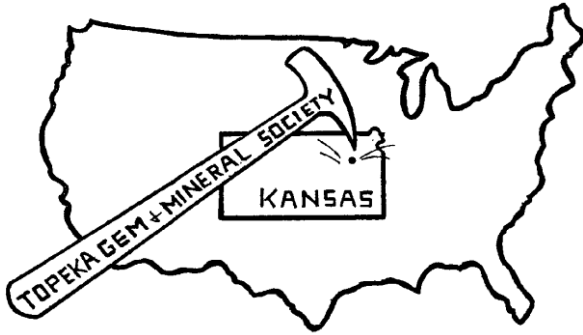


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

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. 3
 March 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 Stockton	913-645-7677
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	Amy Fluke	862-8876	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. MARCH/2024

Howdy all.

Spring starts next week. I know we are all ready for it but are we prepared for it? We have been spoiled by the temps and the short winter we have had. I have been trying to get my pruning done but it takes a toll on me. One day of work and then 2-4 days to recuperate. I haven't pruned for a couple of years so I have masses of branches to deal with. Many truckloads. It has been oh so pleasant. My mind wanders to many things I would rather be doing.

Rock hounding is always at the forefront of my thoughts. A few weeks ago about 20 of us spent several hours up in Riley county picking fossils from a road cut. Trio-butts were the highlight of our hunt. There were many other cool finds, Hunting in massive Limestone deposits usually dictates calcite and fossils. But I was quite surprised that we found six different flavors of Quartz. Crystals from the smallest of Druzy to a few that were almost $\frac{3}{8}$ " There was one Agate filled Brachiopod and a small specimen of Botryoidal Quartz. I am always thrilled to find things that I never would have thought to be at a site.

Well, we have another opportunity to hunt some big time Limestone. On the 23rd we will be traveling to an active quarry south of Wamego. Details can be found in the clubs Facebook site and on our website. The night before we have our general meeting. We are going to take some time to refresh everyone's memory on field trip rules, preparedness and ethics. These are also available on the club's website. Please read these.

The shop nights are not being well utilized. The nights have been pretty decent as far as the weather goes. We are still down one saw but there have always been machines sitting idle. Come on out and make some wheels go round. Or, just come hang out to shoot the breeze.

On a side note, it would behoove us to schedule a 'Shop Day' to do all the necessities. We should do this before it gets too hot. And don't forget next month's hunt with Kirby Marker. I would like to see a ton of you out there taking advantage of a great opportunity.

Brad

UP Coming General Meeting Program

The program for the March meeting is a "Show and Tell of Kansas Rocks" from your rock hounding here in our state of Kansas. Bring what you have found in Kansas to show to the other club members and talk about where you found them.

Please join us, visitors are always welcome! Cinda Kunkler

NEW MEMBERS

Isaak VanMeter

MaKenna McCarty

John & Jane Cooper



TTGMS Event Calendar

MAR. 2024			APR. 2024		
1	F		1	M	
2	S		2	T	Brad's Shop Open 6-10 pm
3	S		3	W	
4	M		4	T	Jr RHDS 6 p.m. at FC Church 1701 SW Collins
5	T		5	F	
6	W		6	S	
7	T		7	S	
8	F		8	M	
9	S		9	T	Brad's Shop Open 6-10 pm
10	S		10	W	
11	M		11	T	
12	T		12	F	Board Meeting Millie's 7 p.m.
13	W		13	S	
14	T		14	S	
15	F	Board Mtg 7pm at Millie's	15	M	
16	S		16	T	Brad's Shop Open 6-10 pm
17	S		17	W	
18	M		18	T	
19	T	Brad's Shop Open 6-10 pm	19	F	General Mtg. Gather 7:15 p.m. FC Church 1701 SW Collins
20	W		20	S	
21	T		21	S	
22	F	General Mtg. Gather 7:15 p.m. FC Church 1701 SW Collins	22	M	EARTH DAY
23	S	Field Trip- Midwest Concrete Materials quarry	23	T	Brad's Shop Open 6-10 pm
24	S		24	W	
25	M		25	T	
26	T	Brad's Shop Open 6-10 pm	26	F	
27	W		27	S	
28	T		28	S	
29	F		29	M	
30	S		30	T	Brad's Shop Open 6-10 pm
31	S	EASTER			



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: April 4, 2024 Earth Processes by Brad Davenport

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

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

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.



