GEOLETTER

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BUFFALO GEOLOGICAL SOCIETY www.bgsny.org

From The President

○ Craig Posmantur



When I was President the first time around, I had to write a lot more to fill up the newsletter than I do now. We now have many more contributors and articles being submitted than ever in the past. This is a great move forward as we are experiencing a surge in involvement by the members. This is your club and we want to make it as enjoyable and engaging as possible. In that vein, we are designing a survey to get feedback from the members as to what they expect from the BGS, what activities may interest you and a plethora of other inquiries to let the BGS move forward. You will get an email as well as seeing it in the newsletter in coming issues.

There are a couple of events that the BGS will be involved in. First, Dino Fest at the Buffalo Museum of Science. We are going to be available for Saturday November 7 and Sunday November 8 for the festivities, but circumstances and prior commitments preclude us to only be there until 3:40 pm on Sunday. If any member wishes to help on either day, please contact me.

Second, there are a couple of schools that have reached out to us about doing a presentation. The details are being worked out and I will provide more information when it becomes available.

More of what has been going on in the BGS will be mentioned in the Board Happenings section of the newsletter.

Lastly, I want to wish everyone a healthy and happy Thanksgiving and safe travels to visit family.

Upcoming Speakers/Meetings

○ Joe Sullivan



Our speaker for the November meeting is Michael McElwee, he is a member the BGS and a dealer at our show. The title of his talk is “Return to Rose Rd”. His talk will be about his recent mining project collecting Titanite, Diopside and Apatite at the famous Rose Rd Pegmatite location near Pitcairn, NY. He will cover the history of the site and his knowledge and tools for working this challenging but rewarding site. He will have several pictures of his top museum quality specimens that he found in September.

Report from the Board

○. **Zeena Pawlicki**

The September BGS Board Meeting held on October 8th was productive.

November Michael McElwee who is involved in the Rose Road site will speak about the minerals that are being found there as well as the types of equipment that is used to excavate the materials for our own digs at the site.

December is the annual Potluck dinner and silent auction.

The Board received an update regarding the new mini mine structure.

The board discussed Membership Retention and how we should go about acquiring the information in a format that will be readily available to the members for their feedback. A survey via email and written forms available at the meetings were accepted. A committee was set up to formulate questions and responses that we will review upon receipt of the forms.

The Board is also going to be doing a review of the Constitution and ByLaws of the BGS in accordance with the requirements of the 501)c) 3 guidelines. Any changes that are made will be presented in two consecutive newsletters and then a vote of the membership will ensue either to ratify or reject the changes.

The Board also discussed the possibility of a new venue. The Heritage Discovery Centre has been a good location for us, but we are going to investigate other possibilities. There are some instances where space gets to be a factor when we get a good-sized group; the option of going elsewhere is something that should be considered. The HDC is doing everything in their power to accommodate our needs and is always open for discussion for anything that can make our situation as comfortable as possible.



A rock breaking and grab bag setup party is scheduled for November 1st from 9am to 12 Noon. Pizza & Wings to Follow. The number of grab-bags we are attempting to make up is around 750 – 850 bags. **WE NEED ALL THE HELP WE CAN GET FOR DOING THIS JOB!**

Treasurer's Report

○ **Chris Boyd**

SEPTEMBER 2026 BOARD MEETING

INCOME: **Show - Vendor Fees $8,605.00, Membership $585.00, Interest $11.70,**

TOTAL INCOME $ 9,201.70

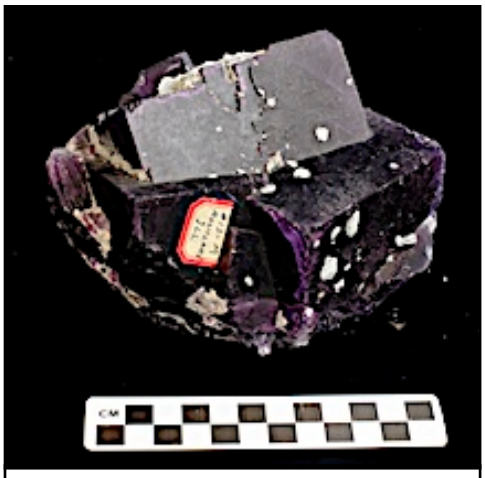
EXPENSES: **Donation - Sweet Home Masonic Lodge $500.00, Donation - WNY Railroad Historical Society $500.00, Storage - 2026 Office Rental $875.00, Storage - 2026 Boxcar rental $1,600.00, 2026 Meeting Space Fees - Heritage Discovery Center $350.00, Honorarium - October Speaker Meal - $47.22, Hospitality Supplies - Dale Russell $26.77, Website -Lucy LaPlaca $300.00, WIX Fees $16.18**

TOTAL EXPENSES $ 4,215.17

CHANGE FROM LAST REPORTING PERIOD $ 4,986.53

Buffalo Museum of Science Spotlight

https://www.sciencebuff.org



Fluorite (D7355)
Rosiclare, Illinois

Fluorite

Formula: CaF2
Mohs Hardness: 4
Crystal Structure: Isometric/Cubic
Luster: Vitreous

