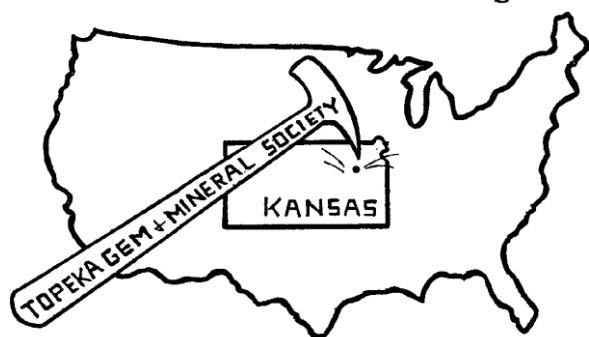


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

THE GLACIAL DRIFTER



www.TopekaGMS.org 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. 67, No. 9
 September 2024



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, 7:15 pm, First Congregational Church, 1701 SW Collins Ave, Topeka, KS 66604. 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

2024 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Donna & Russell Hedge	620-660-1651
1 st Vice Pres.	David Dillon	221-4315	Field Trip Coord.	Chuck Curtis	286-1790
2 nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	Donna Hedge	620-660-1651
Secretary	Stacy Haug	1-857-3350	Welcome/Registration	Harold Merrifield	633-9745
Treasurer	Millie Mowry	267-2849	Property	Chuck Curtis	286-1790
Directors	Doria Skinner	231-9347	AFMS Scholarship	Cinda Kunkler	286-1790
	Jim Baer	785-256-2432	Editor/Exchange Editor	Millie Mowry	267-2849
	Shirley Schulz	n/a	Show Chairman	Millie Mowry	267-2849
Historian	Cinda Kunkler	286-1790	Show Dealer Chairman	Dave Dillon	221-4315
Federation Rep	Chuck Curtis	286-1790	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Dennis Hippe	230-6729
Librarian	Cinda Kunkler	286-1790	Show Case Coordinator	Cinda Kunkler	286-1790
Web Master	Chad Skinner	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.

Fodder from the President. September/2024

We need all members to attend the September meeting so that the Club Elections can be discussed.

Club Elections

They are coming up soon, and if you are interested in any of the following positions, get with Chuck, or the person who now holds the position for more information.


Here are the Elected Positions:

1. President
2. Vice President
3. 2nd Vice President (Is also the program chairman)
4. Secretary
5. Treasurer (this you will have to be an under study for a time frame)
6. And 1 Director (On for 3 years)

Nominations are held in October, voted on at the club meeting in November, installed at the Christmas Dinner, and takes over in January.

Hello Everyone,

*It is getting to be that time of year again. We will be holding elections for Club officers at the November meeting. Ballots will be available at the October meeting. That leaves just a few weeks to nail down candidates before the ballots are published. If you wish to be a mover and shaker of The Topeka Gem and Mineral Society, please step up now and let us know ASAP. Brad will have it on his calendar to bring up at the September meeting which will be on Friday the 27th. Please be sure to attend the meeting and give the Club your input. See Ya then.
Chuck Curtis, Chairman, Nominating Committee*



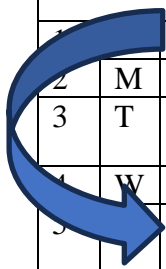
Friday Sept 27 is our Meeting this month - program is silent auction. Please bring donations to help raise money for the club. It doesn't have to be rocks! We will be getting the work schedule for our show filled up and may have a training class to go over what is expected. Please come, so we can fill up the work schedule for the show!!! We need everybody to help - youth included. Please pick up coupons to give out: Doctors, dentists, school teachers, friends, neighbors, repair services – anyone and everyone you visit! See you Friday, and hope you can go on the field trip Saturday!!

October meeting will be early (Oct 18th) due to the RMFMS Convention in Oklahoma City Oct 25th-27th. Will Gilliland has agreed to talk with us about Kansas Volcano's - other geological sites. Hope to see you all there!

Cinda Kunkler, 2nd Vice President

TTGMS Event Calendar

SEPT 2024			OCT 2024		
			1	T	Brad's Shop Open 6-10 pm
			2	W	
			3	T	Jr RHDS 6 p.m. at FC Church 1701 SW Collins
			4	F	
			5	W	
			6	S	
			7	M	
			8	T	Brad's Shop Open 6-10 pm
			9	W	
			10	T	
			11	F	OUR SHOW set up day
			12	S	OUR SHOW
			13	S	OUR SHOW
			14	M	
			15	T	Brad's Shop Open 6-10 pm ???
			16	W	
			17	T	
			18	F	Regular Mtg - Mtg. Gather 7:15 p.m. Mtg at 7:30 pm FC Church 1701 SW Collins
			19	S	
			20	S	
			21	M	
			22	T	Brad's Shop Open 6-10 pm ????
			23	W	
			24	T	
			25	F	RMFMS CONV
			26	S	RMFMS CONV
			27	S	RMFMS CONV
			28	M	RMFMS CONV
			29	T	NO SHOP
			30	W	
			31	T	



Attention Wire Wrappers

For those interested in taking lessons in wire wrapping, after our show in October, I will be having class at my house on wire wrapping instead at Brads. We are hoping it will generate more interest in the craft. I can only hold 6 at my kitchen table at a time, So, if you are interested, let's get together and make our plans.

