

FEBRUARY

2014



SOUTHERN MARYLAND ROCK AND MINERAL CLUB



RockTalk



Message from the President

Rich Simcsak

Next month is our largest Rock, Jewelry and Mineral Show the Club will have on 8 March at the Show Place Arena in Upper Marlboro, MD. Many of our own members will be there as dealers and many more returning dealers will have larger spaces also.

The club demonstrations will show to all visitors the pride and joy we all have in the hobby we love.

Share this experience with others by spreading the word at work, your neighborhood and your friends. The low entry fee should not deter anyone from attending. Mother Nature appears to be favoring us in the long-term forecast. To all, see you at the SHOW!

Sparkplug—a search for rutile



The Champion Hilton Cabin at Black Eagle Camp. The upper mine is about two miles from camp in the formation behind the cabin. See page 6 for this great story.

JMU trip report inside



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Meetings

..are held the 4th Tuesday of each month at 7:00pm.

Clearwater Nature Center 11000 Thrift Road, Clinton, MD

For more information, call: (301) 297-4575.

EFMLS/AFMS News

Submitted by Michael Patterson



The February EFMLS Newsletter has information on the March EFMLS convention in Philadelphia, new programs available through the EFMLS library, a 'Safety Matters' article on wearing the right mask for the task, the future of the rock hobby, and Wildacres classes and the registration form. For more information on any of these articles, visit www.amfed.org/efmls



In AFMS news, you will find information on the All American Club Awards for Club Yearbook, inter-regional field trip news, AFMS Club Rockhounds of the Year, a discussion on conservation and legislation, and more. For more information, visit www.amfed.org

Upcoming Shows and Events

March 1-2: 51st Annual Gem, Mineral and Fossil Show. The Delaware Mineralogical Society. Delaware Technical and Community College, 400 Churchman's Road (Rt. 58), Newark (Stanton) DE. Exit 4B off I-95. Saturday 10 AM – 6 PM, Sunday 11 AM – 5 PM. Admission: \$6 Adults, \$5 Seniors, \$4 Juniors (age 12-16) NY-NJ-GemShow.com

March 8: Upper Marlboro, MD: 24th Annual show; Southern Maryland Rock & Mineral Club; The Show Place Arena; 14900 Pennsylvania Ave.; Sat. 10-5; adults \$3, children (12 and under) and Scouts in uniform free; fossil, mineral and geode displays, exhibitors, dealers, minerals, fossils, gems, jewelry, crystals, meteorites, jewelry findings, tools, free demonstrations, bead stringing, wire wrapping, gold panning, fluorescent rock display, kids' mini-mine, Scout geology achievement, door prizes; contact Michael Patterson, 11000 Thrift Rd., Clinton, MD 20735, (301) 297-4575; website: www.smrnc.org

March 15-16: 50th Annual Gem-Mineral-Fossil Show. The Gem, Lapidary, and Mineral Society of Montgomery County, MD. Montgomery County Fairgrounds, Building 6, 16 Chestnut Street, Gaithersburg, MD Saturday 10 AM – 6 PM, Sunday 11AM to 5 PM. Adult admission \$6, 11 and under free.

April 11-13: NY/NJ Mineral, Fossil, Gem and Jewelry Show. NJ Convention & Exposition Center, 97 Sunfield Ave., Edison, NJ. 10 AM – 6 PM (Sunday until 5 PM).

If anyone has information on any other local shows or rock events, contact Ralph Gamba at rgamba@verizon.net, so they can be included in this list.

SMRMC OFFICERS

PRESIDENT:
Richard Simcsak

VICE PRESIDENT (membership):
Polly Zimmerman

VICE PRESIDENT (Programs):
Penny Masuoka

VICE PRESIDENT (Field Trips):
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Michael Patterson

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EFMLS Representative
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***If corrections or additions are needed, please contact *Rock Talk* Editor

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Microsoft Office***

January Minutes

Submitted by Dave Lines

DATE: January 28, 2014

Meeting called to order at 7 pm by President Rich Simsack who mentioned that he had quadruple bypass heart surgery since our last meeting.

TREASURER: None. Treasurer absent.