Greetings Fellow Field Trippers,

We have arranged a field trip for the 23rd of this month (the Saturday following the general monthly meeting) at the Midwest Concrete Materials quarry on 99 HWY south of Wamego. This is not far from Mount Michell where we had a trip a couple months ago. We will meet at the quarry at 10:00am. A representative will give a brief informational presentation and then we will get to look for rocks and fossils. The address is 41050 K 99 HWY.

Chuck Curtis, Field Trip Coordinator



The Topeka Gem & Mineral Society
General Meeting - February 23, 2024 at 7:30 p.m.

Call to Order: President Brad Davenport calls the meeting to order at 7:31 p.m. Harold Merrifield reports there are 49 members and 1 visitor present. Four door prizes are given out.

Approval of Minutes: Minutes from the previous month's meeting were printed in The Drifter. If anyone sees anything that needs to be changed, please send an email to one of the officers.

Treasurer's Report: Millie Mowry reports the club account balance. She is accepting dues tonight. She is also accepting donations of juvenile-friendly fabric that can be used to make grab bags for the show. She would like this in the next month or two so she can sew them before the August meeting to be stuffed. Millie states The Drifter will be out after the first of the month; she will try to get the updated member's directory out at the same time. Outstanding bills - \$5000 for the Expo centre to be paid by the 5th of March. No other bills are presented.

Old Business: Cinda reports that the club library is now located at the church if members want to look through the available books. Some sorting of the books still needs to be done and Cinda asks for help from members to achieve this.

Communication: The club received a nice thank you from Belinda at the Lawn & Garden Show. Brad wrote her a nice thank you, as well.

Show: Currently, we have 4 vendors that have sent back contracts with payment. Vendors have another 2 weeks until the deadline.

Publicity: The last meeting was held on Wednesday, February 21st.. Committee members came up with ideas for a shirt, flyers and billboards. There will be another meeting on March 13th. Anyone who wants to get their ideas out there, please attend the meeting.

Field Trips: Chuck reports there will be a field trip tomorrow. He presents several location options to the club. After discussion, it is decided to meet at the parking lot north of the I-70 and Hwy 177 junction to search for trilobites. Members planning to attend the field trip need to bring a high-visibility vest. There will be vests available for purchase for \$5.

Juniors: The next meeting is Thursday March 7th. The topic is "Field Trips" by Pat Gilliland. Adult members are welcome to attend these meetings. Congratulations are given to Andrew Newman for completing all 20 sections of the Junior Rockhounds program. He will be recognized by AMFMS for this achievement.

Webmaster: Nothing new to report

Shop: The shop is open and running. Members have been producing some very nice items out there. For anyone wanting to learn Silversmithing, the opportunity is there for members to sign up. Shop opens at 6:00 on Tuesday nights.

Historian: Nothing new to report.

Membership: Nothing new to report.

Time Sensitive: Membership dues are due.

New Business: None

Andy Connelly is here tonight to help identify fossils.

Adjournment: With nothing further to discuss, Chuck Curtis moves to adjourn the meeting; Matt Filby seconds. The meeting is adjourned at 7:56 p.m.

Submitted by: Stacy Haug, TTGMS Secretary

TTGMS Field Trip Report: February 24, 2024

A BIG "Thank You" to Dr. Johnathan Boyd for leading this month's field trip!! We had 18 members attend this month's field trip to a series of road cuts south of Manhattan for trilobites and other fossils. Not sure who all found what, but Renee Rippetoe found a good trilobite specimen that I saw and photographed. If you attended and have photos of the trip, or treasures that you found, please send the photos for possible inclusion on the website. Also, Dr Boyd hinted he may have some extra bugs if your search came up empty.

Chuck Curtis, Field Trip Coordinator



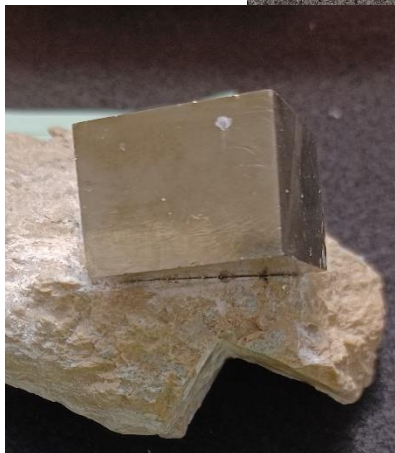
Cab
of the
Month

Winners

Class Cab of the month winner for February was by Doria Skinner with a Laguna Lace Agate; Mat won Member Cab with a blue Moss Agate; Class Jewelry with Moss Opal Kansas pin, Cathy _____ won Member Jewelry with her wire wrapped Opal; Doria Skinner won Specimen with a Druzy Quartz.



