



Rocky Trails



November 2022

Volume 16 Issue 11

The Newsletter of the Columbia Gem and Mineral Society



EDITOR'S MESSAGE

Hi Folks,

Welcome to all continuing and new members. The show is upon us as we come to final preparations. A special thanks goes out to those who went above and beyond the call of duty in show preparations. These folks include but are not limited to Sue Shrader, Sharon Sterrett, Gary Hert, Angela Valvasori and Dee Iurcovich. If you see any of these folks, please give them a big thank you for their very gracious contributions. There are many others who assisted in show preparations and we owe a debt of gratitude to everyone who volunteered their time to help! It is no simple task to put a successful show together.

We had our Halloween version of the club picnic at Sesquicentennial State Park. We had a moderate turn-out probably due to the cold, wet conditions. It was still a good time had by all. It's great to be getting out of the house (see photos by Angela on page 13)!

The club is sponsoring the Dixie Mineral Fieldtrip on December 3, 2022. The announcement for the fieldtrip on page 15. This promises to be a good outing with all our friends in the federation. We have limited the trip to the first 60 folks who register and the trip is currently completely booked. So if you did not make a reservation yet, you will be put on a waiting list. If you missed out on this trip, don't fret, this is something we can do again just for our club and we could plan for that next year.

We are again at that point where we need to find officers for the club. A special thanks to Jim Cobb for throwing his name in for club President and for assisting in the officers' nominating committee. Positions that need to be filled for 2023 include Vice-President, Secretary, Fieldtrip Coordinator, Auctioneer, Historian, Show Committee and potentially a few others. We are looking for some new folks to join us!

I hope everyone enjoyed hearing my presentation on Wyoming as much as I enjoyed giving it. I am very lucky to have such a good, knowledgeable audience that is our club members!

Stay in touch and don't take any risks.

Ron Ahle

NEXT MEETING

November 21, 2022

Socializing and refreshments at 7:00 pm.
Meeting at 7:30 pm.

The November 2022 CGMS meeting will be held at **Hope Church** located at 2609 Seminole Road. It is off Broad River Rd. and is easily accessible from I-26 or I-20. Use the side door (close to the main part of the parking lot). We will meet in the Fellowship Hall.

PROGRAM:

Show and Tell. Bring items you bought at the Gem & Mineral Show (any year).

Door Prizes will be provided by Tammy Early and the club.

Refreshments will be provided by Loree and Banks Ratchford.

Executive Meeting

November 28, 2022

Dinner: 6 pm, Meeting: 7 pm

Grecian Gardens, 2312 Sunset Blvd.,
West Columbia.

Members are welcome to attend. Only executive members can vote.

54th Annual CGMS GEM AND MINERAL SHOW

November 18-20, 2022

Jamil Temple, Columbia, SC

Planning Update

CGMS will hold our 54th annual Gem and Mineral Show the weekend before Thanksgiving at the Jamil Temple. The Show is fun for our customers and club members, good business for our vendors, and educational for all. The success of the Show is directly related to the efforts of our members, both those who prepare for and organize the Show and those who help at the Show. A sincere thanks to all who helped by repairing the show cases and assisted with grab bags and other pre-show activities (see photos below). Also, thanks to all the members who have signed up to help during the show including set up and take down. We are looking forward to a great show.



GENERAL MEETING MINUTES

October 17, 2022 Monthly Meeting of Columbia Gem and Mineral Society

The Columbia Gem and Mineral Society, Inc. held its monthly meeting on October 17, 2022 at Hope Church. President elect Jim Cobb called the meeting to order at 7:30 PM. Jim thanked members who provided snacks and door prizes for the meeting. He also acknowledged new members and visitors in attendance. Jim reminded the membership that the club is looking for nominations for officers for 2023. Jim asked the membership for officer nominations including a candidate for Vice President.

Treasurer's Report: No report. **Membership:** Sheila Frame reported the club had 127 members consisting of 103 adults and 24 juniors. **Field Trips:** No report.

Gem and Mineral Show: Dee Iurcovich (our show chairperson) asked for volunteers to help with the dealer dinner. She also mentioned that Gary Hert needs help with geodes. Dee passed around a sign-up sheet for food contributions for the dealer dinner. Jim spoke on additional information about the show. Sue Shrader told the membership that two show cases were available to members and she passed around a time-slotted sign-up sheet for individual volunteers to work the show. Sue reviewed the publicity and talked about TV advertisement. Sue mentioned that she would be arranging a grab bags (which we sell at the show) assembly day in the near future. Gary Hert mentioned that seven display cases were repaired during a work day by volunteers from the membership. Sue reminded members to pass out flyers.

Workshop: Cheryl Coker gave a brief review of the mission to find a new workshop location. She asked for help from the members on determining local zoning strategies. Josh McDuffie volunteered to help Cheryl.

Programs: Main Program: Ron Ahle gave a Power Point presentation on the Geology & Paleontology of Wyoming with an emphasis on national parks and fossil collecting.