MEMBERSHIP: Polly said all was well.

PROGRAMS: Penny said she still needs some slots to be filled for both programs and refreshments and passed around a sign-up sheet.

FIELD TRIPS: Jim White absent—in Tucson, says he was no longer the Trip VP. Recent (Jan 25th) field trip to JMU (James Madison University) in Harrisonburg, VA was led by Dave Lines and was attended by 10 members including Sandy Lyon from Churchville, VA. Dr. Lance Kearns was an excellent host who greeted us with complimentary fresh coffee and pastries. He had a large selection of specimens for sale at greatly reduced prices. Also books and magazines and equipment (notably a dual stereoscopic microscope that sold to Polly for \$150). Dr. Kearns gave us a tour of the spectacular specimens in the Geology Dept hallway and the mineral museum. He then spent two hours identifying various specimens for us. Future trips—none planned—we need a Trip Coordinator—Ralph Gamba said he would consider the job.

EDITOR: Michael Patterson said he hoped to get it published by Friday Jan 31. Club needs a full time Editor—pay and benefits considered.

WEBMASTER: Bob Davidson the webmaster says we are getting 200 hits per day.

OLD BUSINESS: Rock Show on March 8th:

1. We cannot get into Arena to set up tables until Friday evening at 10:00 p.m. due to another event three days before us.
2. Tables 200 available—vendor count unknown.
3. Sign up sheets for volunteers passed around.
4. Harry said vendors will be able to drive their vehicles into the building and unload directly at/near our tables and then drive out. Same procedure at

end of show.

5. Will have a special meeting on Feb 18th at 7 pm to discuss show (Note: this meeting did not occur).

6. Advertising—flyers/signs/news releases/newspapers/notices in EFMLS newsletter and Rock and Gem magazine

7. Future show date for next year discussed – TBD

8. “Tasks list” needed so people can sign up to help—Greeters at door; someone to collect door prizes from vendors; table set-up and take down (CNC folks to do this); plan for and set up display and demo areas

9. All plans will be ready to discuss by the next regular club meeting on Feb 25th.

10. Facebook/Twitter discussed as method to increase advertising—Bob said he would prefer to use the website. He will send out email invites to past attendees by end of February.

NEW BUSINESS: N/A

ADJOURNED: Meeting was adjourned at 8 pm.



Members interested in a Club patch can purchase one at any of the SMRMC monthly meetings or at the March 8 Mineral, Jewelry, & Fossil Show at Show Place Arena. The patches are \$5 each.

An Inside Field Trip to James Madison University

By Dave Lines

Despite a cold morning with ground already covered in snow, we were able to bring home some fantastic mineral specimens as well as books and equipment—and we did not have to dig in the snow to find them!

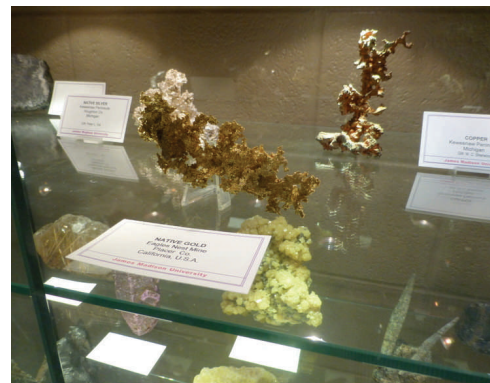
Upon our arrival, Dr. Lance Kearns, of the James Madison University Geology Department, met us ten Southern Maryland Rock and Mineral Club members (Dave, Paul and Linda, Al and Carole, Polly, Mike B., Marco, Lorna and even Sandy) promptly at 8:30 a.m. with fresh coffee, donuts and cinnamon rolls. Wow—where else can a rockhound go on a field trip and receive the royal treatment from the host. Dr. Kearns is truly an asset to rockhounds everywhere in our area. He had a huge selection of fabulous mineral specimens for sale at bargain prices. How can you complain when he



asks for a donation of any amount for a rock? Because all the money received goes directly to purchase specimens for the JMU Mineral museum, we were generous in our donations. Still we got some super deals.

