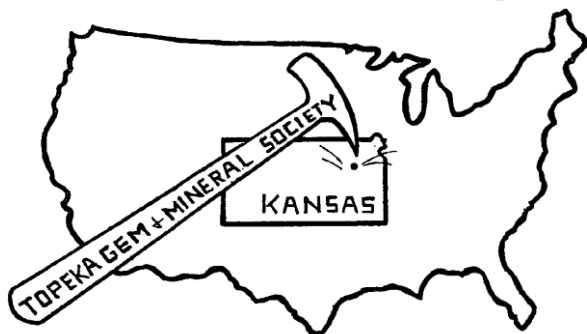


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# THE GLACIAL DRIFTER



[www.TopekaGMS.org](http://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. 65, No. 12  
 December 2022



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: 4<sup>th</sup> 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 30<sup>th</sup> St, Topeka, KS 66611.**

[www.TopekaGMS.org](http://www.TopekaGMS.org)

## 2022 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Donna & Russell Hedge	620-660-1651
1 <sup>st</sup> Vice Pres.	Will Gilliland	286-0905	Field Trip Coord.	Cole Collins	220-4027
2 <sup>nd</sup> 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	D. Dillon	272-7804
Directors	Chuck Curtis	286-1790	AFMS Scholarship	Cinda Kunkler	286-1790
	Jim Baer	785-256-2432	Editor/Exchange Editor	Millie Mowry	267-2849
	Dave Dillon	272-7804	Show Chairman	Dave Dillon	272-7804
Historian	Open		Show Dealer Chairman	Dave Dillon	272-7804
Federation Rep	Chuck Curtis	286-1790	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](mailto: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. December/22

---

Season's greetings to one and all. Whichever season or holiday you hold most dear, dive right into that puppy and get it done. The stresses folks encounter trying to pull off the perfect experience often seem overwhelming. You can only do so much..... You do not have to up your game every year. This is just not a sustainable philosophy. Quality not quantity is much more satisfying. More spending rarely equates to better memories. Keep it simple.

We had 31 club members attend our club's holiday dinner at the Viking Grille last Friday. I think everyone enjoyed our gathering. It was a kind of low-key evening. We did have flashing lights and an abundance of glitter. Thank you, Donna and Thomas. Michael was adorned in a festive elf hat. Everyone looked so nice. We agreed to hold our 2023 dinner there again.

Your officers were sworn in for the next year. Thank you, Doria and Shirley for stepping up and agreeing to be Directors next year.

I have created two new committees to help us run smoothly. Chuck Curtis will be the chairman of the 'Properties Committee'. Sammy Wall will chair our new Fund-Raising Committee. I will be forming some other new committees in the next year. So, don't be surprised when I or a new chairman approach you for some help. Please consider volunteering.

The first of next year we intend to learn how to write applications for grants. Our hope is to gain some additional funds for the betterment of the club. We do have an ambitious wish list. If you have any experience in grant writing or making a wish list, please contact our Publicity Committee. Donna Stockton is the chairman.

On the 'Shops' side of things, we are making a couple of changes. If you would like to participate in Silversmithing or Wire Wrapping classes, you must contact in advance either Millie or Jim. The two of them have been showing weekly to teach and nobody is there. Jim drives in all the way from Auburn and that is crazy and will not continue. So, give them a heads up if you want a class. Lapidary Shop nights will continue as usual through the end of the year.

So, every one, enjoy your family traditions or maybe start new ones and I will catch up with all of you in the new year. Brad



### OUR NEW MEMBERS

Kasper Schiver and Effie Gao Ruyi\* Schiver



# TGMS Event Calendar

DEC. 2022			JAN. 2022		
1	T		1	S	
2	F		2	S	
3	S		3	M	
4	S		4	T	Brad's Shop Open 6-10 pm
5	M		5	W	Jr RHDS 6 p.m. at the new church
6	T	Brad's Shop Open 6-10 pm	6	T	
7	W		7	F	
8	T		8	S	
9	F		9	S	
10	S		10	M	
11	S		11	T	Brad's Shop Open 6-10 pm
12	M		12	W	
13	T	Brad's Shop Open 6-10 pm	13	T	
14	W		14	F	Board Meeting at Millie's 7 p.m.
15	T		15	S	
16	F		16	S	
17	S		17	M	
18	S		18	T	Brad's Shop Open 6-10 pm
19	M		19	W	
20	T	Brad's Shop Open 6-10 pm	20	T	
21	W		21	F	
22	T		22	S	
23	F		23	S	
24	S		24	M	
25	S	<b>CHRISTMAS DAY</b>	25	T	Publicity Mtg Elmont Church 6:30 pm Brad's Shop Open 6-10 pm
26	M		26	W	
27	T	Brad's Shop Open 6-10 pm	27	T	General Meeting First Congregational Church 7:15 p.m. 1701 SW Collins Ave
28	W		28	F	
29	T		29	S	
30	F		30	S	
31	S	New Years Eve	31	M	

Brad's shop will be open- weather permitting in December

If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or [rock2plate@aol.com](mailto:rock2plate@aol.com)

Check out the calendar on our web site [www.TopekaGMS.org](http://www.TopekaGMS.org)

Joke for the day!

