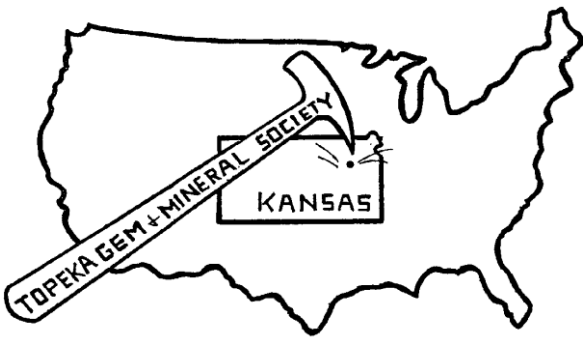
The Topeka Gem and Mineral Society, Inc.
1934 SW 30th St. Topeka, KS 66611
Rock2Plate@aol.com

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. 69, No. 1
February 2026

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

2026 OFFICERS AND CHAIRS

President	Cinda Kunkler	286-1790	Cab of the Month	Donna Hedge	620-660-1651
1st Vice Pres.	David Dillon	221-4315	Field Trip Coord.	Chuck Curtis	286-1790
2nd Vice Pres.	Desiree Gardner	221-8862	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
	Jacob Gardner	221-4110	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 .

February27th is our 1st meeting of 2026 – so much to talk about! Please make an effort to join us.
Last month I asked for some help with 'set up' for our meetings, that request is still open. I do plan to be at First Congregational by 6:00 on the 27th, any help is appreciated. We have our board meeting this Friday the 13th, and anyone who wants to attend (meeting is at FCC also) is welcome. We are currently working on plans for this years show and any suggestions or help are welcome. For those of you who come to classes at Brad's, pleases bring your cabs, jewelry and or specimens to the meeting for our cab of the month' contest. As 'new' to the practice you can enter under the class category. If you win, we do ask that you bring them to the show for our special case where we display the winners. The weather is starting to warm, so field trip options will be starting. We need all members to attend and help our organization to grow! Hoping to see you all at this months meeting. Keep Rocking, it will be FUN!
Cinda Kunkler TTGMS President

Since the January monthly meeting was canceled, we will move the silent auction to the monthly meeting on 02/27/2026. Please bring any item you'd like to put in the auction with you to the meeting! As a reminder, all proceeds from this auction go directly to the club. We like to keep it mostly rock related, but you are welcome to bring anything you think others would be interested in. We meet at 7:15 and the meeting starts at 7:30.

Thank you,
Desiree, TGMS 2nd Vice President

Greetings Fellow Field Trippers,

TTGMS has booked a Field Trip for 2/28/2026, on the Saturday following our upcoming General Meeting. Sorry for the short notice. The theme will be **Limestone and Copper.** Can you guess where we will be going?

The Kansas State Capitol Building. We will meet inside the Capitol when they open at 10:00am. We have reservations for a Dome Tour to the top at 10:15. The Dome Tour takes about 40 minutes. 296 steps. Bring your hiking shoes.

After the Dome Tour is done you can do a self-guided tour of the rest of the Capitol at your own leisure.

https://www.kansashistory.gov/p/kansas-state-capitol-plan-your-visit/18649

Chuck Curtis, Field Trip Coordinator

TTGMS Event Calendar

FEB 2026		
1	S	
2	M	
3	T	
4	W	
5	T	
6	F	
7	S	
8	S	
9	M	
10	T	
11	W	
12	T	
13	F	
14	S	
15	S	
16	M	
17	T	Shop Classes are open 6-10pm at Brad's
18	W	
19	T	Wire Wrap Class at Millie's 6:30p weather permitting
20	F	
21	S	
22	S	
23	M	
24	T	Shop Classes are open 6-10pm at Brad's
25	W	
26	T	Wire Wrap Class at Millie's 6:30p weather permitting
27	F	General MTG FC Church gather at 7:15 Meeting 7:30 pm 1701 SW Collins
28	S	Field Trip to the Capital Buillding

MAR 2026		
1	S	
2	M	
3	T	Shop Classes are open 6-10pm at Brad's weather permitting
4	W	
5	T	Jr RHD's Gather at 6 Meeting at 6:30p and Wire Wrap Class at Millie's 6:30p weather permitting
6	F	
7	S	
8	S	
9	M	
10	T	Shop Classes are open 6-10pm at Brad's weather permitting
11	W	
12	T	Wire Wrap Class at Millie's 6:30p weather permitting
13	F	**Board Meeting FCC 7 pm**
14	S	
15	S	
16	M	
17	T	Shop Classes are open 6-10pm at Brad's weather permitting
18	W	
19	T	Wire Wrap Class at Millie's 6:30p weather permitting
20	F	
21	S	
22	S	
23	M	
24	T	Shop Classes are open 6-10pm at Brad's weather permitting
25	W	
26	T	Wire Wrap Class at Millie's 6:30p weather permitting
27	F	General MTG FC Church gather at 7:15 Meeting 7:30 pm 1701 SW Collins
28	S	
29	S	
30	M	
31	T	Shop Classes are open 6-10pm at Brad's weather permitting

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, the Monday before class to let Jim know you will be there. For wire wrapping contact Millie Mowry at 785-267-2849 or email rock2plate@aol.com, as she holds class at her house.