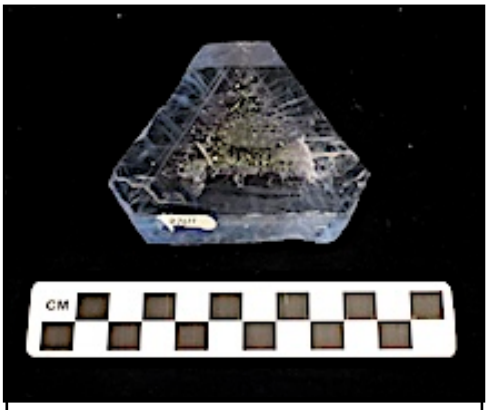
While the Buffalo Geological Society gets ready for the annual Gem, Mineral, and Fossil show, the BMS is also prepping for the event, and we can't wait to share our fluorites with everyone!

Fluorite is a common halide mineral composed of calcium fluoride (CaF_2). While pure fluorite is colorless and transparent, impurities within the mineral can create beautiful shades of purple, green, blue, yellow, pink, and brown. The crystal structure forms its unique cubic shape with four perfect cleavage planes that help produce octahedral fragments. Many samples of fluorite also fluoresce under ultraviolet light emitting bright colors of blue, red, purple, yellow, green, and white.

Fluorite is commonly used for industrial purposes such as smelting, metallurgy, and the production of some glasses and enamels. The purest grades of fluorite are used in hydrofluoric acid – a colorless, acidic, and corrosive solution. Because of its softer and brittle characteristics, it has many ornamental and lapidary uses as well. Fluorite can be shaped, sawed, polished, and tumbled to create carvings and jewelry.

The museum's collection of fluorite comes from all over the world. Many of our fluorites were donated to the museum in the 1980's by an avid collector, David E. Jensen, and come from the Penfield Quarry in Penfield, New York. We also hold specimens from Niagara Falls, Ontario, Canada, the Adirondacks, New Mexico and many areas in England

The Buffalo Museum of Science will have a display case at the 2027 Buffalo Geological Society's Gem, Mineral, and Fossil show, exhibiting our varieties of fluorite. Make sure to check us out on March 20th and 21st at the Hamburg Fairgrounds!



Fluorite (D7371)
Elizabethtown, Kentucky

Upcoming Events https://www.sciencebuff.org/events/

Community Health Day: Winter Wellness Edition sponsored by Independent Health
Everyone is invited to enjoy free general Museum admission and explore during Independent Health's Winter Wellness edition of Community Health Day on Wednesday, November 11, 2026! Area schools will be closed for the Veterans Day holiday giving families the opportunity to check out the Museum's interactive exhibits and galleries, and participate in a variety of fun and interactive activities with a focus on health and wellness free of charge.
No preregistration is required. All ages are welcome!

Book Club: The Fall and Rise of the Dinosaur
November 22 | 11:30 a.m. | Ages 12+ | FREE
This month, we're reading The Fall and Rise of the Dinosaur by Steve Brusatte.
The book is available for purchase in the Gift Shop now!
Read the book and join us for a discussion with fellow dino enthusiasts!

"FLUORITE"

MARCH 20-21, 2027
BUFFALO GEOLOGICAL SOCIETY'S
57th ANNUAL GEM-MINERAL-FOSSIL SHOW
by Jerry Bastedo, Show Chairman

"FLUORITE" is being featured at the Buffalo Geological Society's 57th Annual Gem, Mineral and Fossil Show on March 20-21, 2027, at the Erie County Fairgrounds in the Grange and Market Place Buildings in Hamburg, NY, on Saturday, 9 am-6 pm, March 20, 2027, and Sunday, 10 am-5 pm, March 21, 2027. Admission is $7/person, $10 for 2 days and children 12 and under FREE.



The BGS Show is rapidly approaching and your help with publicity will make a difference in the attendance. The Reminder cards are great method of advertising for families, groups of all ages, and anyone interested in rocks, minerals, fossils and jewelry. The Reminder Cards will be available at meetings to be handed out to scouts, schools, senior groups, and anyone that may be interested. Let's try something new this year and include a Reminder Card with the Halloween candy you give out.

Last year's show drew over 4,000 children and adults. Families come from all over Western and Central New York, Pennsylvania, Ohio, and Canada to take part in this event. This is a perfect family field trip to learn more about the geological sciences. Boy Scouts, Girl Scouts, students, teachers, the public and rock hounds are welcome. Adults are $7 each, scouts in uniform and children under 12 are FREE. A 2-day admission for $10 each is also available. Door prizes are drawn hourly. FREE parking. Wheel chair and stroller accessible. Additional information will be available in next month's newsletter. For any additional information or questions, please contact Jerry Bastedo, Show Chairman, at jcbastedo@gmail.com.



Marilyn and Bill Broad demonstrating at BGS Show.