Millie, rock2plate@aol.com or 785-267-2849 leave me a message.

As A Reminder!

If you are wanting to take a class in Silversmithing or wire wrapping you are to call either Jim Baer at 785-256-2432 or email him at jimbaer73@gmail.com, for wire wrapping contact Millie Mowry at 785-267-2849 or email rock2plate@aol.com the Monday before class to let them know you will be there.

JR ROCKHOUND Classes & Reminders

Here are reminders of the next months of classes: **First Congregational Church, 1701 SW Collins Ave., Topeka, KS.** Sign in starting at 6:00 pm and classes starting at 6:30 pm. 1st Thursday of each month.



<https://www.facebook.com/TopekaGMSJuniorRockhounds>

To register for the Junior Rockhounds or any of the classes, email:

Dennis Hippe at: go.purple@hotmail.com

Next Class: Oct 3, 2024 Earth In Space – Jason Schulz

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

Rocks for Juniors

Reminder to bring any extra rocks you might have that you would like to donate to the Junior Rockhound Club. We are trying to let the kids go on a "field trip" after class. Some of them really don't have much of a chance to add to their collection. We will have a table set up at the back of the room that they can come to and let them each pick out four rocks that you have graciously donated. This way they can add to their collection. Thank you so much for your contributions. This wouldn't be possible without you.

Dennis Hippe

Dillon's Community Reward Program

The Topeka Gem & Mineral Society has enrolled with the Community Rewards with Dillon's Store. You can enroll your shopper's card at: www.dillons.com/communityrewards once you sign up it will take about 7 to 10 days to be activated and our Club to start earning the rewards. At the bottom of your Kroger receipt, you will notice "At your request, Kroger is donating to 'your organization name'".

1. You will have to re-register each year.

If you have any other questions email DCR@dillonstores.com

[1st quarter's rebate amounted to \\$50.64.](#)

[2nd quarter's rebate amounted to \\$57.98 Thank you 12 people](#)

[3rd Quarter's rebate amounted to \\$53.06](#)



The Library has moved.

In the TTGMS Library there are well over 100 books to choose from That cover a vast array of subjects of lapidary art and geology.

The library has currently moved to the church storage area, contact Cinda if interested in checking out a book.

We are still in need of a lot of UPC labels
From Best Choice products. Bring them in to Cinda
So, we can get our rebate.



Our next Club field trip will be Saturday, Sept.28 to Mike Meier's Sand Bar. We will meet at Tecumseh Park around 9:00am. We plan to leave the Park at 9:30 sharp and convoy to Mike's place. Please show up plenty early for Sign-In. The Park is located at 4801 SE 2nd St. in Tecumseh. Hope to see Ya'll there. Chuck Curtis, Field Trip Coordinator

Club T-shirts

Several of the club member have not picked up the t-shirts that were ordered. Please pick them up at the September meeting.

I have extra t-shirts if anyone wants one, see me for sizes at the august picnic.
Millie

The Topeka Gem & Mineral Society wish to extend its deepest sympathy to Donna Hedge, with the loss of her husband Russell, this last week. Services are pending.

Sheryl Wilhelm is our newest Club member, Make her feel welcome.

Working Together WORKS



Oddities of the Mineral Kingdom

ITACOLUMITE: the rock that bends. It will bend and when turned over will bend in the opposite direction. No known practical use has been found for this bend rock, but it is a source of gold and some diamonds in Brazil and India. It is also found near clay with diamonds in it in these countries.

Itacolumite is a metamorphic rock. The rock is a most extraordinary kind of sandstone and will bend under its own weight and slabs of it will bend even if the slabs are thick. The rock's flexibility is caused by symmetrical quartz grains which interlock and, therefore, rotate against each other when it bends. There is also some mica in it that helps as elasticity for the bending. Minerals of chlorite and talc are also found flexible. Itacolumite is porous to some degree from the water running through the veins in the rock.

Bentonite: the rock that swells. This rock, when put in water, will swell, taking up some five times its own weight, and can enlarge to 50 times its own volume.

Bentonite is a clay mineral, which makes it soft and slippery. The Black Hills region has beds of this mineral and they have a very wrinkled look when viewing them, as there is hardly any vegetation growing on them.