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: March 5, 2026, Dinosaurs, by 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.

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

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The TTGMS Library

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.

[MM1]

DUES ARE DUE

The 2026 Club Directory will be printed around March 1st. Have you paid your dues?

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'.

If you have any other questions email DCR@dillonstores.com
(You do not lose your fuel points).
Jan 2026…….Rebate amount $37.33

Coral - "Red Gold" of Indian Jewelry

Taken from the March 1975 "Arizona Highways" magazine:

According to the world-renowned expert on coral, Basilio Liverino, of Torre de Greco, Italy, Indians of New Mexico and Arizona considered coral as an ornament of the highest value and esteem. The mysterious gem was attributed with such great power it was thought it could cure anything from blindness to snakebite, and brought the wearer great luck, long life and virility.

The reason for the premium value set on coral used in pawn jewelry is the hand drilling and meticulous hand craftsmanship used to work the material. In recent years, much coral has been drilled by machine or ultra sonic methods and shipped to the reservations ready to string. Regardless of the method of working coral, it is as highly valued by the Navajo, Hopi and Pueblo tribes today as it was when it was first introduced.

The Indians of the Southwest have always treasured the "red gold" — coral. Hopis were using necklaces of coral and turquoise at their snake dances in the 1870s - 1880s. At the Zuni dances the deep red coral is a favorite complement to silver and turquoise. The Navajos prefer the red-orange beads.

With Navajo women, strands of coral beads are a symbol of success and social prominence . . . the standard being a minimum of ten strands at the time of the woman's thirtieth birthday.

The most prized and cherished necklaces of coral and turquoise bear a coin, fetish or piece of turquoise tied to one of the strands. These "sing-ties" are mementos of the sings and dances which the lady has attended and attest to her popularity and status.

In Nigeria where social classes are divided into Clans, some cannot be approached unless one is properly adorned with coral since it is considered a sign of high distinction. Some employ coral for mourning ceremonies while others rely on this unique material when they feel that their religious faith or strength is weakening. Because of tribal tradition among the social classes which exist in Nigeria, there is one to which the Chiefs belong. The initiation ceremony requires that a King hands the tribal head a certain amount of coral; only upon the receipt of this coral can the tribal Head consider himself part of this select class.

Upper inset: The Trading Post at Baby Rocks.
Lower Inset: Heishe, wampum and coral from the Dick Mullen old pawn collection.
Center: Eighteen strands of old coral beads from three old pawn necklaces adorned with old silver tube beads.
From McGee's Indian Den collection. TED HILL PHOTOS

EDITORIAL NOTE: *The following feature has been, for the most part, excerpted from a monograph, "Red Gold — Coral," by Basilio Liverino, based on an illustrated seminar presentation at the Rotary Club — Districts of Castellammare Stabia-Sorrento and Naples*.

The Southwestern Indians were not the only ones who sought the beauty and magic of coral. Ivan the Terrible, the Russian Tsar; Greek, Hebrew and Moslem doctors; German, English and French seers; all sought to possess the mysterious gem.

The existence of coral for adornment, and its great demand in our world, dates back over ten thousand years. Fragments of coral used as ornaments, amulets or icons have been found in neolithic graves in Europe, and among the personal possessions of those of the Minoan-Mycenean, Babylonian and Egyptian civilizations. There are coral cameos from the Roman Imperial Era, and small sculptures with reproductions of a siren and various animals from the Iron Age.

Treasured in the British Museum of London is a marvelous Sierapis Jupiter from Greco-Roman Art. Liverino's research has brought forth another somewhat strange but interesting use of coral. In an Egyptian tomb dating back to the 18th Dynasty, teeth of light red coral have been found.

For many years the coasts of Italy were lined with what was thought to be inexhaustible coral mines, and though exploited for centuries, still offers good possibilities. However, fishing is now carried on in the Japanese Sea, the China Sea and the South Pacific . . . with Japan being the major world supplier of high-quality gem material.