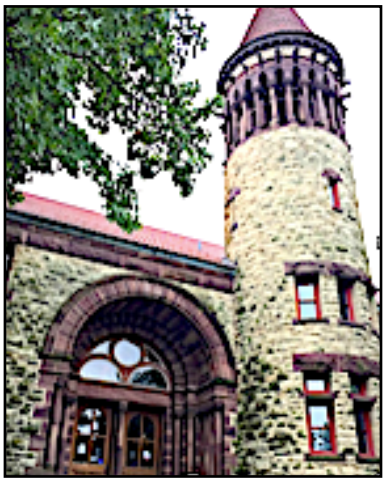
Orton Geological Museum Spotlight

https://ortonmuseum.osu.edu

THE OHIO STATE UNIVERSITY

Edward Orton and the Orton Geological Museum

The Orton Geological Museum, which is housed in historic Orton Hall on The Ohio State University campus in Columbus, Ohio, was founded by Edward Orton, a native of New York State. Orton was born in Deposit, Delaware County, in 1829, and raised in Ripley, Chautauqua County. Before entering Hamilton College in 1845, he studied at the Westfield Academy and the Fredonia Academy (now SUNY Fredonia). He later attended the Lane Theological Seminary, Lawrence Scientific School (Harvard University), and Andover Theological Seminary, becoming ordained in 1856. Following an appointment as Professor of Natural Science at the New York State Normal School (now SUNY Albany) in 1856, he became Principal at the Chester Preparatory Academy. Orton became a Professor at Antioch College in 1865, and college President in 1872. Ohio Governor Rutherford B. Hayes appointed Orton to also serve as Assistant State Geologist in 1869. In 1873, Orton became the first Professor and President of the Ohio Agricultural & Mechanical College. Successful in changing the college name to *The* Ohio State University, he remained as President until 1881 and served as the State Geologist of Ohio from 1882 to his death in 1899.



Among his important scientific contributions, Orton played a key role in geologic mapping of Ohio, and outlining the geologic resources of the state. He developed the anticlinal theory of oil accumulation, which was important during the time when Ohio was the world's leading oil producer.

The Orton Geological Museum opened in 1874. It quickly became the main repository for rocks, minerals, and fossils amassed by the Geological Survey of Ohio. Many Paleozoic fossils from Ohio named by James Hall and other notable 19th century figures were reposited there. In addition, the museum acquired numerous geological specimens and casts of fossils from Ward's Natural Science Establishment in Rochester, New York. By 1893, a new building was constructed to house the museum and the University Library. Named for Edward Orton, it was constructed of Ohio building stones, Silurian to Carboniferous in age, arranged in stratigraphic order. Grotesques of Mesozoic and Cenozoic animals adorned the top of the bell tower.

Today the Orton Museum houses a collection of more than 1,000,000 specimens, including more than 7,000 type and illustrated fossils.

Coming Events:

The Society of Vertebrate Paleontology will meet in Cleveland, Ohio, November 11–15, 2026. A field trip on Sunday, November 15, will feature "Classic Devonian Fish Localities and Historic Newberry Collections in Ohio." The trip, from Cleveland to central Ohio, will include stops in the Devonian limestones and black shales from which many species were named in the 19th century, as well as a stop in the Orton Museum to examine specimens used in the original publications (1853–1889) by John Strong Newberry.

My Time Volunteering at the Sterling Hill Mining Museum

By Don Lapham

The Sterling Hill Mining Museum is located in northwestern New Jersey in the tiny town of Ogdensburg. New Jersey Zinc operated an underground mine there up until 1986. The town put the property up for sale to recoup unpaid taxed in 1989. Brothers Richard and Robert Hauck sold their family florist business in northeastern New Jersey and paid about $1,000,000 to purchase the mine site and surrounding property with the intent to preserve the mining structures that were left on the site and the history of mining in Northwestern New Jersey (which dates back to 1897 with New Jersey Zinc and even back to the early Dutch settlers in the 1600's). The museum opened to the public in the early 1990's. In the years between the purchase of the museum and opening to the public, the collector community in New Jersey, New York, Pennsylvania, and other nearby states volunteered to help restore the buildings, grounds and surface mining areas for the museum. I was one of those volunteers.



Don Lapham at the Sterling Hill adit with safety equipment for underground.



The area outside the gift shop before minerals were placed for collecting

I was working for FMC Corporation in Princeton, NJ at the time and could spare an occasional Saturday to lend a hand. I think the first job I worked on was painting a garage door – not particularly an exciting mineral related task! But I got to know the Hauck's and all the other volunteers. I also remember dusting and cleaning some of the glass display cases in the Miner's Change Room turned into their formal museum display area. The most exciting job I ever got assigned was going down 1000 feet underground to recover old mining equipment (including storage boxes, mine cars and even an electric locomotive). I managed to get this job twice, once my brother Ken got to go underground too.

