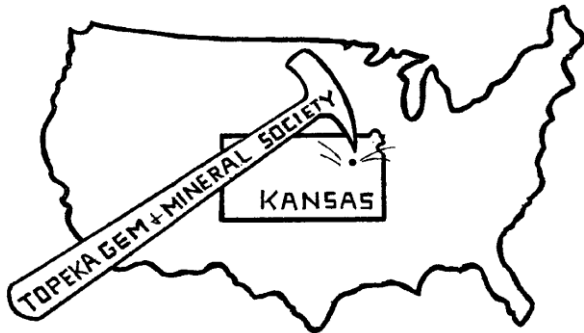


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

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. 6,
 June 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, 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

2020 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Debra Frantz/Fred Zeferjohn	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	TGMS 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

As we all start crawling out of our sacredly holes, we should feel emboldened as survivors. Depending on how deep our bunkers are and how long we have chosen to remain there, we are facing the facts that we need to start looking at the light of day. Normal will never look like it did a few months ago. We each have to decide what our new normal will be looking like.

There will be dozens of different entities telling us what they expect from us. The government, from local to state to federal levels each will have their ideas. Across the border from city to county, county to state to international lines drawn in the sand each may have different expectations for us. Your job if you are fortunate enough to still have one may look different. Your place of worship, the places you shop, the restaurant's you enjoy and the organizations you belong to all will have suggested or required limitations.

We each will also have our own level of expectations and limits that we set for ourselves. We have to live with these and be mentally comfortable inside our own cocoons. With this all said, your TGMS has decided to crawl towards the light and seek a new normal. I think we have all missed out meetings, classes and activities.

So. I am pleased to announce that on June 26th at 6:30 PM we will have our first summer picnic. With limitations. We will still meet at Millie's home at 1934 SW 30th St. In front of her lovely home, she has a very large drive and parking. In the evening it is well shaded and there should be plenty of room for proper "Distancing". Instead of potluck, we will each need to bring our own picnic basket or Box dinner. We will attempt to provide adequate tables and chairs. But if you can, you might want to bring your own lawn chair just in case we fall short. It would be nice if you could send us an email, message or call if you intend to join us so we can be properly prepared.

It will indeed be a bit different than what we have done before but, it is an opportunity to get together and enjoy each other's smiling faces, catch up with each other and begin to reach a new normal. I hope to see many of you there. If this still falls outside your comfort zone, we totally understand.

A brief update as to my slow progress on creating a new lapidary & jewelry shop. Most everything has been cleaned out, dolled up and looking pretty good. I have started actually putting equipment in place for use. Presently there are 5 pieces of machinery in place and two more should go online in a week or so. We still need one small trim saw if anyone knows where we can get one donated or purchased at a reasonable price. I quit using Dop Wax years ago so we will need a Dop station if there is one cluttering up someone's work bench. Cinda, Jan & Chuck brought out a load of tables and chairs for the wire wrapping/jewelry rooms, That area is good to go after one more sweeping and a good mopping.

Please feel free to come out and see what our new shop space is looking like. I am open for suggestions and ideas that may make this shop function better. Give me a call (785-845-6624) and come on out. I basically am always here. My address is 8049 SE 29th St Tecumseh KS 66542.