Upcoming Events: Ron & Jim informed the membership about the club picnic (October 30, 1:00 pm to 5:00 pm) at Sesquicentennial State Park Shelter #1. Ron told the members that the club would be providing charcoals for cooking and encouraged members to bring meat to grill.

Door prizes were given to everyone in attendance.

Jim Cobb adjourned the meeting at 9:30 PM.

Respectfully submitted by Ron Ahle

EXECUTIVE MEETING MINUTES

October 24, 2022 Board Meeting of Columbia Gem and Mineral Society

The Columbia Gem and Mineral Society held its executive board meeting on October 24, 2022 at Grecian Gardens Restaurant. Vice-President Tom Daniels called the meeting to order at 7:05 PM. In attendance were Vice President Tom Daniels, Sharon Sterrett (Show Committee), Cheryl Coker (Shop Purchase Committee), Steve Coker (Web Master), Ron Ahle (Secretary), Jim Cobb (Liaison), Gary Hert (Workshop Chair), Sue Shrader (Program Chair), Terri Tokaz (Show Volunteer Coordinator), Dee Iurcovich (Show Chair) and Angela Valvasori (Treasurer). Jim Cobb reminded the board members that we need a Vice President for 2023.

Show: Dee reported that preparations for the show were going smoothly. Angela asked if the sign-up sheet was being passed around and if we had adequate volunteers. Angela mentioned that new lights had been purchased for the show cases. Sue also talked about the refurbishment of the same cases. Gary summarized the work that had been done on the exterior of the cases. Ron reported on the work needed to be done during the grab bags work day. Gary brought up making arrangements for getting the club trailer to Jamil Temple. Sharon opened discussions for the timing for releasing information about our dealers on our website and Facebook. A discussion ensued about what information dealers wanted released on social media. Sharon informed the board that we had 28 dealers. Sue handed out flyers and reviewed the show advertisement. Terri said she had completed the show volunteer list. Sue said she would send out emails and post cards to potential show attendees. Some discussion on live publicity was made. Sue said the club would provide pizza and paper products for the dealer dinner. It was mentioned that club members could donate salads and desserts to the dealer dinner.

Historian: Angela reported that she has completed the 2020 and 2021 annual reports. **Program Coordinator:** Ron reminded the board that the club picnic is set for October 30 at Sesquicentennial State Park. Sue said she would bring paper products. **Fieldtrips:** Ron reported that he had arranged the Dixie Mineral Fieldtrip to be sponsored by our club for December 3, 2022. The trip is going to be a boat ride out to Morris Island to collect fossils. **Treasurer:** Angela gave the 3rd quarter treasurer report.

Workshop: A discussion on finding a workshop location was addressed by the board. Cheryl Coker took the lead and offered to be the workshop site committee chair. She emphasized how important it was to know how local zoning restrictions could impact the club's ability to own and operate a workshop. She also is looking for volunteers to run down grant money that could help in our purchase.

New Business: The board discussed future meeting locations and there was a general consensus to return to McKissick Museum next year. Steve Coker suggested that the club get web tools for non-profit organizations (presence) from Google who provides them for free. He also informed the members that there were missing months for the Rocky Trails on the website. Ron said he would look into it and get back with Steve. Sue mentioned a girl scout beading class that would be sponsored by CGMS on March 19, 2023.

A motion was made to adjourn the meeting and Tom adjourned the meeting at 8:17 PM.

Respectfully submitted by Ron Ahle

**Columbia Gem & Mineral Society (CGMS)
Historian's Summary of the Year 2020**

The **Columbia Gem and Mineral Society** was established in 1965, making 2020 the Club's 55th year.

Officers for 2020 were;

- President – Ron Ahle
- Vice President – Tom Daniels
- Secretary – Laura Bailey
- Treasurer - Angela Valvasori

The Committee Chairs were:

- MembershipSheila Frame
- Auctioneer.....Benira Sutphin
- Club Liaison.....Jim Cobb
- Faceting Guild.....Fred Meetze
- Facebook.....Dan Elswick
- Field Trip.....Catherine Sawyer
- Historian.....Gordon Murphy
- Librarian.....Sheila Frame
- Newsletter Editor.....Ron Ahle
- Program.....Sue Shrader
- Rookie RockhoundVacant
- Show.....Michael Montebello with committee members Sue Shrader and Sharon Sterrett
- SunshineAbbie Gates
- Website.....Michael Montebello
- Workshop.....Gary Hert

At the end of 2020 the Club had 117 **members**: 98 adults and 19 juniors.

Rocky Trails: The CGMS newsletter, the Rocky Trails, was issued in January, February, March, August and October. The newsletter was emailed to members.

