



*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.*

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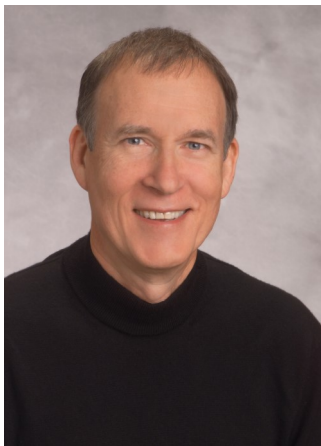
# BULLETIN OF FRIENDS OF MINERALOGY

Volume 46, No. 2

April 2016



Mimetite, Ojuela mine, Mapimi, Mexico, 2.4 x 1.8 x 1.7 cm,  
Alex Schauss Collection, Jeff Scovil photo



## President's Message

### By Alex Schauss

Greetings to all, including our new members from around the world, bringing our global membership to 16 countries! That's a four hundred percent growth in international memberships in the last year. An encouraging sign that people from around the world share our mission.

We've also experienced growth both in chapter memberships and, in particular, at-large memberships (for those who don't live in states covered by chapters located coast to coast).

A big welcome to Linda Smith and Chris-Whitney-Smith following their election by the membership to the board of directors of Friends of Mineralogy. Linda hails from Minden, Nevada, while Chris lives in Phoenix, Arizona. Chris is also the President of the Mineralogical Society of Arizona. Bob Meyer and Virgil Lueth were re-elected to the Board. Both Carol Smith and Regina Aumente ended their terms on the board. Thank you for your years of service!

What you will notice in looking at our newsletter is the change of name from "Friends of Mineralogy National Newsletter", to our newsletters new name, *The Bulletin of Friends of Mineralogy*. This was one of many changes approved by the board of directors during the 2016 Annual Board Meeting in February held in Tucson, Arizona (see the minutes of the meeting on pages 17-19).

So that more people can find our newsletter and learn of all the things Friends of Mineralogy is doing, we applied for an International Identifier for Serials Number from the ISSN International Centre, through the Library of Congress, in Washington, D.C. The ISSN number is a unique number that is assigned to *The Bulletin*. You'll be seeing it the masthead of our next issue. With the assignment of an ISSN number, the former name of the newsletter will be linked to *The Bulletin*, helping others find past issues more easily by leading them to our website where prior issues can be found going back to 2001 (Volume 31).

Lots of decisions were made during the 2016 Board Meeting worth highlighting, the most important, approval of changes to our by-laws and operating regulations. The changes to the by-laws will next go to the membership for their approval. As Virgil Lueth, chair of the By-Laws Committee, pointed out during the meeting, the only major change to the by-laws is the addition of a mission statement (Article I, Section 3). Other changes are housekeeping in nature, such as sending the newsletter to members electronically rather than via the mail, for example.

With the rising number of mineral symposia asking for financial support from Friends of Mineralogy, the board formed a Selection Committee, to review all requests, set criteria, and make recommendations to the board. To further streamline the process and make it fair to all applicants, the committee will develop an application to capture essential information needed for the committee and board to make its decisions, along with setting a due date for submission of requests prior to the annual board meeting.

During the board meeting, it was mentioned that with so many more pages of articles, photos, and news of interest published with each of the last four issues, some people were unable to receive the newsletter as an attachment due to its larger "size" (megabits). So with this issue we are reducing the point size, number of pages, and number of photos. The next issue will contain more content and photos, but reach you in a format that avoids the need to send it out as an attachment, keeping in mind that once the newsletter is posted on our website, it's easy to download any issue onto your desktop.