I hope to see lots of you soon. Brad



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”**

THIS OUR YEARLY FUND RAISER FOR THE YEAR
GO ONLINE AND NOW & ADOPT YOUR DUCKS

TGMS Event Calendar

June 2020			July 2020		
1	M		1	W	
2	T		2	T	Wire wrap class at Millie's 1 p.m.
3	W		3	F	
4	T		4	S	
5	F		5	S	
6	S		6	M	
7	S		7	T	Wire Wrap Class at Millie's 6:30 p.m.
8	M		8	W	
9	T		9	T	Wire wrap class at Millie's 1 p.m.
10	W		10	F	Board Meeting 7 p.m. Meeting Room
11	T	<div style="border: 1px solid black; padding: 5px; transform: rotate(-15deg); display: inline-block;"> Tuesday's wire wrap class will move to Brad's Shop when it is completed & will change nights. Watch for emails. </div>	11	S	
12	F		12	S	
13	S		13	M	
14	S		14	T	Wire Wrap Class at Millie's 6:30 p.m.
15	M		15	W	
16	T		16	T	Wire wrap class at Millie's 1 p.m.
17	W		17	F	
18	T		18	S	
19	F		19	S	
20	S		20	M	
21	S	21	T	Wire Wrap Class at Millie's 6:30 p.m.	
22	M	22	W		
23	T	23	T	Wire wrap class at Millie's 1 p.m.	
24	W	24	F	Club picnic--TBA	
25	T	25	S		
26	F	26	S		
27	S	27	M		
28	S	28	T	Wire Wrap Class at Millie's 6:30 p.m.	
29	M	29	W		
30	T	30	T	Wire wrap class at Millie's 1 p.m.	
		31	F		

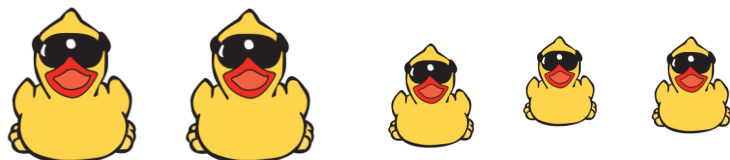
If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or rock2plate@aol.com

Check out the calendar on our web site

www.TopekaGMS.org



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



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 has canceled our lessons for the time being,

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

TGMS CLUB PICNIC for JUNE

For the month of June 2020, our Club Picnic will be held at Millie's on the drive way and yard. You are to bring your own **BOX DINNER**, as **we will not be sharing food.**

If you have a folding table, or card table to use and chair it would be best so that we can spread out.

This is what to bring this time:

- 1. Your own box dinner, drink, eating utensils, & napkins.**
- 2. Table & Chair unless you want to sit on the ground.**



We feel it is important to get together as a Club, but if you feel uncomfortable yet, we understand. We thought by eating outside and spread out that at least we could be together for a while. We start at 6:30 p.m. at 1934 SW 30th St Topeka. Park in the street so we can use the driveway.



T-SHIRTS

The T-Shirts are here. There are a few of you that have not picked up or paid for your shirts. Please do so soon. Call or email her so she can set up an appointment for you to pick them up at 1934 SW 30th St., Topeka, KS 66611, 267-2849 or rock2plate@aol.com

This will be part one of a series that Will Gilliland has put together so that you as an individual can go on a self-guided trip around Kansas to look for fossils and other items.

Taking A Short Field Trip in Topeka

By William Gilliland

How many of you are having geology field trip withdraw symptoms? With advent of spring, rocks around Topeka are just calling to us to come and enjoy nature. We can also get a closeup view of some of the rocks that Topeka is built upon and collect some specimens that catch our eye.

One site that provides easy access is a cut slope just west of Wanamaker Avenue off west 6th. Street. This is near the Kansas Historical Society Museum and might provide two stops of interest for one trip. The cut slope was constructed as part of the developments of businesses north of 6th St. There is plenty of solid parking space southeast of the Hollywood Theaters. These rock layers were deposited around 300 million years ago, during the Pennsylvanian Period.

The cut to the north is capped by houses constructed on top of the tan Burlingame Limestone Member of the Bern Limestone Formation. The thick gray shale extending down from the Burlingame Ls. to a lower thin limestone is the Silver Lake Shale Member of the Scranton Shale Formation. The thin limestone near the base of the slope is the Rulo Limestone Member of the Scranton Formation. Below the Rulo Ls. is the Cedar Vale Shale Member of the Scranton Formation with the thin Elmo Coal Bed in the upper part. Note how the rock layers tilt upward at both the east and west ends of the cut. This indicates that a shallow syncline or down warped area of rocks is exposed at this location.

Some of the names of the rock layers might sound familiar to you. This is due to the layers being named for some geographic feature or location near where they were first described. Most of the above rock layers were first described in Northeast Kansas. Except for the Cedar Vale Shale first described in Chautauqua County in southern Kansas.

