



# MWF News

**Midwest Federation  
of Mineralogical and Geological Societies**

February 2018 - Issue No. 569

Web Site - [www.amfed.org/mwf](http://www.amfed.org/mwf)

**Member of the American Federation of  
Mineralogical Societies**



## PRESIDENT'S MESSAGE

David Root, President

Can I have a show of hands, how many are ready for spring? Last month I marveled at the unusually warm temperatures for December. Well, as I write this, we are in the second week of a period of unusually cold weather. It was four below when I left for work this morning.



Starting this month I'm going to use this podium to put some "out of the box" ideas out there. Now I'm not saying that anybody is doing anything wrong, or that I know how to do anything better than anybody else. Maybe you'll be intrigued, maybe you'll think I'm full of hoo-hoo, but it doesn't hurt to look at how we do things from time to time.

Most, if not all, of the clubs in the MWF conduct their monthly meetings in accordance with Roberts' Rules of Order. And it is probably safe to say that most of them start with the business portion of the meeting, followed by whatever program they have

*(Continued on page 3)*

## GOOD STUFF FOR A GOOD CAUSE

J.C. Moore and Donna Moore,  
MWF Endowment Drawing Representatives

Each year the American Federation holds a drawing for prizes donated by members or clubs throughout the country. Our MWF members have been faithful donors in the past, but we need a couple more donations this year.

The drawing takes place on the day of the AFMS Banquet hosted by the Tar Heel Mineral Club, and the winners are announced at the banquet. This year's banquet will take place in Raleigh, North Carolina on April 7, 2018.

There are two ways to support the Endowment Fund through this drawing. First, members and clubs can buy tickets for the drawing. Tickets are \$5.00 each or five tickets for \$20.00. J.C. and Donna Moore are the MWF Representatives for the drawing. You can contact us for tickets by mail at 25235 N. Illinois Highway 97, Cuba, Illinois. Mail a check to us and we will see that you are entered in the drawing. We will send you the ticket stubs by return mail.

*(Continued on page 2)*

## WHAT'S INSIDE?

AFMS/EFMLS Convention .....	2
Good Stuff for a Good Cause.....	1
Minerals with Aluminum (D, E, F).....	4
Arkansas Club Honors and Mourns .....	4
President's Message .....	1

<i>Resurrecting the Shark Review</i> .....	6
Save the Dates for MWF Convention.....	3
Tax Reminder from Our Treasurer .....	3
Tradition, Tricks, and the Truth about Diamonds.....	6
Upcoming Events.....	5



### MWF OFFICERS

President: David Root  
1051 Meadow Lane  
Jenison, MI 49428  
616-498-4699  
d-root@comcast.net

1<sup>st</sup> VP: Kevin Ponzio  
Post Office Box 44  
Plymouth, WI 53073  
920-980-6413  
earthprospect@frontier.com

2nd VP: John Donker  
7129 Edgewood Avenue  
Jenison, MI 49428  
616-457-0556  
jjredon65@comcast.net

Secretary: Donna Moore  
25235 N. State Route 97  
Cuba, IL 61427  
309-789-6501  
mwfsecretary@gmail.com

Treasurer: Sandy Fuller  
8445 Grange Boulevard  
Cottage Grove, MN 55016  
651-459-0343  
mwftras@rock-biz.biz

### **GOOD STUFF FOR A GOOD CAUSE, CONT.**

*(Continued from page 1)*

If for some reason you do not want to support the Fund by purchasing tickets, then please think about donating an item. This year Cheryl Neary, AFMS Endowment Fund Chair, is hoping to receive at least 30 items – each with a monetary value of at least \$75.00 and weighing no more than five (5) pounds. If you will not be seeing the Moores, you can mail the donation to us and we will take it to the convention.

Why support the Endowment Fund? The interest from the monies generated is used for AFMS special projects, such as junior badges, judges training, and digitizing of slide programs, just to name a few.

Prizes donated so far are shown on the AFMS Website, [www.amfed.org](http://www.amfed.org).