COVID-19: 2020 was the year that the COVID-19 epidemic began. As it was a new epidemic, business shutdowns and voluntary quarantines were in place, and the CDC guidelines were being developed and modified. This had an impact on the Club. We met in person in January and February and then cancelled in-person meetings for the remainder of the year. Outdoor activities (picnic and field trips) were held in the fall. The CGMS Show was cancelled for the health and safety of the members. The Southeast Federation cancelled the Dixie Mineral field trips after February. In light of lost club function, CGMS waived annual dues for 2021 for all members who had paid 2020 dues.

The **CGMS Show** was not held in 2020. It was cancelled due to the COVID-19 epidemic.

Monthly Meetings were held on the fourth Monday in January and the third Monday in February at the McKissick Museum, USC. Refreshments and door prizes were provided by members and educational programs were given by guest speakers. Executive Board Meetings were held on the third Monday in January and the fourth Monday in February at Grecian Gardens

in West Columbia, SC. The COVID-19 epidemic began in earnest in March 2020 so meetings were cancelled for a few months in hopes we could return to in-person meetings soon. Since that was not feasible for health and safety, the remaining meetings were cancelled. Executive board meetings were also cancelled after February and then resumed by conference call for September and August. Outdoor activities, being safer, resumed in the fall and we had a picnic and two field trips.

The 2020 Programs were:

- January: Joe Wilkinson spoke about “Diving in South Carolina for Artifacts and Fossils”. He described how this helps the State gain knowledge about the cultural resources (arrow heads, bottles, pottery shards, etc.) as well as fossils found in state waters.
- February: David Hanes presented a “Pictorial Survey of Florida’s Pliocene and Pleistocene Mollusca Fossils”. This presentation focused on Pliocene and Pleistocene Mollusca Fossils that are a small sample of the biodiversity of the paleoecology of lagoons, shorelines and coral reefs during Cenozoic epochs in the Eastern coast of North America and Florida. He brought collection of these fossils to show their beauty. The Mollusca communities that spread through these lagoons, shorelines and coral reefs were affected by changes in climate, geography and competition with other successful species of plants and animals.
- March to December: No meetings.

Field trips:

Two CGMS field trips were held:

- October: On October 31, CGMS held a field trip to Morris Island to collect shark teeth and other fossils. We chartered the trip with Coastal Expeditions, on a boat leaving from Mount Pleasant, SC. A naturalist on the boat told us about the sights on the way out and stayed with us on the island to help identify our finds. It was an exciting boat ride due to the 3-1/2 foot chop with a half second interval, and windy conditions all day but nice fossils were found as well as a collection of shells and sand dollars. A large shark tooth, a huge shell casting and a piece of fish jaw with some teeth were among the fossils found.
- November: Ron Ahle led a group of seven folks to a rock shelter and waterfall at Forty Acre Rock Heritage Preserve. The trip involved an off-trail hike of approximately one mile round trip through open woods to a creek that led to the rock shelter and eventually to a waterfall. A grinding stone was found at the base of the falls. Parts of the walk were challenging, but everyone worked together making the adventure that much more special.

A Dixie Mineral Club field trip sponsored by the **Southeastern Federation of Mineralogical Societies, Inc.** was available to Club members in February.

In 2020, CGMS lost one of our club’s elder statesman, **Fred Meetze**, who passed away November 7th. Fred joined the Gem and Mineral Society shortly after the club was formed in the mid 1970’s. He was an active member ever since and was a regular attendee to our meetings. He was the chair of the CGMS faceting guild where he shared expert tips on turning minerals into gems. He was a very talented faceter and was willing to teach anyone who had the patience and desire to learn. Fred had an infectious smile and was a joy to be around. He is greatly missed.

The **annual picnic** and show and tell was held November 7th at Cayce Park in the outdoor picnic pavilion. It has a large covered shelter that allowed us to spread out. Because of COVID-19, each member brought their own food and drinks instead of the traditional potluck. CGMS did not hold an indoor Holiday / Christmas party in 2020.

Photos from the field trips and February meeting are attached.

Prepared by,
Angela Valvasori
CGMS Treasurer

**Columbia Gem & Mineral Society (CGMS)
Historian’s Summary of the Year 2021**

The **Columbia Gem and Mineral Society** was established in 1965, making 2021 the Club’s 56th year.

Officers for 2021 were;

- President – Ron Ahle
- Vice President – Tom Daniels
- Secretary – Laura Bailey
- Treasurer - Angela Valvasori

The Committee Chairs were:

- MembershipSheila Frame
- Auctioneer.....Benira Sutphin
- Club Liaison.....Jim Cobb
- Faceting Guild.....Tom Daniels
- Facebook.....Dan Elswick
- Field Trip.....Catherine Sawyer
- Historian.....Gordon Murphy
- Librarian.....Sheila Frame
- Newsletter Editor.....Ron Ahle
- Programs.....Sue Shrader
- Rookie RockhoundVacant
- Show.....Michael Montebello with committee members Sue Shrader and Sharon Sterrett
- SunshineAbbie Gates
- Website.....Steven Coker
- Workshop.....Gary Hert

The 2020 officers agreed to continue into 2021 because of a suspension in the 2020 activities due to the emergence of COVID.

