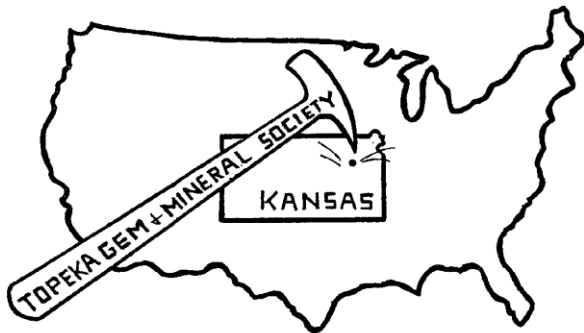


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# 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. 2, Feb., 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: 4<sup>th</sup> 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 30<sup>th</sup> 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
1 <sup>st</sup> Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Open- TGMS Board	
2 <sup>nd</sup> 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](mailto:rock2plate@aol.com) .  
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.

### Words from Our President

At the February meeting Mark and Kathy Ellis will present the program again, and if you have never sat in on one of his programs you defiantly don't want to miss this meeting about "Bones from dinosaurs in Colorado."

If anyone is interested in taking over the Field Trip position let me or Dave know. If not the field trips may be few and far between.

We need some help at the Children's Discovery Center on February 24<sup>th</sup>. If you can spare a few hours it would be appreciated. Let Millie, Dave, or Cinda know if you can help.



### Mike and his Rock Stash

## Topeka Gem and Mineral Society General Meeting – January 26, 2018 Minutes

34 members and 1 guest

Mike Cote' called the meeting to order.

Cinda Kunkler reported that the November minutes had gone out in The Drifter. Jason moved to approved and Chuck 2<sup>nd</sup>.

**Treasury:** Millie Mowry reported the balance in checking. Chuck moved to approve and Jason 2<sup>nd</sup>.

**Publicity:** This position will currently be held by Board. Anyone interested can let Mike, Dave, or Millie know.

**Historian:** Jennifer Reedy will work on flyers for this year's show.

**Show:** The 2018 show "Opal It Is" will be held on the 13<sup>th</sup> and 14<sup>th</sup> of October. Dave will be working with Ron from Dreaming Down Under.

**Field trips:** The club is looking for a coordinator.

**Webmaster:** Jason Schulz reported that the AFMS web contest will be done by the end of January. There were around 400 *LIKES* on the Facebook page.

**Junior Rockhounds:** "Earth & Space" program February 1, 2017, at 6:30 p.m., at the Public Library.

**Correspondence:** Millie Mowry reported on 4H lapidary classes at the Shawnee County Fair. Cinda Kunkler reported on receiving an email about a raffle being held at The AFMS April Convention in Raleigh, N.C. This is for the endowment fund. Tickets are \$5.00 each or \$20.00 for five. Richard Jaeger will take payments at: 3515 E 88<sup>th</sup> St. Tulsa, OK 74137. The American Federation Mineral Society thanked us for the \$495.10 donation to the AFMS scholarship, from our show.

**New Business:** An annual audit was done by Mike Cote', Dave Dillon, Chuck Curtis, and Brad Davenport. Will Gilliland said that Washburn will have a display at The Greater K.C. Show in March. Millie Mowry passed out sheets of the Club budget. George Reed donated to the door prizes.

Mike moved to adjourn to the program of Rock Identification led by Brad, Will, Dave, Harold, and George. Chuck moved to approve and Jason 2<sup>nd</sup>.

Fred Zeferjohn announced George Reed (Rose Quartz faceted stone) won the Member Cab out of 5 entries. Robert Schulz (Aqua Marine silver wire wrap scorpion) won the Member Jewelry out of 7.

Respectfully submitted by Colleen Lightwine.

