



*to promote, support, protect and expand the collection of mineral specimens and to further the recognition of the scientific, economic and aesthetic value of minerals and collecting mineral specimens.*

# BULLETIN OF FRIENDS OF MINERALOGY

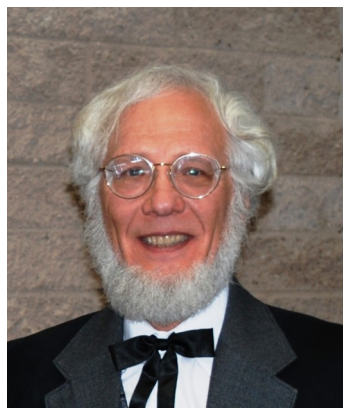
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## President's Message By Mark Jacobson

The Friends of Mineralogy since 1970 has pursued the goals of furthering the appreciation of minerals and mineral occurrences and creating educational bridges between amateur and professional mineralogists. The last 40+ years have been a great ride with advances along many different avenues for learning, enjoyment and experience. As part of our goal, we seek to further member interactions and outreach, since at the heart of all

our actions is sharing our passion with others, and allowing them to share their own passions with us.

The community is still expanding, with new people bringing an enthusiastic take on a wide range of subjects. In early March 2017, I viewed the colored pencil drawings of a first-time mineral artist -- a Pederneira tourmaline crystal cluster and a Mt. Antero aquamarine that were truly incredible in realism and beauty. I've worked with new speakers who bring their love of geology and mineralogy into the audience. FM's job is to provide a forum for all of them to interact.

I have been Colorado Chapter president for the past three years. During this time we have had two successful symposia (2014 and 2016) with field trips to localities not always open to visitors. Most of our newsletters are online and have been indexed, so a Google search accesses our data. Our member-supported annual auction helps give us financial stability. We have had sufficient volunteers to continue.

As National president, I hope to produce similar results for the larger group and enhance communications between chapters; meeting with each chapter is one of my priorities. I am fortunate to be able to draw upon the experience of past presidents. As I started to tackle the society paperwork and administration, Clyde Spencer helped me understand our society's affiliates regarding expectations and obligations. Virgil Leuth just updated the society by-laws, thus clarifying the scope of the society and my own responsibilities.

One of my goals as president is to improve the National website. I plan to add links to past newsletters and to include the history of our society -- where we have been suggests where we are going. I will also include a comprehensive and updated list of upcoming mineral symposia and meetings, so that visitors can keep apprised of events in the greater mineral community.

Last year, I wrote at length about where FM started, where we are now and where we could go in the future. Last year Alex Schauss had pursued the vision of increasing national membership and providing funding to symposiums. Clyde Spencer continued the efforts towards creating a uniform

(cont. on page 3)

## NATIONAL OFFICERS

**PRESIDENT:** Mark Jacobson; [markivanjacobson@gmail.com](mailto:markivanjacobson@gmail.com)

**VICE PRESIDENT:** Virgil Lueth; New Mexico Tech, 801 Leroy Place, Socorro NM 87801-4796; [vlueth@nmt.edu](mailto:vlueth@nmt.edu)

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**TREASURER:** Gloria Staebler, PO Box 234, Arvada, CO 80001; [gastaebler@aol.com](mailto:gastaebler@aol.com)

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**EDITOR:** Beth Heesacker, 4145 NW Heesacker Rd., Forest Grove, OR 97116, [heesacker@coho.net](mailto:heesacker@coho.net)

## NATIONAL BOARD OF DIRECTORS

Terms expire in February, 2018 just before the general meeting :

Clyde Spencer; [c\\_spencer123@att.net](mailto:c_spencer123@att.net)

Jim Etzwiler; [kd7bat@arrl.net](mailto:kd7bat@arrl.net)

James Houran; [jim\\_houran@yahoo.com](mailto:jim_houran@yahoo.com)

Sue Liebetrau; [liebetrauam@msn.com](mailto:liebetrauam@msn.com)

Terms expire in February, 2019 just before the general meeting :

Bob Meyer, [pyrite111@hotmail.com](mailto:pyrite111@hotmail.com)

Virgil Lueth; [vlueth@nmt.edu](mailto:vlueth@nmt.edu)

Mark Jacobson; [markivanjacobson@gmail.com](mailto:markivanjacobson@gmail.com)

Linda Smith, [vanegas3@charter.net](mailto:vanegas3@charter.net)

Terms expire in February, 2020 just before the general meeting :

Allan Young, [allanyoung@msn.com](mailto:allanyoung@msn.com)

Gloria Staebler, [gastaebler@aol.com](mailto:gastaebler@aol.com)

Randy Marsh, [marsh.rg@pg.com](mailto:marsh.rg@pg.com)

William Besse, [wwbesse@gmail.com](mailto:wwbesse@gmail.com)

## CHAPTER REPRESENTATIVES (ALSO BOARD MEMBERS)

**COLORADO CHAPTER:** Jeff Self; [selfawareminerals@gmail.com](mailto:selfawareminerals@gmail.com)

**MIDWEST CHAPTER:** Kenneth Bladh; [kbladh@wittenberg.edu](mailto:kbladh@wittenberg.edu)

**PACIFIC NORTHWEST CHAPTER:** Bruce Kelley; [bruce.kelley@gmail.com](mailto:bruce.kelley@gmail.com)

**PENNSYLVANIA CHAPTER:** Joe Marchesani; [Jmarch06@comcast.net](mailto:Jmarch06@comcast.net)

**SOUTHERN CALIFORNIA CHAPTER:** Dr. Don Buchanan; [dbuch7326@aol.com](mailto:dbuch7326@aol.com)

**MISSISSIPPI VALLEY CHAPTER:** Larry Nuelle; [LNuelle@gmail.com](mailto:LNuelle@gmail.com)

**NEW JERSEY CHAPTER:** David Shapiro; [Dshapiro33@gmail.com](mailto:Dshapiro33@gmail.com)

## EX-OFFICIO BOARD MEMBERS

**ROCKS & MINERALS:** Marie Huizing; [rocksandminerals@fuse.net](mailto:rocksandminerals@fuse.net)

**THE MINERALOGICAL RECORD:** Wendell Wilson; [minrecord@comcast.net](mailto:minrecord@comcast.net)

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**Mindat:** Jolyon Ralph; [jolyon@mindat.org](mailto:jolyon@mindat.org)

**MINERALOGICAL ASSOCIATION OF CANADA:** Paula Piilonen; [ppiilonen@mus-nature.ca](mailto:ppiilonen@mus-nature.ca)

**MINERAL NEWS:** Tony Nikischer; [tony@excaliburmineral.com](mailto:tony@excaliburmineral.com)

**Deadline for the next FM Newsletter is  
June 28, 2017**

process of providing some funds for symposia. The symposia funding effort has continued.

At the Tucson Gem and Mineral Show, FM gives awards for the best educational cases at the show, as well as announcing and presenting awards for the best articles of the year. Details about this year's winners can be found elsewhere in this newsletter.

Over the next few months, I will be presenting to the FM National board (19 voting members) my thoughts regarding my goals as president and some possible goals for National. After discussing these goals with the board and reaching consensus, I'll share our decisions in the National Newsletter.

I have been asked several times what National does for the Chapters. This question merits consideration, so I will be asking the chapters over the next year what they think we should provide for them. Should we continue the Tucson mineral symposium, the only symposium that National organizes and is responsible for? We are also responsible for setting up and manning the Tucson show booth. This was an activity that Nelson Shaffer carried out faithfully for years, but he has formally retired from that responsibility. Field trips have always been a Chapter activity. Should National advocate for a field trip, and if so, to what location? Should National organize a week-long national or overseas

field trip? Should we sponsor more publications? These are questions I have for National as well as Chapter members.

2016 was an active year for mineral community – new finds on display, active buying and selling at mineral shows, discussions at mineral meetings, viewing and photographing specimens, and the publication of a wide spectrum of articles. FM members took an active role in coordinating some of these events and promoting participation. I welcome ideas for future activities which will help FM continue to play a vital role. I am accessible, email or call me if you wish.



Thomsonite-Ca - Beech Creek  
Quarry, Mount Vernon, Grant  
Co., Oregon, USA. Photo by  
Doug Merson







## The National Friends of Mineralogy Best Article of the Year Awards for 2016

By Mark Jacobson

Five judges participated in evaluating and recommending the best articles of the year for *The Mineralogical Record*, *Rocks and Minerals*, and *Mineral News*. This year no award was given for Mineral Monographs since there were no articles to judge. Each judge chose their first, second and third choices. Scoring was done based on 3 points for a first choice, 2 points for a second and 1 point for a third. Ties were allowed for articles and counted. All the nominated articles were excellent, sometimes the scores were close and the decisions were not easy. I am quite appreciative to the judges for providing me with their opinions and scores. It is never an easy task to choose one article over another when the articles' purposes are quite different and both articles reach the target audience at its heart.