Massive "horns" of Japanese coral are used for carving priceless icons and sculptures. The more delicate branches of Mediterranean coral are used for beads, and finer fragments for jewelry.

With the exception of the use of the Cousteau-Gagnan valve, allowing divers to obtain greater depth, coral fishing has changed very little over the centuries. An overabundance of courage, recklessness and willpower still occasionally costs coral divers their lives.

Even with the most modern diving equipment, two out of three coral divers are either permanently injured or die as a result of their reckless and relentless quest for the priceless branches. Because of the universal demand for finer quality, each year the divers must risk their lives diving deeper and deeper into the unknown reaches of the sea.

For centuries, science classified coral as either vegetable or mineral, but in 1720 the Frenchman, Peyssonel, proved that the delicate, brightly-colored branches were the calcareous skeletal remains of thousands of minute sea animals. With a rock-like hardness of 3.75, the tree-fan forms come in a variety of colors ranging from shades of blood-red, to orange, to pink, to white.

Color determines the price of coral with Angel Skin, a pale pink, being the most valuable. Moorish, an oxblood red, and Satsuma, a cherry red, are next in demand.

Because up to 90% of the fished coral is considered waste, one gram of fine, jewelry-quality coral is as expensive as gold, and has often been referred to, in the trade, as "red-gold!" Biologists have not been able to discover what the "ideal habitat" is for coral, and it is difficult to say at which sea depth coral is found. At Capo Caccia in Sardinia, coral was found in a sea cave practically located on the surface. In contrast, there are famous reefs of Sciacca 450 to 600 feet deep. Just as in the search for gold, coral is where you find it. Also as is true for gold, coral is as rare.

The aesthetic craftsmanship displayed by the Indians of the Southwest, in drilling tiny beads of coral, has never been equaled . . . and insures pawn coral jewelry a permanent position in value and history.

Source: Stoney Statements Jan 2026

Prosphorus

by Eric Fritzsch (Photos from Eric & Carolyn Fritzsch Collection, photographed by Eric Fritzsch) More than 6 years ago I heard my favorite radio show (Planet Money) host a program on phosphorus called “P is for Phosphorus” (Episode 820 aired January 24, 2018). https://www.npr.org/sections/money/2018/01/26/581156723/ episode-820-p-is-for-phosphorus I liked that program so much I saved it on my phone and recently came across this episode while cleaning up files. Phosphorus is one of my favorite elements and I was especially fond of looking for secondary phosphate minerals in the granitic pegmatites of South Dakota. These are minerals which have a one to four ratio of phosphorus to oxygen as an anion in the mineral. A good example is vivianite which is hydrous iron phosphate. In the Black Hills (and other places), primary minerals such as fluorapatite or triphylite would be altered by hydrothermal fluids often carrying metal cations which could make secondary minerals like vivianite, hureaulite, pahasapaite, etc. These were usually microscopic and required patience and detective work to determine the species based on crystal shape, striations, cleavage, luster, and other characteristics. There are over 750 mineral species in which phosphorus is an essential element, or about one in every eight minerals contains phosphorus in its formula. Phosphorus is essential for life and it is especially useful for fertilizer. It is literally in everything from explosives to toothpaste. We mine about 20 million tons of phosphate rock in the United States from Florida, Idaho, North Carolina, and Utah, and 2,000 people work in the phosphate mining business (each person mines 10,000 tons on average). Idaho grows the best potatoes because the soil is rich in phosphorus. Most of the phosphate rock mined in the United States is made into phosphoric acid, which is then produced in ammonium phosphate fertilizer, animal feed supplements, and other fertilizers. Some is even made into pesticides such as Roundup (a glyphosate). Phosphate is an ingredient in cheese and people with kidney disease should avoid high phosphate cheeses such as hard cheese (Parmesan, Swiss, Chedder, Provolone, Mozzarella, etc.), blue cheese, and processed cheese (Cheez Whiz, American, and Velveeta). Phosphate minerals are even produced in cheese and there are dozens of articles about the various minerals found in cheese. People use to, and still do, mine bat or bird guano (a nice name for poop) for it’s phosphorus content. The idea of putting dead fish or fish bones in the ground to fertilize the soil is to seek its phosphorus content. If you grow roses and other plants, you know ground bone is a good fertilizer. Your urine is high is phosphorus and there are even people who collect it to apply it to crops in the United States. If you listen to the radio program, they go into great detail on this practice in Vermont. You can green up your lawn peeing on it, if your neighbors don’t see you.

