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. 66, No. 9
September 2023

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

2023 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Donna & Russell Hedge	620-660-1651
1st Vice Pres.	David Dillon	221-4315	Field Trip Coord.	Chuck Curtis	286-1790
2nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	Donna Stockton	913-645-7677
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Treasurer	Millie Mowry	267-2849	Property	Chuck Curtis	286-1790
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	Shirley Schulz	n/a	Show Chairman	Millie Mowry	267-2849
Historian	Cinda Kunkler	286-1790	Show Dealer Chairman	Dave Dillon	221-4315
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Librarian	Amy Fluke	862-8876	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 .

Fodder from the president. SEP./2023

Howdy one and all.
I hope everyone has noticed that it ain't 100 degrees outside. I think every year as I get older, summer seems a little bit more brutal. I did so very little in the last three months that it is a little embarrassing and disheartening.
So now with much nicer temperatures I better get busy and try to make up for my lack of productivity. Of course, part of what needs to be done directly ties to our show in just a month. Are you prepared to be there in fine fettle to help us? Our signup sheets for people to work look very bare. Scary to tell the truth. We need everyone in the club to be putting in several hours, 1, 2or 3 days. I know, I have to make this same plea every year. And, every year we manage to have just barely enough help to pull this show off. The core members, always have to pull really long shifts without breaks. Do you realize that there will be those of us that will be putting in from 24-30 hours on these three days. Plus, all the work done for several weeks before the show. Please Help!
Please everyone, sign up so we can figure out how we can allot our help.
In the meantime, on Saturday Sept 23rd at 10:00 AM we will be holding a shop day out here in the country. Our machines need Maintenance, wheels need to be replaced, saws need a good cleaning, counters wiped down, floors swept and mopped and some general sorting and straightening. So, if you use our shops, take some responsibility, and join us. The more of you that show up, the faster we can get along with the rest of our days.
I am really looking forward to getting our new show Tee Shirts. I believe they will be stunning. Millie will have a few extras for sale if you did not order one.
We will again be featuring cases of William (Bill) Boltz Lakers. Some I believe have not been out of Washburn's basement for a goodly amount of time. In preparing for the show, I have been going through a file box of Bills old papers. Some tie directly with our club but other communications from schools, Kids, organizations and other clubs from KS, OK, MO & NB. He even set up as an exhibitor in Santa Barbara CA. This archive has been fascinating to wander through. I would really like to get the whole thing scanned and put in some sort of storage format. I know I am biased but there are so many hundreds of school kids lives he touched who wrote to him their thanks and drew him pictures of his rocks and flowers. I would love to jog some memories.
So, can up the last of your tomatoes, chop up and freeze those few remaining peppers and plan to pitch in this month to keep your club running properly.
Brad

The General Meeting in September goes back to the gathering time at 7:15 p.m. with the meeting starting at 7:30 p.m.
The September meeting will be held in the church library, first floor.

The September meeting program will be a Silent Auction. If you have anything you wish to donate to the Club feel free to bring it to the auction on the 22nd.

Sign up sheets will be available for the show. It is time to pick your spots to help out at the show. We need all the volunteers we can get.

Hopefully the T-shirts will be done and available at the meeting.

TTGMS Event Calendar

SEP. 2023			OCT. 2023		
1	F		1	S	
2	S		2	M	
3	S		3	T	Brad's Shop Open 6-10 pm
4	M		4	W	
5	T		5	T	Jr RHDS 6 p.m. at FC Church 1701 SW Collins
6	W		6	F	
7	T		7	S	
8	F		8	S	
9	S		9	M	
10	S		10	T	Brad's Shop Open 6-10 pm
11	M		11	W	
12	T	Brad's Shop Open 6-10 pm	12	T	
13	W	Publicity Meeting-Elmont Church 6:30 p.m.	13	F	Set-Up Day for show 8 a.m. to 8 p.m.
14	T		14	S	Show get in at 8 a.m. starts at 10 a.m. 6 p.m.
15	F		15	S	Show get in at 8 a.m. starts at 10 a.m. 5 p.m. Take down after that.
16	S		16	M	
17	S		17	T	Brad's Shop Open 6-10 pm
18	M		18	W	
19	T	Brad's Shop Open 6-10 pm	19	T	
20	W		20	F	
21	T		21	S	
22	F	General Mtg, First Congregational Church 7:15 p.m. gather 1701 SW Collins Ave, Silent Auction	22	S	
23	S	SHOP CLEAN-UP Day 10 a.m.	23	M	
24	S		24	T	Brad's Shop Open 6-10 pm
25	M		25	W	
26	T	Brad's Shop Open 6-10 pm	26	T	
27	W		27	F	General Mtg First Congregational Church 1701 SW Collins Ave. 7:15 p.m. gather
28	T		28	S	
29	F		29	S	
30	S		30	M	
			31	T	Brad's Shop Open 6-10 pm

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:
Jason Schulz at: Fleetcommander@att.net

Next Class: Oct. 5, Gem Stones & Lore—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.