Polly bought a stereoscope microscope for \$150—a \$600 value at least. Hard-to-find old copies of “Gem and Mineral” magazine were offered for \$10 per year for one full year—12 issues that individually sell for \$10 or more. Have you heard of the turquoise crystals from Lynch Station, Virginia? There were several specimens for sale of

Bishop Mine turquoise crystals—the only place in the world where they were found until recently—still rare. There was visible gold in quartz in one hand sized specimen that I overlooked until Mike



snagged it. What a great specimen!! And Lorna picked out a dinner plate sized (that was 1/2 inch thick) sheet of na-

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An Inside Field Trip to James Madison University

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tive copper from Michigan for a fraction of its retail value. Everyone was extremely pleased with their finds and many specimens now have new owners who are proud and pleased.

At about 9:30, Dr. Kearns took us all over to the Mineral Museum. For those of you who haven't seen it, it is a real class act. Top quality, world class specimens. The Virginia



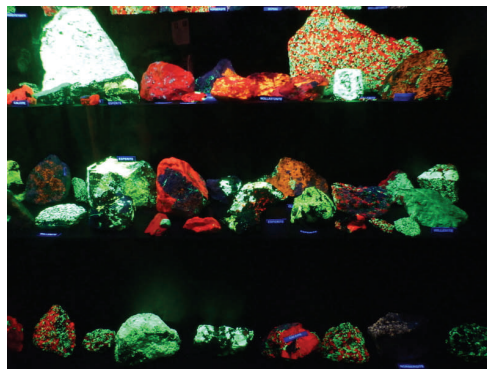
minerals collection is superb. Just picture a fist sized chunk of quartz completely covered in brilliant turquoise blue crystals up to 1/4 inch long. Every significant Virginia mineral in beautiful specimens was displayed there. Just spectacular. Another tower display has Virginia trap rock prehnite specimens with all the associated zeolites on brilliant display.

Wonderful eye candy for rockhounds. The UV specimens are also super—every color—in bright variety. Especially noteworthy was the collection of specimens from the Tennessee Elmwood Mine, which is Dr. Kearns' specialty.

After an hour or so in the museum, we all went back to the Geology lab where Dr. Kearns patiently answered our many questions and spent the rest of the morning identifying our "unknown" minerals with a combination of specialized machines and his vast knowledge of minerals. I found that one of my Morefield Mine (Amelia, Virginia) finds was indeed topaz. But I also found that another Morefield specimen was actually quartz instead of phenakite. Dr. Kearns also confirmed some andalusite specimens for me. Mike B. found out that some of his faceted gems from the Far East were synthetic.

Another highlight of the visit was donating a 48 pound chunk of massive rutile from the U.S. Silica mine

near Montpelier, Virginia to Dr. Kearns. About 3 or 4 years ago, Dr. Kearns confirmed the identity of a small piece of massive rutile that I had collected years ago from U.S. Silica. After Dr. Kearns identified the specimen he asked if he could have it as he had none



from that location and had been unaware that it occurred there. I gladly gave it to him since I had other similar specimens. This past September while on a field trip to U.S. Silica, this huge specimen was found by Thomas (Tom) Leary of the Tidewater and Richmond clubs while he and I were right beside each other digging out 10 pound chunks of rutile from a small isolated lens in the quarry floor. I eventually traded Tom about 80 pounds of the smaller pieces of rutile for the single large chunk so I could donate it to Dr. Kearns.

Well, mining with a "silver pick" on a Field Trip certainly can be productive and fun. Thanks, Dr. Kearns



Sparkplug—an Extraordinary Search for Rutile

By Dave Lines

This story began in November 2006 when my son Jeff—a mining engineer then living and working in Bishop, California—invited me to explore the Champion Sillimanite Mine on the western side of White Mountain. Owned and operated by the Champion Spark Plug Company from about 1919 to 1942, the mine is affectionately known as the “Sparkplug”. At over 14,000 feet, White Mountain is the tallest and the namesake of the White Mountain range in east central California. Together with the Sierra Nevada Mountains on the west, these two mountain ranges frame the scenic Owens Valley located in Inyo and Mono Counties. The mine is located high above the valley at an altitude starting at 7,500 feet and rising to 9,700 feet. The mine’s steep terrain can only be reached by foot. Incredibly, no roads to the mine were ever built—only mule trails.