By the time this issue of *The Bulletin* reaches you, the upper Midwest, Northeast, and eastern Canada will be experiencing remnants of winter while the rest of the country can feel spring in the air. This means it's time to start planning this year's mineral collecting season. Hopefully, you will have ample opportunities to not only get outdoors, or underground. Also, to find time to attend many of the fine mineral symposiums planned around the country starting this month and continuing into the summer. Be sure to contact your chapter or contact chapters

(continued on page 4)

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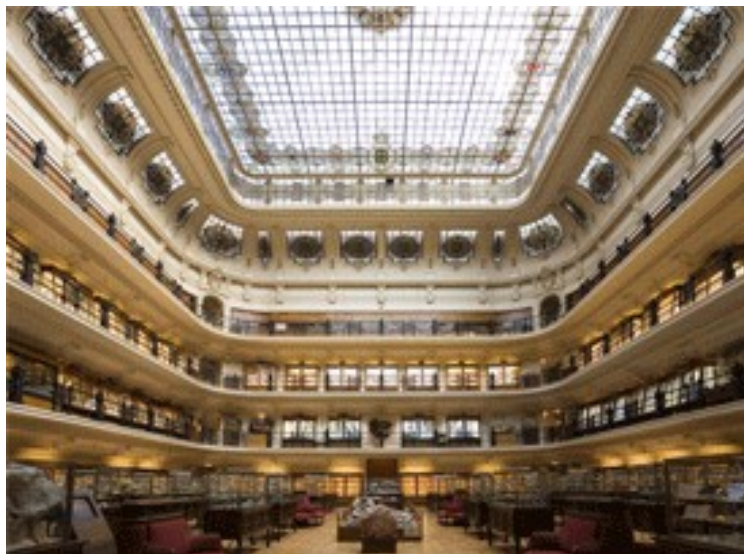
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**Deadline for the next FM Newsletter is  
June 28, 2016**



in other parts of the country to learn what field trips they've planned for members of Friends of Mineralogy in the months ahead.

And don't forget to visit as many natural history/mineral museums you can around the country or overseas. Call ahead. You'd be surprised how much more you might be fortunate to see if you contact the museum ahead of time. If you don't look for it, you won't find it. Wise counsel during a trip to Madrid, Spain many years ago, that led to finding a remarkable, yet little known mineral museum, the Museo Geominero, at 23 Rios Rosas, just a few blocks from Madrid's natural history museum ( <http://www.igme.es/museo/> ).



Images courtesy of Museum Geominero, Madrid, Spain

Just be sure to bring your passport to gain entry into the museum. The building's interior and architecture is in itself spectacular. Hint: as the museum doesn't have a gift shop, check the street that runs parallel to the museum where you'll find a shop that sells numerous publications by the museum, a number in several languages.

Compliments of the Colorado Chapter Newsletter:

## Get it While You Can: the Milpillas Azurite Story by Bob Carnein

A Lake George Club member recently asked me why I had paid what she thought was an exorbitant amount of money for an azurite specimen from Mexico (Figures 2, 3). The price was in the very low 3-figures, which is about as far as my budget goes for mineral specimens. I bought the specimen from a Mexican dealer at the Lake George Show last year. This article will attempt to answer that question and show you why the Milpillas mine is one of the great contemporary mineral localities. It's also a warning that, like most such deposits, this one won't last forever as a source of wonderful minerals.

Many of the minerals that collectors love most are weathering products of hydrothermal sulfide deposits. These form when heated aqueous solutions carrying metal ions move upward and outward from crystallizing magma or other sources. As these solutions cool or interact with groundwater, they deposit their metals, often in combination with sulfur. Common metallic sulfide minerals include pyrite ( $\text{FeS}_2$ ), chalcopyrite ( $\text{CuFeS}_2$ ), galena ( $\text{PbS}$ ), and sphalerite ( $\text{ZnS}$ ). Such deposits are said to be **hypogene**, meaning they formed from ascending hydrothermal solutions.

Hypogene sulfide deposits are hard to find unless uplift, weathering, and erosion have exposed them at the surface. When exposed to air, organic activity, and water percolating downward from rain and snow melt, sulfide minerals begin to break down (see Figure 1). Ubiquitous pyrite speeds up the process. When pyrite weathers, it releases sulfuric acid, which attacks the associated relatively stable sulfides, such as chalcopyrite, sphalerite, and galena. These acid solutions descend from the surface, redepositing and concentrating the metals in secondary (**supergene**) deposits.