*Just to whet your appetite, a picture of a kyanite pendant and earring set donated by Doris Kean, from [www.amfed.org](http://www.amfed.org).*

### **AFMS/EFMLS CONVENTION IS NEAR**

Carolyn Weinberger, Editor, EFMLS News  
From the February, 2018 EFMLS News

*[Editor's Note: The combined AFMS/EFMLS convention described below is the event at which the prize drawing to benefit the AFMS Endowment Fund will be held. Further information about that drawing is in the article "Good Stuff for a Good Cause," beginning on page 1.]*

The Tar Heel Gem & Mineral Club of Raleigh, North Carolina, is proud to present the 68th Annual EFMLS Convention held in conjunction with the 71st Annual AFMS Convention and the annual Tar Heel Gem & Mineral Club show. The get-together will be held in Raleigh the weekend of April 5<sup>th</sup> through 9<sup>th</sup>. The show will be held at the Kerr Scott Building of the State Fairgrounds, 1025 Blue Ridge Road, April 6<sup>th</sup> through 8<sup>th</sup>.

Registration forms can be found on the EFMLS and AFMS websites (if not there already, should be there shortly). Copies of the various forms were previously sent to all clubs and Federations. Deadline for registration is March 1<sup>st</sup>, as is the deadline for entry of competitive and non-competitive exhibits.

The host hotel for the convention is the Embassy Suites by Hilton, Raleigh Crabtree, 4700 Creedmoor Road in Raleigh; telephone number 919-881-0000. A block of rooms has been set aside, but you must call the hotel directly to make your room reservations. Let the reservations clerk know that you are with the EFMLS/AFMS Convention to obtain the group rate. The rate includes a full hot breakfast each day and is good for Wednesday, April 4<sup>th</sup> through Monday, April 9<sup>th</sup>.

AFMS Conventions are fun and an important way for you and your club to discover "what the federation does for you." Meetings are usually reasonably short, open and friendly. Best of all, it affords you an opportunity to meet the folks who have stepped up to volunteer for an officer or committee position and to put a face to a name. Over the years, many strong friendships have developed through meetings at these federation confabs.



**PRESIDENT’S MESSAGE, CONTINUED**

*(Continued from page 1)*

scheduled. In a perfect world, all club members would be highly interested and enthusiastic about the day-to-day business of running a club. And make no mistake, there are those who are very interested and eager to participate in the business portion of the club’s meeting. But there are also those who find the business portion of the meeting to be rather boring, especially when there is a lot of discussion about something they really don’t care about. It may even be possible that some people, after a long day at work, faced with the prospect of an hour’s worth of business meeting that just seems to drag on forever, may just choose to stay home.

Well, why not consider the possibility of changing the status quo? Start the meeting with the program, and then have the business meeting after. There are several advantages to this approach. Those who find the business meeting boring won’t have to sit through it and will be more likely to attend meetings. Those with school-age children won’t have to keep them up past their normal bedtime to see the program. If your program involves a speaker who had to travel to get to your location, this will get them on their way earlier so they don’t get home so late.

With this arrangement you are not denying anyone the opportunity to participate in the running of the club. The business meeting can be conducted the same as it always was, just later. And, unless your business meetings are really boring, there probably won’t be that many who choose not to stay for it.

My home club, Indian Mounds Rock and Mineral Club in Grand Rapids, Michigan, has been doing this, and everybody seems to like it. Something to think about.

**SAVE THE DATES FOR MWF CONVENTION**

Carole Harp, Secretary,  
Lincoln Orbit Earth Science Society (Illinois)

The MWF convention is coming to Springfield, Illinois in 2018. Mark your calendar now for October 6th and 7th.

In the next few issues of the MWF newsletter, there will be a series of articles talking about our rock club, LOESS; the history of our mineral show; plans for the MWF convention; Springfield attractions; field trips; and more. We have already started planning and are excited how everything is coming together.

We are looking forward to welcoming members from clubs throughout the Midwest. So stay tuned for more information.

**A TAX REMINDER FROM OUR TREASURER**

Sandy Fuller, Treasurer of MWF

The Internal Revenue Service requires all small tax-exempt organizations whose annual gross receipts are normally \$50,000 or less to electronically submit Form 990-N. The form is due every year by the 15<sup>th</sup> day of the 5<sup>th</sup> month after the close of your tax year.

While there is no penalty for a late filing, organizations that fail to file for three consecutive years will automatically lose their tax-exempt status. The club’s employer (or tax) identification number (EIN) is required when completing the form.

Clubs seeking more information or access to the electronic form can consult the IRS website by searching for “Form 990-N.”