There were several excellent, if not overwhelming articles in *The Mineralogical Record*. The chosen winner was the article ("book") by Thomas P. Moore and Wendell E. Wilson entitled "The Emerald Mines of Columbia" in volume 47, no. 1.

The winning article in *Rocks and Minerals* was "The Purple Hope Claim, Green Ridge, Middle Fork of the Snoqualmie River, King County, Washington" in volume 91, no. 6 by Rick Dillhoff and Joe George.

The winning article in *Mineral News* was "Mineral Discoveries at the Morefield pegmatite of Amelia, Virginia" by Lance E. Kearns, Betsy S. Martin and Michael A. Wise in volume 32, no. 3.

All these authors are to be congratulated for preparing incredibly well written and documented texts that provided mineralogical, geological and historical information that truly enriches the literature and knowledge of these localities. The editors and reviewers who assisted in delivering these masterpieces to the reading public are also to be congratulated, for their all year long focus at delivering high quality articles to their subscribers and being loyal advocates for their writers. Each magazine receives a \$200 donation from Friends of Mineralogy, in the name of the authors.

The National Friends of Mineralogy provided banquet tickets to all the author awardees who wanted to attend the Saturday night banquet at the Tucson Gem and Mineral Show. The certificate awards for these articles were formally presented separately to the authors who were present at the Saturday night banquet dinner on February 11, 2017. Thomas P. Moore, Wendell E. Wilson, Rick Dillhoff, Joe George, and Michael A. Wise received their awards at the banquet. The other authors will receive their certificates by mail.



Wendell Wilson, Thomas Moore, Mark Jacobson. Gail Spann photo.



Joe George. Rick Dillhoff.  
Gail Spann photo.



Mark Jacobson, Michael Wise.  
RMY photo.



## Educational Awards at the Tucson Gem and Mineral Show February 9-12, 2017 By Mark Jacobson

Two educational awards, for individual and institutional cases were awarded at the Tucson Gem and Mineral Show. The principles for judging the exhibits was based on rules first written in 1970, revised in 1972, and elaborated on in an as yet unpublished article prepared by Si and Ann Frazer and Albert and Sue Liebetrau.

The seven judges on Thursday chose for the *Friends of Mineralogy Best Educational Exhibit by an Individual* the exhibit named: "Crystal and Crystal Forms: A foreshadowing of the 2018 TGMS show theme." The case was created by the "META group" The Minerals Enthusiasts of the Tucson Area participants: Bill Besse, John & Karen Cesar, Jean & Michelle des Rivieres, the Graeme family, Mike & Mary Jaworski, Jim & Imelda Klein, Peter & Allison Megaw, Lauren Megaw, Barbara Muntyan, Marcus Origlieri, Ron & Peggy Pellar, Alex & Laura Schauss, Gene & Jackie Schlepp, Frank & Pat Sousa, Marshall Sussman, and Wendell & Carolyn Wilson.



The *Best Educational Exhibit by an Institution* award was made to the Smithsonian Institute, Washington, D. C. for their display of "Minerals of the Tri-State\_District."

The cases considered in the competition were all the fossil, mineral, meteorite and lapidary displays exhibited at the show. The winners were announced and presented their certificates at the Saturday night banquet of the Tucson Gem and Mineral Show. Michael Wise accepted the Smithsonian Institution certificate for the institution. Jim and Imelda Klein accepted the individual certificate for the META group. All the participants of the META group will be receiving their certificates later in the mail.



## **2017 Annual Friends of Mineralogy Business Meeting Minutes**

**February 11, 2017**

**Golden Corral Buffet, 4380 E 22nd St, Tucson, AZ**

Meeting called to order by President Spencer at 8:00 AM. The following officers were present: Clyde Spencer, President; Mark Jacobson, Vice President; Sue Liebetrau, Secretary; Gloria Staebler, Treasurer. Also present were: Alan Young, Marie Huizing, Linda Smith, Laurence Nuelle, William Besse, Virgil Lueth, Albert Liebetrau, Bruce Bridenbecker, Jeff Self, and Randy Marsh. President Spencer declared a quorum.

A suggested agenda was previously shared by email. All individuals present briefly introduced themselves.

### **Old Business**

President Spencer asked if any corrections to February 2016 meeting minutes (listed in April 2016 Bulletin) were necessary. No changes were proposed or adopted. A motion was made to accept the minutes, and the motion was carried by unanimous acclamation (MHuizing/AYoung/P).

President Spencer mentioned the motion in last year's minutes that Vice President Jacobson and Treasurer Staebler would digitize paper records for the organization. Vice President Jacobson said this will not happen due to lack of resources. President Spencer suggested appointing an archivist to address this. Secretary Liebetrau stated she has email correspondence going back to when she became Secretary, and she feels this is part of the archive. She also stated when she became Secretary she received nothing as a historical record, and that some of the email exchanges over the past year have been significant. President Spencer mentioned he also has an extensive file of correspondence in Microsoft Outlook. There was discussion on newsletters serving as critical info source. Virgil Lueth noted he has much of this information. Randy Marsh offered to digitize paper files if they were sent to him by mail.

President Spencer raised the subject of website status and TGMS trademark update on the site. Jim Etzwiler was not present to cover this topic. President Spencer stated there is difficulty in communicating with Jim for website-related issues and this has been an ongoing problem. Vice President Jacobson mentioned he is willing take on major responsibility for website maintenance. Treasurer Staebler said she will provide the password. Bill Besse asked if we could update the look of the website. Vice President Jacobson and Bill will talk about this offline. President Spencer stated that webmaster is an appointment and not an elected position. Bill Besse stated he is willing to be official webmaster. Given President Spencer is stepping down from his role, the incoming President will need to appoint Bill and inform Jim about the change.

A deferred item from last year was a reminder about the 50<sup>th</sup> anniversary our organization in 2020. No discussion occurred on this topic.

### **New Business**

President Spencer welcomed new and returning directors. None of the new affiliate representatives (Paula Piilonen –MAC; Tony Nikischer – MN; Ronald Carman - AFMS) were present at the meeting.



## Officer's Reports

### 1. President (Clyde Spencer)

President Spencer mentioned the appointment of Gail Spann to Publicity Chair. The hope is that Gail will work closely with the incoming President to promote Friends of Mineralogy.

President Spencer brought up the topic of Memorandums of Understanding (MOUs) with our affiliated organizations. In the case of the American Geosciences Institute (AGI), we have a defined relationship because we pay dues. For the Mineralogical Association of Canada (MAC), President Spencer discovered the original contact was no longer available and the new person (Paula Piilonen) was unaware of the relationship. In short, we have several affiliated organizations but we don't know what this affiliation means or whether we or they get any benefit out of it. President Spencer recommends the incoming administration resolves this issue and clarifies what we want these relationships to accomplish.

President Spencer suggested the board consider raising National dues to \$15 from their current \$11. The fact that it is cheaper for an individual to join National than a Chapter could lead to an imbalance. It would thus level the playing field if National and Chapter fees were similar. Additionally, it would increase National income a little bit and provide more money to support items like symposia. There was no further discussion or action on this topic.

The topic of a welcome email for new members was not discussed.

President Spencer asked if our organization should get back to creating badges for new members and suggested part of the due structure was to support manufacture of such badges. Secretary Liebetrau showed her badge as an example. Linda Smith said Pacific Northwest Chapter discussed this four years ago and ordered badges. It was suggested that each Chapter and National have their own stash to make things easier. There was no further discussion or action on this topic.

The topic of a lifetime membership for our volunteer accountant in California, Michael Kokinos, was raised by President Spencer. A motion was made to bestow this lifetime membership on Michael, and the motion was carried by unanimous acclamation (V Lueth/JSelf/P). Virgil Lueth will send a framed honorary membership award to Michael.

President Spencer mentioned the Midwest mineral display at the TGMS, courtesy of the Midwest Chapter. Virgil Lueth mentioned that he did not get a request from TGMS for a FM display but said that it normally comes to him. He thinks Peter Megaw (Special Exhibits Chairman) may have assigned case responsibility to someone else.