Supergene deposits are of 2 basic types. If the metals are redeposited above the water table, they combine with oxygen and other ions to form **oxidized** minerals. These include oxides, such as cuprite ( $\text{CuO}$ ), as well as carbonates, sulfates, and a host of other "ates", depending on what's available. These oxidized minerals are often colorful and attract attention—they are more likely to be noticed than the drab hypogene minerals they're often derived from.

If some of the metal ions of a weathering hydrothermal deposit are carried below the water table, where there isn't any oxygen available, they re-precipitate as secondary sulfide minerals in whatever space is available. For example, chalcocite ( $\text{Cu}_2\text{S}$ ) often forms an enriched "blanket" just below the water table in copper deposits. These supergene sulfides supplement the hypogene sulfides of the unaltered original deposit, forming a zone of **supergene sulfide enrichment**.

The combined supergene oxidized zone and the zone of supergene sulfide enrichment are the "icing on the cake" of many hydrothermal deposits. They're relatively close to the surface and relatively rich, making them cheap to exploit. They commonly pay for all of the infrastructure required for a mining company to process the deeper, lower grade hypogene ore, once the supergene mineralization runs out.

Certain minerals of the oxidized zone are universally coveted by collectors. If we focus on copper deposits, the most familiar ones are azurite, malachite, chrysocolla, cuprite, and a host of other colorful secondary minerals. Unfortunately, secondary copper minerals rarely occur as good specimens in Colorado. If you want to add a great specimen of azurite to your collection, you will have to buy it.

At one time, thousands of world-class azurites came from the Bisbee district and other localities in Arizona, where the arid climate favors development of especially thick and deep oxidized deposits. When I was a kid, such specimens could be picked up at reasonable prices at shows and from mail-order dealers. But fine Bisbee (or Carlota, Morenci, or Ajo) azurites have disappeared into old collections or museums, with top quality "recycled" material commanding prices in the thousands, tens of thousands, or hundreds of thousands of dollars. The same is now true of superb azurites from Namibia (Tsumeb) and France (Chessy).