At the end of 2021 the Club had 122 **members**: 102 adults and 20 juniors.

Rocky Trails: The CGMS newsletter, the Rocky Trails, was issued each month except June and December. The newsletter was emailed to members.

COVID-19: The COVID-19 pandemic continued into 2021, however we were able to keep the club active with regular Zoom meetings while still having fieldtrips, picnics and our annual Gem and Mineral Show. Executive meetings were held in person starting in June at locations with outdoor seating, to be consistent with CDC guidelines. The Southeast Federation cancelled the Dixie Mineral (DMC) field trips for all of 2021. In light of lost club function in 2020, CGMS waived annual dues for 2021 for all members who had paid 2020 dues. The McKissick Museum was closed during January and February and our meeting room at the McKissick was not open at all during 2021.

The 53rd Annual **CGMS Show** was held at Jamil Temple on November 19, 20 and 21. Attendance was approximately 1400, which is consistent with recent history average. Accommodations were made to follow the latest CDC guidelines for events, as much as practical. We provided more room at the front desk to encourage social distancing for attendees and volunteers working behind the desk, had free masks and sanitizer available for attendees, did not hold demonstrations or the salted mine to minimize possibility for transmittal of COVID-19, a pizza dinner for the dealers was held in place of the traditional pot luck dinner on the Thursday night of set up. The show opened on Friday at 10 am. Twenty-eight dealers offered jewelry, beads, mineral specimens, fossils and more for sale. Members set up display cases exhibiting fossils and minerals as well as the South Carolina state stone: amethyst, and the grand door prize: a silver cuff bracelet with blue topaz cabochons on the end, donated by Pamela's Jewelry. The geode cutting saw was busy out front as usual, with members busy selling and cutting beautiful geodes. The grab bags were again popular. Door prizes donated by the dealers were awarded hourly and the grand prize was awarded at the end of the show to a happy recipient.

The **SFMS** Annual Meeting was held in Columbia, SC to coincide with our Show. A Social Meet and Greet was held at the meeting hotel in Lexington, SC Friday evening, November 19, 2021. The SFMS Annual Meeting was held in a conference room at the Jamil Temple on Saturday, November 20, starting at 9:00 AM. On Saturday evening the SFMS Banquet followed by speakers and awards, was held at the hotel. On Sunday, November 20, 2021 was the Editor's Breakfast at the hotel. This provided an opportunity for the SFMS to attend our Show and CGMS members to attend the SFMS meeting and social events.

Monthly Meetings were held on the third Monday (fourth Monday in January) for the general meeting and the fourth Monday (third Monday in January) for the executive meeting. All 2021 General Club meetings were held on-line by Zoom. One advantage of this was that we had speakers from New Jersey and Virginia who did not have to travel. By June the Executive meetings resumed in person, at locations with outdoor seating: WeCo Biergarten in West Columbia and Coco's Restaurant in Columbia. Educational programs at the general meetings were given by guest speakers.

The 2021 **Programs** were:

- January: Ron Ahle gave a presentation about exploring Actun Tunichil Muknal, one of the most artifact-rich caves ever found in Belize. The presentation was entitled the "Cave of the Stone Sepulcher". He spoke about cave formations and Mayan artifacts and presented amazing photos documenting the adventure of a lifetime taken by Ron and Angela.
- February: Show and Tell. Club members showed some of their special pieces of fossils, minerals and lapidary work along with the stories behind each one.
- March: We played Jeopardy with mineral questions. We divided the participants into four teams. Mineral prizes were sent to the winners.
- April: "The Keweenaw: Its Mines and Minerals, Then and Now" by Jim Hird. Jim is a mining engineer and an avid collector of copper minerals. While in Michigan in college, Jim was introduced to the Lake Superior Copper District and the beauty and history of the Keweenaw Peninsula. The freedom of collecting in that area at the time with all the abandoned mines and still

working underground mines allowed Jim to learn all about the mineral deposits while collecting specimens. His presentation informed us about the mining history and he showed the copper minerals he collected.