### 2. Vice President (Mark Jacobson)

Vice President Jacobson stated the locality indices were updated. Marie Huizing said Hawaii indices are being published in an upcoming issues of Rocks and Minerals and that, in the next year or two, a Minerals of Montana will be issued. This year Texas was covered and is in press.

Vice President Jacobson discussed the status of the proposed New England Chapter and stated a presentation was made last year at the New England Mineral Symposium held near Bethel, Maine. It was discussed what it would take to form a Chapter there. VP Jacobson did not expect action to occur on forming a Chapter, but confirmed that folks are aware and that nothing further needs to be done.

Vice President Jacobson discussed the winning displays at TGMS 2017. The winner of the Friends of Mineralogy Best Educational Exhibit by an Individual went to the case entitled Crystal and Crystal

Forms: A Foreshadowing of the 2018 TGMS Show Theme. The case was created by the "META group" - The Minerals Enthusiasts of the Tucson Area. Participants were: Bill Besse, John & Karen Cesar, Jean des Rivieres, the Graeme family, Mike & Mary Jaworski, Jim & Imelda Klein, Peter Megaw, Lauren Megaw, Barbara Muntyan, Marcus Origlieri, Ron Pellar, Alex & Laura Schauss, Gene Schlepp, Frank Sousa, Marshall Sussman, and Wendell Wilson. The winner of the Friends of Mineralogy Best Educational Exhibit by an Institution went to the case entitled Minerals of the Tri-State District. The case was created by the Smithsonian Institution, National Museum of Natural History, Washington, D.C.

Vice President Jacobson discussed the best article of the year awards for 2016. Five judges participated in evaluating and recommending the best articles of the year for *The Mineralogical Record*, *Rocks and Minerals*, and *Mineral News*. This year no award was given for *Mineral Monographs* since there were no articles to judge. Each judge chose their first, second and third choices. Scoring was done based on 3 points for a first choice, 2 points for a second and 1 point for a third. Ties were allowed for articles and counted. All the nominated articles were excellent, sometimes the scores were close and the decisions were not easy. VP Jacobson is quite appreciative to the judges for providing him with their opinions and scores. It is never an easy task to choose one article over another when the articles' purposes are quite different and both articles reach the target audience at its heart. There were several excellent, if not overwhelming articles in *The Mineralogical Record*. The chosen winner was the article ("book") by Thomas P. Moore and Wendell E. Wilson entitled "The Emerald Mines of Columbia" in volume 47, no. 1. The winning article in *Rocks and Minerals* was "The Purple Hope Claim, Green Ridge, Middle Fork of the Snoqualmie River, King County, Washington" in volume 91, no. 6 by Rick Dillhoff and Joe George. The winning article in *Mineral News* was "Mineral Discoveries at the Morefield pegmatite of Amelia, Virginia" by Lance E. Kearns, Betsy S. Martin and Michael A. Wise in volume 32, no. 3. All these authors are to be congratulated for preparing incredibly well written and documented texts that provided mineralogical, geological and historical information that truly enriches the literature and knowledge of these localities. The editors and reviewers who assisted in delivering these masterpieces to the reading public are also to be congratulated, for their all year long focus at delivering high quality articles to their subscribers and being loyal advocates for their writers. Each magazine receives a \$200 donation from Friends of Mineralogy, in the name of the authors. The certificate awards for these articles will be formally presented separately to each author at the Saturday night banquet dinner, TGMS, February 11, 2017. For those authors not attending, the certificates will be mailed to them. The National Friends of Mineralogy will be providing banquet tickets to all the author awardees.

### 3. Secretary (Sue Liebetrau)

Secretary Liebetrau shared her thoughts about being secretary. While we do have a digital recorder, it does not record well if 2-3 people are talking at once. She asked for speakers to be patient and kindly talk one at a time. Randy Marsh suggested that people state their name before speaking.

### 4. Treasurer (Gloria Staebler)

Treasurer Staebler passed around an income statement and a balance sheet. Both are included below. She mentioned that the check for the Tellus Mineral Symposium still needs to be included.



FRIENDS OF MINERALOGY, INC.  
INCOME STATEMENT  
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Page: 1

	Current Month		Year to Date	
REVENUES				
CHAPTER DUES	\$ 2,114.00	71.54	\$ 2,114.00	71.54
DONATION	313.00	10.59	313.00	10.59
AT LARGE MEMBER DUES	521.00	17.63	521.00	17.63
INTEREST INCOME	7.03	0.24	7.03	0.24
TOTAL REVENUES	<u>2,955.03</u>	100.00	<u>2,955.03</u>	100.00
COST OF SALES				
TOTAL COST OF SALES	<u>0.00</u>	0.00	<u>0.00</u>	0.00
GROSS PROFIT	<u>2,955.03</u>	100.00	<u>2,955.03</u>	100.00
EXPENSES				
BANK SERVICE CHARGES	9.00	0.30	9.00	0.30
OFFICE EXPENSE	15.22	0.52	15.22	0.52
POSTAGE AND SHIPPING EXPENSE	3.54	0.12	3.54	0.12
PRINTING EXPENSE	235.00	7.95	235.00	7.95
AWARDEE BANQUET TICKETS	160.00	5.41	160.00	5.41
MEETINGS EXPENSE	203.68	6.89	203.68	6.89
BEST ARTICLE AWARD	600.00	20.30	600.00	20.30
TOTAL EXPENSES	<u>1,226.44</u>	41.50	<u>1,226.44</u>	41.50
NET INCOME	\$ <u>1,728.59</u>	58.50	\$ <u>1,728.59</u>	58.50

FRIENDS OF MINERALOGY, INC.  
BALANCE SHEET  
DECEMBER 31, 2016

Page: 1

## ASSETS

CURRENT ASSETS		
SAVINGS ACCOUNT	\$ 24,371.84	
NEW WELLS FARGO CHECKING AC	<u>1,455.82</u>	
TOTAL CURRENT ASSETS		25,827.66
PROPERTY AND EQUIPMENT		
TOTAL PROPERTY AND EQUIPMENT		0.00
OTHER ASSETS		
TOTAL OTHER ASSETS		0.00
TOTAL ASSETS		<u>\$ 25,827.66</u>

## LIABILITIES AND CAPITAL

CURRENT LIABILITIES		
TOTAL CURRENT LIABILITIES		0.00
LONG-TERM LIABILITIES		
TOTAL LONG-TERM LIABILITIES		0.00
TOTAL LIABILITIES		0.00
CAPITAL		
BEGINNING BALANCE EQUITY	\$ 23,047.73	
RETAINED EARNINGS	1,389.34	
NET INCOME	<u>1,390.59</u>	
TOTAL CAPITAL		25,827.66
TOTAL LIABILITIES & CAPITAL		<u>\$ 25,827.66</u>

A motion was made to accept the Treasurer's report, and the motion was carried by unanimous acclamation (JSelf/VLueth/P).

Treasurer Staebler raised the topic of having an audit done and mentioned that having one done by an external individual will cost \$1200. There was discussion about one of the board members being able to do the audit. President Spencer mentioned that Alex Schauss had requested an audit. He further stated that the Bylaws say an audit should be done every year and there is no mention about an external company having to do it. Treasurer Staebler requested the name of someone to send the bank statements and general ledger to. Laurence Nuelle will ask his daughter (CPA) if she will do it.

A motion was made to give a \$200 award to the institutional case winner to make a donation to the organization of their choice. The motion was carried by unanimous acclamation (GStaebler/LSmith/P).

### Committee Reports

#### 1. Symposium Funding-Selection Committee (Allan Young)

Alan Young outlined the new policy for handling funding requests. The award year runs from July 1 current calendar year to June 30 next calendar year. To set aside funds for symposium support, the chairman sends out letters to potential recipients, get requests for support with need explained, creates a list of potential recipients, then presents this list to the board prior to the February board meeting. The board votes on list. Then the cycle starts again. Last year the process was started late, with Tellus and New Mexico events as the only two recipients. Spent \$1000 out of the \$2000 allocated. Tellus said their symposium is early in the year and they were not yet in a position to request funds for their next event. President Spencer said that the current time cycle does not work well for people with early symposia. He also said we need to do a better job of advertising and hoped that Gail Spann can help with getting out info and soliciting. Treasurer Staebler asked about a request from Rochester symposium. President Spencer commented they formally retracted their request for funding but there is potential to restart it. Linda Smith asked if we could request organizations to submit their request by December 31 for the following year. Treasurer Staebler asked if the board could vote by email. President Spencer said the concern was that we had a fixed amount of money to spend for a year, so we might want to rank multiple submissions. This is why the current policy was put together. Alan Young said that applications are due to the selection committee by October 31. The selection committee then ranks and shares with the board members. It was agreed that further discussion will be outside of this meeting.