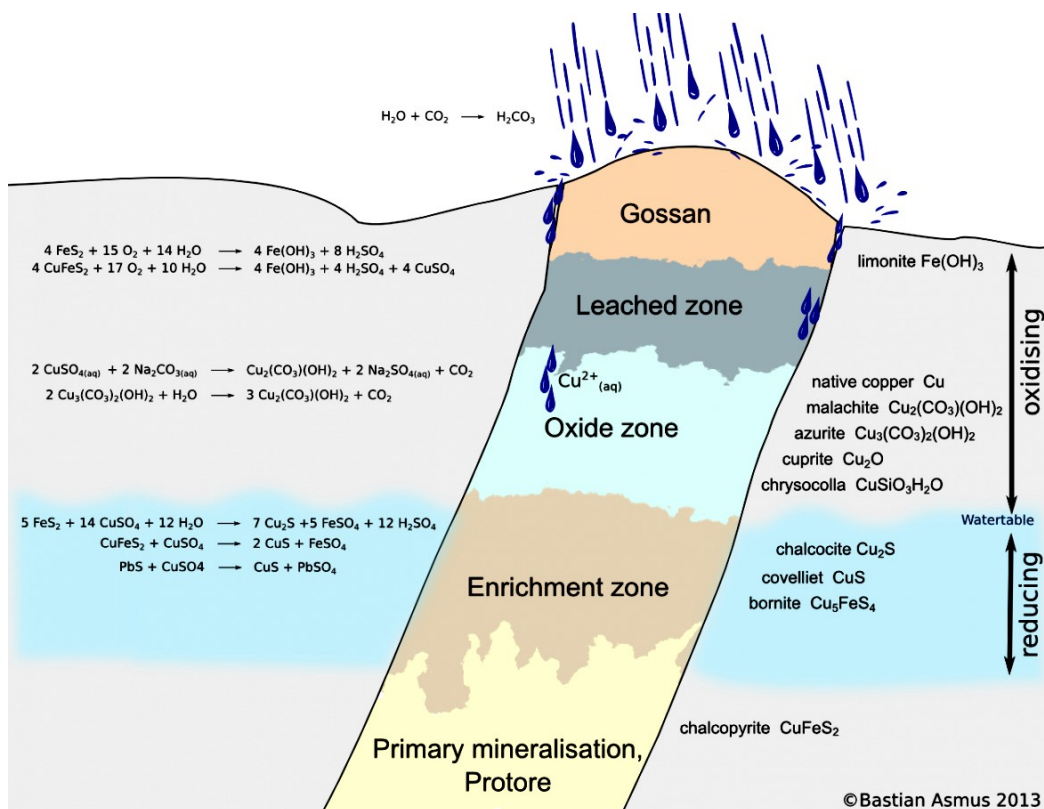


Figure 1: Supergene enrichment of a primary copper (chalcopyrite) ore. (en.archaeometallurgie.de)

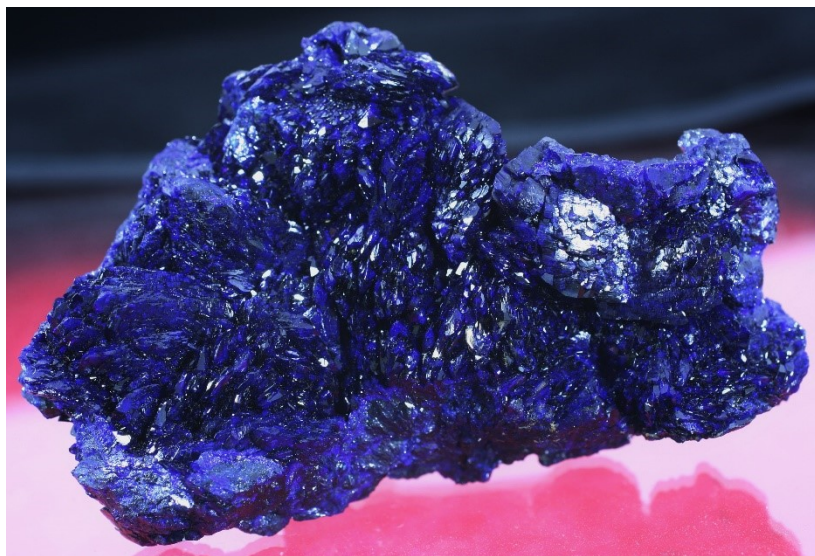
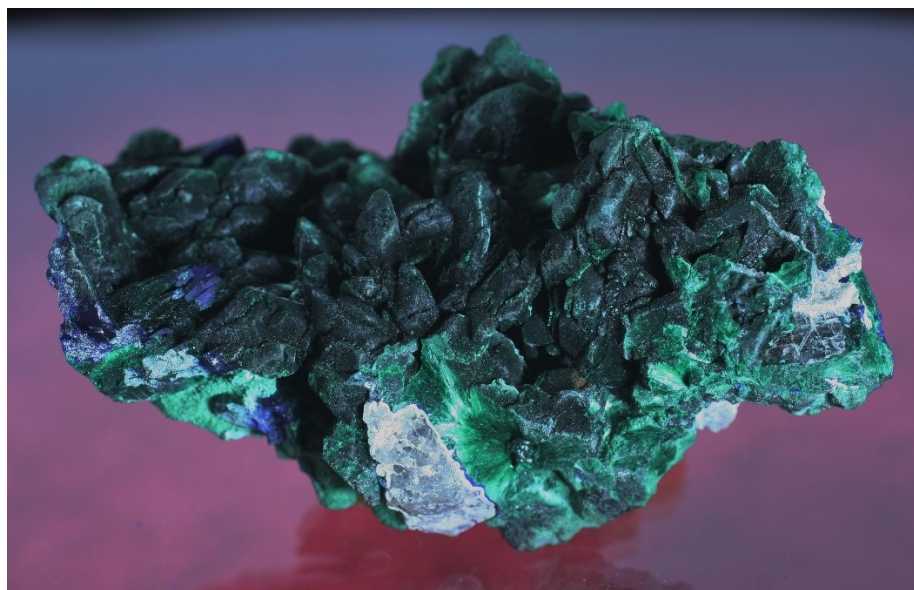
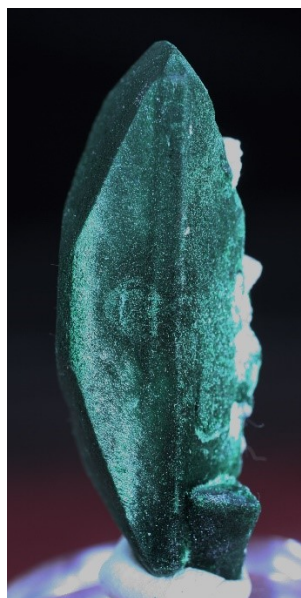