- May: The program was “Fossils of the Carolina Sandhills” presented by Walt Kubilius. Walt is a geologist at the Savannah River Site and president of the Aiken Gem and Mineral Club. Walt has been a member and friend of the Columbia Gem and Mineral Society for many years. Walt is an excellent fossil collector and shared with us some of his fossil collecting experience in the Sandhills of South Carolina. Yes there are fossils in all that sand and Walt proved it!
- June: The program was a “Fossil Jeopardy” with members making up two teams to answer Fossil related questions.
- July: “Fluorescent Minerals” by Trent Myers. Trent is a member of the Central Pennsylvania Rock and Mineral Club and the Lancaster County Fossil and Mineral Club. Trent was recently featured in the junior spotlight section of Rock & Gem magazine for his fascination with fluorescent minerals. Trent Myers became captivated by fluorescent minerals because “you never really know what you’re going to get until you put a light on them.” His collection includes nearly 1,000 specimens. Among the most popular specimens in Trent’s collection is hackmanite from Ontario, Canada, willemite, and esperite cabochons from Franklin, New Jersey, tugtupite from Greenland, and fluorite from the Rogerley Mine of Durham, England.
- August: “Ancient Central American/North American Ceremonial Drinks” by Adam King, PhD. Dr. King is a Research Professor at the SC Institute of Archaeology and Anthropology. He has recently been studying drinks consumed by native cultures of Central America (Aztec & Mayan), the southwest (Ancestral Pueblo), and the Eastern United States (Mississippian Culture). Residues from pots and ancient imagery have provided clues to ingredients that were used in ceremonial drinks. This evidence is gathered by visiting important cultural sites such as Mesa Verde and by doing literature reviews. Dr. King presented findings from his research.
- September: “Fieldtrip Show and Tell” whereby club participants had the opportunity to show an item found on a fieldtrip and tell the story about it. This gave members the unique opportunity to share their stories with other members.
- October: “Fieldtrip Covering Portions of South Dakota, Nebraska and Wyoming” was presented by our club President, Ron Ahle. This presentation covered geological wonders, caves, fossil and agate collecting, scenic rivers, national parks, gold mining, physics, wildlife and more. Ron took us on a tour of the beautiful landscapes that captivate the imagination in the states of South Dakota, Nebraska and Wyoming. He discussed the wide diversity of geological features that make this region so popular and showed photos of scenic rivers, badlands, mountain ranges, caves, a gold mine and the incredible grassland prairies. Photos of the iconic wildlife conjured visions of Sioux Tribes and other hunter/gatherer cultures. Along the way, he described the incredible fossils exposed by erosion that tell the story of evolution from the time of dinosaurs to the present. Furthermore, Ron described leading edge particle science experiments in neutrinos and dark matter being conducted in South Dakota.
- November: John Narang gave an informative presentation on colored gemstones. John is a gemologist and is very knowledgeable about gemstones.
- December: No meeting.

Field trips:

Three CGMS field trips were held:

- **April 10, 2021 Edisto Beach Field Trip**

On a picture perfect day, nine members of the Columbia Gem and Mineral Society met at Edisto Beach State Park and headed out on the beach to collect fossils and sea shells. Folks found sharks teeth, turtle

shell, bird and mammal bones and an assortment of sea shells. After beach combing, folks gathered in the picnic area and compared finds. Photos are in the appendix.

▪ **May 22, 2021 Diamond Hill Field Trip**

On May 22 a trip was taken to Diamond Hill to hunt quartz, smoky quartz and amethyst. Photos are in the appendix.

▪ **Fossil Kayaking Adventure**

On October 17, eight people participated in a kayak trip to hunt for fossils in a river in the Charleston area. It was a short paddle to the fossil collecting area along the shore of a dredge spoil site. We had a fantastic field trip. Everyone found fossils, we saw lots of birds including roseate spoonbills and wood storks. Fossils collected included sharks teeth, horse teeth, bivalve casts and lots of bone fragments. Our guide on the fieldtrip, Ashby Gale, was a very impressive paleontologist and he has co-authored an outstanding fossil reference book. At the end of the paddle, he identified all of our fossils for us. Photo in the appendix.

Other Club Activities:

- A review of the CGMS Constitution and Bylaws was conducted, as required every 5 years. Gordon Murphy, Ron Ahle and Angela Valvasori reviewed the bylaws. No changes were made.
- Club members began to look at lots or lots with buildings for sale for our new lapidary workshop location. None were found to be suitable and the search continues. The CGMS equipment, materials and library remain stored at Ample Storage units in West Columbia, where they are accessible but not amendable to lapidary work.

The **spring picnic** was held at Saluda Shoals Park at the Dogwood Picnic Shelter on Sunday March 28 from 12:00 to 3:00. Because of COVID-19 each member brought their own food and drinks and abided by CDC guidelines for social distancing and wearing a mask. This did not stop folks from coming out, with 22 members in attendance. We had the shelter reserved for three hours and the time went by quickly with everyone engaged in conversation. As an added bonus, almost everyone in attendance won a door prize. The picnic ended with a clap (of thunder).

The **fall picnic** was held at Sesquicentennial State Park at Picnic Shelter No, 1 on Sunday October 24; 11:00 to 3:00. Twenty members attended the picnic on a near perfect October Day. Club members brought their own food and several made use of the available grill to cook brats, hamburgers and chicken. Fossils were shown by folks who attended the fossil trip. Door prizes were provided and everyone who wanted one received one (or two). While at the park, some of our members took the opportunity for outdoor recreation such as hiking, bird observation, and fishing.

The Club's website is: www.cgms.rocks. The Club has a Facebook page and a Facebook group.

Photos from the year are provided in the Attachment.

