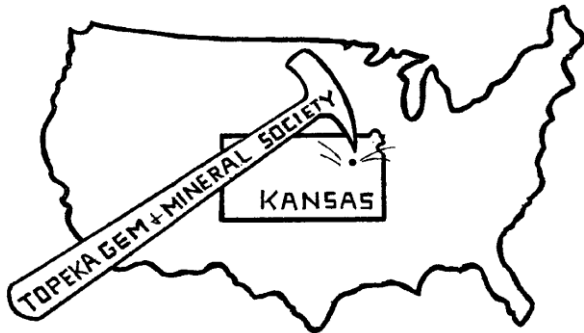


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

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. 63, No. 9,
 Sept 2020



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, University United Methodist Church, 1621 SW College, 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

2020 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Debra Frantz/Fred Zeferjohm	862-8876
1 st Vice Pres.	Will Gilliland	286-0905	Field Trip Coord.	Will Gilliland	286-0905
2 nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	KGMS Board	
Secretary	Stacy Haug	1-857-3350	Welcome/Registration	Harold Merrifield	633-9745
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	220-3272
Directors	Chuck Curtis	286-1790	AFMS Scholarship	Cinda Kunkler	286-1790
	Francis Stockton	913-645-7677	Editor/Exchange Editor	Millie Mowry	267-2849
	George Reed	836-9277	Show Chairman	Millie Mowry	267-2849
Historian	Open		Show Dealer Chairman	Millie Mowry	267-2849
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 President

Howdy one and all,

We have some great things going on with our club. First, we will hold our first general club meeting in our new facility on Sept. 25th. Our new space is this great meeting room at the University United Methodist Church at 17th & College Av. Enter on the West side of the building. Use the North door. This is a really nice place for us to use. It is a completely flat access from the parking and it has an electrical handicap door. A real breeze compared to Washburn.

We will be operating under the churches Covid-19s guidelines of sanitation and distancing. We are grateful to the church for their egger support of our club. I hope everyone feels comfortable joining us.

Next, the shops are up and running out at my place. We have been having over a dozen members taking advantage of what we have to offer. The silversmiths, Gary & Dave finally were able to start teaching last night. We are somewhat limited as to how many can take the class at time. If you are interested, you need to get your name in the hat for future classes. There are a few folks Wire Wrapping each night. In the Lapidary side, there are six pieces of equipment up and running.

I realize that Tuesday evening does not fit into some people's schedules. I am curious if a Saturday afternoon session would be desired for some of you? We will discuss this at the meeting on the 25th. Please share your thoughts with us. Or, you can drop me an email.

Last Thursday we held our first Juniors class at the library. We had three juniors show up for it. The class on fossils was taught by Pat, Will and myself. It was a good number of juniors, parents and teachers for us to figure out how we would operate under the libraries Covid-19 guidelines. All went well and we are anxious to get more young ones participating. Spread the word.

That's all for now. I hope everyone is dealing well with the issues of the day. I know that our getting out of the cocoons we have woven has been a great mental relief for myself and others. Still we must only do what we are comfortable with.

Hope to see many of you soon. Brad

One Last chance to purchase your ducks!

Topeka Gem & Mineral Society

Has joined the Sertoma Great Topeka Duck Race for 2020-----Go to www.topekaduckrace.org To adopt a duck for \$5.00 each, A family of 5 for \$20, A flock or 12 for \$50 and A 'oodle' of ducks (27ducks) for \$100.00. The race is September 19, 2020 at Lake Shawnee.

Our Team name is **“Topeka Gem & Mineral Society”**

The rummor is: For those with a competitive nature, :) - there is a very cool ducky traveling trophy for the top non-profit online sales team and you are well on your way! Last year Hayden HS Band won it - so we will be retrieving it from them for a 2020 presentation - perhaps it will be YOUR team! We are very close to winning the trophy this year, so if you can spare a few dollars this week to help win the trophy for our team it would be great.



YES, we are moving the TGMS General Meeting to the University United Methodist Church at 1621 SW College Ave, 66604, starting with the September 25, 2020 meeting. We will meet in the Fellowship Hall.

The September program will be a silent auction for the Club, so if you have anything you wish to donate, please bring it at that time.

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




SEPTEMBER'S PROGRAM

September 25th – Let's get together – new place, University UMC at the corner of 17th & College, come in the north door. The program will be 'Silent Auction'. Please bring any hobby related items you no longer need to help raise money for the club. We will of course have a chance to visit. (Look for the wrinkles under my eyes to see my smile hidden beneath my mask.)

With no show this year, keep thinking 'Green With Envy' and rounding up all your Green Rocks, Jewelry, & Minerals to hopefully use in a display case at the show next year! I found I have LOTS more Green Rock than I ever imagined. You can reserve a display case early – just let me know!