Fig. 2, 3: Two Milpillas azurite specimen (8 cm across; 4 cm tall). (Carnein collection and photos)

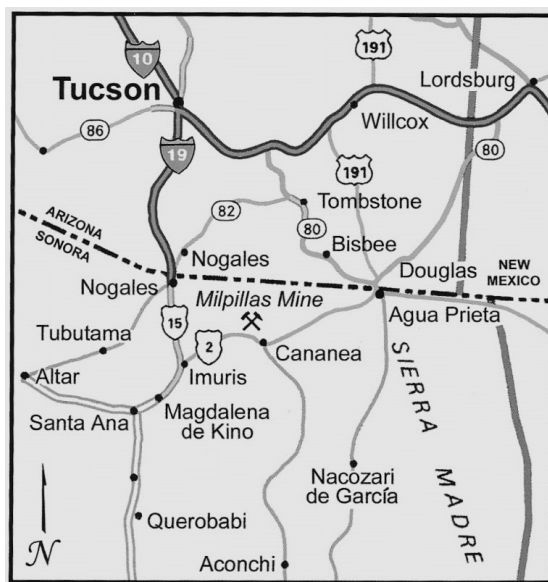
A few localities currently produce fine azurite. Specimens can be found from Morocco, China, and Laos, but these seldom compare favorably with the old time Arizona or Tsumeb material. However, one contemporary source produces truly superb azurites as well as other secondary copper minerals, at prices that are within the budgets of many collectors. This is the Milpillas mine in Sonora, Mexico.





**Figs. 4, 5: Two specimens of malachite replacing azurite from Milpillas (3 cm tall; 6 cm across). (Carnein collection and photos)**

The Milpillas mine, opened in 2006, is located in northern Sonora, about 60 km. southwest of Bisbee, AZ (Fig. 6). The miners' village of Cuitaca, about 17 km. to the south, is the nearest settlement (Moore and Origlieri, 2008).



**Figure 6. Location map (Moore and Origlieri, 2008).**

Milpillas is one of more than 50 major porphyry copper/molybdenum/gold/silver deposits of the southwestern U.S. And northern Mexico. (Porphyry deposits form underneath volcanoes, where porphyritic host rocks are fractured and shot full of low grade hydrothermal veinlets.) It has no surface expression and was found by mistake as a result of U.S. Geological Survey sampling in 1975. Sediment samples indicating a buried porphyry-copper deposit were actually transported in from elsewhere, but they inspired a Cyprus-AMAX subsidiary to conduct test drilling. This and later drilling by Grupo Peñoles and associates defined a high grade oxidized deposit with azurite, malachite, and other copper minerals under 300 to 500 m. of gravel and alluvium. The oxidized ores overlie lower grade secondary sulfide deposits consisting of chalcocite and minor

covellite. Supergene ores typically range between 1% and 10% copper (Moore and Origlieri, 2008) at depths of 150 to 750 m. Lower grade hypogene ore occurs below.