What do you call a 'broke' Santa Claus?

Saint Nickel-less

## 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](mailto:Fleetcommander@att.net)



Next Class: Jan 5 part II of Rocks & Minerals. 'Rocks'. 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.



We need your **BEST CHOICE** UPC Labels --

Bring them to the monthly meeting, and give them to Cinda Kunkler.

Our contribution to the AFMS Scholarship Foundation of \$420.72 generated by the Scholarship tables at our show brought TTGMS to a total amount of giving from our club to \$16,317.52 or 16,200%. That amount is the equivalent of donating \$1 per member for 162 years. It is through donations such as ours the American Federation of Mineralogical Societies is able to award \$48,000 in scholarships each year to graduate students in the Earth Sciences.

The program for our January meeting 1/27/23 will be Silent Auction. If you have rocks, slabs, cabs - any rock related items that you want to contribute to TTGMS please bring them to add to the Silent Auction. I am working on programs for February through May - if you have ideas or suggestions for what you might think we should do, please let me know! Hope to see you there. Happy Holidays to all and wishing us all the best for a Happy Healthy New Year!

Cinda Kunkler, 2nd Vice President & AFMS Chairman



**PARNELL LAW OFFICES, LLC**

2712 W. 27th Ter.  
Lawrence, KS 66047  
www.parnelllawoffices.com

Jonathan D. Parnell, Attorney  
(785) 842-1400 Tel ~ (785) 576-1488 Fax  
jparnell@plo.microsoftonline.com

November 15, 2022

Topeka Gem & Mineral Society  
c/o 1934 SW 30 ST  
TOPEKA, KS 66611

RE: Darrell Parnell  
AFMS Scholarship Contribution

Topeka Gem & Mineral Society:

I am writing on behalf of my mother, Esther Parnell, concerning the notice we received from the AFMS Scholarship Foundation and your gift in honor of my father, Darrell Parnell. How very kind of you to remember him in this way.

My mother suffers from Alzheimer's, but I am certain she would say with us as a family that we have been most grateful to hear from so many how his life touched theirs. You can imagine then, what an extraordinary honor it is for him to be remembered with a gift like yours to further science education. Thank you.

As children, we were fortunate to be included in his science 'classroom' daily, and we always looked forward to the class field trip to the Gem & Mineral show in Topeka. Your organization, its members and craftsmen, blessed us and opened our eyes to the beauty of God's creation on the earth. And for that we are thankful.

Respectfully,

Jonathan D. Parnell



For those members that joined before October 2022. If in question see Millie.  
Call 785-267-2849 or rock2plate@aol.com.



# TRINITITE

From Raw Destructive Power Comes an Oddity of Science

By, Jason Schulz, TTGMS Member

On June 16, 1945, the first explosion of an atomic bomb ripped apart in stillness of the early morning dawn on the Trinity test site in New Mexico. In the midst of all that destructive power, however, was the beginning of an “impossible” mineral...one that needed the unleashed force of the largest explosion created to come into being.

That mineral, first called “Atomite” but later named “Trinitite” after the test site, is a slightly radioactive compound made up of a variety of materials. There are traces of the support structures steel girders, the iron and aluminum in the bomb’s casing, sand from around the site, and isotopes of uranium, plutonium, and other decay products. (An isotope is a version of an element that has more neutrons than usual in its nucleus, and is often radioactive because of it.)

Trinitite formed through a complicated process of extreme heating (that completely vaporized everything within 400 meters of the blast site, including things that had never been known to melt before), highly uneven cooling and deposition, and compression from the blast wave. Material vaporized and was drawn up into the mushroom cloud, cooling and heating as it went through the convection patterns within the cloud, then rained down back onto the test site. The mixing was chaotic, and as it cooled further on the ground, the mineral began to develop crystalline structures unknown to science at that time.

Clarence Ross, from the US Geologic Survey, included this description in the 1948 publication “Optical Properties of Glass from Alamogordo, New Mexico”:

“The glass, in general, formed a layer 1 to 2 centimeters thick, with the upper surface marked by a very thin sprinkling of dust which fell upon it while it was still molten. At the bottom is a thicker film of partly fused material, which grades into the soil from which it was derived. The color of the glass is a pale bottle green, and the material is extremely vesicular, with the size of the bubbles ranging to nearly the full thickness of the specimen.”

The crystalline structure of this substance doesn’t fit the usual definition of a crystal. Scientists use the term “quasicrystal” to describe it—where typical crystal structures fit snugly against each other, quasicrystals do not, as their three-dimensional patterns don’t mesh completely. This is one of the things that makes trinitite unique.