*March Issue Submission Deadline is  
February 7th!  
Be our Valentine by sending us your article!*



## ARKANSAS CLUB HONORS ITS ROCKHOUND OF THE YEAR, MOURNS FOR HER HUSBAND

Valerie J. Meyers, Editor

At about the same time that the Ozark Earth Science Club of Mountain Home, Arkansas named its 2017 Rockhound of the Year, in part because of her consistent service to the club even while caring for her sick husband, her husband, a longtime rockhound and mineral dealer, passed away.

Ernest Confer had been a member of both the Ozark Earth Science Club and of the Central Arkansas Gem, Mineral, and Geology Society in Little Rock. A career military man, he spent three tours in Vietnam as a Green Beret.

In 1982, he married Madelyn Anderson in Golden, Colorado, where they shared a passion for downhill skiing in the Rockies. Before his 2002 retirement, he spent time as an Operations and Training Supervisor at Camp Robinson in North Little Rock, which was where both Confer and Anderson developed an interest in fossils and minerals. Eventually they became mineral and fossil dealers, spending the winters out west collecting specimens and attending mineral shows.



*Ernest Confer;  
photo courtesy of  
Madelyn Anderson.*

“Ernie and his big smile and contagious laugh will be greatly missed by all,” Madelyn Anderson wrote in his obituary. He is survived by her and by two children and six grandchildren.

In 2016, while caring for Confer during his illness, Madelyn Anderson was editor of the Ozark Earth Science Club’s bulletin and was chairman (including Dealer Chair, show advertising, and show setup) of the club’s annual show.

“This year,” the club nomination from the end of 2017 read, “despite her husband’s continuing illness, she continued to have an active role with our show, making sure of greater coverage of show advertising and helping with show setup, besides again providing a Touch Table at the show for kids. . . In addition to all of this, she has been our club’s editor for several years.” The nomination also noted that Anderson keeps material for the show and club stored at her home.

Because of Confer’s illness and death, the presentation to Madelyn Anderson was delayed, but she was named the club’s Rockhound of the Year for 2017.

## MINERALS WITH ALUMINUM (D, E, F)

Kreigh Tomaszewski, President  
Indian Mounds Rock and Mineral Club (Michigan)

Our study group meets in the Learning Lab of Blandford Nature Center in Grand Rapids, Michigan. We started our “learn from each other” mineral study looking at economic minerals – ores. We’ve looked at minerals by hardness, by crystal shape, by the major classifications (oxides, sulfates, tectosilicates, etc.), and by colors.

Now we’re using chemistry as we work our way through the periodic table of elements. Some elements were easy because they are not found in many minerals (at least ones likely to be found in collections) and we could do them in one session. Aluminum is the third most abundant element in the Earth’s crust, and there are way too many minerals that contain it for us to review them in one meeting. Recently we looked at aluminum-containing minerals that start with the letters D, E, or F.

Our habit is to pass our topic specimens around the table in alphabetic order, one mineral at a time, and share some facts about the mineral. We started this month with the sorosilicate Davreuxite, the carbonate Dawsonite, the oxides Diabantite and Diaspore, and the cyclosilicate Dravite.