**Fig. 7: Brochantite crystals from Milpillas. (4 cm across)(Carnein collection and photo)**

Unlike most porphyry copper deposits, Milpillas is exploited by underground mining. Large trucks bring the ore to the surface, where it is crushed to pieces averaging 2 cm. across. Crushed ore is piled in leach heaps (much like the ones at Cripple Creek), where it is bathed in acid. The leachate then passes through tanks containing stainless-steel cathodes, where copper is deposited electrolytically. Copper is then stripped from the cathodes and shipped to customers. The high tech processing plant is designed to produce 65,000 tons of cathode copper per year. None of this favors specimen production. Reserves should last until about 2025.

Like most mining companies, Grupo Peñoles strongly discourages mineral collecting. This, combined with illicit drug operations in the area, has made it difficult for miners and dealers to recover specimens (though some drug dealers apparently accept mineral specimens in lieu of cash). Despite this, a steady supply of fine material has made its way northward since 2006. Periodically, dealers claim that mining of oxidized ores is finished, only to be followed by new finds of mind-boggling azurite, malachite, brochantite, and other minerals. However, once mining works its way downward into the secondary sulfide (chalcocite) blanket, the colorful specimens now available will disappear from the market. The supply is already decreasing, and smart collectors will buy good pieces while they are still available at bargain prices.



**Figs. 8, 9: Pyrite crystal (3 cm tall) coated by bornite; barite crystals on dickite (4 cm across), Milpillas mine. (Carnein collection and photos)**



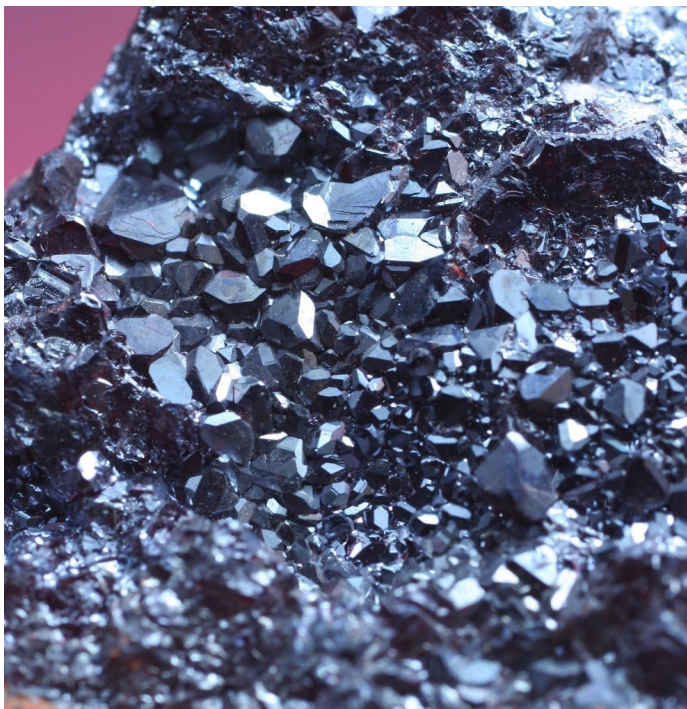


Fig. 10: Cuprite crystals from Milpillas (3 cm across).  
(Carnein collection and photo)

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You can also find this article online in the Lake George Gem and Mineral Club's March 2016 newsletter, at  
<http://www.lggmclub.org/club%20Newsletter.htm>

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## State Mineralogy Books

### By Mark Jacobson

### Colorado Chapter President

Although Friends of Mineralogy has been gently pursuing state localities indexes since its founding in 1970, the status of published state mineralogies is of parallel interest. Art Smith summarized the status of state mineralogies in several mineral collecting bibliographies that were published in the *Mineralogical Record*. Since Art's compilation a few more state's have completed or updated their state mineralogy. Only a handful of states have no publication that can be used to know what minerals occur within their borders. No statewide hardcopy mineralogies exist for Alaska, Hawaii, Massachusetts, South Dakota, Vermont and Wisconsin. State mineralogies are NOT a National Friends of Mineralogy project, although any chapter may do so. Such an activity requires long term planning and numerous truly dedicated people. Good state mineralogies require a huge amount of work over an extended period of time, and a great deal of patience working with teams of people. The Colorado Chapter took on such a project circa 1980 but the product of that work was not published until 1997.

