, pushed back one week to observe New Years Day.

Congrats to Norm Onnen! He has accepted the position of Vice President of the Association!

We have invited our RMFMS Kansas Representative to visit our club in April 2019!

The Club did great selling at the November Gem show by Shows of Integrity. The club has received a little over \$300 from members selling. Everyone had great stuff available and the table looked Awesome, full and welcoming!

TShirts are in the works! Be ready for some sweet OGMS gear!

VICE PRESIDENTS MESSAGE /Programs

Don't forget the Swap & Shop during our February 5 2019 meeting. Bring any gems, minerals, stones, jewelry, tools, or related items to sell or trade. Keep in mind space will be limited, and we want to make room for everyone. All transactions will be the responsibility of the participating parties. If the event goes well, we are considering a community wide event later in the spring, and will be inviting other clubs and the public.

The December meeting will be our annual gift exchange and dinner. If you have not yet signed up for the December dinner, please email Deb at Motochef1@outlook.com.

FIELD TRIPS

12 OGMS members took a trip on Saturday, October 27 to Whetrock Quarries in Atchison, KS. We found a piece of belemnite, cone-in-cone, ammonite, pyrite, clams, petrified wood, and much more.

As the weather is unpredictable, the field trip to the Whetrock Quarries in Murray, NE 16 miles above Nebraska City, NE will continue to be postponed until the weather starts to get better so please watch for updates on Facebook and in emails.

The field trip to the KU Museum for a tour with DR Burnham is still postponed until another date comes available. Please continue watching for updates.

CLUB LIBRARIAN, NORM'S MESSAGE: Members are reminded that the club library is being maintained, and the holdings are listed on the club website. As requests for items are made they are brought to the next club event. Club members who have materials checked out are requested to return these items and/or re-new their interest in keeping them for an extended time. For more information call Norm at (816) 645-1333.

Please note that the listing of documents held in the club library has been updated and posted to our club website effective 11/12/18. It includes all items recently donated by several club members. That being said, there's still room in the library if others wish to provide and/or donate to the library. Also if there are documents you feel should be in the library for the benefit of our members, please let me know of them.

Interestingly, some of the recently donated items were century old Smithsonian Institution Annual reports (as early as 1898). It appears at that time that all research papers, reports, etc. (perhaps in lieu of publishing a monthly magazine) were bound into the Annual report — making these bound documents several hundred pages long. At the last club meeting (Nov. 6) I displayed the table of contents of these Annual reports on a side table, and a few were able to view them. I will bring these to our Jan. meeting once more for those interested. Some of the included reports were about diamonds, volcanoes, plate tectonics, mammoth ivory, the AZ Petrified Forest, an iron mine near Leslie, MO, gold in science, glacial and postglacial lakes in the Lake Superior region, evolution, etc. As some of these

precede currently understood facts (plate tectonics, evolution, etc.) they offer interesting history insights.

Official Magazine

The official magazine of the Rocky Mountain Federation of Mineralogical Societies (RMFMS) is Rock & Gem (a monthly publication). As such, and apparently by default as the Olathe Gem & Mineral Society is a member of the RMFMS, the magazine might be considered the official publication of our club. The magazine a couple of years ago underwent new ownership (now Beckett Media), however maintained and embellished the excellent contributing editorial and article cadre (headed by highly respected and experienced Bob Jones). The Dec. 2018 issue of the publication reveals the broad range of topics typically covered and of interest to most. Included is Wulfenite, a Glyptic artist, the Rio Grande rift, Sphalerite, Blue Opal, Russia's Lapidary Wealth, and regular columns. Turns out the magazine is currently offering a reduced subscription rate of 2-years for \$49.95 (only \$2.08 per issue) - a great value considering the content).

Volcanoes in the US

The editor of Rock & Gem magazine, in Oct. 2018, participated via teleconference in the USGS 2018 Volcanic Threat Assessment and learned interesting facts regarding volcanoes in the United States, as well as throughout the world. Turns out there are currently 161 known active volcanoes in the US (led by the most active - Kilauea, and 86 are in Alaska). Also 120 eruptions have occurred since 1980, and 10% of the 1,500 worldwide volcano eruptions in the past 10,000 years have occurred in the US. Of the 161 current US volcanoes, 57 are considered to be "high threat" and "very high threat". The threats are determined not by the potential of erupting, but by the damage they would be expected to cause. (Interestingly, Yellowstone (variously described by many as the most dangerous hot spot in the world) is not placed in the evaluation category (presumably as it is considered a caldera rather than a current volcano)). The USGS report is currently online and contains interesting maps of the US locations and threat categories.

SKILLS & INTEREST DIRECTORY: To keep your directories current you can plan on receiving future updates via email. For changes, and directory updates contact Julie Robinson at (816) 797-4602, or jukay11@gmail.com. New members will receive a directory as they join.