A motion was made to approve the \$500 funding request for the New Mexico symposium in November 2017. The motion carried (GStaebler/SLiebetrau/VLueth Abstain/P).

#### 2. Facebook (Gloria Staebler)

President Spencer asked if inappropriate usage issues had gone away. Treasurer Staebler confirmed they had. She mentioned that each Chapter can appoint an administrator, and that she will add Gail Spann as an administrator.

### Other New Business

#### 1. Amend Operating Regulations to Remove Requirement for TGMS Symposium

This topic was discussed by John Rakovan during the general membership meeting on February 7, 2017. He stated there is insufficient support from other organizations. He and Virgil Lueth will co-chair the session for next year at TGMS and then request to withdraw. Virgil Lueth suggested to change the operating regulations to make this symposium an option and not an obligation. A motion was made to

change the wording in the operating regulations from “shall” to “may” hold a symposium at TGMS. The motion was carried by unanimous acclamation (VLueth/MJacobson/P). Virgil will make the change in the document.

## 2. Electing New Officers

Nominating committee (Linda Smith, Secretary Liebetrau, President Spencer) came up with slate of four people: Mark Jacobson for President, Virgil Lueth for Vice President, Gloria Staebler for Treasurer, and Randy Marsh for Secretary. President Spencer called for nominations from the floor. No nominations were received. President Spencer made a motion to pass the slate of officers, and the motion carried (AYoung/LSmith/Nominees Abstained/P).

## 3. Locations for Next Year’s Business Meeting and General Membership Meeting

President Spencer commented that that acoustics for general membership meeting were poor and that it will be up to new administration to decide future meeting locations.

Meeting adjourned at 9:55 AM (JSelf/MJacobson/P)

Respectfully submitted by Randy Marsh, Secretary



## **5th Annual New England Mineral Conference** **Friday, May 12 - Sunday, May 14, 2017**

The *5th Annual New England Mineral Conference* will be held at the Grand Summit Resort Hotel and Conference Center at Sunday River, Newry, Maine. Presentations on both New England and non-New England topics are scheduled for Friday evening and during the day on Saturday. In addition, there will be a Friday evening banquet, mineral exhibits, and both a voice and a silent auction. Dealers will be open for business from Friday afternoon through Saturday evening except during the presentations. The weekend culminates with a field trip on Sunday.

For further information about the conference please visit our website at [www.nemineralconference.org](http://www.nemineralconference.org) or visit the *New England Mineral Association* Facebook page. In addition, two important features of the conference for students in grades 3-12 are *Education Day* (Friday, May 12), and the *Poster Contest*. For information about *Education Day* and the *Poster Contest* please visit: [www.nemineraleducation.org](http://www.nemineraleducation.org)

The *New England Mineral Conference* is a division of the non-profit *New England Mineral Association*.





# A.E. SEAMAN MINERAL MUSEUM

OF MICHIGAN TECH

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Issue 11

## Showcase

Educating people about minerals is a fundamental part of the museum's mission. While this part of the mission is principally carried out at the museum's complex on Michigan Tech's campus, the museum's audience is far larger. The new web site, unveiled earlier this year, has a worldwide reach. Exhibits at mineral shows, such as Tucson, Denver, and Detroit impact a mineral interested public. Satellite exhibits, the focus of this **Showcase**, are an important part of our outreach strategy.

There are Michigan Department of Transportation "Michigan Welcome Center" locations throughout the State. These gateways for travelers are ideal locations for satellite exhibits. Several years ago I volunteered, and

Greeting desk at the St. Ignace  
Michigan Welcome Center



subsequently installed, a satellite exhibit at the MDOT Marquette Welcome Center located on the shore of Lake Superior near Harvey. Rather than volunteer a satellite exhibit, the museum was asked by Mike Lilliquist, Manager, of the St. Ignace Michigan Welcome Center to provide one.

The St. Ignace Michigan Welcome Center is located just north of the Mackinac Bridge, with entrance just past the north-bound traffic toll gates. This welcome center annually has about 470,000 visitors! Through this small exhibit, the museum gets a large exposure. The theme of our exhibit is "St. Ignace: Surrounded by Great Lakes and Great Minerals!"

The museum's oldest satellite exhibit is located at the Michigan Department of Natural Resources Eddy Discovery Center near Chelsea, Michigan.



St. Ignace satellite exhibit

The Michigan Mineral Alliance preserves the legacy of the University of Michigan's mineral collection. This agreement provides the museum a presence on the University of Michigan's Ann Arbor campus via a satellite exhibit in the C. C. Little Science Building. The inaugural and current satellite exhibit on the University of Michigan campus focuses on "Minerals of Michigan." The museum expects to expand our presence on the University of Michigan's campus in the near future.



MTRI satellite exhibit



University of Michigan satellite exhibit

The museum has another satellite in Ann Arbor at the Michigan Tech Research Institute (MTRI). MTRI staff member Colin Brooks, Environmental Science Lab Manager, asked if the museum could install an exhibit in the entrance lobby. Now in its 4<sup>th</sup> year, the existing exhibit was replaced with a new one focused on Variscite Nodules from Utah donated by George Robb, a 1913 graduate of Michigan Tech. This satellite provides a visually interesting entrance for MTRI and serves to connect MTRI back to Michigan Tech's main campus. To learn more about MTRI visit [www.mtri.org](http://www.mtri.org).

Locally, tourists who visit the Keweenaw Peninsula can get a glimpse of the museum through our satellite exhibits at the Keweenaw Convention & Visitors Bureau public visitor center in Calumet and at the Copper Harbor Community Center. On campus our exhibit in Michigan Tech's library reaches out to students and encourages them, their friends, and their families to visit us. Our satellite exhibit at the Michigan Tech Fund provides exposure to university alumni and supporters.

Satellite exhibits enhance the museum's reputation and recognition while educating people about minerals. While the satellites require regular refreshing and maintenance, the effort is well worth the positive benefit.

Until next time, Ted Bornhorst, Executive Director

## **Barite-Bearing Concretions Near the Book Cliffs Area of Grand Junction, Mesa County, Colorado: Genesis, Mineralogy and Collecting**

**By Daniel Kile**



***Mount Garfield and the Book Cliffs, north of Grand Junction. Photograph by Dan Kile.***

### **Introduction and locality**

The Book Cliffs area north of Grand Junction in Mesa County, Colorado, is renowned for its prismatic water-clear barite crystals with mirror-bright faces. My wife, Dianne, and I had our first introduction to concretions at this locality in the spring of 1973, following the exhibition of Grand Junction barite at the Denver Mineral Show (which at that time was held at the Adams County Fairgrounds). At the show, we had networked with a local collector, who offered to take us to the Book Cliffs locality. After several trips with modest success, we finally found a few very nice crystals in a remote area. Even at this time, collecting was becoming challenging, as many of the concretion-bearing areas had already been explored by local mineral collectors as well as students from Mesa State College (now known as Colorado Mesa University) students, who use this as a study area for their geology curriculum. Local collectors had in fact known about and collected in this area since the 1940s (Look 1947), but it gained widespread attention following publication of an article on the locality in *The Mineralogical Record* in 1976 (Cajori 1976). At first glance, the area looks like a desert wasteland, an appearance that likely encourages abuse of the landscape by the innumerable present-day ATVs and dirt bikes. On closer examination, however, this region features cactus and abundant spring wildflowers. This is nonetheless a semi-arid climate, with survival a matter of thorns or fangs for defense. Indian paintbrush and globe mallow, as well as



devil's claw and claret-cup cactus, are abundant, among other distinctive plant species. Lizards, render travel virtually impossible on the water-slickened shale roads and trails. I am aware of at least one instance of a traveler stranded for 2-3 days following a storm, and indeed, I can personally attest to the tenacious and slippery clay when it is wet. Due caution is given to interlopers to this environment! Lizards, including the spectacular collared lizard, and horned toads, comprise some of the surface-dwelling critters; below ground, and notably, within the concretions, are scorpions, centipedes, snakes (bull snakes and king snakes), black widow spiders, and the occasional vole.

Average temperatures in the summer can range above 90° F. in town, and without shade at the Book Cliffs can be even higher, well above 100° F. Annual rainfall is sparse, but summer thunderstorms can render travel virtually impossible on the water-slickened shale roads and trails. I am aware of at least one instance of a traveler stranded for 2-3 days following a storm, and indeed, I can personally attest to the tenacious and slippery clay when it is wet. Due caution is given to interlopers to this environment!