The tan Burlingame Limestone at the top of the cut does not contain much in the way of material to collect, outside of a sample of that formation. The Burlingame Limestone had been extensively quarried, in the past, west of Topeka for construction material. Most of the limestone was crushed for gravel. Some of the old quarries have been used for lakes and others were used for landfills to bury trash.

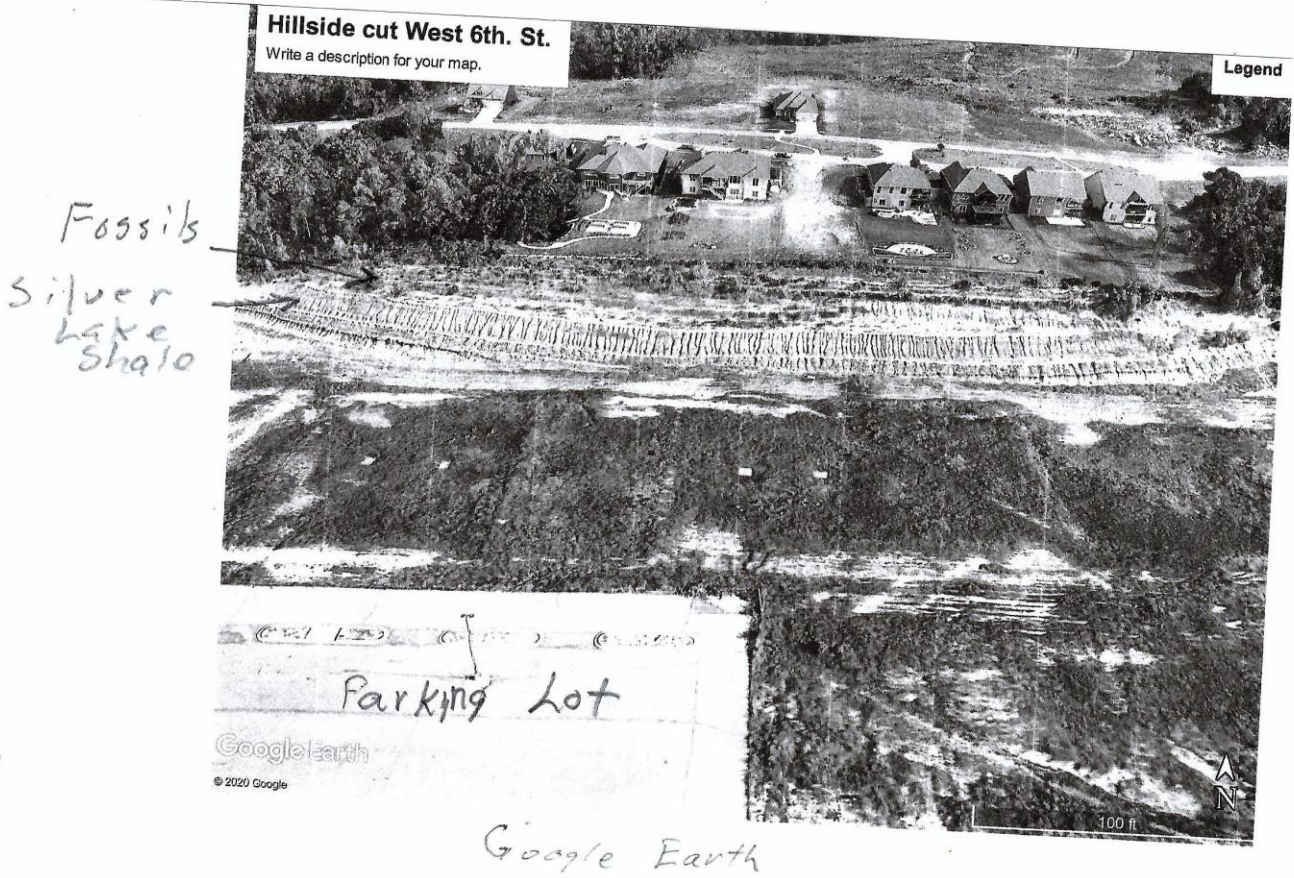
The thick Silver Lake Shale yields specimens of shale, fine sandstone, siltstone, limestone, and marine fossils. The most of the marine fossils are found in the lower part of the shale.

