

ROCK TRAILS



Newsletter of the StateLine Gem and Mineral Society

VOLUME 54
ISSUE XI
NOVEMBER 2014

2014 Officers and Directors

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Meetings are held the first Sunday of each month
at 2:00 PM
at 201 W. Main St., Morenci, MI 49256



Treasurer's Statement

The club continues to enjoy a healthy bank balance. This is nice, however, there are always a number of areas where extra funds can be used. Perhaps we could begin saving towards a future goal of actually owning the clubhouse, or increasing the amount of our scholarship fund, or buying additional equipment, or buying table covers for our show. With all these possibilities available, I think the members need to set goals of where we want to be in a few years. We all have worked hard at all the various events to promote our club and to earn money to support it. We want to make the best use of these funds.



Our final fund raising event of the year is the Mason Show, Oct 24-26. We had volunteers at the meeting and Sherm & Glenda checked to make sure we had enough geodes. It appears we will need to meet to prepare grab bags for our Wonderful Lion. First we need busy hands to sew those grab bags. Our members continue their hard work!

The November meeting has traditionally been a Silent Auction. Members are encouraged to donate items for this event. Also, I expect some nice rocks can be found in the basement which will be popular. This has always been fun with members out-bidding their friends and gentle reminders about the No Hovering Rule. The items in the auction are not limited to lapidary selections. Richard has donated stained glass in the past, and I am sure there are other items that would be useful.

Respectfully submitted,
Doris Brzezicki, Treasurer

Silent Auction: In the past members would bring items they wish to donate to the club that they think other members may wish to bid on. It can be anything – in past years I have donated Holiday bracelets and earrings, Richard has donated stained glass, Bon Duritsky donated a beautiful ring, etc. I think we even had a crocheted towel. Of course all things rock related are well received. The good thing is that usually members are excited to begin the auction after the business meeting, and I am always happy to collect money, so it hopefully will be a short meeting. Usually a short period of time is allocated- maybe 10 or 15 min., so members can outbid their friends, but no hovering is allowed. (I have personally been reminded of this rule when the bidding got rather intense on a particular item.) There is usually a lot of fun involved for all the members. All money taken in goes to the club.



Cookie Exchange in December: Cookie Exchange is rather a casual title for this event. Some of our members enjoy baking cookies and are good at it. All of our members enjoy eating cookies. In the past several generous, kind hearted members have brought in an assortment of home made cookies. Maybe some members have purchased cookies at other bake sales, because they lacked the time or ability to bake them, or even commercial cookies. There are no judgments cast when it comes to cookies. All seem to receive a warm welcome. Some members do not bring cookies at all. That is OK. The goal is to have fun, exchange pleasantries with our friends and eat cookies! At the end, everyone is encouraged to take cookies home. Some of us who may have already overindulged already on many of the offerings have pangs of self reproach and are happy to not bring home as many cookies as we may have brought originally.

The above information is a personal interpretation of these events. We all have worked very hard over the past year and it is time to lighten up and enjoy time with our fellow members. We can share experiences and possibly formulate plans for the future. I don't know if any world problems will be solved, but I am pretty sure we will all have a good time.

Secretary's Scoop



President Ed called the State Line Gem and Mineral Society meeting to order at 2:10 pm with Richard giving the invocation. The pledge of allegiance followed.

Secretary's Notes – Doris made a motion to accept the secretary's report as printed in last month's newsletter and Sherm seconded. The motion passed with all in favor.

Treasurer's Report – Doris reported that the club has a healthy balance at this time. Most of the funds came in from the Fulton County Fair, Toledo Gem and Mineral show, Art-a-licious, Clinton Fall Festival and Hidden Lake Gardens geode sales. She paid Consumers Energy, rent, replacement of grinding wheels for the Genie and a partial repayment on Marilyn's loan to the club. Judy made a motion to accept the report, seconded by Sherm. After a brief discussion concerning future expenses, including the large items such as the club's insurance and payment to secure the Fulton County Fairgrounds for our show in May, Ed asked for a vote and the motion passed with all in favor. Richard expressed that there was great work from all the volunteers and he thought they should be commended.