*(Continued on page 8)*



## UPCOMING EVENTS

Date and Time	Organization	Place	Contact
<b>March 9-11</b> Fri 10-8, Sat 10-7, Sun 10-5	Association of Earth Science Clubs of Greater Kansas City	KCI Expo Center, 11730 NW Ambassador, <b>Kansas City, MO</b>	Bruce Stinemetz, brucestinemetz@att.net
<b>March 10</b> Sat 6-9	Chicago Rocks & Minerals Society silent auction	Gym, St. Peter's United Church of Christ, 8013 Laramie, <b>Skokie, IL</b>	Jeanine N. Mielecki, jaynine9@aol.com
<b>March 10-11</b> Sat 10-6, Sun 10-5	Geodeland Earth Science Clubs	Student Union ballroom, Western Illinois University, <b>Macomb, IL</b>	Ed Wagner, loesseditor@gmail.com
<b>March 11</b> Sun 1-4	Lincoln Gem & Mineral Club Geology Day	Pioneer Park, Codington & West Van Dorn, <b>Lincoln, NE</b>	Sharon Marburger, lgmc.editor@outlook.com
<b>March 2-4</b> Fri & Sat 10-6, Sun 11-4	Eastern Indiana Gem & Geological Society	Wayne County Fairgrounds, 861 N. Salisbury Road, <b>Richmond, IN</b>	Judy Burton, JLEEBurton@woh.rr.com
<b>March 10-11</b> Sat 10-5, Sun 10-4	Kettle Moraine Geological Society	County Fair Park, 3000 Highway PV, <b>West Bend, WI</b>	John Rettler, johnrettler@gmail.com
<b>March 23-25</b> Fri 4-8, Sat 10-7, Sun 10-5	Rock Hobby Club	Machinist Auditorium, 12365 St. Charles Rock Road, <b>Bridgeton, MO</b>	Roy Hurlburt, hurlburt@juno.com
<b>March 24-25</b> Sat 9-5, Sun 9-4	Badger Lapidary and Geological Society	Craig Center Building, County Fair- grounds, 1301 Craig, <b>Janesville, WI</b>	Debbie Wehinger, jdrules3@gmail.com
<b>March 24-25</b> Sat 8:30-6, Sun 9:30-5	Cedar Valley Rocks and Minerals Society	Hawkeye Downs Expo Center, 4400 6 <sup>th</sup> Street NW, <b>Cedar Rapids, IA</b>	Marvin Houg, m_houg@yahoo.com
<b>April 5-7</b> Thurs & Fri 9:30-9 Sat 9:30-7	Indian Mounds Rock and Mineral Club	Rogers Plaza Town Center, 28 <sup>th</sup> Street at Clyde Park, <b>Wyoming, MI</b>	Kreigh Tomaszewski, kreigh@gmail.com
<b>April 7</b> Sat 10-3	Rock River Valley Gem & Mineral Society open house with displays and demonstrations	North Suburban Library, 6340 N. 2 <sup>nd</sup> St., <b>Loves Park, IL</b>	Duane Cushing, tcdc78@comcast.net
<b>April 7-8</b> Sat 9:30-5, Sun 10-4	Des Plaines Valley Geological Society	Park District Leisure Center, 2222 Birch, <b>Des Plaines, IL</b>	Lois Zima, 847-298-4653
<b>April 7-8</b> Sat 9-6, Sun 10-5	Lincoln Gem & Mineral Club	Lancaster Event Center, 84 <sup>th</sup> & Havelock, <b>Lincoln, NE</b>	Jayne Beer, jbeer60070@aol.com
<b>April 14-15</b> Sat 10-6, Sun 10-5	Southern Illinois Earth Science Club	Marion City Pavilion, 1602 Sioux Drive, <b>Marion, IL</b>	Mike Chontofalsky, chontofalsky@att.net
<b>April 21-22</b> Sat 9-5, Sun 10-4	Chippewa Valley Gem & Mineral Society	Eau Claire Expo Center, 5530 Fairview, <b>Eau Claire, WI</b>	Paul Tubbs, bizpam1@gmail.com
<b>April 21-22</b> Sat 10-5, Sun 10-4	Fulton County Rockhounds	Donaldson Center, Wallace Park, 250 S. Avenue D, <b>Canton, IL</b>	George Coursey, 70georgecoursey@gmail.com
<b>April 28-29</b> Sat 10-6, Sun 10-5	Akron Mineral Society	Emidio & Sons Expo Center, 48 E. Bath, <b>Cuyahoga Falls, OH</b>	Sandy Shorter, Gemboree@outlook.com
<b>April 28-29</b> Sat 10-6, Sun 10-4	Miami County Gem and Mineral Club	Duke Lundgard Bldg., County Fairgrounds, 650 N. County Road 25-A, <b>Troy, OH</b>	Dewey Buck, Dewey.Buck@pcmg.com
<b>April 28-29</b> Sat 9-5, Sun 11-4	River Valley Rockhounds	Webster County Fairgrounds, 22770 Old Highway 169, <b>Fort Dodge, IA</b>	Robert Wolf, midnightwriter@frontier.net



## TRADITION, TRICKS, AND THE TRUTH ABOUT DIAMONDS

By Heath Shive, Three Rivers Gem & Mineral Society (Indiana)

From the April, 2017 Strata Data

You can choose any month for a wedding. June is the most popular. However, tradition dictates the “wedding diamond.” That’s why you should know a few tricks about the diamond business. Many of these tricks are described in Fred Cuellar’s book *How to Buy a Diamond*. For example, you could “buy-shy” – i.e., shop for diamonds that weigh just under half-carat and full-carat weights. A diamond’s value jumps dramatically when it reaches true half-carat or full carat size because the demand is higher. Instead, buy a 0.90-carat diamond instead of a full carat, or 0.45-carat instead of half-carat – a noticeable change in price, an unnoticeable change to the eye (Cuellar 89).

