The Topeka Gem and Mineral Society, Inc.
1934 SW 30th St. Topeka, KS 66611
Rock2Plate@aol.com

THE GLACIAL DRIFTER

www.TopekaGMS or
Facebook: Topeka Gem and Mineral Society Field Trips

The Topeka Gem & Mineral Society, Inc.
Organized December 3, 1948

Member of Rocky Mountain Federation of Mineralogical Societies American Federation of Mineralogical Societies

The Glacial Drifter, Vol. 61, No. 3, Mar., 2018

The Purpose of the Topeka Gem & Mineral Society shall be exclusively educational and scientific: (1) to promote interest in geology and the lapidary arts; (2) to encourage the collection and display of rocks, gems, and minerals; (3) to encourage field trips and excursions of a geological, or lapidary nature; and (4) to encourage greater public interest and education in gems and minerals, cooperating with the established institutions in such matters.

Meetings: 4th Friday of each month, September to May, 7:30 pm, Stoffer Science Hall, Room 138, Washburn University. No meeting in December unless notified of a change. Picnic meetings are held June, July and August.

Dues: Individual, $15.00; Couple, $20.00; Junior (under 18 years of age), $5.00. Dues are collected in December for the following year. Send dues to: **Millie Mowry, Treasurer, 1934 SW 30th St, Topeka, KS 66611.**

www.TopekaGMS.org

2018 OFFICERS AND CHAIRS

President	Mike Cote	220-3272	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1st Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Will Gilliland	286-0905
2nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	TGMS Board	
Secretary	Colleen Lightwine	350-2958	Welcome/Registration	Russ & Rhonda Miller	272-6408
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	220-3272
Directors	Chuck Curtis	286-1790	AFMS Scholarship	Cinda Kunkler	286-1790
	Brad Davenport	379-8700	Editor/Exchange Editor	Millie Mowry	267-2849
	Will Gilliland	286-0905	Show Chairman	Dave Dillon	272-7804
Historian	Jessica Reedy	230-3445	Show Dealer Chairman	Dave Dillon	272-7804
Federation Rep	Harold Merrifield	633-9745	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Jason Schulz	640-6617
Librarian	Millie Mowry	267-2849	Show Case Coordinator	Cinda Kunkler	286-1790
Web Master	Jason Schulz	640-6617			

Area Code for all numbers is (785).

EXCHANGE BULLETINS WELCOME

For exchange newsletters contact the club via mailing address listed above or email at rock2plate@aol.com .

Words from Our Top Rock!

The March 23rd program at the general meeting will be a video on 'Treasures of the Earth – Gems, Diamonds, Rubies, Opals & Jade.' Watch for an email-concerning the opening of the Barn for lessons again around the 1st. of April, This will depend on the weather and if I get the hot water fixed.

Mike C.

Topeka Gem and Mineral Society
General Meeting – February 23, 2018 Minutes

20 members and 3 guest attended.
Mike Cote` called the meeting to order.
Colleen Lightwine reported that the January minutes had gone out in The Drifter. Harold moved to approved and Dave 2nd.
Treasury: Millie Mowry reported the balance in checking. Dave moved to approve.
Millie needs all 2018 dues paid. The directory will be printed after March 1st and will include those who have paid.
Publicity: Nothing to report.
Historian: No report.
Show: Jennifer Reedy reported that the show flyer has been completed.
Dave Dillon had received information on the Springfield, MO show moving to the weekend after our Oct 13/14 show. Dave will be contacting some of the dealers, who attend Springfield to see if any of them would be interested in showing with us.
Field trips: Will Gilliland has consented to take the position of coordinator. He will lead a field trip to Blue Rapids, KS, when the weather warms up.
Webmaster: Jason Schulz reported that the AFMS web contest should be out soon.
Junior Rockhounds: Jason Schulz reported that 7 Jr. Rockhounds attended the "Earth & Space" program February 1, 2017.
Correspondence: Cinda Kunkler reported that we received a thank you from RMFMS ,for our $495.10. TGMS has contributed a total of $14,399.40 to the scholarship fund. The AFMS awards 12 scholarships per year.
New Business: Dave Dillon announced that we would have a 3rd category, Wire Sculpture, to vote on at the General Meetings.
Old Business: Cinda Kunkler reported that she, Millie Mowry, and Brad Davenport had completed the request, by Topeka Lutheran School, to come and present a program to the students.
Mike moved to adjourn to the program of "Dino Digs" by Mark Ellis. Jason moved to approve.