When World War I broke out, demand for sparkplug ceramic skyrocketed. Champion was “the” world’s premier manufacturer of sparkplugs and White Mountain had the only known deposit of sillimanite, the key ingredient to sparkplug ceramic. (Note: andalusite, sillimanite and kyanite are three different minerals with the same chemical formula, $Al_2O_3SiO_2$, with the three being formed at different tem-

peratures and pressures). The purity of the extensive andalusite deposit at White Mountain was such that the company constructed trails, two mining camps, a support ranch and commenced mining.

But every aspect of the mining operation was difficult. The logistics started with a large 1,000 acre ranch built at the foot of White Mountain in the Owens Valley. The ranch’s primary function was to grow hay for the mules and food for the miners. The mules were the key to transport up and down the rugged mountain. Every board, every tool, every item of food—everything—was transported on the backs of mules both up and back over narrow and steep trails with many switchbacks. I read an account somewhere that the ore was placed in sacks and strapped to the backs of mules—200 pounds per mule, 10 mules per mule train—with two mule trains per day—so only 2 tons of ore per day were taken out. At the bottom of the mule trail, the ore was transferred to a wagon and hauled to a staging area at the ranch. Then the ore was moved to a narrow gauge railroad and transported south for 200 miles where it was moved to a full sized railroad and shipped to Detroit for processing.

In November 2006, when we first visited the Sparkplug, we followed an unmaintained, heavily rutted four wheel drive

dirt road part way up the canyon below the mine. At that point we turned left and continued for two miles up another road that is best described as “truly scary”. It is extremely narrow and steep—a single lane which slopes outward toward the valley way down below. Once committed, there is no place to turn around or pull off the road. Stopping to push rocks out of the way was out of the question. Meeting another vehicle would have been unthinkable scary. Jeff calmly drove his Jeep up this abomination while I prayed—literally. I was holding on so tightly that I would not let go—even to take a picture. Was I afraid? You betcha!

At the end of this road, we parked and hiked uphill another mile or so to the original “lower camp”. At 7,550 feet elevation, the Lower (Black Eagle) Camp originally provided an area for rest for the miners who all worked at a higher elevation. The Upper Camp was located at 9,500 feet and the highest area mined was at 9,700 feet. The miners worked straight through for a certain time, then rotated back to the lower camp for a few days of rest. The mine operated year around.

When Jeff and I visited, the footpath from where we parked the Jeep to the Lower Camp eyebrows the very edge of cliffs and rock slides which

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drop several hundred feet to the canyon floor. In places, the path is only a series of single footsteps dug by hand precariously into a 45-degree rocky slope.

At the end of this foot trail, we stepped onto a small fairly level plateau where the Lower Camp (Black Eagle Camp) is still located—intact. It is a hidden gem. A small hand lettered plywood sign nailed to a tree explained: “Welcome. We, the friends of the Sparkplug, have voluntarily restored and maintained these buildings. Please use and enjoy this camp and leave it as you found it (or better). Please take your trash back with you.”

The place was truly pristine—a time capsule of mining life in the 1920’s and 30’s. Most of the sheet metal covered buildings were totally intact. Some were fully furnished. One small 10 feet x 10 feet building, named the “Champion Hilton”, was especially nice—with two single iron beds with mattresses and linen, curtains at each window,



Champion Hilton Cabin at Black Eagle Camp. The upper mine is about two miles from camp in the formation behind the cabin.

a small functioning woodstove with a stack of firewood (which if visiting occupants use are expected to replenish), a pantry stocked with canned and dry goods, a guest book, pots, pans, silverware and dishes—a table and two chairs—and perhaps best—a front balcony overlooking the picture postcard view below and beyond. Ponderosa and pinion pines clinging to steep terrain in the foreground looking across a wide valley to Mammoth Mountain ski area about 10 miles to the west. The camp itself is worth the trip.