After the mine closed, most equipment (especially motors) were sold off as scrap so the Hauck's had to bring in their own winch system to lower people down into the mine shaft at a rather steep angle. They used an air powered winch and strung new cable from the winch drum up to the ceiling and then connected to a simple home-made L shaped platform with wheels to run on the old tracks. They calibrated the different levels in the mine by turns of the winch drum and marked the drum with a Sharpie marker when the platform was even with the floor of the mine at each level. As the new cable stretched, old marks were erased and new marks made. For the most part they delivered the platform within a few inches of level with the mine shaft.

Newbies going underground for the first time got a very brief instruction in underground and mine specific safety before proceeding to the platform. One of the requirements was to wear and know how to operate the rescue air filter that would convert Carbon Monoxide to Oxygen in case a fire broke out. Supposedly the catalyst that performed the transformation would get very hot and burn your lips and gums; luckily it was never necessary. The only other apparatus provided was a hard hat with a miner lamp attached and a heavy lead acid rechargeable battery on a wide belt around your waist.



The platform we were lowered into the mine on.

About five or six people could fit on the platform and since there were no sides, we had to huddle together as the contraption was lowered into the mine. It wasn't a free fall, but it seemed pretty fast. At regular intervals we passed beams holding the walls from collapsing. We had been instructed in the case of a cable snap and free fall to try and throw ourselves onto one of the beams to avoid crashing at the bottom. Between the Adit station where we started and the 1000 foot level there were maybe 8 or 9 levels to stop on. Once on a level you communicated to the winch operator with a series of bell rings to tell him where you were and where you wanted to go as well as if you had arrived. The bells were electric and wired and the only method of communication as radio transmissions were blocked by the solid rock (and also cell service is blocked).



The Winch used to lower volunteers underground

Each station was a relatively large room (about the size and height of an empty two car garage). In the back of the station was the mine tunnel which was about wide enough for two people to walk side by side and not much taller than a person. There were pipes carrying compressed air, water, and fresh air back into the working spaces of the mine. No electricity was available. There were small scale mine rails for ore cars and electric locomotives to transport ore to the adit station to be transferred to the surface.



The exit from the mine being constructed near the Rainbow Room

The first level I arrived at was the 1000 foot level. We immediately noticed the floor was wet and a pile of collapsed rock was partially blocking the tunnel. Upon discovering these conditions our leader asked us to get back on the platform and signaled to be taken up to the next higher station. We might have been the last people on the 1000 foot level as the water table had just about

reached 1000 feet that day. I seem to remember that my brother was allowed to climb the emergency escape ladder to that next level.

On both of my trips underground we were after the ore cars and locomotives. We had to hand push them from inside the mine to the adit station where they would be suspended below the platform and hoisted back up to the surface. Some of these ore cars and locomotives are scattered about the property today.



The museum room with empty cases.

I never got all the way back into the mine tunnels to see the ore in place but I did see the ore stations about mid-way back where ore was dumped down another shaft to land below where a crusher operated to fit more tonnage in each ore bin being hauled to the surface. At the ore stations there were some simple willemite, franklinite, zincite, and calcite specimens that I was able to take as souvenirs. On some occasions (not on my visits) the volunteers and old miners drilled, blasted, and recovered mineral specimens. I recall specimen recovery projects that included franklinite crystals, willemite crystals, fluorescent wollastonite, fluorescent barite, and mcgovernite specimens. I was able to purchase examples from these projects, but not collect them in place.



This is Dons name on one of the lockers.

Eventually the water table came up to the surface and recovery efforts switched to running tours for the public through the surface tunnels and old buildings. At that point I switched to a part time tour guide for a couple years before I moved to Lockport in 1999. If you ever take the tour, look for my name stenciled on one of the old lockers located in the museum building.

BGS Education/Fellowship Meeting

Craig Posmantur

The following is the schedule for the Education/Fellowship meeting 'held at Sweet Home Masonic Hall, 841 Sweet Home Rd, Eggertsville, New York. The time we start is 8:35am on the LAST Wednesday of the month starting in September and running through April. Breakfast is served about 9am no charge but donations are Welcome!

- November 25, 2026 Glen LaPlaca Collecting in South Dakota Dinos unearthed,
- December 30, 2026 NO Meeting Happy Holidays!
- January 27, 2027 Basic preparation instruction of fossils and minerals hand out will be provided
- February 24, 2027, Holly Schreiber and Kasey Paige, directors of Buffalo Museum of Science, speaking on upcoming exhibits & continued collaboration with BGS
- March & April 2027 TBA

View from the Escarpment

○ **Marcia Binda**

Nobody knows who made the initial discovery that led to the second major gold rush in the United States. There are several theories, including a stubbed toe. We do know that the discovery was made in Lumpkin County located in the northeastern foothills of the Blue Ridge Mountains of northeastern Georgia.in1828. This discovery brought an estimated 15,000 miners, called "Twenty-niners,"to Georgia in what was called the Great Intrusion.

