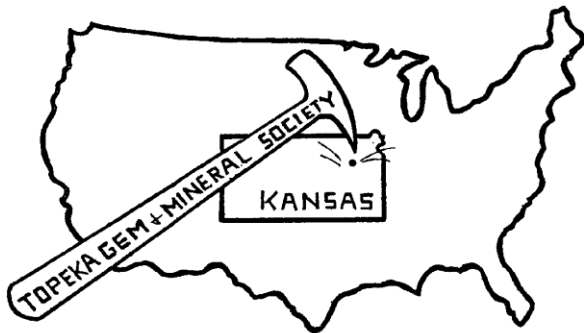


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

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. 62, No. 01,
 January 2019



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

2019 OFFICERS AND CHAIRS

President	Mike Cote	220-3272	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1 st Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Will Gilliland	286-0905
2 nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	TGMS Board	
Secretary	Open		Welcome/Registration	Open	
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	220-3272
Directors	Brad Davenport	379-8700	AFMS Scholarship	Cinda Kunkler	286-1790
	Will Gilliland	286-0905	Editor/Exchange Editor	Millie Mowry	267-2849
	Chuck Curtis	286-1790	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 .
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.



Words from Our Top Rocks!

2019 has rolled in and the question is, what can YOU do to help the Club out this year? There are a couple of positions open that need filling. We are looking for a Secretary for this year. The other is the Welcome/Registration at the general meetings. If you know of anyone that is willing to take that position please get with me to see what all it involves.

Your Club dues are due at this time, so let all get out the ol' check book and pay your dues for the 2019 year. If you have any question about it, see Millie.

The January program will be a Silent Auction. If you have any rocks or jewelry etc., you want to donate to the club, bring them to the meeting on January 25th.

We are scheduled for the Children's Discovery Center again this year on February 23, 2019. We need some volunteers to help with it. See myself, Dave or Millie to sign up.

Mike Cote` & Dave Dillon

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



Welcome Our New Member

Stuart Hazard, Wakarusa, KS.

TGMS Event Calendar

Jan 2019

1T	
2W	
3T	
4F	
5S	
6S	
7M	
8T	
9W	
10T	
11F	
12S	
13S	
14M	
15T	Wire Wrap Class @ Millie's 6-9p.m.
16W	
17T	Wire Wrap Class @ Millie's 1-3 p.m.
18F	
19S	
20S	
21M	
22T	NO Wire Wrap Class @ Millie's 6-9p.m.
23W	
24T	Wire Wrap Class @ Millie's 1-3 p.m.
25F	General Meeting @ Washburn TGMS 7:30 pm, rm 138 Stauffer Science Hall, Silent Auction
26S	Lincoln, NE Rock Swap 1-5pm 64th & Vine, Sharon Marburger 402-429-3323
27S	
28M	
29T	Wire Wrap Class @ Millie's 6-9 p.m.
30W	
31T	Wire Wrap Class @ Millie's 1-3 p.m.

Feb 2019

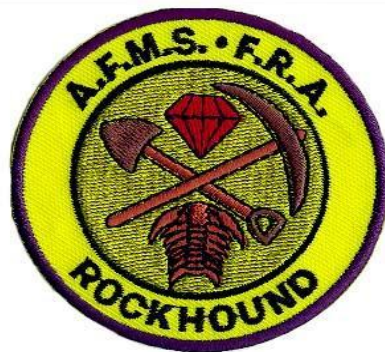
1F	
2S	
3S	
4M	
5T	Wire Wrap Class @ Millie's 6-9p.m.
6W	
7T	TGMS Jr RHD's, Marvin Auditorium 101C Wire Wrap Class @ Millie's 1-3 p.m.
8F	
9S	
1S	
11M	
12T	Wire Wrap Class @ Millie's 6-9p.m.
13W	
14T	Wire Wrap Class @ Millie's 1-3 p.m.
15F	
16S	
17S	
18M	
19T	Wire Wrap Class @ Millie's 6-9p.m.
20W	
21T	Wire Wrap Class @ Millie's 1-3 p.m.
22F	
23S	DISCOVERY CENTER 9-5 NEED HELP!
24S	
25M	
26T	Wire Wrap Class @ Millie's 6-9p.m.
27W	
28T	Wire Wrap Class @ Millie's 1-3 p.m.

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

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

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

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 few 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...