All together, the Lower Camp contains about ten buildings including a tiny, yet wonderful museum of mining

history, hundreds of old objects found and contributed by hikers and explorers over the years—a 1927 calendar hung on one wall; a table in the center of the room with dozens of neatly labeled mineral specimens—some local and some from around the world—left as tokens of appreciation. Another “Visitor’s Logbook”! One large 25 foot by 50 foot building had a full kitchen—ovens, stoves, food with adjacent eating tables and now bunk rooms with several beds (mattresses and linen included) and signage with gentle reminders: “Latch the door shut when you leave to keep out the mice.”

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Sparkplug—an Extraordinary Search for Rutile

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The camp has two johnny houses—complete with paper. A horseshoe pit with horse shoes and backstops of old mining timbers supported with used steel mining drill bits. The camp even boasted a single hot water shower which was a great example of ingenuity. Remember—there is no electricity. In the summer months, black plastic PVC piping gravity fed cold water from a nearby spring to a steel barrel mounted above an outside stone and mortar fireplace. Downhill from the barrel, water was piped to a shower nozzle in the overhead of a wood-board-enclosed one-person outside shower stall. Thus, one could fill the barrel with water, heat it with firewood and go inside the shower stall, open the valve and take a hot water shower. Genius!

But enough of this—Jeff and I were here to find rutile crystals. But we had no idea where to go. There was a large, partly hand drawn, map of the mining area on one of the walls of the museum. It contained some useful clues including notations of various minerals found—we just had to figure them out. The map showed the various areas that had been mined and some of the trails leading to these areas. These old trails were marked with a light dashed line, but again, we had not done our homework on the

internet. We decided to hike up toward a large area of tailings following a partly intact old mule trail. We eventually reached another metal building—empty. But we started finding clues—lots of broken massive milky quartz—broken open by previous rockhounds. Then we found some blue color in other quartz and with further looking, some more blue—it was lazulite. Then we found some white pyrophyllite in the tailings and in this was embedded some pea sized rutile crystals. Very shiny, but very small. We were on the right track. We spent the rest of that first trip climbing all over those hillside tailings collecting specimens.

But we did not find the source of the rutile. That took us several more trips and more research spread over 5 years. The next year in 2007, we found the old mule trail leading to the Upper Camp and followed what remained of it to the top of the mine. Unfortunately, someone had burned down most of the buildings up there. Only one was left. The location of the Upper Camp is about 4 miles above the area where we parked each time, so it took us several hours to reach it. That left only a few hours to look for specimens. We found andalusite, woodhouseite (named for the mine manager of the Champion mine), and many other interesting specimens—but no rutile.

The next year in 2008, Jeff and I took our bedrolls, food and water and spent the overnight in the “Champion Hilton”—what a memorable and pleasant visit! Yes, we used the woodstove and it was quite welcome as the night temps dipped into the 30’s. This time, we had found an online copy of the same map we had previously seen in the museum and we again studied the map in the museum and penciled in the trail leading to the Diaspore pit area, which was at an elevation of 8,500 feet. Our research said that fine rutile crystals up to 2 inches across (for which the Champion Mine is famous) could be collected at the Diaspore Workings embedded in diaspora matrix. [I had seen one of those rutile crystals at the Northern Virginia club fall Rock Show priced at \$800—so there was some excellent incentive to collect some.]

We got an early start from the Lower Camp the next morning and located the “mostly obliterated” old mule trail leading to the rim to the west of the Diaspore Pit area. It took us about an hour of hairy climbing and scrambling back and forth across loose rock slides to reach the rim. Progress! We then hiked up heading east—sometimes on an old trail and sometimes just following the rim until we could see an area that looked like the Diaspore Workings. We

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Sparkplug—an Extraordinary Search for Rutile