Doris recently spoke with Roger from the Mason rock club. Roger has invited us to come to their show and demonstrate cab making and crack geodes. He told her he would talk to his dealers to make sure we are not competing with them with our sales.

Frank expressed that he would like to teach the proper technique for creating cabs and correct use of the machines for a three day class in November. He said he thought of it when a lot of the customers from his rock shop asked about the club and possible classes. Frank suggested \$35.00 which would be totally the club's income for the three day (on three different weekends) class where the students can bring their own materials or buy some from the club at a reasonable price. Sherm thought he would enjoy such a class. After some discussion about dates, times and possible discounts for club members, the dates Frank agreed upon were November 8th, 15th, and 22nd from 1:00 pm to 4 pm. Frank would prepare a certificate of completion for students who successfully complete the three session class and suggested no one should be allowed to use the equipment unless they have such a certificate. Ed felt that limiting inexperienced members from using the equipment was counterproductive and really difficult to police. He thought that a basic class about proper use of the machines was enough and the certificates would not be a prerequisite. Judy asked if there was really that much to learn that it required a three session class. She also wondered if the class would be free to members. Frank assured her that there was a lot to learn and perhaps the members could just do donations. Judy said she hopes that Sherm will give up some "tricks of the trade" on getting such a fine polish on his cabs. Doris made a motion to authorize Frank to hold the class mentioned above and have the club pay for advertising. Frank would be in charge of all the details. Sherm seconded and the motion passed with all in favor.

Ed shared that he learned that one of his acquaintances would like to sell all of his lost wax method casting equipment. He is asking \$1,000.00 for all the related tools and equipment. At current prices for new equipment, this seems to be a very reasonable price. Doris felt the casting might be a good expansion of talents for the club. Sherm asked if any members had knowledge of the technique. Ed said he had not done it in many years but was somewhat familiar with the method. Judy wondered if the seller would be willing to teach a class. Ed didn't know for sure if he would but he could check. Richard said if silver was used and didn't turn out the way you wanted it could be re-melted and cast

Secretary's Scoop, continued from page 3

again. Doris suggested that we evaluate the equipment and if it is functional for us to use. Ed had a catalog for lost wax equipment but it was not current. He described the general process and mentioned the seller also had some wax molds already made up. Doris noted that the club has been spending a lot of money lately, but wisely. Richard suggested that since we are a 501 (c) (3) organization, the seller might consider giving us a price break or lowering the price and getting a tax credit for the amount he lowered. Doris made a motion to have Ed look into the equipment and report back to the club. Sherm seconded the motion which passed with all in favor. Sherm and Frank volunteered to go with Ed to check the equipment.

Doris inquired about the Tecumseh Apple-umpkin Festival which we have not confirmed. Glenda was looking into the club participating.

Charlie has a new phone number: (517) 759-0337

Sherm reported that he spoke with the owner of a CET company with gravel pits in the Tecumseh-Clinton area. He asked about possible field trips and if there was interest, we could set something up. There are various stones including pudding stones. Some members expressed interest but nothing was established at this time. Richard made a motion to adjourn, Doris seconded and with all in favor the meeting ended.



Bench Tips

by Brad Smith

SOURCE FOR PLASTIC

We often use plastic in our studios, like for a single part die or for a template. So it's handy to have a small supply along with the rest of your sheet, wire, copper and bronze. But we seldom think to buy and stock any plastic.

The plastics store I go to has a scrap bin out back where they give away small pieces and scraps. I usually opt for the 3/8 and 1/2 inch thicknesses for use as forming dies, but there's always a variety of sizes and colors to choose from including thin sheets that are good for templates.

You can find a shop with Google or the Yellow Pages. Next time you go to your local shop, it's worth asking to see if they have a scrap bin.