**Visitors are always WELCOME at our meetings!**

*Event Calendar*

# Feb. 2018

# Mar. 2018

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

1T	Jr Rkhd's @ TSCPL rm 101C Wire Wrap Class @ Millie 1-3 pm only
2F	
3S	
4S	
5M	
6T	
7W	
8T	Wire Wrap Class @ Millie 1-3, 7-9p.m.
9F	Board Meeting 7 p.m. @ Millie's
10S	
11S	
12M	
13T	
14W	
15T	Wire Wrap Class @ Millie 1-3, 7-9p.m.
16F	
17S	
18S	
19M	
20T	
21W	
22T	Wire Wrap Class @ Millie 6:30-9p.m.
23F	General Mtg. 7:30 pm Stauffer rm 138 Hall Washburn
24S	
25S	
26M	
27T	
28W	
29T	Wire Wrap Class @ Millie 6:30-9p.m.
30F	
31S	

Check out the new calendar on our web site  
[www.TopekaGMS.org](http://www.TopekaGMS.org)

Any questions ask Millie at rock2plate@aol.com

Lessons at the barn are finished because it is too cold.

If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or rock2plate@aol.com

Lessons at the barn are finished because it is too cold.

## 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 2 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 1, 2018 class Field Trip: Hughes Room 205, we'll meet at the Topeka & Shawnee County Public Library. Sign-in-starts at 6:00pm, and class starts at 6:30.
- Thursday, March 5, 2018, Rocking on the Computer, Anton room 202, Jason Schulz

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---Leslie's Class
- 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.

Our latest class was "The Earth in Space," covering the Solar System and a few other rocky inhabitants of our little chunk of space. Seven Rockhounds and one visitor came out to listen and learn about the planets, our asteroid belt, comets, and meteors. Those attending the class even got to take home a bit of meteoric material—a tektite—thanks to Will Gilliland. Jason Schulz

## 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-7:30ishpm. Barbara Smith will be doing an activity.

## TGMS and Jr Rockhounds Activities

At this point the next upcoming event for TGMS and Jr Rockhounds will be February 24, 2018 at the Topeka Discovery Center from 10am to 5pm. Set up time starts at 9am and clean up starts at 4:45pm Email Jason Schulz fleetcommander@att.net for questions and if you can help.

**\*\*Any help with the following list would be greatly appreciated:\*\***

- We NEED your help at the Discovery Center. There will be plenty of jobs and we will find that will fit your talent.
- Different size smooth mostly flat rocks.
- Small kid friendly stickers. Fuzzy or regular stickers. Kids can design the rock how they want...like a pet rock. No painting this time.
- Coloring pages will be furnished.

## TGMS and Jr Rockhounds Field Trip

**F**IELD TRIPS ARE ON HOLD FOR BETTER WEATHER

## Stones of Nebraska: Jade Type II

Submitted by Cynthia Casselman

Copied from <http://digitalcommons.unl.edu/conservationsurvey/2/> Minerals and Gemstones of Nebraska: A Handbook for Students and Collectors by Roger Pabian. Dr. Pabian was the Emeritus Research Geologist at the University of Nebraska and long-time member of the Lincoln Gem and Mineral Club.

All known jade from Nebraska is nephrite. Small amounts of nephrite have been collected from terrace gravels and gravel pits in the North Platte River basin and in the Middle and Lower Platte River basins. It originated in Precambrian metamorphic rocks in the Front Range in Wyoming. There are several claims in the Wyoming source area from which nephrite is now being mined. Most nephrite found in Nebraska is black. Black nephrite has been found near Mitchell and Henry, Scotts Bluff County; and Ashland, Saunders County. The Ashland material may be a Type III occurrence.



Nephrite has been found in the Cedar Bluffs Till in limited quantities near Nebraska City and Palmyra, Otoe County; and Humboldt, Richardson County; commonly found in glacial deposits. Nephrite from northern and western sources cuts and polishes in the same manner.

Nephrite is used almost exclusively for jewelry as it generally occurs in fragments that are too small for specimens. Nephrite grinds easily by almost any method. Sanding nephrite is difficult for it has a tendency to undercut. The texture of nephrite varies considerably from one piece of material to the next. Therefore, the technique used to get a glossy sanding job on one piece may fail on the next. The desired results may be produced by either wet- or dry-sanding. If one method fails, the cutter should try other methods until the desired effect is obtained. Generally, nephrite is easily polished with Linde-A on leather, but chromium oxide or stannic oxide may also produce a high, glossy polish.