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scouted for a while and found a way off the rim down to the Diaspore Pit—recognized by an old wooden platform which had mine rail tracks on top for dumping waste rock over the edge. I found a neat little rail spike there. We searched the area around the caved-in adit and searched the waste rock below the rail platform and found some decent rutile crystals up to a half inch across by breaking open hunks of white diaspore. Eventually, after spending several hours in the area, Jeff discovered a nearby partial cave just below the rim that had been dug into a tan colored diaspore. The ten foot deep cave had been created by others following a vein of rutile crystals. On the adjacent wall outside of the cave, we noticed an old white spray painted “arrow” pointing to a drilled 1-1/2 inch diameter hole in the wall. It was filled with a stick of old, unexploded dynamite! (Note: as of Oct 2013, it was still there.) We carefully went over the entire wall and finally found a place where some broken rutile crystals were visible. We tried to chisel out some of the diaspore matrix—without much success because the material was so hard. Eventually, we had some luck with a high quality pointed steel jack hammer chisel tip. It was tough and slow chiseling, but we took home a few rutile specimens up to $\frac{3}{4}$ inch

across. We had to quit as we were running out of daylight and the weather was threatening snow. Luckily, we left early enough as it snowed that evening. If it had snowed while we were on that mountain, Jeff's Jeep would still be up there because any snow on that scary jeep road would have spelled disaster.

Our next opportunity to visit the Sparkplug was in 2011 and we took two other rockhounds, Ray Ramirez and Karl Zellner, with us. Jeff and Ray headed overland not following a trail and reached the Diaspore Pit before Karl and I, who hiked in via the upper trail. I also showed Karl around the Lower Camp and, much to my dismay, it had not been kept up as well as before—the hot shower rig was gone and the museum was in some disarray. Still it was a neat place to visit. Karl and I chose to climb up the area directly below the diaspore pit—it was a slow and difficult hike up. Overall, we found some rutile crystals, but nothing of any quality.

My most recent visit to Sparkplug with Jeff was in October 2013. We did it all in a single day. It was a fun, tiring and rewarding trip.

And...if you want to hear the rest of the story, come to the February 2014 meeting when I will give a slide show program with all the details and bring some specimens. Hope to see you then.

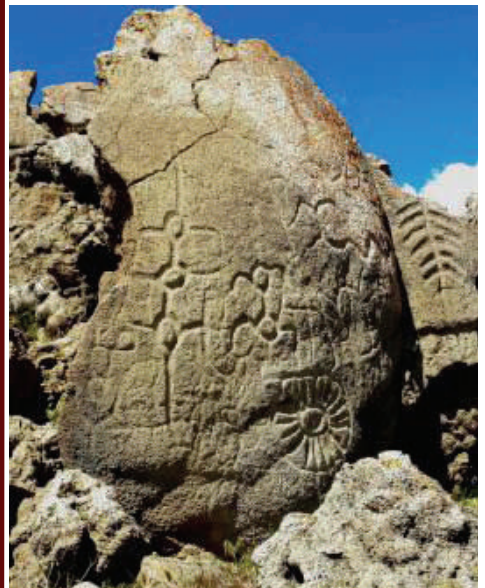
Web Sites of Interest

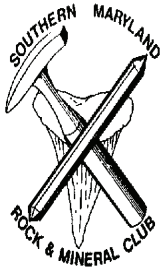
International Gem Society, www.gemsociety.com, is a very comprehensive “A+” collection of information about gems. Explore “Reference Library” for topics. All are interesting and educational.



Lake Winnemucca Petroglyphs, located about 35 miles (56 km) northeast of Reno are possibly 14,800 years old. Petroglyphs (also called rock engravings) are images created by removing part of a rock surface by incising, picking, carving, and abrading. The Pyramid Lake Paiute Tribe owns the land on which these are found. The dating method is unusual since the stone writings were submerged, so the exposed carbonate deposition could be dated.

<http://news.nationalgeographic.com/news/2013/08/130815-lake-winnemucca-petroglyphs-ancient-rock-art-nevada/>.





ROCKTALK

Clearwater Nature Center
Maryland-National Capital Park &
Planning Commission
11000 Thrift Road
Clinton, MD 20735
301-297-4575

We're on the web:
SMRMC.org

**Next Meeting:
February 25,
2014
7:00 PM**

**February
Program &
Refreshments**

Program

Dave Lines will give a presentation entitled "Sparkplug—An Extraordinary Search for Rutile." His slide presentation will continue the story found within this RockTalk.

Refreshments

Suzanne Kelsey and Greta Gormley