- February 7, 2019. To Be Determined, 101C, Marvin Auditorium, with Barbara Smith/ Brad Davenport
- March 7, 2019, Fossils, 101C, Marvin Auditorium, with Pat Gilliland
- April 4, 2019, Dinosaurs, 101C, Marvin Auditorium, with Pat Gilliland

Reminder: If you want to earn the patches from the classes that you have attended you need to turn in your homework assignments.



Junior Rockhound's and Parents, please watch for monthly emails from Brad Davenport as he will be sending out reminders of the up-coming class and any other important information you may need. His email is Brad7254@gmail.com.

This month's class was about Maps—big ones, little ones, and everything in between. We talked about what kinds of maps there are, what we'd use them for, and why we might need them for geology and rock hunting. We also touched on what the Global Positioning System was and how it worked.

Next month's class is to be determined, but will still be held February 7th at the Topeka and Shawnee County Public Library. Sign-in starts at 6:00pm and class starts around 6:30.

Have a good month!

Jason Schulz



Membership Dues Are Due!

This is for members that joined before September 2018. If in question---check your membership card for the date due. For those who joined after September 2018 your dues are not due. The new directory will be published March 1st, 2019.



If you have a question about it, see Millie.



*Do you have a change of address or Email address, or phone, please let us know So you do not miss out on any notices.
Rock2plate@aol.com*

FOR SALE!
We still have: 7 - Fine Agates & Jaspers Calendars for the year 2019 \$11 each
1 - book- The World of Minerals & Crystals \$2.50
5 - books- Fluorite the Rainbow Mineral \$2.50 each

If you are interested in any of these items let Millie know. Rock2plate@aol.com or 267-2849



Spring Time, Field Trip Planned

A spring field trip is being planned to the Great Salt Plains area of Alfalfa County, Oklahoma. The main focus will be collecting selenite crystals that have an hourglass pattern of sand enclosed inside them. These crystals of gypsum grow under the surface in sand of the Great Salt Plains. From April to October of each year people are allowed to dig for and collect the selenite for personal use. Due to high temperatures on the salt flats in summer we will try to set up a date in April for the field trip. More information will be available later on the proposed date, facilities in the area and equipment needed.

Will Gilliland, Field Trip Coordinator



AFMS Newsletter December 2018 Report

(The money collected from the sale of our grab bags and the Scholarship Table at our show goes to the AFMS Scholarship Foundation).

The AFMS Scholarship Foundation 2018 Honorees and their student selections have been announced by Lauren Williams, Scholarship Foundation President.

From the Rocky Mountain Federation: Dr. Matthew Brueseke is Associate Professor at the Department of Geology at Kansas State University, Manhattan, Kansas.

Dr. Brueseke has chosen as the following two students:

Ms. Emily Fenner is pursuing her Master's degree in Geology (local Kansas Kimberlites) at Kansas State University in Manhattan, Kansas.

Ms. Kayleigh Rogers is pursuing her Master's degree in Geological Sciences (epithermal Au-Ag deposits in the Great Basin) also at Kansas State University in Manhattan, Kansas.

SPONGES (PORIFERA)

BY: Jack Mueller

Midway through the Cambrian period (about 550 million years ago) unicellular organisms decided there was an advantage to community living. Dividing by binary fission, the two new individuals stayed together, then divided again. They ate their meals of food particles born by water, which was drawn through their bodies by canals which also enabled oxygen to reach all parts of the body.

With increase in size of these colonies and perhaps with the arrival of predators, a hardened framework became necessary to protect the soft jelly-like mass. Elements extracted from the water were used in the construction of this armor. Despite this armor, sponges have been found in the stomachs of large cephalopods.

Most sponges are marine, growing attached to the bottom. Some may be as small as the head of a pin; others may be 40 inches long. If a sponge were cut up into many pieces and tossed back into the sea, each part would grow into a whole new sponge.

By Devonian times, sponges showed a decline in species and numbers, but there was an upsurge of porifers in the Carboniferous period. Large numbers of sponges characterized Jurassic time, also the first freshwater sponge occurred. A decline took place in Tertiary times, several species becoming extinct. There are comparatively few types left in modern times.

(Source: Crystal Cluster, Pegmatite, Osage Hills Gems, & IGAMS Dec. 2018)

ARE YOU SURE ABOUT THAT?