(Source: Pick & Shovel 2/2018)



Photo from Geology.com

## Calcite, Aragonite

Text, photo by Wayne Mills

Seashells are made of *calcium carbonate* (Calcite and Aragonite). When seashells decompose, they make **limestone** that is one of the most abundant forms of marine deposits. When lime-stone gets subject to heat and pressure, it becomes **Marble**. When limestone gets dissolved and precipitated in caves it can take many forms including **stalactites** (top down), **stalagmites** (ground-up), **helictites**, **soda straws** and **flowstone**. When calcium carbonate is dissolved in superheated water and redeposited at mineral springs (like at Yellowstone NP), it forms **travertine**. A lovely, banded rock material.

When dissolved *calcium carbonate* crystallizes, it can take any of about 600 forms, including forms identified as two separate minerals, **Calcite** and **Aragonite** (which are both calcium carbonate). The difference between these two is how their atoms are stacked which determines their physical properties .

*“Aragonite has a structure that is more resistant to stress than calcite, explaining why organisms that live in high-energy environments (e.g. corals) prefer aragonite skeletons over calcite. Calcite is less prone to dissolution, which is why organisms that live at greater depth (e.g. benthic foraminifera) prefer calcite over aragonite, especially when they live below the Aragonite Compensation Depth. Bi-valves are organisms that use both minerals, building a layer of calcite on the outside of their shell while building an aragonite layer on the inside of their shell where the strong shell closing muscle attaches to the shell.”*

*Niels de Winter, Vrije Universite, Brussels Belgium in Researchgate.net*

Calcite is pretty soft (3 of 10) on the hardness scale, usually colorless to translucent, has perfect cleavage in 3 directions, and is often fluorescent, while Aragonite though also fluorescent, is a little tougher (3.5-4), and only has cleavage in one direction. Aragonite is much rarer in occurrence than calcite being found in fewer mineral environments.

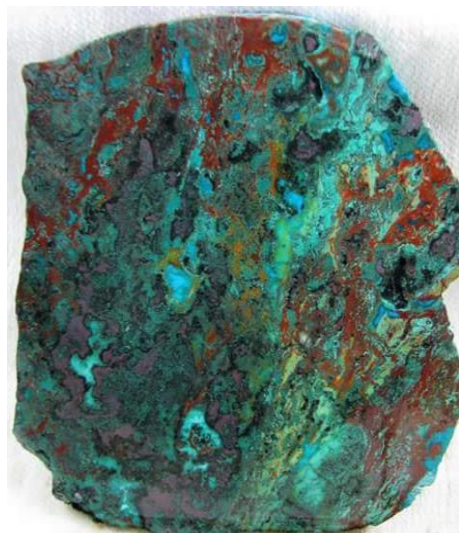
(Source: Ore-Cutts 11/17; via WGMS Rockhounder 2/18)



Aragonite from Erfoud, Morocco photo from Etsy.com



# Parrot-Wing Chrysocolla



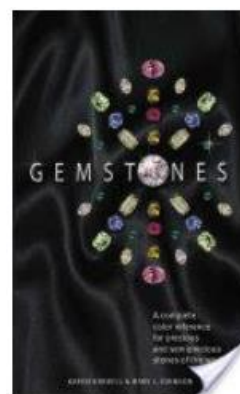
**“Properties and characteristics:** Blue-green hydrated copper silicate mineral, which sometimes contains trace quantities of iron and manganese oxides. It typically forms on the edges of copper ore bodies, and is found as crusts or vein fillings; gem silica is found as glassy botryoidal or rounded masses. Chrysocolla is often found mixed with malachite, turquoise, and azurite; it is, in fact, often confused with turquoise, partly because of its color. A mixture of chrysocolla, malachite, and turquoise from the gulf of Aqaba region is known as Eilat stone. Chrysocolla in yellow to red-brown jasper makes a rock called “parrot-wing” jasper. Demidovite is a phosphate-bearing chrysocolla occurring in Nizhni-Tagilsk, in the Urals, Russia.

Chrysocolla is found wherever copper deposits occur, such as areas of southwestern USA, Chile, DR Congo, Australia, France and England.”

## **Gemstones:**

A Complete Color Reference for Precious and Semiprecious Stones of the World  
Karen Hurrell, Mary L. Johnson

(Source: CI News Nuggets 2/18)



*WORKING TOGETHER WORKS*



*Your Dues are now overdue! The Directory will be after March 1, will your name be on it? We do NOT want to lose you as a member.*

*If you are wondering why there is a Bluebird on your mailing label It is because your dues are due.*

## PSEUDOMORPHS

Every mineral species has, when distinctly crystallized, a definite and characteristic form. Occasionally crystals are found that have the form, both as to angles and general habit, of a certain species, and yet differ from it entirely in chemical composition.