Prepared by,
Angela Valvasori
CGMS Treasurer

[South Carolina State Museum](http://scmuseum.org/events/upcoming-events/)
<http://scmuseum.org/events/upcoming-events/>

301 Gervais Street
Columbia, SC 29201
803-898-4921

Advance online ticket purchases are encouraged, especially if you wish to see planetarium and/or 4D shows.

Hours of Operation:

Mon: CLOSED.
Tue – Sat: 10 a.m. to 5 p.m.
Sunday: 12 to 5 p.m.

Planetarium Theater Shows

Live Sky Experience

Travel through the night sky and take a tour of the constellations, planets and other celestial objects that can be seen in the current night sky from right here in Columbia. Learn how the sky changes over the course of the night and journey through space to get a close-up look at Jupiter, Saturn, and Mars. Show Run Time: 30 mins. Sat. and Sun.: 1:00 p.m.

Black Holes

Unimaginably powerful, relentless, and invisible, black holes are some of the most fascinating and extreme objects in the universe. They warp space and time, swallow up stars, and can grow to monstrous sizes. How do they form? Where are they found? What would happen to you if you fell into one? Go on a mind-bending journey that brings you face to face with these strange and enigmatic denizens of the cosmos. 35 mins. Tues. – Fri: 3:30 p.m., Sat: 11:30 a.m.

We Are Stars

Go on an epic journey through time and space to explore our explosive origins and discover how we are connected to the cosmos. Watch the history of the universe unfold, from the big bang to the formation of the very first atoms to the very first stars. See how stars forged the elements that eventually came together to form planets and the complex molecules necessary for the evolution of life on Earth. 25 min. Tues-Fri 11:30 am.

Museum Special Exhibit:

Apollo 16 & Beyond: South Carolina in Space

This new exhibition explores the Apollo 16 lunar mission and the historic moonwalk of SC astronaut Charles Duke. In addition to featuring many Apollo 16 objects, the exhibition will also highlight South Carolina scientists and engineers who have contributed to the field of aerospace research and exploration.

Virtual Planetarium Sky Tour

Thurs., Dec. 8 at 6:30 p.m. via [Facebook](#)

Join State Museum planetarium manager, Liz Klimek, on the 2nd and 4th Thursdays of each month for a virtual exploration of the stars, planets and constellations you can observe in night-sky.

First Sunday Sponsored by BlueCross BlueShield of South Carolina

Sun., Dec. 4 from 12 – 5 p.m.

General admission is only \$1 for guests on the first Sunday of every month! PLUS enjoy 4-D movies and/or planetarium shows, for only \$5 each!

McKissick Museum

https://sc.edu/study/colleges_schools/artsandsciences/mckissick_museum/

Hours

McKissick Museum is free and open to the public Monday through Friday 8:30 am to 5:00 pm, Saturday 11:00 am to 3:00 pm.

Exhibitions:

Natural Curiosity: The University of South Carolina and the Evolution of Scientific Inquiry in the Natural World

Explore your own “natural curiosity” in this exhibit that highlights the treasures of nature, and the evolution of the field of natural history. Visitors can learn from authentic objects or use newly installed touchscreens to dive deeper into McKissick collections and explore the lives of Historic Southern Naturalists.

Hear Me Now: The Black Potters of Old Edgefield, South Carolina will be on view from September 9, 2022–February 5, 2023 at **The Met Fifth Avenue, New York, NY**, Gallery 955, Robert Lehman Wing. This much anticipated exhibition focuses on the work of African American potters in the 19th-century American South, in dialogue with contemporary artistic responses. It features approximately 50 ceramic objects from Old Edgefield District, South Carolina, a center of stoneware production in the decades before the Civil War, including storage jars by enslaved and literate potter and poet David Drake; rare examples of the region’s utilitarian wares; and enigmatic face vessels whose makers were unrecorded. McKissick Museum has loaned a 19th-century face cup and pottery sherd from Edgefield District, SC, to this exhibition.

To read more:

[Hear Me Now: The Black Potters of Old Edgefield, South Carolina - The Metropolitan Museum of Art \(metmuseum.org\)](https://www.metmuseum.org/learn/hear-me-now-the-black-potters-of-old-edgefield-south-carolina)

Book Signing and Meet & Greet

December 1, 2022, 5:30-7pm, 2nd Floor South Gallery

Meet Dr. Dale Rosengarten, author of *Row Upon Row: Sea Grass Baskets of the South Carolina Lowcountry* and get your own signed copy of the newly revised 4th edition of this groundbreaking exhibition catalog. Artist Antwon Ford will be here as well to talk about the artistry of sewing sweetgrass baskets.

Mineral Display

There is a very nice gem and mineral display at a Savannah, GA, Marriott hotel. It is in the JW Marriott Savannah Plant Riverside District at 400 West River Street Savannah, Georgia, 31401. A couple of members saw it and were impressed. The following link to a YouTube video gives an idea of what there is to see:

<https://www.youtube.com/watch?v=tY8z-AUqZfU>

CLUB PICNIC

The club had our first ever Halloween club picnic at Sesquicentennial State Park on **Sunday October 30th 1:00 to 5:00**. It was a little windy and damp but that didn't stop those in attendance from having a good time. We had plenty of food and door prizes for everyone. For those of you who didn't come, you missed a good one. Shown below are a few photos from the event.