The thin Rulo Limestone provides samples of limestone and some small marine fossils in the upper part of the layer.

The Cedar Vale Shale is at the bottom of the cut and you can collect shale and two iron minerals: limonite (yellow to yellow-brown) and hematite (reddish brown) from it. The Elmo Coal Bed offers thin flaky coal specimens that are difficult to keep from shattering. On the coal you can also find thin crust of pale yellow jarosite and in a few fractures some tiny bright yellow sulfur crystals. The Elmo Coal was mined, in the early days, in the valley of Blacksmith Creek just west of Topeka and at several locations north of the Kansas River. The coal is high in sulfur and did produce a large amount of ash.

To see another coal bed that was mined in Topeka take I-70 east to exit 358 for Gage Avenue south. As you reach the stop sign for Gage Ave. look across to the slope under I-70. The dark gray patch with little grass is an exposure of the Nodaway Coal Bed in the Aarde Shale Member of the Howard

Limestone Formation. The Nodaway Coal was mined in Gage Park to the south and at other places covered by today's Topeka. The first railroad built by Santa Fe Railroad was south to Carbondale where thicker sections of the Nodaway Coal were mined in Osage County. However, this coal is high in sulfur and ash and no longer considered useful due to pollution concerns.



ALERT! ALERT! ALERT! ALERT!

Asbestos in Jewelry: Are you Wearing Asbestos?

One of the lesser known sources of asbestos exposure could be hiding in your jewelry box. If you like to wear gemstone jewelry, you might be wearing asbestos without knowing it.

Gemstones are pieces of mineral crystal that have been cut and polished. Also known as gems, jewels or semiprecious stones, they are widely available online, in retail stores and in open-air markets to wear as jewelry or to collect as mineral specimens, the latter of which is popular among children.

While these gemstones are unlikely to result in dangerous exposure for those who wear them, they could result in minimal exposure if they break. Children who play with asbestos-containing gemstones run the risk of exposure if they damage, grind or break them.

The highest risk of exposure to asbestos through gemstones is faced by jewelers. Scientific studies have revealed cases of cancerous and noncancerous asbestos-related diseases among jewelers. The risk is low, but it remains a threat because it is legal to sell, buy and use asbestos-containing gemstones in the U.S. Asbestos in jewelry has exposed jewelry workers and caused some of them to develop asbestos-related diseases, including mesothelioma. These polished jewelry beads contain pure chrysotile asbestos.

Tons of fibrous gemstones, some of them containing asbestos, are traded in global markets on a daily basis. In the U.S., most gemstone mining is conducted by gem clubs, individual collectors and hobbyists. The businesses that sell natural gemstones in the U.S. are typically small, averaging about three employees, and they operate independently.

The process of cutting, shaping and polishing gemstones is known as lapidary. Lapidarists and jewelers use high-speed lapidary saws and abrasive rotary equipment to create polished gems for use as pendants, charms, beads and ring inlays. Lapidary of asbestos-containing gemstones can release significant amounts of asbestos fibers into the air.

Gemstones known to contain asbestos include: Tiger's Eye, Arizona Tiger's Eye, California Tiger's Eye, Cat's eye, Hawk's eye, Silkstone, Pietersite, Binghamite, Yukuorite, Denisovite, Tokkoite, Grossular garnet, Hessonite, Brucite, Natrolite, Mesolite, and Scolecite.

How Are Jewelers Exposed to Asbestos?

The primary ways jewelers have been exposed to asbestos include:

- Sanding, cutting and shaping asbestos-containing gemstones.
- Manufacturing asbestos-containing soldering molds that shape jewelry pieces to be soldered (fused together).

The soldering board on which this work is performed is also made of asbestos.

- Cutting asbestos sheets to line casting molds that are baked in ovens to make pieces of jewelry.