Such crystals are called "pseudomorphs" (meaning false forms) and their existence is explained by the fact that the original mineral has been changed into a new compound, or that it has disappeared through some chemical action and its place has been taken over by another chemical compound to which the form does not belong.

Pseudomorphs may be classed by:

- a. Substitution - The original composition is gradually replaced by another, with or without a chemical reaction. An example is petrified wood, where the original wood is replaced with quartz.
- b. Incrustation - The original compound is covered by another and then the original compound is dissolved. However, the original compound does not have to be absent for it to be a true pseudomorph.
- c. Infiltration - The original compound is dissolved, leaving a cavity which then is filled with the replacing compound.
- d. Alteration - Through chemical alteration, the original compound is changed into another compound.
- e. Paramorphism - The original compound is changed into another only in the molecular composition, without a chemical change. A good example is the changing of aragonite to calcite (bot  $\text{CaCO}_3$ ) at a certain temperature.

Pseudomorphs are fun to collect. Look around at the next show and see how many you can find.

by Bill Timms in Chips and Chatter, via THE MOUNTAIN GEM 3/89

(Reprinted from the Glacial Drifter Nov. 1989)

## A Rockhound Puzzle

We have a message from a woman traveler who was trying to get information to a friend about gems she had acquired on her journey. Either she feared the message would be censored or else she wanted to aggravate the friend. Can you help her find the gems? The name of one gem appears in each line, so you should find ten gems in all.

I promised to drop a line to you soon.  
We arrived in India, Monday at noon.  
The robbery last night left me short of things.  
So I had to shop early for gloves and rings.  
When the plea of a beggar nettled Paul.  
He bought rutabaga, tender and small.  
We tried to stop a zebra from running amok.  
And had to rub your rabbit's foot for luck.  
On paper I do try, but somehow it fails.  
Whenever I spin elaborate tales.



## SAPPHIRE

by Jim Sharp

from *Mid-Georgia Gem Clips* 9/95

(Honorable Mention in 1996 AFMS Adult Advanced Article Contest)

Sapphire, the birthstone for September, is one of the two varieties of corundum; ruby is the other variety. Only transparent corundum of medium light to dark tones of red to purple-red is properly called ruby. Red stones that are light to very light in tone are pink sapphires. All gemstone quality corundum except ruby is classified as sapphire. Corundum can be found ranging in hue and tone in all colors of the color wheel plus colorless, brown and black. Since sapphire covers such a broad spectrum of color, a color prefix has been adopted for all colors except blue. When the word sapphire is used alone it has been accepted universally that blue sapphire is the subject

Sapphire has adamantine luster when polished because of its hardness which is nine on the Mohs hardness scale.

Colorless sapphire has been used for a diamond simulant for many years. It is unfortunate, but many unsuspecting people have purchased

colorless sapphire and have been led to believe they were getting diamonds. I purchased a colorless sapphire from a reputable dealer; the stone was brilliant cut, eight millimeters at the girdle (which is slightly larger than a one carat diamond) for eight dollars in 1975.

All fancy sapphires are beautiful stones. Intense light reddish-orange sapphires, often called padparadscha (pad-par-ADH-shah) are considered by many connoisseurs to be among the most beautiful gemstones. Another beautiful sapphire contains the phenomenon asterism, and is referred to as star sapphire. These stones are translucent because they have enough silk needle-like inclusions to produce a star.

Sapphires are commercially mined in many countries, the most productive are Burma, Sri-Lanka (previously called Ceylon), Thailand, Cambodia, India, Kashmir, Pakistan, Afghanistan, Australia, Kenya, Tanzania, Ontario, Canada and Montana, USA.

(Compiled by: Gaila Ries: AFMS Club Publications Chair)

Answers to Rockhound Puzzle: 1. Opal 2. Diamond 3. Beryl 4. Pearl  
5. Garnet 6. Agate 7. Topaz 8. Ruby 9. Peridot 10. Spinel

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



**Volunteering is the heart**



**beat of YOUR club**