Cab of the Month: This month's winners were Barbara Smith (Veriscite & Jasper necklace) won the Member jewelry out of 6 entries. Robert Schulz (spider silver wire wrap) won the Member Wire Sculpture out of 2.

Respectfully submitted by Colleen Lightwine.

Visitors are always WELCOME at our meetings!

Event Calendar

Mar. 2018

1T	
2F	
3S	
4S	
5M	
6T	
7W	
8T	
9F	
10S	
11S	
12M	
13T	
14 W	
15T	Wire Wrap Class @ Millie 1-3, 7-9p.m.
16F	Jr Rockhound Advisory Meeting @ Millie's 7 p.m.
17S	
18S	
19M	
20T	
21 W	
22T	Wire Wrap Class @ Millie 1-3 p.m.
23F	General Mtg. 7:30 pm Stauffer rm 138 Hall Washburn
24S	
25S	
26M	
27T	
28 W	
29T	Wire Wrap Class @ Millie 1-3 p.m.
30F	
31S	

Any questions ask Millie at rock2plate@aol.com

Watch for an email about when the Barn lessons will start again.
If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or rock2plate@aol.com

Apr. 2018

1S	Easter Sunday
2M	
3T	
4W	
5T	Jr Rkhd's @ TSCPL rm 202 Anton Wire Wrap Class @ Millie 1-3 pm
6F	Lincoln Gem Show NEB, 9am-6pm 84th & Havelock, Lincoln, NEB.
7S	Lincoln Show 10am-5pm http://www.lincolngemmineralclub.org
8S	
9M	
10T	
11W	
12T	
13F	Board Meeting 7 p.m. @ Millie's
14S	
15S	
16M	
17T	
18W	
19T	Wire Wrap Class @ Millie 1-3,
20F	Wichita Gem & Mineral Show, Cessna Activity Cntr. 2744 Geo. Washington Blvd. www.wgmsks.org 20th-22nd 9am -6pm
21S	Wichita Show 10 a.m. – 6 p.m.
22S	Wichita Show 10 a.m. – 5 p.m.
23M	
24T	
25W	
26T	Wire Wrap Class @ Millie 1-3,
27F	General Mtg. 7:30 pm Stauffer rm 138 Hall Washburn
28S	
29S	
30M	

Check out the new calendar on our web site
www.TopekaGMS.org

Watch for an email about when the Barn lessons will start again.
If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or rock2plate@aol.com

TOPEKA JUNIOR ROCKHOUNDS
https://www.facebook.com/TopekaGMSJuniorRockhounds
To register for the Junior Rockhounds or any of the classes, email:
Jason Schulz at: Fleetcommander@att.net

JR ROCKHOUND Classes & Reminders

Here are reminders of the next 3 months of classes: Topeka Shawnee CO Public Library sign in starting at 6:00pm and classes starting at 6:30pm. 1st Thursday of each month… **PLEASE watch for a new email for the new updated classrooms, classes, and instructors schedule starting with December 2017 to November 2018.**

- Thursday, March 5, 2018, Rocking on the Computer, Anton room 202, Jason Schulz at T.S.C.P.L. Sign-in-starts at 6:00p.m, and class starts at 6:30 p.m. Lapidary Leaders will be there to explain the safety rules of the Lapidary badge. A must have before you take the Lapidary class.
- May 3rd Thursday, Marvin Auditorium, rm. 101A Lapidary Arts, with David Dillon, Mike Cote` and Millie Mowry.
- June 7th Barbara Smith, Collecting, rm. 101A Marvin Auditorium

If you have not turned in your homework assignments for the following classes, please bring them to the general meeting or to the next Jr Rockhounds Meeting.