SMALL PARTS CONTAINERS

I'm always on the lookout for small containers to use for holding those various little parts and tools we deal with in making jewelry, especially since I go back and forth to classes and workshops. My latest find are some plastic vials about 15 mm in diameter and 75 mm long. Best part is they are free.

The vials are used in hospitals and doctor's offices to draw blood samples. They must be thrown out after their expiration date. On my last doctors visit, I asked the nurse if they had any expired vials.

She tried to give me 400 of them. We settled on 200.

The ones I have are called "Vacutainers", but there are probably other brand names. They are sterile and made of clear plastic with a rubber stopper and a paper label all ready to write on. I find them really handy for small parts like jump rings, prong settings, small drills, nuts & bolts, faceted stones, and precious metal filings.

Also shown are some other handy containers - pill bottles, the old 35mm film cans, and metal breath mint boxes.



Get all 101 of Brad's bench tips in "Bench Tips for Jewelry Making" on Amazon

Black Canyon of the Gunnison, Colorado



The Gunnison River drops an average of 34 feet per mile through the entire canyon, making it the 5th steepest mountain descent in North America. By comparison, the Colorado River drops an average of 7.5 feet per mile through the Grand Canyon. The greatest descent of the Gunnison River occurs within the park at Chasm View dropping 240 feet per mile. The Black Canyon is so named due to its steepness which makes it difficult for sunlight to penetrate into its depths. As a result, the canyon is often shrouded in shadow, causing the rocky walls to appear black. At its narrowest point the canyon is only 40 ft wide at the river. The extreme steepness and depth of the Black Canyon formed as the result of several geologic processes acting together. The Gunnison River is primarily responsible for carving the canyon, though several other geologic events had to occur in order to form the canyon as it is seen today

The Precambrian gneiss and schist that make up the majority of the steep walls of the Black Canyon formed 1.7 billion years ago during a metamorphic period brought on by the collision of ancient volcanic island arcs with the southern end of what is present-day Wyoming. The lighter-colored pegmatite dikes that can be seen crosscutting the basement rocks formed later during this same period.

The entire area underwent uplift during the Laramide orogeny between 70 and 40 million years ago which was also part of the Gunnison Uplift. This raised the Precambrian gneiss and schist that makes up the canyon walls. During the Tertiary from 26 to 35 million years ago, large episodes of volcanism occurred in the area immediately surrounding the present day Black Canyon. The West Elk Mountains, La Sal Mountains, Henry Mountains, and Abajo Mountains all contributed to burying the area in several thousand feet of volcanic ash and debris.

The modern Gunnison River set its course 15 million years ago as the run-off from the nearby La Sal and West Elk Mountains and the Sawatch Range began carving through the relatively soft volcanic deposits.

With the Gunnison River's course set, a broad uplift in the area 2 to 3 million years ago caused the river to cut through the softer volcanic deposits. Eventually the river reached the Precambrian rocks of the Gunnison Uplift. Since the river was unable to change its course, it began scouring through the extremely hard metamorphic rocks of the Gunnison Uplift. The river's flow was much larger than currently, with much higher levels of turbidity. As a result the river dug down through the Precambrian gneiss and schist at the rate of 1-inch every 100 years. The extreme hardness of the metamorphic rock along with the relative quickness with which the river carved through them created the steep walls that can be seen today.

A number of feeder canyons running into the Black Canyon slope in the wrong direction for water to flow into the canyon. It is believed that less-entrenched streams in the region shifted to a more north-flowing drainage pattern in response to a change in the tilt of the surrounding terrain. The west-flowing Gunnison, however, was essentially trapped in the hard Precambrian rock of the Black Canyon and could not change its course

History

The Ute Indians had known the canyon to exist for a long time before the first Europeans saw it. They referred to the river as "much rocks, big water," and are known to have avoided the canyon out of superstition. By the time the United States declared independence in 1776, two Spanish expeditions had passed by the canyons.