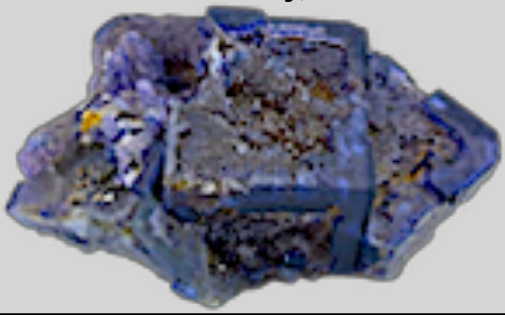
A great deal of gold was extracted through placer mining, gold washing machines and hard rock mining, so much that the government established the Dahlonega Mint in the area to produce gold coins. By the time the rush died out there were at least 500 mines in northern Georgia.

The Georgia Gold Rush is an indication of the hardships that can be caused by human greed. Much of the gold was on Cherokee land. Tension between the Cherokee and the white miners led to the Indian Removal Act of 1830 and the forced migration of the Cherokee known as the Trail of Tears. One quarter of that nation's people died during the gruelling removal. Back in Georgia, the Gold Lottery of 1832 gave away 40 acre tracts of Cherokee land.

Native Americans were not the only people affected by the gold rush. Enslaved people were forced to work in the mines. Even enslaved women were put to work running the water mills that were needed for the mining processes.

By the early 1840s it became harder to find gold and the rush was over. Even though there was still gold in the area, many of the miners went on to greener (golder?) pastures. Mining in Georgia continued, some of the mines working until the 1930s.

Fluorite, Denton Mine, Hardin County, Illinois



WELCOME TO OUR NEW MEMBERS 9/15-10/15/26

Shawlin Ahmed
Renee Aubry
Frank Aurigema
Corren Briggs
Alexandra Dejong
Amy Farruggia
Don Haas
Rob Hope
Emily McAndrews
Thomas McGuire
Nadezada Meade
Michael Passos
John Sharpe
Iliya Shitake
Samantha Swift
Laura VanGlad
Jason Vest

October 2, Speaker

○ **Craig Posmantur**



Carl Feshko gave a very interesting talk on collecting fossils while scuba diving. The videos and other pictures that supported the talk were stunning. The specimens that he brought to light were spectacular and if you weren't there, you missed an outstanding talk.

Carl is also in charge of coordinating field trips to the Green River Formation in Wyoming and has offered us an opportunity to join him on his next quest out west.



FOLKLORE, MYTHS & LEGENDS

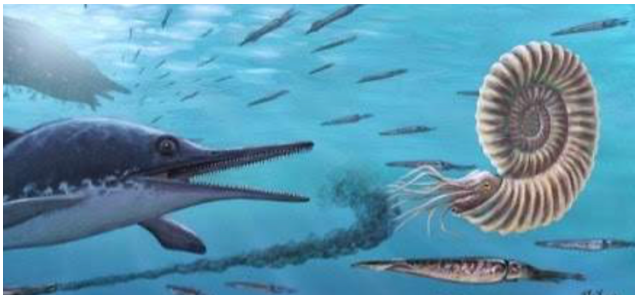


THE LEGEND OF ST. HILDA AND THE SNAKES

BGS EDUCATION COMMITTEE

The Yorkshire coast of England near the town of Whitby is a prime collecting spot for fossil Ammonoids that inhabited the Jurassic seas 180 million years ago. While ammonoids first appeared in the fossil record during the early part of the Devonian, about 419 million years ago, they were most abundant during the Jurassic / Cretaceous Periods. They died out about 66 million years ago, during the mass extinction at the end of the Cretaceous that killed the dinosaurs and most other land and sea animals. But, before science understood what they were, legend had it that they were **COILED-UP SNAKES** that had been turned to stone.

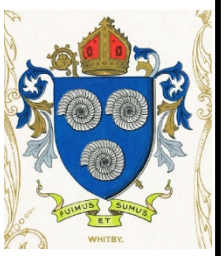




This legend of the "SNAKESTONES" dates back to the seventh century and the story of the **Saxon Abbess Saint Hilda** (614-680). Charged with founding an Abbey in Whitby, St Hilda first had to rid the region of an infestation of snakes which at the time were associated with the devil. According to legend, Hilda cast a spell that turned the snakes of Whitby to stone and threw them from the cliff tops. But even the fact that these fossil "snakes" had no heads didn't deter the legend makers of the time. To strengthen the legend it was later purported that Saint Cuthbert aided Saint Hilda by casting a powerful beheading curse on all of the snakes.



To further honor St. Hilda and the legend, for years local artists carved heads on the fossils to make them more snake-like and sold them as proof of her miracles.



Even today the Whitby coat of arms, adopted in 1935, depicts 3 snake-stones as its centerpiece.

In 1876, the US Paleontologist Alpheus Hyatt in a tribute to St.Hilda described a genus of ammonoids from the Whitby area he called **HILDACERAS**. Today there are almost a dozen species in this genus.