- Fossils---Pat's class
- Leadership---(Lesliee's) give to Jason
- Earth in Space---Jason's Class
  Some of the Rockhounds were given notebooks for the Communication Patch. If you have written your story for the article in the Drifter, bring it in so that it can be counted, then published in the next Drifter. For those who do not have the note books, see Millie and she will give you one.

Activity Center

During the general meeting at Washburn University 1700 SW College Ave., Topeka, KS in the Stoffer Science Hall Room 138 there is an Activity Center for Jr Rockhounds from 7:00pm-7:30ish pm. Barbara Smith has been conducting this activity for the Jr Rockhounds. If there is not any interest from the Jr Rockhounds we are going to shut it down.

From the Coordinator

The Junior Rockhounds gathered for their most recent session on March 1st at the Topeka and Shawnee County Public Library. Pat Gilliland presented a class about Field Trips covering various topics including preparing for a field trip, safety, manners and ethics, and planning. As one of the activities of the evening, kids used a rock hammer to practice pulling a rock up in a safe direction in case a critter's lurking under it.

Our next class, on April 5th, will be "Rocking on the Computer" with Jason Schulz. Towards the end of the session, Mike Cote, Dave Dillon, and Millie Mowry will stop by and give a brief heads-up about the Lapidary Arts class coming in May.

TGMS Field Trip

FIELD TRIPS ARE ON HOLD FOR BETTER WEATHER

Will Gilliland has consented to take the position of coordinator. He will lead a field trip to Blue Rapids, KS, when the weather warms up. Watch for emails.

10 Pretty Rocks that can be Deadly

(I know I have ran an article like this before but, it is a good reminder especially for new members. Millie M.)

Our planet produces many riches, and mesmerizing rocks and minerals. While many that are mined can produce beautiful gemstones and necessary minerals, some can be toxic if you do not follow normal safety rules and handle them properly. Elements such as lead, mercury, arsenic, uranium, antimony and cadmium are toxic. Without proper identification, you can never be sure if you might be handling some of these potentially dangerous substances. Never lick an unidentified rock to see what it looks like wet, and always wash your hands after handling one. Wear gloves if there is any suspicion that a specimen may contain harmful elements.

We also should be aware of the other hazards in the shop such as: airborne particles (silica). In the absence of adequate local exhaust ventilation, wear NIOSH-approved toxic dust respirator for sanding, grinding, or polishing operations that create dust, use wet grinding processes., always wear hearing protection and make sure observers and children also wear protection, use safety glasses or face shields for flying chips, ventilation or NIOSH mask to protect lungs from cutting oil mist, waterproof apron to keep oil from the skin and the normal fire and electrical safety measures like fire extinguishers, regular inspection of power cord condition, etc.

Arsenopyrite is an iron arsenic sulfide. It is a hard (Mohs 5.5-6) metallic, opaque, steel grey to silver white mineral with a relatively high specific gravity of 6.1. This rock is often mistaken for fool's gold (iron pyrite). With 46% arsenic content, arsenopyrite, along with orpiment, is a principal ore of arsenic. When deposits of arsenopyrite become exposed to the atmosphere, usually due to mining, the mineral will slowly oxidize, converting the arsenic into oxides that are more soluble in water, leading to acid mine drainage.

The crystal habit, hardness, density, and garlic odor when struck are diagnostic. Arsenopyrite in older literature may be referred to as *mispickel*, a name of German origin.

Arsenopyrite also can be associated with significant amounts of gold. Consequently, it serves as an indicator of gold bearing reefs. Arsenopyrite is found in high temperature hydrothermal veins, in pegmatites, and in areas of contact metamorphism or metasomatism.

Cinnabar --- the common bright scarlet to brick-red form of mercury sulfide is the most common source ore for refining elemental mercury, and is the historic source for the brilliant red or scarlet pigment termed vermilion and associated red mercury pigments.

Cinnabar generally occurs as a vein-filling mineral associated with recent volcanic activity and alkaline hot springs. Cinnabar has been used for its color since antiquity in the Near East, including as a rouge-type cosmetic, in the New World and in China since as early as the Song dynasty, where it was used in coloring lacquerware.

Associated modern precautions for use and handling of cinnabar arise from the toxicity of the mercury component, which was recognized as early as ancient Rome.