Dave may have some supplies for sale (not part of the silent auction). Hope to see many of you there! Any suggestions for what you might like to have for programs will be welcome. Thanks!! Cinda

TGMS Event Calendar

SEPT 2020			OCT 2020		
1	T		1	T	Jr Rockhounds, TSCPL, 101B Wire wrap class at Millie's 1 p.m.
2	W		2	F	
3	T		3	S	
4	F		4	S	
5	S		5	M	
6	S		6	T	Lapidary & Wire W rap Class @ Brad's, 6 p.m.
7	M		7	W	
8	T		8	T	Wire wrap class at Millie's 1 p.m.
9	W		9	F	BOARD MEETING 7 p. m.
10	T		10	S	
11	F		11	S	
12	S		12	M	
13	S		13	T	Lapidary & Wire W rap Class @ Brad's, 6 p.m.
14	M		14	W	
15	T	Lapidary & Wire W rap Class @ Brad's, 6 p.m.	15	T	Wire wrap class at Millie's 1 p.m.
16	W		16	F	
17	T	Wire wrap class at Millie's 1 p.m.	17	S	
18	F		18	S	
19	S		19	M	
20	S		20	T	Lapidary & Wire W rap Class @ Brad's, 6 p.m.
21	M		21	W	
22	T	Lapidary & Wire W rap Class @ Brad's, 6 p.m.	22	T	Wire wrap class at Millie's 1 p.m.
23	W		23	F	General Meeting @ U.U.M. Church 1621 SW College Ave 7:30 p.m.
24	T	Wire wrap class at Millie's 1 p.m.	24	S	
25	F	General Meeting @ U.U.M. Church 1621 SW College Ave 7:30 p.m.	25	S	
26	S		26	M	
27	S		27	T	Lapidary & Wire W rap Class @ Brad's, 6 p.m.
28	M		28	W	
29	T	Lapidary & Wire W rap Class @ Brad's, 6 p.m.	29	T	Wire wrap class at Millie's 1 p.m.
30	W		30	F	
			31	S	 HALLOWEEN

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

Check out the calendar on our web site

www.TopekaGMS.org

JR ROCKHOUND Classes & Reminders

Here are reminders of the next few months of classes: Topeka Shawnee CO Public Library sign in starting at 6:00 pm and classes starting at 6:30pm. 1st Thursday of each month...



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

 **The Library is open again---everyone must wear masks!**
Next Class Marvin Auditorium 101B

(Parents may have to spend this time in the Library as we are limited on how many people that can be in a room.)

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



September Fossil
Gilliland



Class, by Pat

Another self-guided tour by Will Gilliland.

Topeka construction site in glacial material

William Gilliland

August 30, 2020

The rebuilding of west 10 th. St., east of Wanamaker has exposed glacial drift in the first hill between the east and west ends of Woodbridge Drive. I checked the site out, after working hours, and found that they have exposed glacial drift or outwash in the top of the hill. The glacial material was deposited on an erosion surface of the Silver Lake Shale Member of the Scranton Shale Formation. The shale can be seen in the cut bank on the north side of 10 th. St.

The glacial material is currently best exposed on the north side of 10 th. St. The lower portion of the weathered glacial material is yellow brown in color and is overlain by deeply weathered reddish brown material. Most of the deposit appears to be composed of locally derived limestone and shale cobbles, gravel and sand. Some of the limestone cobbles are up to two feet across. You can see the same material in both colors of weathered drift. Much of the drift has been cemented into conglomerate with calcite from the ground water. The calcite cement can be seen on the surface of many of the gravel and cobbles. There is also a mixture of other rocks brought south by the glacier.

The construction has mixed the glacial material with modern man-made material so you should be careful if you collect anything from the site. I did find good specimens of the iron minerals: limonite, hematite and goethite. You can also find the usual Sioux Quartzite, granite, quartz & chert. There were a few pockets of the black manganese mineral pyrolusite (hardness 1-2), however, watch out for the look-a-like asphalt road material.

If you should check out the construction site, do it after work hours and stay away from the construction equipment. Stay safe and avoid construction pits and steep slopes. Some of the glacial material is being hauled several blocks to the east for fill near the intersection of Chatham Place and 10 th. St. This may be a good place to check for glacial material that will be exposed by rain fall.

The Remarkable Eye of a Trilobite

The eyes of trilobites, small extinct arthropods of the Paleozoic Era, have been found to possess sophisticated, glass-like lenses capable of producing clear images over a wide depth of field.

The lenses owe their remarkable properties to their impregnation with the mineral calcite, specifically calcite with its crystal structure arranged as precisely as to produce the optical properties of glass, says Kenneth M. Towe of the paleobiology department of the Smithsonian Institution.

The Crystal orientation is so accurate and consistent from specimen to specimen that it must have been due to a process of biomineralization. The “calcite lenses”, says Towe, “must have been present during the life of the animal”.