Cab of the Month from October 2023 that was not included.



October

2023 winners were Doria Skinner-Cat agate, Chris Anderson- Turritella cab, Millie Mowry-Mohave Turquoise wire wrap, Larry Hardesty-specimen aragonite tied with Harold Merrifield-Pyrite in Matrix.



Malachite

Lawrence H. Skelton—Wichita Gem & Mineral Society

Malachite Specimens



Most readers are probably familiar with the mineral malachite. Well

known to the ancient world, this hydrous copper carbonate, $\text{Cu}_2\text{CO}_3(\text{OH})_2$, usually occurs in copper deposits that are associated with limestone. Malachite is bright green, often a swirling mixture of various shades of green and forms as crusts on other copper-based minerals and as banded stalactitic or botryoidal (grape-like) masses.

Crystallizing in the monoclinic system, its needle-shaped crystals are usually indistinct and form tufts in rosettes, or as a velvety blanket.

Hardness and specific gravity range from 3.5

to 4.0 and 3.0 to 4.03 respectively. Streak is pale green and luster is adamantine to glassy in crystals and frequently silky in the fibrous botryoidal forms. Like other carbonate minerals, malachite effervesces on application of acid, a characteristic that allows it to be distinguished from other green copper minerals.

The name malachite is generally considered to derive from the Greek "malakhe" which refers to the green leaf color of the mallow plant. The Hebrew word for King is "Malach", so the mineral name may derive from reference to ancient King Solomon's copper mines.

Malachite is a supergene mineral; that is, one formed by descending water acting in a relatively shallow or oxidation zone. When ground water containing carbon dioxide obtained from overlying organic or atmospheric sources trickles downward and contacts native copper or copper sulfide deposits, or when water carrying dissolved copper contacts limestone, chemical reactions cause two cupric copper ions to react with a carbonate ion released from the water or from the limestone and precipitate as malachite.

Widespread limestone beds and copper deposits in some areas have permitted formation of massive deposits of malachite. In the 1830s, a mass of malachite discovered approximately 100 miles north of Ekaterinburg, Russia, at the Demidoff Mine yielded a mass of malachite estimated to weigh 70 tons. James D.



Malachite layer formed on cuprite and hematite, Globe, Arizona area. Photo by Amber Skelton

Dana in his 1854 text (p.282) cited a similar find at Nischnie Tagiksk, Siberia, which "partly disclosed, measured at top 9 feet [2.7 m] by 18 feet [5.5 m]; and the portion uncovered contained at least half a million pounds of pure malachite." The largest reported malachite deposit was the "Green Hill" found in the 1890's at the Tsuneb Mine in northern Namibia. That mass, now completely mined out, measured 36 feet (12 m) high, 130 feet (40 m) wide and 590 feet (180 m) deep and was composed of solid malachite with some azurite and a "few minor copper minerals."

The major modern source of malachite is the Katanga Province of the Democratic Republic of the Congo (formerly Zaire). It is estimated that "99% of all [presently available] lapidary grade malachite" is from there. Important American sources are mines at Bisbee and Morenci, Arizona. Kunz in 1892 wrote of a 15 pound mass from a mine at Bisbee. Ford, in 1948, cited the Globe District in Arizona, Tintic District in Utah, Berks County in Pennsylvania and Ducktown in Tennessee as sources of malachite. Australian resources are at Broken Hill in New South Wales.

The presence of such massive volumes made malachite available to the ancient world as a source of metallic copper and a decorative stone which remain among today's uses. The earliest reported record of malachite is that of the southern Nile Valley Baderian Culture (ca. 4500 B.C.) where the green mineral was powdered and likely used for eye

shadow. Around 500 years later, Egyptians farther north on the Nile were mining malachite in the Sinai Desert near Suez. They too used it for eye shadow as well as wearing it as an amulet for protection from cholera, an endemic disease there. Malachite was sacred to the goddess Hathor and, according to hieroglyphs found in archeological remains, the Sinai mines were dedicated to her. The ancient Greeks used malachite



Carved malachite snuff bottle from China. Photo by Amber Skelton

Continued on page 7

for amulets and jewelry. Wearing of malachite was thought to protect the wearer against evil spirits. Pliny (23 – 79A.D) reported that the temple of Diana (or Artemis) at Ephesus was decorated with malachite which was thought to protect women during childbirth. During the classical period, it was considered a “woman’s stone” and was dedicated to Venus by the Romans, to Aphrodite by the Greeks and to Freya by northern Europeans. Pliny noted that malachite was “imported from Arabia.” Malachite’s frequent concentric banding lent it to another talismanic purpose: protection from the evil eye, a use still practiced in some parts of the world.