Chrysotile (Asbestos) --- The most commonly encountered form of asbestos, accounting for approximately 95% of the asbestos in the United States and a similar proportion in other countries. It is a soft, fibrous silicate mineral. The material has physical properties which make it desirable for inclusion in building materials and vehicles, but poses serious health risks when dispersed into air and inhaled. Asbestos use has been banned in most countries, but it can still be found in old buildings and vehicles.

Not to be confused with the term Chrysolite. Chrysolite may refer to: Peridot, a gem-quality olivine, archaically, any of several green or yellow-green-colored gemstones including topaz, chrysoberyl, zircon, tourmaline, and apatite.

Chalcanthite --- Other names include *blue stone*, *blue vitriol*, and *copper vitriol*. As chalcanthite is a copper mineral, it can be used as an ore of copper. However, its ready solubility in water means that it tends to crystallize, dissolve, and recrystallize as crusts over any mine surface in more humid regions. Therefore, chalcanthite is only found in the most arid regions in sufficiently large quantities for use as an ore.

Secondarily, chalcanthite, due to its rich color and beautiful crystals, is a sought after collector's mineral. However, as with its viability as an ore, the solubility of the mineral causes significant problems. First, the mineral readily absorbs and releases its water content, which, over time, leads to a disintegration of the crystal structure, destroying even the finest specimens. Second, higher quality crystals can be easily grown synthetically, and, as such, there is a concern that disreputable mineral dealers would present a sample as natural when it is not.

A special note on tasting chalcanthite, chalcanthite has a sweetly metallic taste, but taste testing should not be done haphazardly. The specimen should be never touched with the tongue, as chalcanthite is poisonous. The liquid from chalcanthite will also stain skin blue for several days.

Coloradoite ---Named after the place it was first discovered, in Boulder Colorado, this mineral is found in magma veins.

This mineral forms when mercury fuses with tellurium, and when heated it releases a poisonous dust. Also known as mercury telluride, a rare telluride ore associated with a metallic deposit (especially gold and silver). Gold usually occurs within tellurides, such as coloradoite, as a high-finess native metal. A little hard to identify, petzite which is also hazardous could be mistaken for coloradoite. Coloradoite is a brittle, massively granular mineral, with a hardness of 2.5. It has a metallic luster, which could be explained by the presence of metallic bonding in the crystal. Its specific gravity is 8.10 and is an opaque mineral with colors iron-black inclining to gray; in polished sections, and white with slight grayish brown tint, tarnishing to dull purple. Known as 碲汞矿in Chinese (but you knew that, right!).

Galena ---The ancient Egyptians and pirates used this rock as a kohl (eyeliner) to reduce the sun's glare.

Kohl also signified one's status in the society with the glossiest, highest-quality kohl denoting one's upper class status in society while the less wealthy applied kohl of fire soot. Kohl applied liberally around the eyes helped to reduce the sun's glare, to repel flies, and to provide cooling relief from the heat. It also trapped errant dust common in the desert. Although it's safe to handle, the rock is brittle and there is a high risk of lead poisoning if you're exposed for prolonged periods to the crystal's dust. (and you thought Kohl was a department store, see how much you are learning!!)

Hutchinsonite ---Named after a Cambridge mineralogist, this rare mineral is a hybrid of thallium, arsenic and lead. It's found across Europe. All lead and arsenic minerals require careful handling.

- Color: Cherry red, Pink, Black.
- Density: 4.6
- Transparency Subtranslucent to opaque
- Fracture: Brittle - Conchoidal - Very brittle fracture producing small, conchoidal fragments.
- Acicular - Occurs as needle-like crystals.
- Prismatic - Crystals Shaped like Slender Prisms (e.g. tourmaline).
- Hardness: 1.5-2 - Talc-Gypsum
- Luster: Sub Metallic
- Streak: red

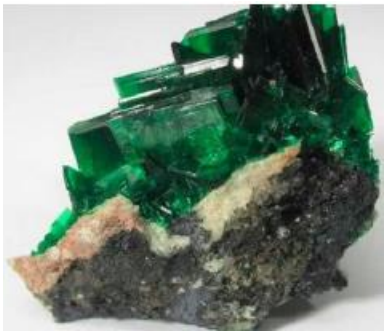
Orpiment ---This rock, made of arsenic and sulfur, is found in hydrothermal vents. It's still used today to make semiconductors, infrared transmitting glass and fireworks. Orpiment was traded in the Roman Empire and was used as a medicine in China even though it is very toxic. It has been used as a fly poison and to tip arrows with poison.