As an aside in his 1897 novel "Dracula", Bram Stoker used the Abbey as the inspiration for the backdrop of his opening passages where Dracula comes ashore. It is also reported that while on an 1890 stay in Whitby, Stoker came across stories in the local library of the 15th century Romanian prince Vlad Tepes. Tepes reportedly impaled his enemies on spikes and became better known as Vlad the Impaler or "Dracula." The latter meaning "The son of the dragon" or more directly "The Devil."

Of course, even to this day people are reportedly still seeing St Hilda's ghostly figure cloaked in a shroud like garment gazing out of one of the high windows.

Realgar

**by Kat Koch. From the CMS Tumbler, July 2023,
the newsletter of the Cascade Mineralogical Society**

I came across this beautiful picture of Cherry-Red Realgar, and it perked my interest. Realgar is an arsenic sulfide mineral that occurs near hydrothermal vents along with orpiment, arsenolite, calcite, and barite. This mineral is often called "ruby of arsenic" and "ruby sulfur." Because of the arsenic content, always wash your hands after handling Realgar specimens.

Before powdered metals like aluminum, titanium, and magnesium, Realgar was used to manufacture fireworks to achieve the white color.



Definitions:
Orpiment - a common arsenic sulfide mineral that decayed from Realgar
Arsenolite - is an arsenic mineral that forms crystals in cubic crystals.
Calcite - is a common quartz-like crystal mineral.
Barite - is a barium sulfate mineral.

Realgar was also used to kill rodents, insects, and weeds before someone developed arsenic-based herbicides and pesticides. In 16th-century England and medieval Spain, it was used to kill rodents. Until Realgar became known to be an arsenic poison and carcinogen, it was used to make leather to remove hair from animal pelts. There are now substitutes for this process, and now rarely used in leather manufacturing.

The ancient Greeks understood that Realgar was poisonous. The apothecaries of ancient Greeks used Realgar to make a medicine called "Bull's Blood." The descriptions of deaths by drinking "Bull's Blood" match what is known today as arsenic poisoning. It is believed that Themistocles and King Midas used "Bull's Blood" to commit suicide. The Roman Empire used Realgar as red paint. It has been found that in very early artworks from India, China, Egypt, and Central Asia, Realgar was used as a red paint pigment. During the Renaissance, the Europeans used it in fine art painting, but by the 18th century, its use had died out.

Realgar occurs with calcite, orpiment, barite, and arsenolite in the lead, silver, and gold ores. It is mined in Bohemia (Czech Republic), Hungary, and Saxony (Eastern Germany). In the US, it occurs in the geyser deposits of Yellowstone National Park; Manhattan, Nevada; and Mercur, Utah.

The secondary mineral underneath the pictured Realgar specimen is Picropharmacolite. Picorpharmacolite is rare but widespread arsenate mineral that forms from the oxidation of arsenic sulfides as they react with surrounding calcium rocks. Usually found as small to microscopic pearly white botryoids with a radiating structure as silky fibrous aggregates or tiny spine crystals.

Bibliography: Wikipedia, Minerals.net, Encyclopedia Britannica, Mindat, International Gem Society.
Via DELVINGS November 2023
From The RockCollector 12/23

Editors Note: Please remember that "Fossilized News" articles are reprints of features from previous Geoletters. As such costs, contacts and accessibility to various localities may have changed. Be sure to research these aspects before attempting to recreate any of the contents of this article.

"Fossilized" News

From Geoletter 11/1992

THE TRAVELING MINERALOGIST

by Jon Nickerson

In frequently do chefs and winter highway drivers around the country pay homage to New York State geology. Each should at least be thankful, not eternally grateful, to the geologic events of the late Silurian in central New York. It was events during this time which led to the deposition of nearly 3.9 trillion metric tons of halite, or rock salt, Silently hiding beneath more than 26,000 square miles of Onondaga, Schuyler, Erie, Livingston, Wyoming, and Madison counties.

During the Late Silurian, shallow seas advanced and retreated across northern New York. Water was often evaporating faster than it was flowing into an area, indicating restricted circulation of seawater. An environment of very salty pools and tidal flats resulted. During this time, three formations were added to the stratigraphic column; all are members of the Salina Group. The lowest is the Vernon Shale, which contains sparse salt beds three to four meters thick. The middle is the Syracuse Formation, which contains salt beds ranging up to thirty meters in thickness. The Camillus Shale and Bertie Dolostones together form a top to the Salina which ranges up to 300 meters in thickness. However, these later shales do not contain halite. They contain anhydrite, another evaporite mineral requiring conditions similar to those during halite formation. None of these groups are rich in biodiversity as compared to some other rock units. The salinity concentration was too extreme for many invertebrates. However, the famous eurypterids were able to endure these adverse conditions, along with certain ostracods, brachiopods, some snails and clams, and worms.