### **Geology, Concretion Form and Genesis**

Concretions occur in the upper third of the Mancos Shale, underlying the Mesaverde Formation that caps the Book Cliffs; the fluted nature of the weathered shale gives the "book" appearance to the cliffs. In Colorado, the Mancos Shale is approximately 5,000 feet thick; it also crops out south of Grand Junction (in a lower horizon of the Mancos) into Ouray County, as well as localities west of Grand Junction, extending into Emery County in Utah. Although concretions are found throughout the Mancos Formation, those containing barite are mostly restricted to areas north of Grand Junction; concretions south of Grand Junction along Highway 50 sometimes yield calcite, but little or no barite.

The concretions occur as discrete, approximately spherical to elliptical nodules, sometimes overlying a thick limestone ledge, and often as irregular aggregates of 2-6 nodules within the same irregular structural composite. Concretions may be arranged in an interconnected linear fashion, or discrete concretions may be layered one on top of the other. Individual concretions range from ½-inch in diameter to more than 6 feet in diameter, with intergrown concretion aggregates occurring as much as much as 15 feet across.

It is generally accepted that sedimentary concretions form by accretion of carbonates in shale; the precise mechanism of nucleation and accretion is not settled, with the simplest mechanism being that concretions formed by nucleation of carbonates around a fossil, followed by accretion of sedimentary carbonate (calcareous or dolomitic) into a generally spheroidal structure (with consequent deformation of the surrounding shale layers). Others, however, have invoked early formation based on the development of bacterial extracellular polysaccharides in an organic carbon-rich sediment, with degradation of polysaccharide and concomitant precipitation of carbonate, and shrinkage of the protoconcretion due to syneresis of smectite clays (Hendry and others 2006).

Most concretions are devoid of significant mineralization, but in perhaps from 5 – 50% of the nodules in a given area may contain voids that host collectible minerals, most notably barite; typically these voids are associated with a concentric internal structure, presumably created by shrinkage during lithification. Typically present in the center are also irregular shards of matrix, which may host barite crystals. Such structure warrants further exploration. Often, however, voids within concretions are completely filled with calcite (sometimes enclosing barite) that cements the entire interior into an intractable mass.





***Interior of a concretion showing a concentric structure and internal voids surrounding irregular fragments; in this nodule, specimen-grade barite occurred within these open spaces***

### **Collecting**

The principal collecting area ranges from approximately 24 Road on the NW, to 29 Road on the SE, with the road number being reflective of the miles to the Utah state border.

This area has been heavily collected for the past 70+ years; indeed, almost every visible concretion has to some extent been opened, leading to a common refrain from collectors that the "area has been dug out". Despite the massive amount of collecting, we have been consistently able to find new nodules to dig, and even a few exceptional specimens from time to time, over the past 5-10 years. Given the composite nature of many concretion aggregates, or the proximity of multiple discrete but adjoining nodules, exploration around the periphery is warranted. Also, many collectors stop when they encounter a solid ledge of limestone; sometimes digging beyond that will lead to another open nodular structure. The key is a careful examination of the dumps of previously dug concretions; the presence of irregular fragments or shards, in conjunction with Fe-dolomite, is indicative of potential mineralization that may continue within if an area has been outlined for further exploration. Some collectors have surmised that the presence of an irregular ('rope' texture) on the external surfaces of concretions indicates the presence of barite within, but this appears to be a tenuous correlation, as exceptional crystals have also been noted in concretions lacking this external texture.

Tools required include a sturdy 3-foot crowbar (preferably with the nail puller end straightened to a 90-degree angle), a smaller such tool (ca. 18 inches) of the same construction, a 3-4 pound sledge hammer, bent screwdriver, rock pick and a large pick, various cold chisels ranging in size from 12 to 20 inches, and given the range of fanged critters that make their homes inside of concretions, *gloves*. A flashlight is also useful, as some concretions have facilitated tunneling considerable distances through the loose interior shards into dark recesses. A sharpened tile probe, available from forestry supply catalogs, is helpful for searching for buried concretions or delineating margins of a concretion that has already been dug. It is important to not dig a concretion from the top down, as surely any specimen-grade

minerals will be damaged by falling debris or wedging matrix shards against one another. Rather, one should dig the periphery of the concretion at least 2/3 of the way around the circumference, deep enough to identify a point at which the concretion curls inward, or at least attains a vertical exterior surface.

### **Mineralogy**

Certainly, barite is among the most noteworthy of specimens found here, especially on those on a pleasing matrix of contrasting brown microcrystalline Fe-dolomite. The section below describes the minerals from this locality, both well known among collectors, and some not widely recognized.

#### ***Barite***

Occurs as prismatic crystals to 6 inches in length (Cajori 1976), but are typically less than 2 inches; the best are "lustrous and water clear", but most have some veils (often horizontally banded) or kaolinite inclusions of varying degrees. Single crystals are most commonly found; specimen-grade matrix specimens are much less often collected. Three-dimensional matrix groups of barite are the rarest of specimens from this locality.



***Barite crystals on Fe-dolomite coated matrix, 4-3/4 inches wide***



*Calcite*

Calcite occurs as simple flattened rhombohedrons of a "nailhead" habit. Individual crystals approximately 6 inches across have been observed (Eckel et al. 1997), but most are on the order of 2 inches or less in size. Despite the near ubiquitousness of this mineral within the concretions, good crystals seem even scarcer than barite; only rarely are the two minerals found intimately associated.



***Calcite on Fe-dolomite coated matrix, 4 inches wide***

*Dolomite*,  $\text{CaMg}(\text{CO}_3)_2$ .

Iron-bearing (ferroan) dolomite microcrystals line the interlocking shards and concentric fragments that occur in voids within the concretions (Eckel et al. 1997). Crystal size varies from submicroscopic to individual crystals to ca. 1.5 mm wide. It is one of the first minerals to crystallize on interior surfaces in the concretions. The color ranges from an earthy, weathered orange-brown, to a lustrous dark brown. The dolomite is mostly noteworthy in that it provides the pleasing light brown matrix that hosts many of the better barite crystals.

*Gypsum*,  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ .

Gypsum (var. selenite) was noted in Eckel et al. (1997), but not otherwise described. Because of its relatively high water solubility (compared to barite, for example), it is often found showing the effects of weathering. It is usually noted in the Book Cliffs area as subhedral crystals filling fractures within the foliated Mancos Shale, where it weathers out of steep hillsides, although in one such outcrop it occurred in a vein as rosettes of sharp, bladed crystals in a fracture zone in the shale, in aggregates to 1 inch high x 5 inches across. It is rarely seen within concretions, but has been noted as a euhedral crystal that was 10 inches in length (P. Blankenheim pers. comm. 2015); most crystals formed within concretions are much smaller and with rough surfaces. Gypsum is often noted as a lustrous thin film coating limestone shards, evidenced by a surficial sheen. However, in one nodule, lustrous radiating sprays of gypsum were noted as a thick (ca. 1–2 mm), crystallized layer coating the surfaces of matrix shards within the interior; the individual radial groups were as much as 2 inches across.



**Hexahydrite,  $\text{MgSO}_4 \cdot 6\text{H}_2\text{O}$ .**

Hexahydrite has not been previously reported as occurring in Book Cliffs concretions. It is a white evaporite precipitate that typically occurs as a surficial efflorescence that forms in dry periods; it is highly water soluble and hence uncommon mineral in most environments. The Book Cliffs area north of Grand Junction has a semi-arid climate, receiving an average of 9.4 inches rainfall per year (Current Results 2015); such climate is conducive to formation of water-soluble minerals in protected areas. Hexahydrite was noted (by Dianne) as a vein filling in a concretion and initially identified based on optical properties (biaxial negative,  $n_\omega \sim 1.45$ ,  $2V \sim 40^\circ$ ) and subsequently confirmed both by optics and X-Ray diffraction.

**Kaolinite,  $\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$ .**

Kaolinite is a late-formed mineral in the Book Cliffs concretions, where it occurs as a white powder coating upper interior surfaces, or as layered inclusions within barite crystals. This powder consists of microscopic pseudohexagonal plates ranging in size from 3–16  $\mu\text{m}$ . Collectors, having anecdotally attributed it as being microcrystalline barite, formerly overlooked it. Optical examination in 1999 however showed a pseudo-hexagonal plates with a refractive index matching kaolinite (e.g.,  $n_\omega = 1.567 \pm 0.002$ ); X-Ray diffraction subsequently confirmed this species (Kile 2008).