For centuries, orpiment was ground down and used as a pigment in painting and for sealing wax, and is even used in Ancient China as a correction fluid. It was one of the few bright-yellow pigments available to artists until the 19th century. However, its extreme toxicity and incompatibility with other common pigments, meant that its use as a pigment ended when cadmium yellows, chromium yellows and organic dye-based colors were introduced during the 19th century.

Stibnite ---Sometimes referred to as antimonite, pastes of powder in fat or in other materials have been used since 3000 BC as eye cosmetics in the Middle East and farther afield; in this use, it is also called kohl. It was used to darken the brows and lashes, or to draw a line around the perimeter of the eye.

Antimony trisulfide finds use in pyrotechnic compositions, namely in the glitter and fountain mixtures. It is also a component of modern safety matches. It was formerly used in flash compositions, but its use was abandoned due to toxicity and sensitivity to static electricity.

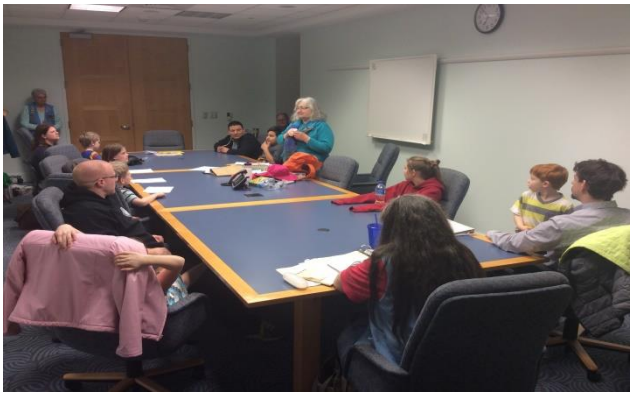
Stibnite occurs in hydrothermal deposits and is associated with realgar, orpiment, cinnabar, galena, pyrite & many others. Small deposits of stibnite are common, but large deposits are rare.

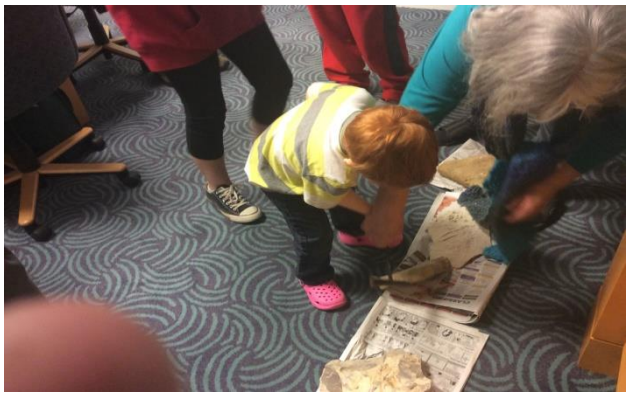


Torbernite --- As a radioactive mineral, torbernite has some limited significance as a uranium ore. Its vibrant green color and well-developed distinctive crystals (size: mm to a few cm) make it a sought-after collector's mineral, as well. However, torbernite, like other hydrated minerals, can easily suffer from loss of water molecules. This loss of water from the mineral leads to an alteration of torbernite specimens into its pseudomorph, meta-torbernite. Some collector's websites assert that any torbernite specimen more than a few years old should be considered fully transitioned to meta-torbernite. However, it likely depends on the temperature and relative humidity of ambient air in which specimens are stored.