By: Jason Schulz

TGMS Member

Need information on just about any subject? Fear not! With an Internet connection, the world can be at your fingertips! Instant access to more information than you ever thought you'd need!

The widespread proliferation and sharing of information has been a boon and a curse. It's become easier to do research and access many different sources for different points of view; however, the burden of sifting through the mountains of data and distilling what you need (or, sometimes, just telling fact from fiction) has increased dramatically.

Recently, I was called upon to help a young person identify a fossil they'd found. I admit, my ability to identify specimens is rather limited, so I rely on different reference materials to help me. The young man was rather adamant that he'd found a land dinosaur fossil, but his mother wasn't so sure. I asked him where he'd found it, and he answered proudly "just outside Valley Falls." (To be honest, the specimen looked like a crinoid stem that had been badly weathered...but what do I know?) He even showed me the web site where he'd found his information.

Hmmm...

The web site looked like someone's half-baked pet project for a class assignment. Much of the information was, well, wrong. The biggest red flag was a claim that Kansas was home to some of the largest land animals of the Cretaceous Period! (Ummm, yeah. That might be a problem considering the area that's now Kansas was under water at the time.)

After going through several OTHER resources, including two different web sites and three reference books, we finally pinned down his fossil. He was disappointed that it wasn't a "big thunder lizard," but hey, who else can say they've got a real fossil?

The moral of the story? Just because information's easier to find doesn't mean everything's right. (Just ask Wikipedia.) Be diligent and thorough with your research, and if it seems too good to be true...well, you know.



Rose Quartz and Blue Quartz by Steven Wade Veatch, CSMS

Quartz (SiO_2) is a common mineral found in all three classes of rocks (igneous, metamorphic, and sedimentary) in many environments, and in a range of colors. Rose and blue quartz are less common than some of the other varieties.

Rose quartz has a pale pink to rose red color thought to be caused by trace amounts of titanium that absorbs all colors except pink. This may account for its rosy color. In a laboratory experiment, samples of rose quartz from several localities were carefully dissolved in acid. The remaining insoluble residue consisted of thin microscopic fibers. These fibers may also be responsible for the color of rose quartz. Well-formed rose quartz crystals are rarely found in nature. Rose quartz is generally found in massive chunks associated with pegmatites. The term pegmatite refers to exceptionally coarse-grained crystalline granite. Since rose quartz is cloudy, it is



Rose Quartz, Doce Valley, Minas Gerais, Brazil – courtesy Mindat

not popular as a faceted gem but it is commonly formed into cabochons, rounded into beads for necklaces, or carved into various objects.

Rose quartz has been named as South Dakota's official state mineral. Here rock-hounds have a good chance to find specimens ranging from shades of light pink to rose-red. Some rose quartzes from South Dakota have a distinctive asterism, a star-shaped display of light on the polished surface.

Blue quartz, with a deep to sky blue color, is packed with tiny grains such as rutile (TiO_2) and ilmenite (FeTiO_3). Other inclusions might include tourmaline, crocidolite, magnesioriebeckite, zoisite, and several others. Some researchers hypothesize that the blue color comes from the Rayleigh scattering of light by these microscopic inclusions. Rayleigh scattering selectively scatters visible light of the shorter blue wavelength. However, the cause of the blue color still remains uncertain. Blue quartz has a waxy luster and sometimes displays asterism.

Blue quartz occurs at a number of localities. In Llano County, Texas, blue quartz is found as small, doubly terminated crystals in a rhyolitic porphyry informally called Llanoite. The crystals weather out of the host rock and can easily be collected. Blue quartz is also found in a diorite near the Dairyland Power Dam near Tony, Wisconsin. Blue quartz was recently discovered in the Cushing Point Formation at Peak's Island, Maine. The specimens there have inclusions with the chemistry of biotite. In the past, biotite has not been listed as a possible inclusion. Research now suggests that the inclusion of biotite on Peak's Island may be responsible for giving quartz its blue color. Blue quartz is associated with pegmatites of the Cape Ann Granitite at Andrew's Point in Rockport, Massachusetts. The author has found blue quartz at two Colorado locations: Park County near Hartsel and on the tailings of the Bull Domingo Mine in Custer County northeast of Silvercliff.



Blue Quartz, Altura, Castellon Community, Spain – courtesy Mindat

A famous site—Antequera—near Malaga, Spain yields translucent crystals of intensely blue quartz.