People who work around these activities, especially anyone who sweeps asbestos dust in jewelry shops, are at risk of asbestos exposure.

Those who collect, handle and transport raw asbestos-containing gemstones are also at risk of exposure.

How Can Jewelers Avoid Asbestos Exposure?

Jewelers and lapidarists should do the following to limit asbestos exposure:

- Avoid working with gemstones known to contain asbestos.
- Use a respirator mask with a high-efficiency particulate air filter or an N-100, P-100 or R-100 mask.
- Use tight-fitting protective eyewear to prevent asbestos dust from causing eye irritation.
- Work in a properly ventilated area, which may include using a ventilation system in your workshop.

Jewelers working with asbestos-containing gemstones are required by law to double-bag asbestos waste in 6 milliliter bags, place it in a sealed plastic container, label it properly and pay to dispose of it in a government-designated landfill. Those who do not follow these regulations face steep fines. Lapidarists should do the same.

Article adapted from Asbestos.com and submitted by Judy Murphy: via DGMS June 2020



Don't forget to buy a duck for the race.

Shadow and Iris Agates

By Terry Roberts

When I read "The Beauty of Banded Agates" by Michael R. Carlson several years ago, I was awed by the beauty of these agates. Most rockhounds are familiar with the outstanding patterns and colors exhibited by La-guna, Brazilian, Dryhead, Fairburn, Condor, Queensland and other banded agates shown in the book. However, the author showed two types of agates that I was determined to find. These are the Shadow and Iris agates. Mr. Carlson provides an excellent description of each phenomenon in his book.

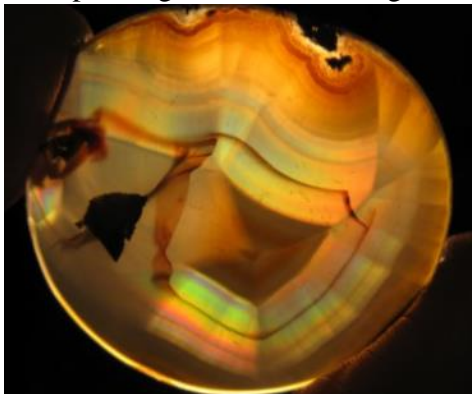
Shadow Agates display a shimmering optical effect caused by a phenomenon known as parallax. The shadow is caused by regularly spaced bands that are alternately clear and opaque. The opaque band is usually white in low quality agates, but can be bright colors in high quality agates. As light enters the agate at an angle to the surface of the bands, the opaque band will cast a shadow in the clear band since light is not reflected out of it. By moving the stone back and forth, the shadow will move across the bands. This can be seen in the photo where the shadow moves along the upper left side of the cabochon. A word of caution: This is not "chatoyance" which is an optical effect caused by the reflection of light from some fibrous material as seen in Tigereye.



The Iris effect is often, but not always, found in low quality agate that a collector may be tempted to discard. I finally found a good example of this phenomenon in an ordinary Brazilian agate slab that had no noteworthy patterns and very little color. This can be seen in the photos which show the Brazilian agate in reflected light and again in transmitted light from an incandescent bulb (the cab has pieces of lint on the surface from the polishing cloth that appear to be scratches).



This phenomenon is produced when light passes through a clear agate with extremely fine bands (up to 10,000 bands per inch). The bands act as a diffraction grating where the edges of the bands have alternately high and low refractive indices which cause the light to break into spectral colors. Since not all agates have evenly spaced bands and refractive indices suitable for separating colors in white light, the iris effect varies in quality and the number of colors that will be displayed.



In order to get the best colors from this cabochon, I had to grind it down to a thickness of about 2.5 mm in the center of the dome and 1.5 mm at the edge. If the agate cab had been any thicker, the colors would not have been noticeable. So, if you find a clear agate slab that appears to have wavy shadows that are caused by microscopic bands, you might try to grind it to a very thin slab. You may be rewarded with a beautiful Iris Agate

Rose-N-Rock 11/15; via The Rockhounder 6/2020