Members enjoying fellowship in our spooky shelter.



Vice President Tom showed us how to use chop sticks to arrange charcoals.



News Worth Digging Up

Geobiologists shine new light on Earth's first known mass extinction event 550 million years ago

Source: Science Daily/Virginia Tech / November 7, 2022 / Notices

There are five major mass extinctions that stand out in the history of animals including the Ordovician-Silurian Extinction (440 million years ago), the late Devonian Extinction (370 million years ago), the Permian-Triassic Extinction (250 million years ago), the Triassic-Jurassic Extinction (200 million years ago), and the Cretaceous-Paleogene Extinction (65 million years ago). A study by Virginia Tech geobiologists traces the cause of the first known mass extinction of animals, which occurred prior to the “big five” near the end of the Pre-Cambrian Period (550 million years ago), to decreased global oxygen availability. In all of these extinctions, scientist believe a geological or astronomical event occurred that lead to climatic changes that may have resulted in reductions in oxygen. A study by researchers at Virginia Tech “shows that, as with all other mass extinctions in Earth's past, this new, first mass extinction of animals was caused by major climate change - another in a long list of cautionary tales demonstrating the dangers of our current climate crisis for animal life,” said Evans, who is an Agouron Institute Geobiology fellow.

"Mass extinctions are well recognized as significant steps in the evolutionary trajectory of life on this planet," Evans and team wrote in the study. Whatever the instigating cause of the mass extinction, the result was multiple major shifts in environmental conditions. "Particularly, we find support for decreased global oxygen availability as the mechanism responsible for this extinction. This suggests that abiotic controls have had significant impacts on diversity patterns throughout the more than 570 million-year history of animals on this planet," the authors wrote.

"The organisms of the Pre-Cambrian occur so early in the evolutionary history of animals that in many cases they appear to be experimenting with different ways to build large, sometimes mobile, multicellular bodies," Evans said. "There are lots of ways to recreate how they look, but the take-home is that before this extinction the fossils we find don't often fit nicely into the ways we classify animals today. Essentially, this extinction may have helped pave the way for the evolution of animals as we know them."

To read more about this incredible chapter in the history of life on earth go [Geobiologists shine new light on Earth's first known mass extinction event 550 million years ago: Work shows a major loss of diversity during the Ediacaran Period, which lasted from 635 million to 540 million years ago -- ScienceDaily](#)

Journal Reference:

Scott D. Evans, Chenyi Tu, Adriana Rizzo, Rachel L. Surprenant, Phillip C. Boan, Heather McCandless, Nathan Marshall, Shuhai Xiao, Mary L. Droser. **Environmental drivers of the first major animal extinction across the Ediacaran White Sea-Nama transition.** *Proceedings of the National Academy of Sciences*, 2022; 119 (46) DOI: [10.1073/pnas.2207475119](https://doi.org/10.1073/pnas.2207475119)

AREA SHOWS

To verify the accuracy of a show date, go to the show's website or contact them directly.

November 18-19 2022 - COLUMBIA, SC 54th Annual Gem, Mineral, & Jewelry Show
Columbia Gem and Mineral Society
Jamil Temple, 206 Jamil Rd., Columbia, SC 29210
www.cgms.rocks Sue 803-736-9317

November 11-13, 2022—GRAY, TENNESSEE: Annual show; Kingsport Gems & Minerals Society; Building No. 1, Appalachian Fairgrounds, 100 Lakeview St; Robert G Morgan, (423) 956-9486; Email: morganjewelry@msn.com

November 11-13, 2022—HICKORY, NORTH CAROLINA: Annual show; Catawba Valley Gem & Mineral Club, Inc.; Hickory Metro Convention Center,, 1960 13th Ave. Dr. Dean Russell, (828) 303-1448; Email: cvgmcsecretary@aol.com; Website: cvgmc.com

November 18-20, 2022—RALEIGH, NORTH CAROLINA: Retail show; Treasures of the Earth, Inc.; North Carolina State Fairgrounds, Kerr Scott Building, 4285 Trinity Rd; Ellen White, (804) 642-2011; Email: Ellen@TreasuresOfTheEarth.com; Website: www.TreasuresOfTheEarth.com

December 2-4, 2022—SWANNANOVA, NORTH CAROLINA: Show; MAGMA, Jacquot & Son Mining; Land of The Sky Shrine Club, 39 Spring Cove Road; Fri. 9-5, Sat. 9-5, Sun. 10-4; Free; 21st MAGMA Land of The Sky Christmas Gem Show! Contact Richard Jacquot, (828) 779-4501; Email: rickjacquot@gmail.com; Website: www.AmericanRockhound.com