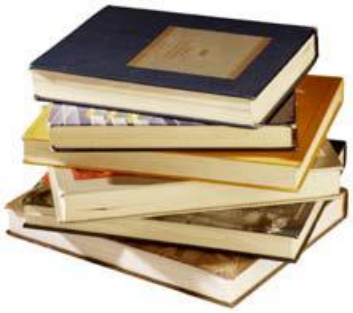
Dillons Community Reward Program

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

Book Review From Our Librarian!



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

Well worth the read, and can be checked out thru the TTGMS Library by sending an email to Amy at Jayhawk1072@gmail.com

MINERALS

Unscramble the following letters to reveal some common, or maybe not so common minerals.

*AIECCLT*_____	*IACM*_____
*EIPRTY*_____	*AEIOCCHLRPTY*_____
*AANELG*_____	*EIOUUQRST*_____
*AEGNRT*_____	*UUFLSR*_____
*EIOUFLTR*_____	*AAEICHLMT*_____
*STYMETHA*_____	*EILRSV*_____
*OOEIDLMT*_____	*AAEIOGNRT*_____
*AAEEIHLPRST*_____	*IEEUFNLTW*_____
*EIOOOCDHRRST*_____	*AIODDNM*_____

Source: A reprint from The Glacial Drifter Feb/Mar 2002

Paraiba Tourmaline

Redefining Blue Neon. Fluorescent. Electric. Peacock.

A new gemstone discovered in Brazil in 1989 left gem dealers searching for new adjectives to describe brilliant blue and green tourmalines that are more vivid than any ever seen before.

Tourmaline is the world's most colorful gemstone but, until the Paraiba deposit was found, no tourmaline had ever shown the sizzling turquoises, electric blues, rich twilight blues, and neon greens of the new discovery in Paraiba, Brazil. In fact, this color hasn't been seen with any consistency in any gemstone variety.

The spectacular colors are due to the presence of a small amount of copper. But a recent study by the German Foundation for Gemstones Research also discovered a surprisingly high gold content. The average gold content of the earth's crust is 0.007 parts per million. Paraiba tourmalines contain a remarkable 8.6 parts per million. If they weren't so beautiful, they might be in danger of being crushed to salvage the gold!

The tourmalines are mined near a village called Sao Jose de Batalha in the state of Paraiba, Brazil. The area produced tourmaline for almost ten years but the crystals were too fractured and broken to be cut into gemstones. The miners discovered a new vein of gem-quality stones with the extraordinarily bright shades of blue and green. The blues come in sizes up to eight carats and the green up to twenty carats.

The tourmalines are found in a small hill near the village, which is being mined laboriously by hand. The hand-excavated shafts and interconnected tunnels are up to 60 meters deep and tourmaline is found only in small pencil-thin veins. Because of the difficulty in mining, the supply will always be limited and the tourmalines will always be rare and expensive.

Dealers all over the world – especially in Japan, the world's largest importer of these gemstones – are competing for the new Paraiba tourmaline, which means that it can command retail prices over $20,000 per carat for the finest specimens. Although this is more than other colors of tourmaline, it is very little when you consider how rare these gemstones are. Diamonds are quite common in comparison.

{Ed. Note: According to Gordon Austin, Gem Commodities expert, no faceting rough is available for the amateur cutter. Mine owners have determined that it is more profitable for them to ship out all the material, have it cut and then sell the finished stones.}

Source: A reprint from The Glacial Drifter Jan 2004

OKLAHOMA "RATTLESNAKE EGGS"

Rattlesnake eggs is an interesting common name for a gypsum crystal, "variety selenite". Unlike the Great Salt Plains, it is not well known. It is called rattlesnake egg because it grows in a roughly egg shape with twelve selenite crystals, each in a rough diamond shape, around a white spar center. These joined gray crystals resemble a rattlesnake skin, hence the name.

The crystals grow in books of very thin diamond shaped leaves. In the best eggs, all crystals will grow flat from the center. Some may not.