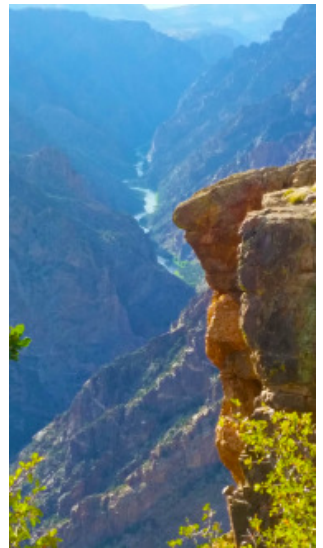
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Black Canyon, continued from page 6

In the 1800s, the numerous fur trappers searching for beaver pelts would have known of the canyon's existence but they left no written record. The first official account of the Black Canyon was provided by Captain John Williams Gunnison in 1853, who was leading an expedition to survey a route from Saint Louis and San Francisco. He described the country to be "the roughest, most hilly and most cut up," he had ever seen, and skirted the canyon south towards present-day Montrose. Following his death at the hands of Ute Indians later that year, the river that Captain Gunnison had called the Grand was renamed in his honor.

In 1881, William Jackson Palmer's Denver and Rio Grande Railroad had reached Gunnison from Denver. The line was built to provide a link to the burgeoning gold and silver mines of the San Juan mountains. The rugged terrain precluded using 4' 8 1/2" standard rail; Palmer decided to go with the narrower 3' gauge. It took over a year for Irish and Italian laborers to carve out a 15-mile roadbed from Sapinero to Cimarron, costing a staggering \$165,000 a mile. The last mile is said to have cost more than the entire Royal Gorge project.

On August 13, 1882, the first passenger train passed through the Black Canyon. The editor of the Gunnison Review-Press rode in one of the observation cars; he remarked that the canyon was "undoubtedly the largest and most rugged canon in the world traversed by the iron horse. We had often heard of the scenery of this canon, but no one can have the faintest conception of its grandeur and magnificence until they have made a trip through it. It is a narrow gorge with walls of granite rising in some places to a height of thousands of feet...Throughout its entire length there is probably not a quarter of a mile of straight track on it. It is a serpentine road in every respect and the curves are frequent and sharp. In hundreds of places the walls of granite are perpendicular and in many places the road bed is blasted out in the side of the walls of rock which overhang the track." He went on to proclaim, "Another such a feat of railroad engineering probably can not be found in the world, and there is probably no section of Colorado or of the whole country where such a varied and interesting lot of scenery can be found."



In the hopes of running the railroad through the rest of the Black Canyon, Palmer sent his top engineer Bryan Bryant on an inner canyon exploration. Bryant set off with a 12-man crew in December 1882 expecting to complete the survey in 20 days; he returned in 68. "Eight of the twelve-man crew left after a few days, terrified of the task in front of them. What the rest of the men saw was spectacular and had never been seen by another human." Bryant reported that the Black Canyon was impenetrable, and that it was impossible to build anything in its depths of the Black Canyon.

Heeding Bryant's advice, Palmer decided to route the railroad south of the canyon and in March 1883, it completed its connection to Salt Lake City and for a brief period the canyon was on the main line of a transcontinental railroad system. While the railroad and early visitors used the canyon as a path to Utah and mines to the southwest, later visitors came to see the canyon as an opportunity for recreation and personal enjoyment. Rudyard Kipling described his 1889 ride through the canyon in the following words: "We entered a gorge, remote from the sun, where the rocks were two thousand feet sheer, and where a rock splintered river roared and howled ten feet below a track which seemed to have been built on the simple principle of dropping miscellaneous dirt into the river and pinning a few rails a-top. There was a glory and a wonder and a mystery about the mad ride, which I felt keenly..."

By 1890, an alternate route through Glenwood Springs had been completed and the route through the Black Canyon, being more difficult to operate, lost importance for through trains. The route was finally abandoned in 1955.