Collectors have long correlated the presence of kaolinite with specimen-grade barite crystals and considered its presence to warrant extra caution in excavating a nodule. There may be some logic to this speculation, as the hydrodynamic conditions of groundwater flow supporting extensive aluminosilicate transport would also lead to crystallization of barite. However, the correlation may not be perfect: Not all barite-bearing concretions host kaolinite, and not all kaolinite-bearing concretions have substantial barite crystallization (i.e., kaolinite has been found in open concretions without barite). Interestingly, the author knows of no other concretion locality in Colorado where kaolinite is abundant, despite the presence of barite. Of note is that an abundance of kaolinite can result in its inclusion within and on the surface of barite crystals, significantly degrading its specimen appeal.

The presence of large quantities of kaolinite in concretions poses formidable theoretical difficulties regarding internal crystallization processes: Aluminum and aluminum silicates, e.g., kaolinite, are exceedingly insoluble in water, and an immense volume of groundwater flow would be required, through a relatively impermeable shale, to transport the quantity of aluminosilicate necessary to account for the amounts that can be found within some of the nodules. For example, approximately 135 grams was recovered from one large concretion (with a much greater quantity than that having been blown away by a strong wind during the collecting process!). With a water solubility on the order of  $0.1\text{--}1 \text{ mg/L}$  (Drever 1988), a volume of  $1.4 \times 10^8$  liters (ca. 25 million gallons!) would be required to transport that quantity of kaolinite, which would require an improbably high flow rate through a relatively impermeable shale.

**Quartz,  $\text{SiO}_2$ .**

Quartz occurs as lustrous micro-crystals comprising small rosettes of colorless, transparent crystals to approximately 3 mm in diameter; it was noted previously but not otherwise described by Kile, Modreski, and Kile (1991). The crystals are predominantly composed of positive and negative rhombohedral faces, with little prism development. It is one of the earliest minerals formed in the Book Cliffs concretions, preceding ferroan dolomite. It is uncommon at this locality, and small rosettes are often overlooked amidst the Fe-dolomite.

**References**

Cajori, F.A. (1976). Grand Junction barite. *The Mineralogical Record*, v. 7, 169.

Drever, J.I. (1988). *The Geochemistry of Natural Waters: Surface and Groundwater Environments*, 2<sup>nd</sup> edition. Prentice Hall, New Jersey, 437 p.

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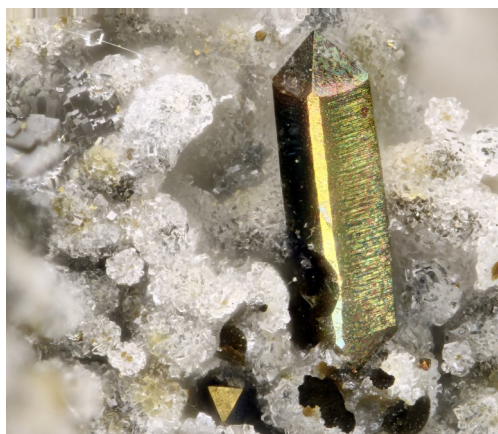
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Ó Daniel E. Kile, October, 2016 text and photographs.

Previously published in the Colorado FM chapter's newsletter.

Pyrite - Yaquina Head Quarry,  
Agate Beach, Lincoln Co.,  
Oregon, USA  
Photo by Doug Merson



## New Publication

### THIRTY FIVE YEARS OF MINERAL COLLECTING and still counting.

By Ray Berry

Paperback, perfect binding, 76 Pages , Price: \$30.00 plus shipping, Prints in 3-5 business days

Available for purchase online at: <http://www.lulu.com/shop/http://www.lulu.com/shop/ray-berry/thirty-five-years-of-mineral-collecting-and-still-counting/paperback/product-23067743.html>

Ray Berry is an amateur geologist/mineralogist with exceptional abilities in field collecting in the Pikes Peak pegmatites of Colorado. This book relates Ray and his wife, Eloise, many years of finding museum quality crystals, starting in 1970 without mineral knowledge, and learning to find these elusive gems. Ray is a 46 year member of the Colorado Springs Mineralogical Society. This book will give encouragement to every field collector that there are still mineral treasures to be discovered. Ray's examples are undeniable support of his advice: "I have constantly told novices that they should not allow others to tell them; 'There is nothing on that hill.'" Joseph L. Dorris, owner-miner of Glacier Peak Mining and actor on the *Prospector TV show* said "Ray's words and finds should be an inspiration to all of us who follow in the tracks of this remarkable man." There are more than 95 color photographs of his self-collected minerals, most keyed to descriptions of finding them!

## Banded Pseudomalachite from the Perkiomen Mine Whim Shaft, Audubon, Montgomery County, Pennsylvania

By Ronald A. Sloto, P.G. West Chester University

The Perkiomen mines consisted of four shafts on or near the Audubon Mill Grove Estate in Audubon, Montgomery County, Pennsylvania: the Ecton mine, the Perkiomen mine whim shaft, the Perkiomen mine (also known as the new Perkiomen Mine), and the Wetherill mine (also known as the old Perkiomen or United mine). The precise date that lead ore was discovered on the Mill Grove property has not been firmly established. Local tradition holds that lead ore was discovered before the Revolutionary war, perhaps as early as the 1730s. Reports concerning a lead mine at Audubon were published in several newspapers in 1804. The Perkiomen mines were last worked in 1858.

The whim shaft was located at 40° 07' 50" N latitude and 75° 26' 21" W longitude. The shaft was 492 feet deep and was connected with the Perkiomen mine at the 60- and 120-foot levels. The location is now a residential development, and the shaft and dumps no longer exist.

A lustrous, bright green, banded mineral (fig. 1) from the whim shaft was acquired by the author in 2016. The specimen, which originally came from the Joe Varady collection, likely was collected by Varady on the whim shaft dumps. It was labeled as malachite. This specimen was analyzed as part of a study of green and blue-green minerals from the Perkiomen mines. It was analyzed by scanning electron microscope/energy dispersive X-ray spectroscopy (SEM-EDS). The analysis was done on an FEI Quanta400 environmental scanning electron microscope integrated with an Oxford Inca400 X-ray energy dispersive spectrometer at the West Chester University for Microanalysis and Imaging, Research and Training. The sample was the unpolished, uncoated specimen shown in figure 1. Analytical accuracy of unpolished, uncoated samples is approximately  $\pm 5$  percent. Eighteen spectra were obtained from 2 areas of the sample. The average elemental analysis in weight percent is presented in table 1. The analysis indicates that the mineral is pseudomalachite, a copper phosphate (malachite is a copper carbonate).

Pseudomalachite from the whim shaft was verified by John H. Barnes of the Pennsylvania Geological Survey (Smith, 1978, p. 197-200). It was described by Smith as translucent dark-bluish-green, botryoidal crusts and hemispheres with a radial, fibrous habit (Smith, 1978, p.197).

Table 1. Results of energy dispersive X-Ray spectrometer (EDS) analysis. Values are mean values in weight percent. Mean values represent the average of 18 measurements.

P	CU	O	Calculated Formula
10.89	59.95	29.16	$\text{Cu}_5(\text{PO}_4)_2(\text{OH})_4$

### REFERENCE

Smith, R.C., II, 1978, The mineralogy of Pennsylvania, 1966-1975: Friends of Mineralogy Pennsylvania Chapter Special Publication No. 1, 304 p.

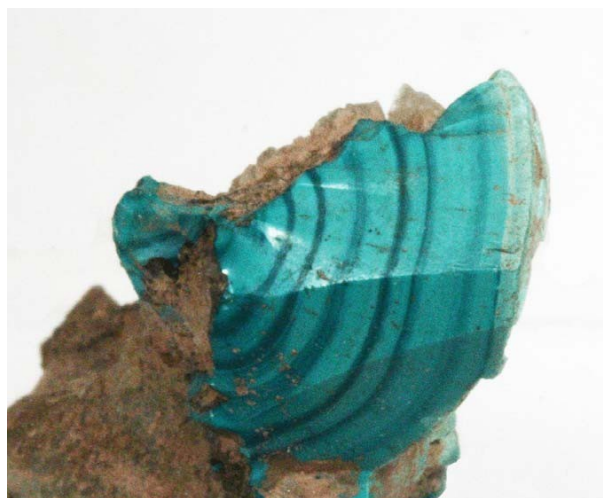


Figure 1. Pseudomalachite from the Perkiomen mine whim shaft, Audubon, Montgomery County, Pennsylvania. 7mm.