There is lack of consensus on the location of King Solomon’s copper mines but the main contenders are ancient mining areas of Timna near the Gulf of Eilat and Khibat en-Nahas south of the Dead Sea. Malachite and chalcocite (copper sulfide) occur at Eilat and malachite and cuprite (copper oxide) are reported at Khibat en-Nahas. All these ores are easily smelted to metallic copper using primitive methods and ancient evidence of such smelting is



Katangan malachite cabachon set in sterling bracelet
Photo by Amber Skelton

found at both sites. In Europe during the Middle Ages, malachite was worn as protection against sorcery and black magic and especially

was considered to protect children and travelers. It also was used as a green pigment by artists in both 9th and 10th century Europe and western China. Such use died out during the latter Middle Ages but picked up again during the Renaissance. Artists found it of optimum use mixed in egg-base tempera and learned to control the shades of green by adding other crushed light colored carbonates. The use of malachite as an artistic pigment disappeared early in the 19th Century when it was replaced by synthetic pigments; however, it continued to be used as a green pigment in ordinary paint. After discovery of the massive deposits in Russia, malachite was used czarist artisans both as an exotic carving material and as a veneer on wall panels, tabletops and other furniture. Used as a veneer,

great care was taken to fit thin slices so that banding inherent to malachite would appear continuous and unbroken on the finished object. Eight of the ten 10 meter (33 feet) high Corinthian columns in St. Isaac’s Cathedral in St. Petersburg, Russia are carved from malachite. (The other two columns are carved lapis lazuli.) Lapidaries cut malachite gemstones for jewelry purposes but its inherent softness lends its use mainly to earrings, pendants and jewelry which is protected from raps and scratches. It should be wet cut since the dust is toxic. Over-heating while cutting or polishing can result in oxidation and black streaks. The author has had best results by hand polishing on leather with Linde A© powder.

Malachite remains a popular carving material, principally by artists in China and Africa. Its green swirls and bands have been duplicated in glass that is both cheaper and more easily formed.

The bulk of modern production of this lovely mineral however is use as copper ore.

References cited:

Curner, Rick, 2002. *Into the Heart of Darkness: Searching for Minerals in the Democratic Republic of the Congo*. Mineralogical Record, v.53, Nov – Dec 2002, p. 473 – 487.

Copied by permission from the Wichita KS Gem & Mineral Society, *Quarry Quips*, Vol 61, Issue 1, Jan 2012

Lawrence Skelton is a talented writer who has produced frequent excellent mineralogical articles for his Society

January 2012 ROCKET CITY ROCKS AND GEMS

Source: Beehive Buzzer Apr 2012

We are still in need of 100% cotton material to make grab bags for the show. Any kid friendly print will work such as dogs, cats, horses, bears, tigers, trucks, race cars....you get the picture. Garage sales are starting up now and we can find scraps of material that will work for a nominal cost. Get it to Millie so that the bags can be ready to stuff at the August picnic. Thank You!

MINERAL WITH THE HARDEST TO PRONOUNCE NAME - JEREMEJEVITE

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas



The best way to describe the mineral Jeremejevite is “rare”. It is also extremely difficult to pronounce its name. Jeremejevite has origins in Germany, and in German the “J” is pronounced more like a “Y” – for instance “ja” (yes) is pronounced “ya”. So Jeremejevite would be “yer-eh-may-yeh-vite” or “yer-ehmay-yehv-ite” or even “ye-rem-ay-ev-ite” depending on the source you are listening to. If you listen to the pronunciation on some web sites you will also here it pronounced with a “j” or soft “g” sound such as “jer-eh-me-jer-vite”, but these do not match the German origin of the name. The bottom line is that it is as difficult to pronounce its name as the mineral rare. Jeremejevite was originally identified as a unique mineral in 1883. The mineral was initially found in the Adun-Chilon Mountains of Siberia but has since been found in Tajikistan, Namibia, Germany, and most recently in Madagascar. Jeremejevite is named for the Russian Mineralogist Pavel Eremeev; his last name becomes Jeremejev in German, thus the source of the name. It normally shows up in top 10 lists for rare and expensive gems ranging from 9 to 2 in most lists. It is

significantly rarer than most diamonds, the exception being red diamonds. Its rarity is on a par with Red Beryl which is found only in Utah and New Mexico.