To sand and polish an egg, use hand methods since selenite is very soft. Use a fine sandpaper. Try to get an eye in each diamond crystal – formed by different colors in the layers of selenite. The center of each diamond should be higher than the edges to show this effect. For polishing, I have found white clay is the best – the same clay umpires use to rough up new balls. Silver polishing past may also be used.

When the egg is polished, the light striking the crystal makes it luminous and the crystals change from light to dark as it is turned in the hand. Source: A reprint From, The Glacial Drifter Jan 2003

CHAROITE

Charoite is the most valuable of the colored stones from Russia. Since its discovery in 1976 in the Chary River basin in Siberia, Russia, charoite has been widely prized for its exquisite color, which ranges from dark lavender to an intense blue-violet. Inclusions of black aegirine-augite and clear and light green microcline, alone with sprays of metallic orange tinaksite, give tremendous character and variety to charoite.

When first discovered, it was thought that charoite was a purple type of the rare mineral canasite. However, testing done by a team of Russian geologists led by V. P. Rogova proved that charoite was indeed a new mineral! Due to her work, it was recognized as such by the Commission on New Minerals and Mineral Names. in 1976.

Charoite first found its way to the U.S. in 1978 and caused quite a stir. Love at first sight is not an uncommon reaction to charoite, and this was the case for many folks. Due to the difficulty in getting the highest quality charoite out of Russia, the supply was spotty during the ‘80s. Much charoite brought over from Russia in the past has so much in the way of black inclusions that it is not suitable for cabochons and beads, although it looks quite stunning when made into something larger, like a vase or box. Lately, we have been getting the best quality charoite out of Russia and we ho pe this continues, but due to unstable conditions in Russia and the world market, we cannot count on it.

Charoite’s unique beauty has resulted in its use as a gemstone and an ornamental stone for making vases, dishes, cups and other fine pieces. Due to severe weather conditions, mining only occurs in the months of August and September and helicopters must be used to transport it from the deposit site. To date the deposit remains unique.

A metamorphic stone formed by complex radiation between alkalic rocks and marble, charoite occurs as large masses of interlocking crystals associated with several other rare minerals, including miserite, canasite, pectolite, and others. Its hardness is about 6 on the Mohs scale.

In the years since its discovery, the Russian people have developed such a love for charoite that it is now considered their most cherished colored stone. This is another reason it is difficult to obtain best quality charoite, and why it costs a bit more than some other colored stones. Apply named, the root of the word “charoite” means “charming” or “magical” in Russian – a very fitting description of this unique and exquisite stone.

Source: a reprint from, The Glacial Drifter, Nov 2001

BIGGS Jasper

Biggs Jasper is one of the more recently discovered picture rock materials. The first piece was found about 1960 in a creek bottom south of Biggs Junction, Oregon. It is one of the more distinctive jaspers even though it lacks brilliant colors, its design is unique among siliceous rocks. It takes an excellent polish.

Biggs jasper seems to have developed from the muds of short-lived streams that evolved on the surface of a cooled basalt terrain. The raw materials (plastic colloids, silica, clay and iron) came from the weathering of recent igneous rocks and were deposited in the settling basins of stream channels. Heat and pressure from volcanic activity then served to from jasper, small creeping motions led to the marbled rosettes and picture designs.

Biggs jasper is sandwiched between two basalt lava flows that cover Oregon, Washington and parts of Idaho. That p lants and animals inhabited the newly formed water courses is shown by the fossil fish found in the area.

Source: A reprint form the Glacial Drifter Feb/Mar 2001

Gem Topaz Of The Tarryall Mountains, Colorado

By Thomas C. Michalski, U.S. Geological Survey

Topaz was first discovered in the state of Colorado in 1880. Since that time, crystals of gem quality have been reported from numerous Colorado localities. One of the most productive gem quality topaz areas is near the Spruce grove Campground, in the Tarryall Mountains, southern Park County. Although discovered in 1909, this locality was not extensively worked until 1929. Since that time, the area has become quite well known, and several hundred pound of topaz have been extracted from crystal lined cavities in the Redskin and Pikes Peak granites as well as from Quaternary colluvial deposits.