## Mineral Symposia List

By Beth Heesacker

This list includes mineral symposia and conferences. It is **NOT** meant to include rock-hound, fossil, etc. types of shows. This information was gleaned from my own experience, from the internet and from *Rocks and Minerals*, Through the Scope by Quinten Wight, Sept/Oct 2016. If you know of other mineral symposia or conferences, or their websites, that need to be added/corrected please email your editor with the information. Beth Heesacker, [heesacker@coho.net](mailto:heesacker@coho.net).

### February

Arthur Roe Memorial Micromount Conference - Tucson, Arizona  
<http://www.friendsofmineralogy.org/symposia.html>

Pacific Micromount Conference – Redlands, California  
<http://www.msscweb.org/public/newsevents.html>

Ed and Martha Cunningham ACV Winter Gathering of Micromounters - Dowling Park, Florida

### March

Leidy Microscopical Society's Micromount Symposium - Fairless Hills, Pennsylvania

Midwest Chapter of Friends of Mineralogy - Oxford, OH  
[www.friendsofmineralogy.org/symposia.html](http://www.friendsofmineralogy.org/symposia.html).

Southern California Chapter Symposium - Mojave, California  
<http://www.mineralsocal.org/scfm/index.html>

### March/April

Minerals of Arizona Symposium – Phoenix, Arizona  
<http://flaggmineralfoundation.org/home/minerals-of-az-symposium/>

### April

Rochester Mineralogical Symposium – Rochester, New York  
<http://www.rasny.org/minsymp/>

Atlantic Micromounters' Conference - Alexandria, Virginia  
<http://dcmicrominerals.weebly.com/conferences.html>

Tellus Mineral Symposium - Cartersville, Georgia  
<http://tellusmuseum.org/mineral-symposium/>

**May**

Canadian Micro Mineral Symposium – St. Catherines, Ontario  
<http://canadianmicrominerals.ca/>

New England Mineral Conference - Newry, Maine  
<http://nemineralconference.org/nema/Welcome.html>

Northwest Micro Mineral Study Group – Camas, Washington  
<http://nwmmmsg.org/meetings.html>

**June**

Northern California Mineralogical Symposium – El Dorado, California  
<http://ncma.minresco.com/Meeting.htm>

Sainte-Marie-Aux-Mines Mineral and Gem Show – Sainte-Marie-Aux-Mines, France  
<http://www.sainte-marie-mineral.com/english/the-symposium/>

Gene Bearss Annual Micromounters' Symposium - Chelmsford, Massachusetts  
<http://www.micromountersofnewengland.org/>

South Eastern Micro Mineral Symposium – Troy University, Alabama

**August**

Dallas Mineral Symposium -- Dallas, Texas  
<http://www.dallassymposium.org/>

**September**

Gruppo Mineralogico Cremonese – Cremona, Italy  
<http://www.gmc-cr.it/>

Symposium of the British Micromount Society – Cornwall, England  
<http://britishmicromountsociety.homestead.com/SymposiumInfo.html>

**October**

Desautels Micromounters Conference – Baltimore, Maryland  
<http://www.baltimoremineralsociety.org/desautelssymposium.html>

Montana Bureau of Mines Mining and Mineral Symposium -- Butte, Montana  
<http://www.mbmq.mtech.edu/>

Munich Show – Munich, Germany  
<https://munichshow.com/en/>

Pacific Northwest Chapter Symposium – Kelso, Washington

<http://www.pnwfm.org/symposium.html>

L'Association Francaise de Micromineralogie – Chatel-Guyon, France

New Zealand Micro-Mineral Association Symposium – Hammer Springs Forest Trust Camp, New Zealand

## November

Pennsylvania Chapter Symposium -- Lancaster, Pennsylvania

<http://www.rasloto.com/FM/>

Symposium of the Micromineral Society of the Cleveland Museum of Natural History – Cleveland, Ohio

<https://www.cmnh.org/mineralsymp>

International Mineral, Fossil and Sand Exchange – Montigny-le-Tilleul, Belgium

New Mexico Mineral Symposium -- Socorro, New Mexico

<http://geoinfo.nmt.edu/>

Northwest Micro Mineral Study Group – Camas, Washington

<http://nwmmmsg.org/meetings.html>



## NEW JERSEY CHAPTER UPDATE

By KC Dalby

As of our last report, it was hoped that we might be sponsoring a small mineral show in the summer of 2017, however, after reviewing our membership renewals for fiscal 2016-2017, less than half of our membership renewed- quite a blow to the organization! Since we have many millennials, the time families dedicate to the activities of their children seem to put a dent in the time spent in the mineral collecting area. With that being said, I will be more involved in membership drive since I will be stepping down as President effective immediately. This will also allow me to concentrate on establishing the needed staff to raise funds for the society by organizing a mineral show for August 2018.

We continue to be active in field trips by coordinating joint ventures with the North Jersey Mineralogical Society which was established back in the mid 1940's. This has proven to be a successful partnership and our two societies are by far the most active within the state.

We look forward to Mark's assumption of the Presidency position and will support his initiatives.





## Pennsylvania Chapter Update

### Another Rewarding Pennsylvania Chapter Symposium and Field Trip

by Dave Glick

Our Chapter's annual Symposium was held on the first weekend in November at Franklin & Marshall College, Lancaster, PA. We heard several talks by experts on minerals, geology and mining in Pennsylvania and beyond. On Sunday, the field trip to Iron Valley Golf Club property at Cornwall, PA, provided an opportunity for mineral collecting.



Chapter President Joe Marchesani had led the efforts to organize the symposium. He welcomed the participants and introduced the speakers.

Stan Mertzman, professor and our host at F&M, spoke on Spring Break in Hawaii, AKA: Volcano Boot Camp for F&M Mineralogy-Petrology Students.



Robert Kulp, PhD student at West Chester University, spoke on The Dunite occurrence in the Serpentinities of the Pennsylvania - Maryland Chrome Mining District (2014 photo).



Ryan Mathur, head of the Geology Department at Juniata College, included SEM micrographs of a variety of pyrite morphologies in his presentation on Cenozoic mineralization ages for sulfides and calcite in Pennsylvania.

Bill Stephens, PG: Lapidary Grade Agate and Other Semi-Precious Gemstones from the Penn-MD Serpentine Quarry, Lancaster County, PA.



(Photos on this page by D. Glick)



## COLORADO CHAPTER UPDDATE

### Year 2016 summary, by Mark Jacobson

The Colorado chapter had a busy 2016 year. The major activity was the successful planning and execution of the Second Eugene E. Foord pegmatite symposium (July 15-19, 2016), which was held on the campus of the Colorado School of Mines. This symposium involved numerous FMCC members and officers, especially Peter Modreski, Jeff Self, Donna Ware, and other society members from the Denver Region Exploration Geologists Society, The Friends of the CSM Geology Museum and the CSM Geology Museum. The event started Friday evening with a meet and greet icebreaker at the Colorado School of Mines Geology Museum, hosted by the Director-Curator, Bruce Geller. The Foord pegmatite symposium was a great success with 130 people attending two days of talks on Saturday and Sunday including a banquet on Saturday evening, followed by two days of field trips to nine different localities. Field trip sizes were kept to a maximum of 20 people, thus insuring reasonable collecting opportunities. We had international speakers and attendees from the Czech Republic, Norway, Ireland, Canada, and Spain. Within the United States, we had symposium participants and speakers from thirteen states plus Colorado.

The proceedings of the symposium (abstracts and extended abstracts) and field trip guidebook are both available free as pdf digital downloads from the FMCC website:

(<http://friendsofmineralogycolorado.org/publications/>). During the field trips, people were successful in finding "gummite," chrysoberyl, beryl and phosphate minerals from the Crystal Mountain pegmatite field, beryl, triplite and lepidolite from the Eight Mile Park pegmatite field, beryl and rose quartz from the Devils Hole pegmatite field, euxenite from the Platt Pegmatite, Wyoming, cryolite and astrophyllite from the St. Peters Dome alkali pegmatites, and lepidolite, elbaite, stibiotantalite and monazite from the Quartz Creek pegmatite field. Many of these locales have only rarely been visited or accessible.

For our regular meetings, in January, Donna Ware spoke about the planning, work and success of opening in September 2015, the Sherman Dugan Museum of Geology at San Juan College, Farmington, New Mexico. At the March meeting, Jeff Scovil, the ever popular mineral photographer, gave a presentation on "The Best of Colorado Minerals" based on his accumulated photographic collection over the decades. This meeting was exceptionally well attended. At the May meeting, Jim Cappa presented "Geology and Mineral Deposits of the Upper Peninsula, Michigan. After the presentation members reminisced with the speaker about their experiences in the upper peninsula. The September meeting, held just before the opening of the Denver Gem and Mineral Show, was a combined effort of many museum curators. James Hagadorn, the Curator of Geology, at the Denver Museum of Nature and Science, led a behind the scenes tour, with a "meet the curators" opportunity of those who were attending the Denver Gem and Mineral show. We had lots of curators and visitors mingling and viewing DMNS specimens behind closed doors.