Native Americans utilized the salty springs of the Syracuse area for perhaps thousands of years prior to the usage by colonial settlers. Once discovered by Europeans, a major population center formed near Syracuse to tap the springs around Onondaga Lake. With "salt fever" hitting, hundreds of new wells were drilled in search of more brine. The success rate was low as most shallow salt beds previously had been dissolved by shallow ground water. Since the Syracuse Formation dips to the south at about 25 to 50 meters to kilometer, the settlers moved south, eventually locating additional brine near Tully, approximately 10 miles south of Syracuse.

Currently, the Retsof mine near Geneseo is the largest halite mine in the world. Annual output reached nearly 20 million tons in 1992. Salt usage today is primarily for de-icing and for chemical industry applications. Salt deposits are virtually bone-dry; any moisture is immediately absorbed by the rock. For this reason, these mines make excellent locations for conducting research requiring zero humidity, and for placing waste incinerator ash. Riding along in a mine buggy at a depth of 1050 feet below grade is something akin to traveling in a jeep through a deserted highway packed with snow and ice at night. There headlights provide the only illumination; the road is extremely rough, and you hope that the vehicle

doesn't break down because there's a long way between you and any help. As expected, the tour of the Retsof Mine was worth every minute of the ride. The driver brought us to areas of active mining, drilling for dynamite placement, sealing to prevent cave-in, and crushing of the mined material. This was a mine in which one specimen looked nearly the same as the next. Because there were no caverns, no crystals were to be found. However, the experience made the trip worthwhile.

An interesting paradox prevailed in the mine. One might expect the vehicles to be quite rusty given the ubiquitous salt. To the contrary, the vehicles were rather rust free. This is due to the near absence of water (the only source of water is vehicle exhaust and drilling water). Rusting is slow oxidation. The chemical reaction requires water to dissolve the halite to form a weak acid and a weak base. The acid is what does the oxidizing of the iron. However, in an environment void of moisture, rusting cannot occur.

Reference: Isachsen, Y.W., E. Landing, J.M. Lauder, L.V. Rickard, and W.B. Rogers, editors: Geology of New York State. A Simplified Account. Educational Leaflet Number 28, New York State Museum/Geological Survey, 1991.

"Fossilized" News

From Geoletter 5/2001



BGS SPOTLIGHT

JON NICKERSON

Jon joined the BGS through fellow club member Joe Butch, a few weeks after moving to Buffalo in 1986. Fresh out of grad school in Indiana, Jon was seeking opportunities to become familiar with the local geology and to attend field trips. In 1991, fellow club member Jerry Bastedo asked him to run for Corresponding Secretary for the upcoming term. Jon held that post and other club positions including First Vice President, President, and Recording Secretary; Show jobs included Exhibits Chairman, Dealer Chairman, and most recently, Logistics Chairman.

Outside the BGS, Jon enjoys traveling around the countryside and visiting his home town in Massachusetts. Trapped most of the time in a suburban setting, Jon occasionally attempts escaping with his wife Elise to rural settings for camping and hiking opportunities during the summer months.

Jon remains gainfully employed as an environmental consultant specializing in hazardous waste site investigations. In the future, Jon hopes to teach environmental science and do research on sustainable development. His real passion remains solving environmental problems facing the Earth and its human inhabitants.

One of Jon's favorite aspects of the show is working at the identification table outside the mini mine. His favorite quote is "Making good decisions comes from experience. Experience comes from making bad decisions."

We are glad that Jon made the decision to join the Buffalo Geological Society. He has been such an asset that we hope he's around for a long, long time.

"Fossilized" News

From Geoletter 1/2003

TALES FROM THE TALLIS
BY: MARV HESS

Animals and Allergies

For about thirty years I went to Canada searching for minerals. In all the times I hiked through field and forest I was never bothered by poison ivy, oak, or any other plant. Even so, watch out for all of them. Keeping ones self totally covered is good for black flies. That means a bee head net, gloves and pants tucked in your socks. In bright sun it seems they leave you alone. In my case they all seemed to like me. I once was stupid enough to put my geo hammer into a wasp nest lying on the ground. I got three stings from that and it could have been worse. insect repellant is a must at all times. I have seen all manner of wild life. You don't bother them and they won't bother you. In all those years I saw only the rear end of a black bear that was running away from me. One time someone told me about a mineral to be found at a certain road cut. This is where a hill is cut into to put a road through. Well, I parked the car and started walking along the road cut. At about eye level I startled a snake sunning itself. I moved back as the snake took off in the opposite direction. It was probably harmless. If you make enough noise all wildlife will move out of your way. The most unforgettable scene was a small hawk about eight inches high protecting a brood of three hatchlings on level ground at a mine site in Cobalt, Canada. They were so cute. The mother hawk never left in spite of my presence. This is what I liked about mineral collecting. What other hobby gets you this close to nature?

"Fossilized" News

From Geoletter 6/1999



BGS SPOTLIGHT

DR. RICHARD BATT

We have many members who make the club what it is today and one of them is DR. RICK BATT.