The proterozoic Pikes Peak granite in this area consists of two batholithic masses which include the main Pikes Peak batholith and the much smaller Tarryall batholith. The younger proterozoic Redskin granite intrudes the Tarryall batholith along its southern edge. The topaz bearing cavities occur mainly in a series of horizontal pegmatites at the northern edge of the Redskin stock near its contact with the Tarryall batholith. Most cavities are less than 15 inches in diameter and contain variable amounts of smoky and clear quartz, pink microcline, biotite, muscovite, hematite, fluorite, and topaz. Cavities that contain little or no biotite are most likely to contain topaz. Most topaz occurs as single crystals embedded in a red clay layer at the bottom of cavitied. Crystal clusters and matrix specimens are seldom found. Although single crystals are not large, the combined weight of all topaz crystals extracted from a single cavity can approach several pounds. Hilly slops below topaz bearing pegmatites often contain scattered topaz crystals which can be extracted from the weathered colluvial material by sifting it through a screen.

Individual topaz crystals are generally less than1 ½ inches in length and exhibit a blocky prismatic habit. Most crystals show development of simple prisms, pinacoids, and dipyramids. The termination on most crystals are highly lustrous and exhibit complex etch marks. Prism faces are either smooth and lustrous or frosted and iron stained. The lustrous faces are generally coated with a fine-grained white clay which appears to have protected them from late-stage dissolution and iron staining. Most crystals exhibit extremely clear interiors and are generally colorless, light blue and occasionally yellow or golden. Crystals of the different colors commonly occur together in the same cavity. Crystals that are found on the ground's surface where they have been exposed to sunlight for long periods of time are usually colorless.

Gems cut from Tarryall topaz are very lustrous and generally contain few, if any flows. Although some crystals contain small inclusions of albite, phenakite, and fluid filled negative crystal cavities, these can generally be avoided by proper cutting. Although individual crystals are usually not large, their high degree of clarity often allows for the production of gems in excess of 10 carats in weight.

Source: A reprint from the Glacial Drifter Feb 1999

SEEING EYE MATERIAL

Cesium is a metal which comes from the rare mineral pollucite. This soft silvery white metal is important in various optical devices, including the snooperscope which makes it possible to see objects in the dark. The mineral is sensitive to light and is used in electric-eye doors. The largest supply comes from near Karibib, South West Africa. Source: A reprint from the Glacial Drifter March 1990

AVENTURINE AND AMAZONITE – THE SPARKLING GREEN PAIR

Often lapidarists mix up aventurine and amazonite. Both are generally some shade of green or blue-green and sometime: show a spangled or "glittering" effect when moved. That is about as far as the resemblance goes.

Aventurine is a bright-green quartz mineral, with tiny mica inclusions, laying in planes that reflect the light in a certain direction, giving the stone its characteristic "spangled" appearance.

Amazonite is a feldspar, often tending to be blue-green in color and varying from highly translucent to opaque. The particular optical phenomena it exhibits, when properly oriented, is called schiller, and is a play of light caused by many parallel flat separations, or partings, all laying in the same plane. It differs from the aventurescence of sunstone and aventurine, both as to cause and appearance. The aventurescence of sunstone and aventurine is caused by the reflection of light from tiny platelets in the material, and it is generally a more noticeable effect than is schiller. In aventurine, these parallel platelets are composed of mica in almost every case.

Cutting a cabochon to exhibit either schiller or aventurescence is only a matter of 'orienting' the cab so that the base of the cab is parallel to the planes containing the inclusions of the partings. The determination of the plane of inclusions is done by inspection and is a matter of experience. Upon discovering the plane of inclusions, the material is slabbed with the slab faced running parallel to the planes of inclusions and the cabbing may proceed in the usual fashion.

Source: A reprint from the Glacial Drifter March 1991

Crystals that curl

Crystals grow in many shapes, but did you ever see one that forms curls and looks like an Archimedes screw? Medicinal chemist, Tamine Braish, and his colleagues at Purdue University in West Lafayette, Indiana, could not believe their eyes when they saw such a crystal sitting in a test tube. Having used dissolved "compound 46" many times before in various experiments, this particular vial was set aside with others for future observation.

Two weeks later, the liquid had evaporated leaving behind a screw-like crystal. Numerous trials provided the same results with the same direction curl, that is, counter-clockwise. If this result were influenced by the Coriolis Force (which causes water in the Northern Hemisphere to go down the drain in a circular motion counter-clock wise), what would happen if the experiment were tried in the Southern Hemisphere where the circular motion is clockwise?

When the sample of compound 46 was sent to the Australian National University in Canberra, the first three tries found smiling scientists as the twist went clockwise, but on the fourth try, it was Nature which had the last laugh since "46" returned to its counter clockwise twist as if it were still up North! Numerous opinions have come from well-known scientists, but for the present, the curling crystals are still a mystery.

Source: A reprint from the Glacial Drifter Dec 1990