At the November meeting, Dan Kile made three presentations: 1) The Barite-Bearing Concretions near the Book Cliffs Area of Grand Junction, Mesa County, Colorado: Genesis, Mineralogy and Collecting," 2) an update on some of the current conditions at the amethyst localities around Thunder Bay, and 3) an update on new Colorado State legal requirements for mineral collecting in Colorado. The weather was bad that evening with lots of snow, but Dan made the meeting as did a hardy group of members. Dan's talks as expected were excellent with the current problem with the State of Colorado regulations providing some interesting discussions.

Our silent-voice auction event in May was successful with raising additional funds for the Chapter. Most of this was due to donations of specimens for the voice auction which were donated by David Bunk, Marty Zinn and Lou Conti, all three very long time supporters of FM. The voice auctioneer was Bruce Geller who was ably assisted by Larry Havens with Philip Persson showing the specimens

around. Beer flat boxes were mostly provided by Bruce Geller. Table setup, sales checkout, and organization were handled by all the volunteers – Sherman Marsh, Kent Havens, Larry Havens, Tom Reilly, Jeff Goldsberry, Leslie Sebol, Larry Havens, Lou Conti, Philip Persson, and Mark Jacobson. Free snack food and drinks were brought by many people including Pete Modreski, Larry Havens, Lou Conti, Mark Jacobson and Frank and Ellie Rosenberg. Lou Conti is much appreciated for serving as the coordinating banker for the auction.

Our website continues to be updated and current. More past Colorado chapter newsletters have been uploaded as well as symposium proceedings. The historic newsletter collection is almost complete, past symposium proceedings less so but will be achieved soon. Hardcopies are in our archives but time for scanning and loading has not been frequent. In addition several other orphaned historic manuscripts have been unearthed in various archives and published either by FMCC or the Colorado Springs Mineralogical Society. Reprinting of these by other mineral societies has been encouraged and sometimes happens. FMCC can take credit for wider distribution of historic information.

Many chapter members and officers have continued to be excessively busy. Larry Havens has played a leading role in planning the enriched speaker program at the annual Denver Gem and Mineral Show. Jeff Self and Donna Ware have continued to split their time in Colorado with curating the Sherman Dugan Museum Collection at San Juan College in New Mexico. FMCC member Bruce Geller, the Director at the Colorado School of Mines Geology Museum, has graciously provided specimen loans to the San Juan College Museum. The Dugan Museum also provided an exhibit at the Denver Gem and Mineral Show with the help of Farmington volunteer Erin Delventhal. She also played a critical role at the Foord pegmatite symposium during the registration and check-in process. Other officers, including Don Bray, and Bill Chirnside continue to play important roles in executing the annual Denver Gem and Mineral show. Peter Modreski besides editing the FMCC newsletter and the Chapter administrator for the FM National Facebook page, provides news of future mineral related activities to the entire Colorado region via his (more frequently than) monthly email list, and has given numerous mineral presentations in and out of state.

As the outgoing Chapter president, I'd like to thank all the people who have made the last three years successful, intellectually enriching and exhausting. Jeff Self is the new chapter president with Bob Hembree as the new vice-president. There should be more exciting times this year for the Chapter.



## PACIFIC NORTHWEST CHAPTER UPDATE

By Bruce Kelley

Greetings, mineral lovers!

I hope your mineral explorations have been as enjoyable as mine this winter.

### Symposium – October 13-15, 2017 *“Minerals of the Pacific Northwest”*

Some of you may be doing a little double-take here, “Wasn’t our theme for 2017 supposed to be Morocco?” Yes, that was the original plan, but fortunately we voted for a backup just in case speakers for the original topic were not available, and that is exactly what happened. Since our symposium is very close to the time of the Munich show, the best speakers for that part of the world cannot make it to Washington. We may revisit the Morocco topic in the future.



John Lindell has been busy planning the show and organizing volunteers and Allan Young is rounding up speakers and we expect to be able to announce the full program in early May.

Meanwhile, please consider bringing a display. One of the best aspects of our symposium is that PNWFM members share parts of their fantastic collections, and this year should be exceptional. I'm looking forward to seeing some amazing local rocks!

### Seattle Mineral Market 2017

Organized by Bart Cannon, the Seattle Mineral Market is in its tenth year. The Mineral Market was originally conceived as a simple opportunity for local collectors to trade and sell, but grew rapidly into much more. In addition to a couple of dozen non-commercial collectors, you will find a number of mineral dealers from the region and even a few from farther afield – all focused on minerals!

PNWFM will hold our semi-annual business meeting on Saturday afternoon (time will be announced in the May newsletter.)

May 20-21, 2017: 10 am – 6 pm

#### Lake City Community Center

12531 28th Ave NE, Seattle, WA 98125

For more information, visit their web site: [www.seattlesmineralmarket.com](http://www.seattlesmineralmarket.com) (note that the web address has changed for this year and says "Seattles" with another "s") or Facebook event page:

[www.facebook.com/events/1724619924494486](https://www.facebook.com/events/1724619924494486)

### Member Participation: Even more ways to get involved!

Write an article or send in a few photos for the newsletter. Went to Tucson? Send us a trip report! Find a weird fuzzy green mineral you'd like to share? Send us a photo whether you can positively identify it or not; I think mysteries are as fun as scholarly certainty. Thanks to Wes Gannaway, Beth Heesacker, Karen Hinderman, Chuck Hobart, Al Liebetrau, Bob Meyer, Don Newsome, Lanny Ream, Alexander Schauss, and myself for providing newsletter content so far this year.

Buy and sell, meet and socialize with other collectors at the Seattle Mineral Market: **May 20-21, 2017** at Lake City Community Center, 12531 - 28th Ave NE, Seattle, WA 98125. See [seattlesmineralmarket.com](http://seattlesmineralmarket.com) for details.

Plan to attend our 2017 symposium:

October 13-15, 2017 ***Minerals of the Pacific Northwest***

Washington Pass Cleanup: August 11-13, 2017

"Like" our official Facebook page: [facebook.com/PNWFM](https://facebook.com/PNWFM)

Visit the Rice NW Museum of Rocks and Minerals in Hillsboro, OR. PNWFM members get free admission and store discounts. [ricenorthwestmuseum.org](http://ricenorthwestmuseum.org)

Send me ideas for how PNWFM can better serve you and the mineral collecting community.

Until next time,

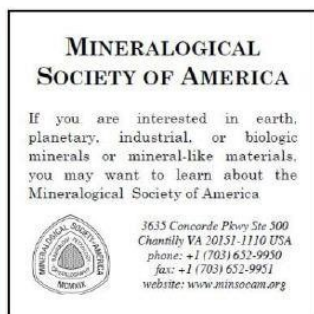
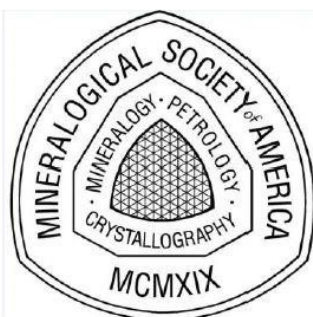
-- Bruce Kelley, President, PNWFM

## FM AFFILIATES



The Friends of Mineralogy is a long-time affiliate of The Mineralogical Record magazine. The magazine was founded in 1970 by John White, who was at that time a curator in the Mineral Sciences Department of the Smithsonian Institution. With the initial help of a financial backer, Arthur Montgomery, White succeeded in launching and bootstrapping the fledgling publication to the point where it was marginally self-sustaining. After seven years as editor and publisher, White stepped aside for a new Editor, Wendell Wilson.

Since then the Mineralogical Record has grown steadily in size, quality and prominence, thanks to the contributions of over 700 authors, photographers, artists, advertisers and donors. It has become a collective labor of love on the part of the entire mineralogical community worldwide. It is the only journal to have a new mineral species named in its honor (minrecordite), and it is the only journal to have received the Carnegie Mineralogical Award. Subscriptions, back issues, books and a variety of free databases are available online at [www.MineralogicalRecord.com](http://www.MineralogicalRecord.com).



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**Mineral News**

*The Mineral Collector's Newsletter*