He has been the editor of the Geoletter for over 8 years and has done an outstanding job.Rick has been a member since 1975 except when he was out of state doing his thing in WY. CT. CO, and MI. As Associate Professor of Geology at Buffalo State College with a B.A. in Geology from SUNY Buffalo in 1979, a MS in Geology (Micro-Paleontology) U. of Wyoming 1981, PHD in Geology (Paleo) U. of Colorado 1987 and a M.S. in Hydrogeology, Western Michigan U 1989; this man really knows his stuff.

He has helped many a member with their fossil identification and has taught a class for BGS members. His talent for drawing has helped many kids learn about dinosaurs as he draws for groups and then hands out the drawing to the children who name the dinosaurs. His collection of eurypterids has filled exhibit cases at our annual show for several years.

Some of his special Interests include collecting rocks, fossils, minerals, and seashells. He also enjoys dance roller skating. Biblical Research, and traveling to see the geology of land. He Is a well traveled geologist; with his courses and field trips he has covered a lot of the country.

..... Rick ts a very important part of our club and the club is richer for having him as a member. Thank you Rick for all the work you have done for us now and will do in the future.

"Fossilized" News

From Geoletter 4/1990

DINOSAUR OF THE MONTH

By Dr. Rick Batt

This Month's Feature: PENTACERATOPS

Pentaceratops is a 23-foot ceratopsian dinosaur that lived in New Mexico during the Late Cretaceous. Its name means "five-horned face," but two of the "horns" are actually prominent, pointed cheekbones that are found on all ceratopsians. So, like its better known and larger cousin. Inceratops, this dinosaur had only three horns. The large neck frill was probably used to anchor huge jaw muscles, but may also have served for protection or display. Ceratopsians may have been the dinosaur counterpart to today's rhinoceros. Recent studies even indicate that they might have been able to charge as fast as one.



Buffalo Geological Society Coming Events

November 6 - BGS Meeting 7:30 pm - Michael McElwee, his talk is "Return to Rose Rd". **100 Lee Street, Buffalo, NY**

November 7 & 8 - DINO Fest, Buffalo Museum of Science from 10 a.m. to 5 p.m. 1020 Humboldt Pkwy, Buffalo, NY

November 12 - BGS Board Meeting 7:00 pm, 100 Lee Street, Buffalo, NY

November 25 - BGS Fellowship Meeting 8:35 am, Glen LaPlaca Collecting in South Dakota, Masonic Temple, 641 Sweet Home Road, Amherst, NY

November 26 - HAPPY THANKSGIVING

December 2 –6:30 pm Annual Pot-Luck Dinner and Silent Auction. Bring a dish to pass, your own table settings and items you wish to enter for the auction.

December 8 - BGS Board Meeting 7:00 pm, 100 Lee Street, Buffalo, NY

December 25 - MERRY CHRISTMAS

January 1- HAPPY NEW YEAR

January 8 - BGS Meeting 7:30 pm - Speaker to be announced
100 Lee Street, Buffalo, NY

January - BGS Board Meeting 7:00 pm, 100 Lee Street, Buffalo, NY

Club Officers

- **President:**
  - **Craig Posmantur** 716-834-8935
- Vice President
  - **Joe Sullivan** 716-823-8371
- **Treasurer:**
  - **Chris Boyd** 716-291-1865
- **Secretary:**
  - **Zeena Pawlicki** 716-536-1969\
- **Show Chairmen:**
  - **Jerry Bastedo** 716-864-2701
- **Membership Chairman**
  - **Jeanne Phillips** 716-838-5786
- **Field Trip Leaders:**
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  - **Don Lapham III** 716-438-3794
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  - **Lauretta Parmalee** 716-603-4700
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- **Webmaster:**
  - **Lucy LaPlaca** email



Buffalo Geological Society
Heritage Discovery Center
100 Lee Street
Buffalo, New York 14210

History of the BGS

A mineral club has existed in one form or another since the inception of the Buffalo Society of Natural History in 1861.

The society was originally formed on February 2nd, 1938 as the Geological Section of the Buffalo Society of Natural Sciences. Dr. Irving G. Reimann, Curator of Geology at the Buffalo Museum of Science was the first president. Its purpose is to bring people together that enjoy learning, studying, collecting, and sharing in a family atmosphere this common interest of geological sciences and related fields. These fields range from mineralogy and paleontology to lapidary and beyond. This is accomplished by annual shows, meetings, swaps, banquets, field trips, continuing education groups, and many more monthly programs that end or begin with a social hour. Regular meetings occur through April on the first Friday of every month. Meetings start at 7:30pm and are free/open to the public. Membership starts at $15.00 for individuals and $20.00 for families. We meet at 100 Lee Street in Buffalo, NY 14210 in the Heritage Discovery Center.

Meetings will not be canceled based on Buffalo Public Schools closing, rather current weather or weather predictions for the area will cause cancellation of meetings/events. If we cancel due to weather we can still meet via ZOOM. Please watch emails, social media, the radio and local news stations for notifications.

The BGS is a non for profit organization 501c3 affiliate of the Buffalo Society of Natural Sciences, Inc and the American Federation of Mineralogical Societies

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