When I visited Russia in 2017, we toured mines where fluorapatite was mined from nepheline syenite, carbonatite, and other igneous rocks to make phosphate fertilizer. These are hard igneous rocks and it is a heck of a labor/power intensive method of making plant food. In the town of Apatity we could hear underground mining and explosions all night in search of plant food. One of the largest phosphorous mines is located in Morocco. About 70% of the world’s phosphorus and phosphate rock comes from Upper Cretaceous-Paleogene rock where biological processes in shallow to deep seas precipitate phosphorus as fraconlite (a carbonate fluorapatite). These seas were rich with life and most of the Moroccan shark’s teeth you see for sale at rock shows come from these deposits. Sometimes the shark’s teeth are ground up with the francolite and become part of the phosphate rocks and phosphoric acid. Whereas there are hundreds of uses for phosphorus, phosphate rock, and phosphoric acid, the last use is one of my favorites: Coca Cola. Coke, Diet Coke, and many soft drinks contain phosphoric acid. This goes back to the old Soda Shops where you would order a phosphate. It’s almost irony that the phosphate in the soda dissolves your teeth (also phosphate) made from shark’s teeth. It is partially absorbed, discharged, or passes through you body to help plants. Most kidney stones are calcium oxalate (whewellite), but some are phosphates such as fracolite.

Metaswitzerite (PO4)24H2O Mn3 A

phosphate mineral from the Foote Mine, Cleveland County, North Carolina

Hydroxylapatite Ca5(PO4)3 (OH)

forming white hexagons on albite from Oksoyekollen, Buskerud Norway

Kosnarite, a rare potassium zirconium phosphate (KZr2 (PO4)3) from the Jenipapo Pegmatite, Itinga, Minas Gerais, Brazil

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Be Cautious of Covellite's Allure

Angel Doran Ozarks Gem & Mineral Society (MO) From the June, 2025 Chert Chatter

Covellite has long been prized for its brilliant indigo luster and striking iridescence. Sourced primarily from Butte, Montana, its deep blues and purples make it a favorite among both lapidaries and collectors. But behind that mesmerizing sheen lies a toxic truth that few discuss: cutting covellite could be cutting corners on safety. As part of an undergraduate research project at Missouri State University, I tested all of my covellite specimens using a handheld X-ray fluorescence (XRF) spectrometer. The results were unsettling. Out of seven samples from Butte, five contained elevated levels of mercury, arsenic, lead, cadmium, or even uranium. These aren't just trace amounts. One specimen, for example, contained an astonishing 1280 ppm of gold, enough to raise eyebrows in a prospector's dream, but came with a nightmare of companions: 2100 ppm of mercury, 920 ppm of arsenic, and 610 ppm of uranium. It's a potent reminder that beauty and value don't always walk hand-in-hand with safety. That particular rock was stunning. The kind of piece that makes you think, "This would look incredible polished." But that impulse is exactly what I want readers to reconsider. Covellite itself is copper sulfide (CuS), which is already hazardous when powdered or inhaled.

However, the risks multiply when covellite hosts a variety of toxic contaminants. Mercury vapor, arsenic dust, and uranium fines are nothing to dismiss. These elements pose real risks to the respiratory and nervous systems, especially when released during lapidary work.

Covellite from East Colusa Mine, Butte, Montana. Photo by Robert M. Lavinsky, via Wikimedia Commons.

So why don't more people know? Part of the problem is that these specimens look harmless, and most vendors can't test for toxins. Many assume that standard lapidary safety procedures are good enough. And while it's true that any rock cutting should be done with proper ventilation and protection, the presence of radioactive and heavy metal contaminants raises the bar for what qualifies as "safe enough." As I dug deeper into this issue, I reached out to sellers of Butte covellite online. Reactions varied. One vendor pointed out that "all rocks are hazardous when cut," which is true to a degree. But not all rocks contain lead levels 140 times the safety threshold, or mercury concentrations high enough to make a thermometer blush. Some of these vendors are selling covellite slabs that could be destined for cabochons, and eventually for jewelry worn against the skin. What You Can Do If you already own covellite:
• Handle rough pieces with care • Never dry-cut or grind without a respirator and water containment • Consider displaying instead of cutting If you sell specimens: • Test before selling, or include a disclaimer about potential hazards • Inform customers about safe handling And if you're like me, you might feel compelled to buy up every hazardous specimen you find, not to hoard it, but to keep it out of harm's way.

The real shock wasn't just how high the toxic element levels were, it was how common this material is in the lapidary world. Covellite isn't a rare curiosity gathering dust in a museum case. It's cut, polished, sold, and displayed by hobbyists and professionals alike. Which raises a much bigger question: how many of our favorite minerals hide dangerous secrets beneath their shimmer and shine?
Source: MWF News Feb 2026

LAST CALL FOR DUES---THE DIRECTORY WILL BE PRINTED NEXT MONTH.