December 2-4, 2022—MONTGOMERY, ALABAMA: Annual show; Montgomery Gem & Mineral Society; Garrett Coliseum, 1555 Federal Dr. ; Chris Rutherford; Email: gemshow@mgms.club; Website: mgms.club

December 9-11, 2022—LAWRENCEVILLE, GEORGIA: Annual show; Bellpoint Gem Show ; Gwinnett Fairgrounds, 2405 Sugarloaf Pkwy; Email: mbellpoint@gmail.com; Website: www.bellpointpromotions.com

Meteorites

<https://www.amsmeteors.org/category/meteor-showers/meteor-shower-calendar/>

Northern Taurids

Next period of activity: October 13th, 2022 to December 2nd, 2022

Peak night Nov 4-5, 2022

This shower is much like the Southern Taurids, just active a bit later in the year. When the two showers are active simultaneously in late October and early November, there is sometimes a notable increase in the fireball activity. There seems to be a seven year periodicity with these fireballs. 2008 and 2015 both produced remarkable fireball activity. 2022 may be the next opportunity.

Leonids

November 3rd, 2022 to December 2nd, 2022

Peak night Nov 17-18, 2022

The Leonids are best known for producing meteor storms in the years of 1833, 1866, 1966, 1999, and 2001. These outbursts of meteor activity are best seen when the parent object, comet 55P/Tempel-Tuttle, is near perihelion (closest approach to the sun). Yet it is not the fresh material we see from the comet, but rather debris from earlier returns that also happen to be most dense at the same time. Unfortunately, it appears that the earth will not encounter any dense clouds of debris until 2099. Therefore, when the comet returns in 2031 and 2064, there will be no meteor storms, but perhaps several good displays of Leonid activity when rates are in excess of 100 per hour. The Leonids are often bright meteors with a high percentage of persistent trains.

Geminids

Next period of activity: November 19th, 2022 to December 24th, 2022

Peak night Dec 13-14, 2022

The Geminids are usually the strongest meteor shower of the year and meteor enthusiasts are certain to circle December 13 and 14 on their calendars. This is the one major shower that provides good activity prior to midnight as the constellation of Gemini is well placed from 22:00 onward. The Geminids are often bright and intensely colored. Due to their medium-slow velocity, persistent trains are not usually seen. These meteors are also seen in the southern hemisphere, but only during the middle of the night and at a reduced rate.

Columbia Gem & Mineral Society 
2022 Please Copy 54th Annual

Gem Mineral & Jewelry Show

Nov. 18, 10 to 6
Nov. 19, 10 to 6
Nov. 20, 12 to 5

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The Columbia Gem and Mineral Society is an organization of persons associated together to promote popular interest in and to provide means for the exchange of knowledge of the Earth Sciences – Geology, Mineralogy, and Paleontology – and of the related Arts – Lapidary and other. The Society is a member of the Southeast Federation Mineralogical Societies Inc. and affiliates of the American Federation of Mineralogical Society Inc.

2022 OFFICERS and COMMITTEE CHAIRPERSONS

EXECUTIVE COMMITTEE

President.....Open
 Vice President.....Tom Daniels.....
 Treasurer.....Angela Valvasori.....
 Secretary..... Ron Ahle.....

COMMITTEE

MembershipSheila Frame.....
 Auctioneer.....Benira Sutphin.....
 Club Liaison.....Jim Cobb.....
 Faceting Guild.....Tom Daniels.....
 Facebook.....Dan Elswick.....
 Field Trip.....open
 Historian.....Gordon Murphy.....
 Librarian.....Sheila Frame.....
 Newsletter Editor.....Ron Ahle.....
 Program.....Sue Shrader.....
 Rookie RockhoundOpen
 Show.....Dee Iurcovich.....
 SunshineAbbie Gates.....
 Website.....Steve Coker.....
 Workshop.....Gary Hert.....

Social Media Helps our Club Stay Social!

To access our web site, type “CGMS.ROCKS” in your internet browser or you can search for Columbia Gem and Mineral Society in Google. **The Club’s website is: www.cgms.rocks**

To join the discussion with other CGMS members on **Facebook**, look under the Community tab, where you will find the Columbia Gem and Mineral Society Member Group. When you ask to join the Group, please be sure to agree to follow the rules: Be Kind, No Hate Speech or Bullying; and No Promotions or Spam. Please feel free to add photos of your interesting finds, share your Jewelry making, or your field trip experiences.

Instagram page for the Show: [@cgms_show](https://www.instagram.com/cgms_show)



CGMS Website

Please visit our Website:

<http://www.cgms.rocks>

Webmaster: Steve Coker

Monthly Meeting

Except for January, the meetings are held the third Monday of each month. Socializing and refreshments at 7:00 pm; Meeting at 7:30 pm.

Executive Board Meetings:

Except for January, the meetings are held on the fourth Monday of each month. Meal is at 6:00 pm. Meeting is at 7:00 pm.

**Rocky Trails
PO Box 6333
Columbia, SC 29260**