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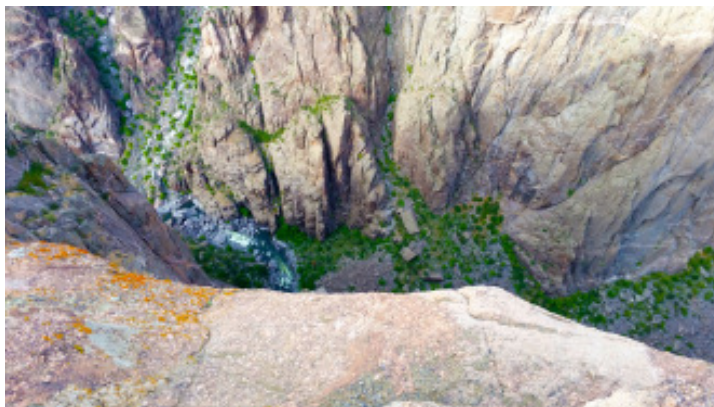
Black Canyon, continued from page 7

In 1901, the U.S. Geological Survey sent Abraham Lincoln Fellows and William Torrence into the canyon to look for a site to build a diversion tunnel bringing water to the Uncompahgre Valley, which was suffering from water shortages due to an influx of settlers into the area. Torrence, a Montrose native and an expert mountaineer, had taken part in a failed expedition the previous year, and his experience proved valuable on his second excursion. He opted to bring a single rubber air mattress instead of the heavy wooden boats that had doomed his previous journey into the canyon. They entered the canyon on August 12 equipped with “only hunting knives, two silk lifeline ropes, and rubber bags to encase their instruments.” After a harrowing 10 days braving rock falls, waterfalls, and 76 river crossings, they emerged from the canyon with a suitable tunnel site.

Construction on the tunnel began 4 years later, and was fraught with difficulties right from the onset. “Working conditions at the tunnel were difficult due to the high levels of carbon dioxide, excessive temperatures, humidity, water, mud, shale, sand, and a fractured fault zone... It took the tunneling crew almost one year to bore through 2000 feet of water-filled rock. The tunnel was driven through granite, quartzite, gneiss, and shale as well as layers of sandstone, coal, and limestone. Work on the Gunnison Tunnel was first done manually and by candlelight. One miner would hold the drill and rotate it while the second miner would use a sledgehammer to drive the drill into the rock. This work required strong, hard-working men. In spite of good pay and fringe benefits, most disliked the dangerous underground conditions and stayed an average of only 2 weeks.” 26 men were killed during the 4 year undertaking. The tunnel was finally completed in 1909, stretching a distance of 5.8 miles and costing nearly 3 million dollars. At the time, the Gunnison Tunnel held the honor of being the world’s longest irrigation tunnel. On September 23, President William Howard Taft dedicated the tunnel in Montrose. The East Portal of the Gunnison Tunnel is accessible via East Portal Road which is on the South Rim of the canyon. Although the tunnel itself is not visible, the diversion dam can be seen from the campground.

The Black Canyon of the Gunnison was established as a U.S. National Monument on March 2, 1933. It became a National Park on October 21, 1999. During 1933-35, the Civilian Conservation Corps built the North Rim Road to design by the National Park Service. This includes five miles of roadway and five overlooks; it is listed on the U.S. National Register of Historic Places as a historic district.

http://en.wikipedia.org/wiki/Black_Canyon_of_the_Gunnison_National_Park



Upcoming Events

Sunday, Nov. 2, 2014

State Line Gem & Mineral Society

monthly meeting

2:00 p.m.

201 W. Main St.
Morenci, MI 49256

Thanksgiving

November 27, 2014

Christmas

December 25, 2014

March 20 - 22, 2015

Jackson, MI

Michigan Gem & Mineral Society presents

It's a Hard Rock Life!

Jackson County Fairgrounds

American One Event Center

200 West Ganson

April 11-12, 2015

Columbus, OH

Frozen: Ohio's Ice Age

41st Annual Central Ohio

Mineral, Fossil, Gem & Jewelry Show

Sponsored by

Columbus Rock and Mineral Society

Northland Performing Arts Center

4411 Tamarack Blvd.





Rock Trails

Sandy Gerhart, Editor
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