Everyone knows about the four Cs of gemstones – color, cut, clarity and carat. The Gemological Institute of America (GIA) gives official grades for all the Cs, many of which are unnoticeable to the naked eye. GIA gemologists need special equipment to make these measurements. But many jewelers frequently “bump” the grades up. Some dealers use lights with a bluish tinge, making diamonds seem more scintillating (Finlay 321). Have any stone appraised by an independent jeweler! But beware of what Cuellar calls a “sandbagger” – an appraiser who says you were ripped off ... then sends you to one of his friends.

Many gems are artificially enhanced. Victoria Finlay, author of *Jewels: A Secret History*, describes “a fifth C, certificate, which is becoming equally important” (Finlay 240). These certificates tell buyers if their stone has been treated, heated, colored, coated, lasered, oiled, or sealed with epoxy resin.

Jewelers overprice their diamonds considerably. If you want your diamond to retain its value, try buying from bonded jewelers. Bonded gems cost 10-15% more, but a bonded stone gives you lifetime breakage policy, lifetime buy-back policy, unconditional lifetime exchange policy and trade-in policy, and market crash protection policy, and all bonded stones are natural and untreated (Cuellar 128).

Diamonds aren’t rare. In 1870 Erasmus Jacobs pulled a misshapen diamond out of South Africa’s Orange River. In a few years, *millions* of carats had been mined. The diamond market collapsed in 1882. The De Beers Consolidated Mines cartel was created in 1890. De Beers slashed diamond production by two-thirds the next year. Today, the value of diamonds is the result of an artificially maintained shortage (Raden 35-38).

Instead of a diamond, my friend bought his fiancée an amethyst engagement ring. They used the savings to help fund their honeymoon in Vegas. Diamonds are beautiful, but their true value is hard to ascertain. Diamonds – like love – are only worth as much as you want to give.

Sources:

Cuellar, Fred. *How to Buy a Diamond: Insider Secrets for Getting Your Money’s Worth*. Naperville, IL: Sourcebooks Casablanca, 2005. 5th ed. Print.

Finlay, Victoria. *Jewels: A Secret History*. New York: Ballantine, 2006. Print.

Raden, Aja. *Stoned: Jewelry, Obsession, and How Desire Shapes the World*. New York: HarperCollins, 2015. Print.

## RESURRECTING THE SHARK REVIEW

Jordan D. Marché II

From the October 2017 Badger Diggin’s

Badger Lapidary and Geological Society, Monroe, WI

Review: *Resurrecting the Shark: A Scientific Obsession and the Mavericks Who Solved the Mystery of a 270-Million-Year-Old Fossil*, by Susan Ewing. New York & London: Pegasus Books, 2017.

Fossils of the whorl-toothed shark, *Helicoprion* (a name meaning “spiral-saw”), have challenged paleontologists for more than one hundred years to decipher and understand this remarkable anatomical structure. Generally preserved as a logarithmic spiral of ever-larger tooth crowns, just how this remarkable structure fit into the mouth of an ancient shark, and more importantly, how it functioned as a prey-

(Continued on page 7)

## RESURRECTING THE SHARK REVIEW, CONTINUED

(Continued from page 6)

capturing and shredding device, has been the subject of long-standing controversy.

Yet, from detailed analysis of the most well-preserved Idaho specimen, involving high-resolution CT scans and resulting 3-D models, an unlikely team of artists, students, and scientists has recently offered the most convincing reconstruction of this animal's skull, jaw suspension, and taxonomic place in the evolution of cartilaginous fishes. During the Permian geological period, when this animal and its kin were alive, it was seemingly the top predator that lived in the seas, and likely dined upon cephalopods, perhaps by using its whorl-shaped teeth to extract or shuck the softer-bodied animals from their shells.



*Helicoprion tooth fossil, from a book by J. Walther, via Wikimedia Commons.*

Yet none of these findings would likely have been possible without the decades-long passion of paleoartist Ray Troll, along with the equally intense curiosity and aptitude of an undergraduate student, Jesse Pruitt, at Idaho State University, which hosts the world's largest collection of *Helicoprion* fossils, along with a world-class virtualization lab. Gradually, a cadre of other experts from around the nation (and world), ranging from paleontologists and marine biologists to mathematicians and computer scientists, were brought together in their collective attempts to decipher the functional operations of this most puzzling of all vertebrate fossils.