Jeremejevite’s chemical formula is $Al_6B_5O_{15}(F,OH)_3$. The color can be clear, yellow, or blue. Those from Germany are generally of the blue color. It has a Mohs hardness of 6.5 to 7.5 and exhibits a white streak. Although most cut Jeremejevites are less than a few carats, the Smithsonian has a 12.78 carat specimen and the Perot Museum has a 43 carat specimen. The Smithsonian specimen is clear and has numerous hollow tube inclusions stained by iron. The Perot Museum specimen is clear and if you examine it closely you can see a red crystal inclusion under the table facets. For many years, the largest cut Jeremejevite was a 59.68 carat that is pale blue in color. However, recently a faceted 106.5 ct Jeremejevite has been documented by the American Gemological Laboratories.

Ref:

- Proquest, <http://search.proquest.com/>
- Smithsonian National Museum of Natural History, <http://geogallery.si.edu/>
- Wikipedia, <https://en.wikipedia.org/wiki/>

Pictures:

- Blue Crystals: Rob Lavinsky, iRocks.com – CC-BY-SA-3.0
- Faceted Stone: Don Shurtz, specimen on display at Perot Museum of Nature and Science

Via SCFMS January-February 2017 news-letter. Via Stoney Statements July 2017.



PEACOCK ORE

Peacock Ore, also known as Chalcopyrite glistens in the sunlight. The colors vary with each mineral specimen. There are pinks, blues, greens and combinations of each creating a visual delight! Chalcopyrite is most often found to contain sparkles of a Gold like substance which is Pyrite. It is known as the Chakra Stone.

As the Chakra Stone, it will cleanse, balance and align all your Chakra energy centers individually. Once all are aligned, cleansed and balanced individually, this incredible multicolored stone will simultaneously align your entire physical body with that of your Spiritual and Ethereal energy bodies.

As you work with Chalcopyrite, it will assist you in shifting your inner Self, aligning your thoughts and emotions in a very soothing, calming way. In addition, Peacock Ore resonates more finely with the Third Eye, allowing the user to re-discover long forgotten knowledge. It is the key to reconnecting yourself with ancient esoteric knowledge. Hold it above or in front of your Third Eye during meditation. It will in time, depending on how open you are, assist you in awakening your inner sight.

Among the many benefits of Peacock Ore is the grounding of excess nervous energy, allowing the body and mind to release stress related emotions which in turn cause an imbalance throughout the body. Being aligned from the inside out provides choices not available when you are out of alignment.

*Healing Properties: aligns, cleanses, balances all Chakra Energy centers; heals doubt, manages thoughts of lack; dissolves energy blockages; increases self-esteem *Vibrational Frequency: attuned to or with all the vibrational frequencies of the Universe; soft, strong, subtle and powerful

*Spiritual Properties: protection from psychic attack, protects healers; enhances intuition and perception It is part Copper and part Pyrite. Pyrite is commonly called "Fool's Gold". The metaphysical properties of Pyrite are prosperity and abundance, manifesting great wealth and burning away that which is no longer desired or needed. The metaphysical properties of Copper are warmth and healing, resonating with the Solar Plexus Chakra, the energy center for manifestation, self-empowerment.

As with many multi colored stones and mineral specimens, the interconnectedness of each of its separate components, creates an entirely unique energy and color vibration.

Each stone displays a unique array of colors, mimicking the tail feathers of a male Peacock in his entire splendor.

Source: Stoney Statements Feb 2018



Mineral Word Fun

Identify the mineral whose name **sounds** like the answer to the clue and is the correct length.

1 - A man in a leotard. (8 Letters)

2 - One half of the tip of a snake's tongue. (10 Letters)

3 - A bubbly beverage without calories. (8 Letters)

4 - A pack animal in the dark. (9 Letters)

5 - A musical instrument mixture. (10 Letters)

(Source: Stacy Walbridge (the Mtn Gem Oct 2018)

Answers will be given at the March 2024 meeting. Be there!