Bentonite is mined with mechanical shovels used for industrial purposes. Bentonite is used by oilmen in filling the pores in rocks in which they are drilling for oil. It filters and also purifies some commercial products and holds molding sand together. It is also used as a paper filler/carrier for use in such things as drugs and in farm ponds to prevent leakage. There are many other uses as well. Utah is one of the sources of bentonite.

Magnetite: the mineral, magnetite, used in compass needles has been found in Monarch butterflies. This discovery may help explain the well-known yearly migration of this species from eastern North America to Mexico.

Source: The Rock Rattler 2/92, Via Pick and Pack 2/02, via Rockhound Ramblings 5/06, via Wasatch News & Views 9/2011

PEACOCK ORE

Author Unknown

“Peacock Ore” is a strange name for a mineral, but it makes sense. The peacock is noted for its brilliant array of iridescent colors – golden hued red, blues and purples. So is the mineral. The brilliant metallic colors change from golden purples to pinks to blues depending on how the light reflects from it. It is also called “purple copper ore.” Freshly mined chalcopyrite displays such color also. It is called “yellow copper ore.”

It is the tarnishing exposure to air that produces the thin-film iridescence. The reason one doesn't see such a mineral in jewelry is that the color disappears soon after exposure to the atmosphere. The sulfides oxidize and a thicker, duller coat of copper/iron oxides conceals the colors below.

An ore is exactly what it is – copper ore. Chemically, it is a sulfide of copper and iron with the metals in varying proportions. It is an important source of metallic copper. Mining is mostly in Chile, Canada and Mexico.

For the purist, its name is “bornite” after the 18th century mineralogist, Ignatius Von Born (also called “Peacock” by his friends). Source: Rock Roller 2/96, via Beacon 2/04, via The Rockytier 3/04, Via The Drifter 5/07

Serpentine **by Don Huber, McPherson Gem & Mineral Club**

July was an anniversary of sorts for two rocks I took to our club's July meeting. For it was exactly 60 years ago that I picked the two rocks up at South Pass, Wyoming, while on a field trip. Both rocks are serpentine, but two different varieties. One is the massive dark green variety, the other a light-yellow variety called retinalite with traces of fibrous chrysotile.

The name comes from the Latin – serpentines “resembling a serpent” from the mottled shades of green it often has, or perhaps its name comes from the fact it often has wavy streaks in it that might resemble a serpent, Green may be the most common color, but it can be white, brownish yellow, red, or black.

Serpentine is actually the name for a group of minerals, and for the group the hardness varies from about 2 to 5. The specific gravity varies from 2.2 to 2.6. Any rock we might find that has a green or greenish-gray color with a waxy or greasy feel might be serpentine or might have some serpentine in it. It's harder than talc and softer than jade. Most serpentine has a composition close to the ideal formula of $Mg_3Si_2O_5(OH)_4$, a basic magnesium silicate, but the magnesium can be replaced by other elements, giving us a number of varieties. Some are rich in iron, others in aluminum, manganese, lithium, nickel or zinc. One of the world's most important sources of nickel is in New Caledonia where the nickel occurs in a serpentine.

There are three main serpentine minerals that have the above formula. They are antigorite, chrysotile and lizardite. Chrysotile we also know as asbestos. Be-cause these three all share about the same chemical formula, they are called polymorphs. Polymorphs are minerals with the same chemical composition but different crystal structure. Other polymorphs we're familiar with are diamond and graphite - both composed of carbon -- and pyrite and marcasite -- both iron sulfide. The reason the different varieties of serpentine differ in form is complicated, but is thought to be due to minor impurities, variations in temperature and pressure, differences in water content, or the kinds of minerals present during formation. Any or all may be involved.

Great serpentine exposures occur in California's Coast Ranges and are identified by the shiny, greenish, slick-sided surfaces in roadcuts. In 1965 California's legislature designated serpentine as the “Official State Rock.” This was at a time when much asbestos was being mined there. But in October 2009 the Asbestos Disease Awareness Organization began a campaign called “Drop the Rock” to remove this designation. (See Los Angeles Times article of July 2, 2010). They were not wanting a rock that can cause disease to be their state rock. This past May a bill was passed by a committee that would strip serpentine of its state-rock title. The bill is now being debated by California's governing bodies.

We're all familiar with asbestos and how getting rid of it in our homes, schools and other buildings has been a major undertaking in the past several years. William Nesse in his textbook, Introduction to Mineralogy-2000, argues that much of this has been a waste of time and money. He doesn't dispute the health risks associated with chronic occupational exposure to asbestos fibers, but he doesn't think this risk can be carried in linear fashion to the low level exposure that might be found in homes, schools, and other buildings where asbestos fibers are part of ceiling tiles, electrical fixtures or insulation. He says, in fact, that we are continuously exposed to low levels of natural mineral fibers in the air and water as the result of normal weathering processes of rocks.