SHOW & TELL: Members interested in doing a Show & Tell should contact Deborah Bryant, President, to get scheduled. Deborah's contact info is MotoChef1@outlook.com

UPCOMING EVENTS

December meeting is our annual holiday party December 1st at HyVee in Olathe (119th and Ridgeview Rd) 530 to 830/9pm. Bring \$5 for your meal and a gift \$10-\$15 value for our exchange game!

January meeting is set for Tuesday January 8th.

Dr. Leonard Krishtalka (the head of the Dept. that Dr. David Burnham functions under) is giving a free presentation 7:30 pm; Tuesday, Nov. 27, 2018 at the Bier Station, 120 East Gregory Blvd., KCMO. It is entitled "Forget Everything You Thought You Knew About Biology". Dr. K is a paleontologist and a very entertaining speaker.

PYROPE GARNET VS. RUBY SPINEL IN KANSAS

http://www.minsocam.org/ammin/AM26/AM26_675.pdf

Benedict P. Bagrowski, University of Kansas, Lawrence, Kansas.

Exposed igneous rocks in Kansas are rare; the few that do out-crop are limited to very small areas. One of these exposed igneous rock bodies near Stockdale (N. E.+ S.E. 1 Sec. 23,T.8 S., R. 6 E.) in Riley County, is a serpentized peridotite. This basic rock contains ilmenite, phlogopite, and another mineral that has been called ruby spinel (1). When the writer first saw the mineral, he suspected that it was pyrope garnet and set out to re-identify the mineral. A search of geologic literature pertaining to the Stockdale locality has yielded very meager information. Facts about the so-called ruby spinel are even more scarce. Ruby spinel from Kansas is first mentioned in the literature about 1880. Mudge (2) reported the mineral from rock that he called a shale, in the northern part of Riley County; he did not recognize the rock as being igneous. He did not, however, mention any tests that he had made in ascertaining the identity of the mineral. Failyer and Bailey (3) included ruby spinel from Riley County in their list of Kansas minerals. Professor Sperry (1) of Kansas State College was the first to identify the mineral in definite connection with the Stockdale rock. Carpenter (4) mentioned ruby spinel in a recent paper, but he probably based his identification on previous reports. The writer visited the Stockdale area in 1940 and procured samples of the red mineral for study. A sample consisting of several grams of fragmentary material was submitted for chemical analysis, and the analysis at the outset confirmed the writer's contention that the mineral was not spinel, for silica was present in large amount.

Description of Mineral. Analyses have yielded the following results:

Composition of red mineral from igneous rock exposed near

Stockdale Ks	
SiO ₂	40.42
Al ₂ O ₃	21.12
Cr ₂ O ₃	7.90
Fe ₂ O ₃	10.15
MgO	14.42
CaO	4.71
Total	99.07

A comparison of this analysis indicates that the mineral is similar in Dana's System of Mineralogy to pyrope garnet. Of chief interest, however, is the amount of chromium which is greater than in any analysis of pyrope garnet given in the tables.

Although the chemical analysis is conclusive proof that the mineral is pyrope garnet, some of the physical properties have likewise been measured.

The hardness is 7.5, the specific gravity 3.47, and the refractive index 1.746.

The mineral is found in anhedral to subhedral phenocrysts in the serpentinized peridotite. Phenocrysts range from microscopic individuals to grains as much as one centimeter in diameter, but most of the larger masses are fractured, so that whole specimens of that size are uncommon.

The mineral is red to reddish brown, transparent to translucent, and has a vitreous to resinous luster. Its streak is white, and its fracture is conchoidal to uneven. It is brittle to friable.

Conclusion. The chemical analysis proves beyond doubt that the tested specimens of red mineral from the Stockdale rock are pyrope garnet, but the writer does not imply that ruby spinel is absent from the rock. He concludes, however, that most, if not all, of the red mineral is pyrope garnet, and that any identification of a mineral from the Stockdale igneous body as ruby spinel must be verified.

Acknowledgements. The writer expresses his thanks to Mr. Clarence Culbertson, chemist for the Kansas Geological Survey, for his analysis of the mineral, and to Mr. Ralph H. King for his help and criticism in the preparation of this paper.

Resources

1. Tolman, Carl, Inn Landes, K.K., Igneous rocks of the Mississippi valley lead-zinc districts, Chap. III, Contributions to a knowledge of the lead and zinc deposits of the Mississippi valley region: Geol. Soc. Am., Special, Paper 24,100 (1939).
2. Mudge, B. F., List of minerals found in Kansas: Kans. Acad.. Sci., Trans.,7r 27-29 (1879-80).
3. Failyer, G. H., and Bailey, B. H. S.. A revised list of Kansas minerals: Kans. Acad. Sci., Trans.,13, 76 78 (1893).
4. Carpenter, A. C., Rocks and minerals of Kansas: Rocks and Minerals,13, no.9,269- 271 (Sept. 1938).
5. Dana, Edward S., System of Mineralogy,6th ed., John Wiley & Sons, Inc., New York (1915).