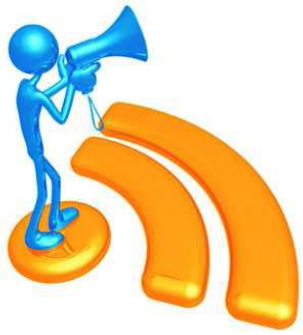
As torbernite is radioactive and outgases radon, collectors are urged to take proper precautions in the handling and storage of any specimens. An adequate ventilation of the rooms and the cabinets in which the specimens are stored is essential to evacuate the radioactive radon gas responsible for lung cancer, but it could increase the dehydration rate of the specimens. To limit radon inhalation, naked specimens should never be stored in rooms in which one spends much living or working time. An alternative is to store specimens in gas tight transparent containers in which radon will accumulate and decay to secular equilibrium.

(Boulder Buster, 12/17; via WGMS Rockhounder 3/2018)





TGMS Jr Rockhounds Fieldtrip Class 3/2018



We need your **BEST CHOICE UPC Labels** --- Bring them to the monthly meeting,
And give them to Cinda Kunkler

Fairburn Agate – SD State Gemstone

(An excerpt from http://www.northern.edu/natsource/EARTH/Fairbu1.htm)

What Is A Fairburn Agate?

A gates, in nodules and geodes, are some of the most popular varieties of silica.
Agate forms under sedimentary conditions. Agates consist of alternating layers of fibrous chalcedony with circular to semicircular layers, patterns, or bands like rings of targets. These layers may be composed of different thicknesses and colors. The layers are usually concentric and parallel to the walls of the rock cavity in which they are deposited. Fairburn agates are formed in this way. Fairburn agates are noted for their strikingly contrasted, thin bands of wonderful natural colors (Sanborn, 1976).

Roberts and Rapp (1965) state that the color patterns are generally yellowish-brown with narrow opaque white bands, or dark red with white bands. However, another beautiful combination shows salmon-pink bands alternating with white bands. Other colors included in these agates are black, yellow, grayish-blue and milkypink.

Where Are They Found?

These agates were originally named after a prolific locality 10 miles east of Fairburn, South Dakota, in the southern Black Hills area. According to Roberts and Rapp (1965), Fairburn agates occur in a broad elliptical belt extending from Creston in Pennington County, South Dakota, to near Orella in Sioux County, Nebraska, with the maximum width approaching 15 miles near Red Shirt, South Dakota. According to Fritzsch (S.D. School of Mines and Technology, personal communication, 1993), the area is more restricted. The Fairburn agate fields cover thousands of acres of very stony land and most of it is rugged terrain, well decorated with cactus, weeds, and cedar trees (Zeitner, 1964). Fairburn agates may be collected around the Fairburn area where they are scattered on the ground surface. There is no company that collects and markets Fairburn agates.

What Is The Value Of Agate?

The Fairburn agate was designated as South Dakota's state gemstone on February 11, 1966. The S.D Department of Environment and Natural Resources (DENR) does not keep statistics on the Fairburn agate. In the literature, Fairburn agates are reported as quite scarce, and highly prized by collectors (Campbell and Roberts, 1985). The price of a Fairburn agate ranges up to $150, depending on the size and quality of the geode (Eric Fritzsch, Geology Museum, South Dakota School of Mines and Technology, personal communication, July, 1993). As with other agates, a larger Fairburn agate is not necessarily a better-quality agate. Agates are primarily used as decorative pieces, as mineral specimens, and in lapidary work.

What Regulations Apply To Collecting Agates?

Common sense dictates that safety should be the first consideration. If a rock is hit with a hammer, safety glasses should be worn. Watch out for other individuals and for falling rocks. New legislation states that no more than one square meter of land may be disturbed by people collecting for their own enjoyment. In general, permission must be received before any samples are collected from privately owned land, and no collecting is allowed on state or federal lands. For example, collecting is not allowed at Custer State Park. Small samples may be collected along South Dakota's roads and highways after permission has been granted from the nearest Regional Department of Transportation (DOT) office. The DOT's concern is that rock removal may hasten erosion and road cut instability. Permission must be granted from tribal authorities before collecting begins on Indian lands. Collecting is currently allowed on Bureau of Land Management land, in the Buffalo Gap National Grasslands, and in the Black Hills National Forest. The Buffalo Gap National Grasslands has a designated area northeast of the town of Fairburn to promote agate collecting.

Via WAMS Newsletter 9/16;via Rockhounder 12/2017