He also thinks that it's extremely unlikely that human biological defenses would not have developed some level of protection in the last millions of years. Actually, it's the serpentine variety crocidolite that poses the greater health risk and not chrysotile, and it's chrysotile that is used in the large majority of products containing asbestos in North America.

Serpentine is considered a beautiful rock by many. It is fairly soft, takes a nice polish, and has been used for thousands of years to fashion vases, vessels and other carvings. It's also used for building facing. Chrysotile has many industrial applications.

References:

- Frederick Pough, Peterson Field Guide
- John Sinkankas, Mineralogy
- William D. Nesse, Introduction to Mineralogy
- AGI, Dictionary of Geological Terms
- Wikipedia
- Charles Sorrell, Golden Book of Rocks and Minerals
- Edward Dana, Textbook of Mineralogy, 4* Ed.
- Answers.com/serpentine
- Mayo Clinic.com

From The Post Rock, 8/2010 via Goldrush Ledger 12-11, via The Rockhouser 12/2012

Mookaite – The Stone That Shines.

by Ray Wilson

Several years ago, I bought a piece of this rock from a fairly large supply at Peppertown. It has sat in a drum in the shed until recently when I was looking for a “red” stone. The piece I had was maroon and brown, so I slabbed it up for members to use for their president’s competition stone. Some slabs are still available if you see the duty officer at a work session.

When cabbing this stone, I was intrigued by how it reached a very high polish reasonably easily, although not without some other problems. Venturing into Google I discovered a very interesting stone which I think is worth sharing.

Mookaite is the local name of this stone, named for the location in Western Australia where it is mined. Mooka Creek (Mooka is aboriginal for running waters) is about 160 kilometres east of Carnarvon and it appears that there are several mining leases where this material is produced in large quantities.

Geologically the area is part of the Windalia Radiolarite (WR), a siltstone that outcrops over much of the Carnarvon Basin. This area was previously the bed or shelf of the ocean. Radiolaria are tiny (0.1mm – 0.2mm) protozoans that had intricate mineral skeletons and lived in the Cambrian era (540 million to 480 million years ago). They are found as zooplankton throughout the ocean, and their skeletal remains cover large areas of the ocean floor. In the Carnarvon area as the ocean retreated the skeletons of these organisms decomposed creating a high silica content in the clay, which under pressure and heat cemented into place as a siltstone to create what we now call Mookaite.

The stone has variously been called jasper, opalite or chert but according to Mindat.org these terms are incorrect and the stone should be more correctly known as a porcelanite. Geologically, Mookaite is best defined as a silicified type of Windalia Radiolarite whose silification is opaline to chalcedonic.

Glenn Archer and John Bennett own Australian Outback Mining and claim to be the largest miners of Mookaite in WA. They exhibit and sell annually in Quartzite, Tucson and Munich.

Mookaite does vary in quality and according to Glenn the quantity of silica in the material determines its quality. Pieces that are very high in silica (more opaline) are problematic as they are brittle and fracture at the slightest jar. I’ve also seen a piece fracture while being warmed ready to dop. Material that is more chalcedonic is the best type. It will have a hardness of 6.5 – 7.0 and very fine grained. Outback Mining have slabs for sale on their website ranging from \$40 - \$75 for 200- 300 gram slabs (around \$100 kilogram) plus GST plus freight – an expensive cabbing stone.

Colours of Mookaite are from maroon to bright red to browns and yellows – sometimes all in the same stone. Whites and blacks are also seen in some of the stones to various degrees. If you think of the bright earthy colours of central Australia then Mookaite has those colours. Glenn says that in some rocks, fossil casts of ammonites are found and I have seen cut pieces with fossilized flora in place.

Finally, this stone is not perfect for the lapidary person. From my experience it can fracture very easily with thermal shock – care is required when warming to dop. The slabs I have cut also seem to have natural cleavage lines where layers of siltstone have overlaid each other. Commonly where colours abut, fractures can occur, so it is difficult to get a piece with multi-colours included. And finally, the piece that I was cutting for the competition developed tiny pinprick holes on the surface as I got closer to being finished. I’m not sure what would have caused this but it could be pieces of silica dislodging from the surrounding stone. It is plainly visible to the naked eye after using tin oxide as a polish as the holes fill up and show as white spots on the red shiny background. This can be removed by scrubbing gently with a soft bristle tooth brush or placing in the ultrasonic jewelry cleaner. While not suitable as a competition stone, the stone is still usable commercially.

All in all though it is an interesting stone that is very uniquely Australian and well worthwhile as a cabbing stone.

References: www.mindat.org, www.outbackmining.com/mookaite, www.facebook.com/outbackmining, <http://nblc.com.au/newsletters>, via WGMS Rockhounder 6/2016