Trinitite requires energy releases of unprecedented magnitude to form, but there are far more common and similar formations that take place, as well. Fulgurites, created by lightning strikes, and impactites caused by large-scale meteoroid or asteroid impacts, occur naturally and for more often than nuclear explosions. In Chernobyl, some of the aftermath of the reactor meltdown has made a material that’s proposed to be similar to trinitite; however, even decades after the accident, the radioactivity levels are too great for it to be properly studied.

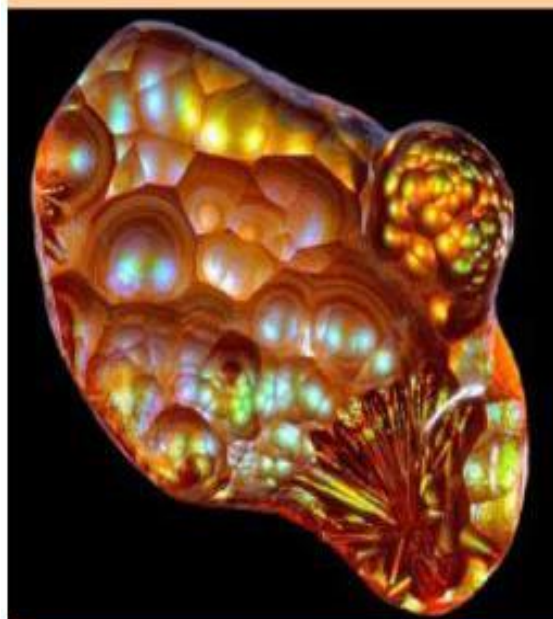
It’s now illegal to retrieve trinitite from the Trinity test site, but there are legal ways to acquire specimens. These were available to the public before the real dangers of radioactivity were known and the government stepped in. It is slightly radioactive, but can be handled safely with a minimum of precaution. I wouldn’t expect it to be made into a medallion, earrings, or cabochons anytime soon, though.

Trinitite is a stark, beautiful reminder of the raw destructive power mankind controls. It should be hoped that the availability of this substance doesn’t grow anytime soon.

(Information for this article was gathered from Forbes magazine, Nature, and Wikipedia. Images gathered by a public-domain Google Image Search.)



## FIRE AGATE (CONTRIBUTED BY JACK KIRKLAND)



Fire agate, a variety of chalcedony with an ancient and fiery beginning, is an all natural gemstone found only in certain areas of Arizona, northern Mexico, and other parts of the southwestern United States. Approximately 24-36 million years ago these areas were subjected to massive volcanic activity during the Tertiary Period. The fire agates were formed during this period of vulcanism when hot water, saturated with silica and iron oxide, repeatedly filled cracks and bubbles in the surrounding rock, often forming a botryoidal (grape-like) growth. Fire agate gemstones have beautiful iridescent rainbow colors, similar to opal, with a measurement of hardness on the MOHS scale of between 6.5-7 which prevent the issues of cracking and scratching. The vibrant rainbow colors found within fire agates, created by the Schiller effect as found in mother-of-pearl and fire opal, is caused by the alternating silica and iron oxide layers which diffract and allow light to pass which forms the interference of colors known as fire. Besides the thin limonite and/or goethite iron oxide layers there is no actual objects inside the gems, the fire agate visual effects arise from light interference within the microstructure crystal layering of the gemstone.

Fire Agate Gems are one of the hardest gemstones to produce, taking highly skilled lapidary skills and the creative talents of a true artist. Dedication, patience and time will be needed if you plan on producing quality fire agate cabochons, but the final rewards are truly spectacular. The fire agate stone also has a large metaphysical following with the fire agate meaning

and properties of being an excellent protection stone which reflects negative energies, and healing properties for the stomach, nervous and endocrine systems.

Oatman Arizona: Cuesta Fire Agate Mine <http://www.fireagate.us/fire-agate/oatman.shtml>

Black Hills Arizona: BLM Rockhounding Site [http://www.blm.gov/az/st/en/prog/recreation/rockhnd/locations/blk\\_hills.html](http://www.blm.gov/az/st/en/prog/recreation/rockhnd/locations/blk_hills.html)

Deer Creek, Arizona <http://www.fireagate.us/fire-agate/deer-creek-fire-agate.shtml>

Opal Hill California: Opal Hill Fire Agate Mine <http://www.fireagate.us/fire-agate/opalhill.shtml>

Round Mountain Arizona: BLM Rockhounding Site [http://www.blm.gov/az/st/en/prog/recreation/rockhnd/locations/round\\_mtn.html](http://www.blm.gov/az/st/en/prog/recreation/rockhnd/locations/round_mtn.html)

Saddle Mountain, Arizona <http://www.fireagate.us/fire-agate/saddlemountain.shtml>

Slaughter Mountain, Arizona

<http://www.fireagate.us/fire-agate/slaughter-mountain-fire-agate.shtml>

Here is a site that offers links to other informational sites about fire agate. <http://www.fireagate.us/>



Our annual Christmas Dinner

Swearing in the new 2023 TTGMS Officers



Chuck giving Cinda Member of the Year Award



Will & Pat Gilliland



Just part of the gang.