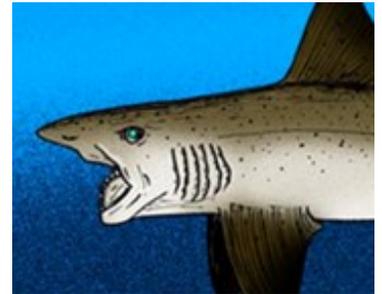
These activities culminated with the assembly of a "Shark Summit" at Pocatello, Idaho in 2012, where many of these individuals interacted for the first time in person with each other. From the diversity of their skill sets and keen insights, significant new contributions to the understanding of *Helicoprion* emerged that were eventually published in three peer-reviewed journal articles. Along with these outcomes, a major new

exhibit on the state's whorl-toothed sharks was constructed at the Idaho Museum of Natural History, and that included an operating model of *Helicoprion*'s jaws fabricated by Pruitt.

The full depth of this story, spanning several hundred years of paleontological work and several hundred million years of geohistory, has never been told before. *Resurrecting the Shark* is very engagingly written, drawn from extensive interviews with the "Shark Summit" participants along with published documents, and conveys a very accurate account of researchers' struggles to reckon with this extraordinary fossil jaw.

It is worth noting that, as early as the late nineteenth century, an American woman scientist, Fanny Hitchcock, was the first to argue (correctly) from fragmentary evidence that such a fossil (then named *Edestus*) was in fact a midline tooth assemblage. That evolution should and did craft such an astonishing organism is part of the mystique that surrounds *Helicoprion* even to this today.

*Portion of a Helicoprion reconstruction by Stanton F. Fink, via Wikimedia Commons.*



Around two dozen black-and-white or color images, many of the latter furnished by Troll, enable one to contemplate the strangeness and diversity of Paleozoic sharks in general. There is also an app that may be downloaded, allowing readers to explore in detail an augmented-reality model of the crucial *Helicoprion* fossil ("Idaho No. 4"), and reconstructed jaw model derived from that specimen's CT scans.

[Jordan D. Marche II is the author of "The Green Menace: Emerald Ash Borer and the Invasive Species Problem."]

Valerie J. Meyers, Editor  
Midwest Federation of Mineralogical and Geological Societies  
vjmwriter@yahoo.com  
Post Office Box 13456  
Overland Park, KS 66282-3456

Non Profit Org  
U.S. Postage  
PAID  
Fiatt, IL  
Permit No. 1

\*\*\*\*\*  
**It is MWF policy that its name and logo may not be used for commercial purposes.**  
**Please notify the Secretary of any violations.**  
\*\*\*\*\*

## STUDY GROUP TACKLES MINERALS WITH ALUMINUM (D, E, F), CONTINUED

*(Continued from page 4)*

The nesosilicate Dumortierite engendered a discussion of tiger's eye. Tiger's eye was believed to be a quartz pseudomorph after the asbestos known as crocidolite; other researchers postulate cryptocrystalline Dumortierite. Some say the iron from decomposed crocidolite has oxidized to a brown limonite, keeping the fibrous structure. Recently Heaney and Fisher (2003) gave another interpretation of tiger's eye origin: ". . .we argue that tiger's-eye classically exemplifies synchronous mineral growth through a crack-seal vein-filling process." We are still not sure how tiger's eye is formed or what it is made of.

Back to passing specimens, which included the phosphate Durangite, the inosilicate Edenite, the cyclosilicate Elbaite (including a specimen collected by John Sinkankas where the label was as interesting as the specimen), the sorosilicate Epidote, the tectosilicate Erionite-K, the nesosilicate Euclase, and the phosphate Evansite.

The next two specimens, the tectosilicates Faujasite-Ca and Faujasite-Na, started a discussion on



*Elbaite from Brazil. Photo by Rob Lavinsky/iRocks.com, via Wikimedia Commons.*

mineral nomenclature to help out our new member from the Blandford community. Naming of minerals is a complex process, and we touched on the Type Specimen, the Type Locality, Groups, and Dominant Members before moving on.

We looked at the sorosilicate Ferriallanite-Ce, the tectosilicate Ferrierite, the phosphates Fluellite and Foggite, and the cyclosilicate Foitite. And we ended with the phyllosilicate Fuchsite. Our new member received a specimen of native copper from the Cliff Mine as a welcome gift. We also had a discussion on the mounting and labeling of mineral specimens.