While some varieties of quartz are well known, such as amethyst and smoky quartz, blue quartz is a lesser known variety. The sapphire-blue quartz is wonderful to behold and exciting to find in the field. The rich blue colors hold your attention and move you to plan a collecting trip. The variable rose colors beckon the collector to cut and polish slabs of rose quartz rough. Both varieties of quartz truly deserve a spot in your collection.

References:

- Coblieg, T., 1986. Why is Blue Quartz Blue?, Geological Society of America 18: 567.
 - FrondeL, C., 1962. The System of Mineralogy, 7th edition, vol. 3, Silica Minerals, John Wiley and Sons Publishers, N.Y., 334 p. Koivula, J., 2003. Blue Quartz. Gems & Gemology 39, p. 44-45.
 - Romero Silva, J.C., 1996. Blue Quartz from the Atequera-Olvera Ophite, Malaga, Spain. The Mineralogical Record 27, p. 99-103.
 - Rossmann, G. R., 1994. Colored Varieties of the Silica Minerals: in Silica: Physical Behavior, Geochemistry and Materials Applications, edited by P.J. Heaney, C.T. Prewitt, and G. V. Gibbs, Washington, D.C., Mineralogical Society of America, Reviews in Mineralogy, vol. 29, p. 433- 468.
 - Wise, M. A., 1981. Blue Quartz in Virginia, Virginia Minerals 27, p. 9-13.
 - Zolensky, M. E., Sylvester, P.J., and Paces, J. B., 1988. American Mineralogist, 73, p. 213-232
- From Southern Utah Rock Club 2/12, Via Pick & Pack, September 2009, Via Leaverite News October 2009, Via Strata Gem February 2010, via Pueblo Rockhounds 12/13.

WHAT IS TEREDO PETRIFIED WOOD?

By Jerry Buklis

Teredo Petrified Wood is the official fossil of North Dakota as of March 15, 1967. However, as stated, it is a misnomer. In reality it is a piece of petrified wood with holes bored by a worm-like mollusk and the round holes are filled with quartz, chalcedony, opal, sand, etc. That is your Teredo Petrified Wood.

More on the shipworm, the common name of the mollusk – it lines its home with a secreted calcium compound; has two small shells in front of its head which are used to bore holes by rocking an rasping; has two pallets in the tail end which are used to seal the entrance to the living quarters; has two small siphons at the tail and to control the intake of water and expelling same, with what have you. Remember, the wood is under water.

Each shipworm eats and excavates its tunnel home and grows in length until maturity, but should its home be punctured, it will die because of respiratory failure. The adult female secretes millions of eggs in a year.

There are several species of mollusks involved: Teredo, Bankia, Psiloteredo, Lyrodus, Nausitora, Nototeredo, and related forms but Teredo takes all the credit. Today they are said to destroy the unprotected wood in water but a long time ago they were on the cleanup detail.

Teredo Petrified Wood is a desirable collector's item especially if the fillings are of gem quality.

What is meant by worms in wood and/or petrified wood?

The use of the work "worms" in this case is a misnomer since actually it is larva which bores holes and some species nest in the wood. First we have the beetle which lays an egg or eggs, depending on the species. When the eggs hatch we have a baby larva which upon maturity pupates and the result is a beetle. There are more than a thousand species of the insects involved.

The difference between a beetle and a fly: the beetle has teeth and the fly does not. The larva has a hard plate with hooks in front of its face and bores by moving its head up and down.

Petrified wood with worm holes should be more desirable because it tells you more of the past.

(Source: the Grindings, via Eureka News 1/86, via a reprint from the TGMS Drifter 4/87)

BASANITE BY Virg Arnold

Touchstone, Lydian stone or Basonite are all names for a velvet black jasper. This stone was used as early as 450 B.C. by ancient jewelers and goldsmiths on account of its hardness and uniformity of its texture and color as a streak tablet of determining the relative amounts of baser metal and pure gold in alloys. The sample is rubbed on the stone and the color is then compared with a series of standards of known composition.

The expert is able quite accurately to determine the fineness of the sample, the streak becoming redder as the percentage of copper increases or yellower as the percentage of gold increases.

Today's use – for backing opal doublets and triplets to make color more brilliant and stone more durable. It can also be used as is, in jewelry, as a cabochon, as it will take a high polish.

(Source Boulder Gazette, Via Eureka News 10/85, via reprint from TGMS Drifter 4/86)