To study the optics of the lenses, Towe embedded specimens in clear epoxy, face down on glass slides and looked at objects through the eyes with a microscope. The result was inverted images that stayed in focus from a few millimeters to optical infinity.

A few living arthropods have calcified lenses in their eyes, but their poor crystal orientation would produce double vision. (Source: a reprint from the Glacial Drifter Sept. 1988)

Charlevoix Stone

Have you ever heard about the Petoskey and Charlevoix stone? If you haven't, the Petoskey stone is Michigan's state stone and the Charlevoix stone is its lesser known cousin.



The Petoskey is fossilized pre-historic coral known as Favosite. These stones are distinguishable based upon their unique exoskeleton structures. The actual stones are made up of hexagonaria per-carinata which consists of tightly packed, six-sided corallites, which are the skeletons of the once-living coral polyps. The center of each polyp was the mouth and contained tentacles that reached out for food. The hexagon shape of each cell and thin lines radiating out from the dark "eye" in the center are distinguishing features unique to this fossil.

Is there a difference between a Charlevoix and Petoskey stone?

Yes, there is a difference between a Charlevoix and Petoskey stone. The Charlevoix stone has a smaller exoskeleton compared to its cousin the Petoskey stone. It's not uncommon to find both of these unique fossils while exploring area beaches.

Where can you find these stones?

While visiting the Charlevoix, it's not unusual to see people strolling along the shorelines of Lake Michigan looking for these beautiful natural fossils. With numerous public beaches, rock hounds are guaranteed to find a treasure or two. Stop by anyone of these areas to find stones:

The Mt. McSauba Recreation Area

Lake Michigan Beach

Beaver Island

Rex Beach

Fisherman's Island State Park

North Point Nature Preserve

How do you actually find these stones?

The age-old question of where to find Petoskey and Charlevoix stones. First, find an area of beach on Lake Michigan that is un-crowded and is somewhat rocky. You can find these fossils in the presence of other stones, but not on sand only beaches. Storms and wind generally churn up the lake and can provide great stone de-posits, but can also clear the beach of stones.

Second, you need to be patient. You could spend an hour walking along the shoreline of Lake Michigan and only find a few Petoskey or Charlevoix Stones. Don't be frustrated, rock hunting requires lots of patience. With each stone you find, it becomes easier to identify these stones.

To read the entire article, follow this link:

https://www.visitcharlevoix.com/Charlevoix_Stone

(Source: The Rockhounder Sept 2020)

A Secret Solder

The ancient Egyptian goldsmiths soldered their gold work by a most clever but secret process that remained a great mystery until modern chemistry recently rediscovered and revealed the secret. They would solder dainty wire filigree and granular gold to a surface without flux or flooding the work with solder; all the joints were clean and showed no solder. The Egyptian goldsmiths mixed ground copper carbonate or malachite with glue. This adhesive was used to stick the grains of gold or wire into place or to coat and hold the adjacent edges of the parts to be joined. The work was then heated on the charcoal brazier with the assistance of the blow pipe on those areas which had to be raised to the highest temperatures.

At 220° C. the copper carbonate or malachite changes into copper oxides; at 600° C. the adhesive has become completely carbonized and at 850° C. a curious phenomenon occurs: the gold in contact with the copper melts to form a solder joint, well below the melting point of the gold. The process had great advantages for the ancient goldsmiths. There was no decrepitation of flux to throw pellets of solder off the job and the various parts were already stuck together by the dried adhesive before the heat was applied. All that was required to be done, once the mixture has been correctly prepared and applied, was to carefully heat over a bed of glowing charcoal. The beauty of this process is that the work can be subsequently reheated a number of times without the risk of unfastening joints that had previously been made. This process made possible the beautiful cloisonné work.

(Source: reprint from The Glacial Drifter Oct 1983)

Did You Know:

Use a glass cutter to do your trimming of slabs. Saves your diamond trim saw blade for more detailed work. The glass cutter to use is the one with a carbide wheel, not tungsten, Put a good solid handle on it so you can bear down hard, then use pliers to break the slab along the scored line.

If you're soft plastic Safety Goggles are scratched or foggy, try toothpaste and only a little elbow grease. It works super.

You can store your cabochons in a coin collector's plastic coin sheet. It will store 20 cabs.

Auto distributor caps make good holders for dopped tones.

To achieve a good pre-polish, try this little trick. When you come to the 600 grit paper, apply pumice to the paper, then proceed as usual. When using slurry, apply a little pumice powder to the 600 grit slurry as well. This enables you to attain the ultimate high shine on the final polish.

Epoxy Tip: If it is necessary to separate an epoxy joint, simply heat it as epoxy disintegrates at a temperature of 250° F. This should be a warning to those who use heat to set epoxy.

WELCOME OUR NEW MEMBER

BART SCANLAND