The list below summarizes the status of state mineralogies from a historical perspective. All state mineralogies or facsimiles thereof are shown in chronologic order. For example, Pennsylvania and California have a long tradition of updating each successive mineralogy. The key take-away is that once a state mineralogy has been written, updating becomes an easier task for later people.

#### Alabama

Cook, R. B. and Smith, W. R. 1982. *Mineralogy of Alabama*. Alabama Geological Survey Bulletin B-20, 285 p.

#### Alaska

*No state mineralogy*

#### Arizona

Blake, William Phipps. 1909. *Minerals of Arizona: Their Occurrence and Association*. A report to Hon. J.H. Kibbey, Tucson, AZ, 64 p.

Guild, Frank Nelson. 1910. *The mineralogy of Arizona*. The Chemical publishing company, Easton, PA, 103 p.

Galbraith, Frederic W. 1947. *Minerals of Arizona*. University of Arizona, Tucson, Arizona bureau of mines, geological series no. 17, Bulletin no. 153, second edition. 101 p.

Anthony, John W.; Williams, Sidney A.; and Bideaux, Richard A. 1977. *Mineralogy of Arizona*. University of Arizona Press, Tucson, AZ, 254 p.

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Purdue, A. H. 1912. *Compendium of the mineral resources of Arkansas*. Little Rock Board of Trade Bulletin.

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- Sohn, J. A. 1951. *Connecticut Minerals*. Connecticut Geological and Natural History Survey, bulletin 77, 128 p.
- Schooner, Richard. 1961. *The Mineralogy of Connecticut*. Fluorescent House, 89 p.

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- Pickett, Thomas E. and Windish, D. C. 1980. *Delaware, Its Rocks, Minerals and Fossils*. Delaware Geological Survey and Division of Economic Development, Special publication 19, 18 p.
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### District of Columbia

- Bernstein, L. R. 1980. *Minerals of the Washington D.C. Area*. Maryland Geological Survey Educational Series Number 5, 148p.

### Florida

- Bishop, Ernest W. and Lawrence L. Dee, Jr. 1961. *Rocks and Minerals of Florida, A Guide*. Florida Geological Survey Special Publication 8, 41 p.
- Lane, E. 1987. *A Guide to Rocks and Minerals of Florida*. Florida Geological Survey, Bureau of Geology, Special Publication 8, 61 p.

### Georgia

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### Hawaii

*No state mineralogy*



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Ream, Lanny, R. 1989. *Idaho Minerals*. L. R. Ream Publishing, Idaho, 329 p.

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Frankie, W., 2004, *Guide to Rocks and Minerals of Illinois*. Geoscience Education Series 16, 69 p.

**Indiana**

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Shaffer, N. D. 2002. *Minerals of Indiana*. CD-ROM. Indiana Geological Survey Miscellaneous Publications.

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Garvin, Paul. 1998. *Iowa's Minerals : Their occurrence, origins, industries and lore*. University of Iowa Press, Iowa City, 256 p.

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Anderson, W. H. 1994. *Rocks and Minerals of Kentucky*. Kentucky Geological Survey Series XI Special Publication 20, 82 p.

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**Maine**

King, V. T. and Foord, E. E. 1994. *Mineralogy of Maine Volume 1: Descriptive Mineralogy*. Maine Geological Survey, Department of Conservation, 418 p.

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Ostrander, C. W. and Price Jr., W. E. 1940. *Minerals of Maryland*. Maryland Natural History Society, Baltimore, 88 p.

**Massachusetts**

*No state mineralogy*

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**FRIENDS OF MINERALOGY AWARDS**  
**for**  
**Best Articles in 2015, and**  
**Best Exhibits at the 2016 TGMS Show®**

**2015 Best Article in *The Mineralogical Record*:**

*The Freiberg Mining District, Saxony, Germany* (Volume 46, pages 311-372)  
 Andreas Massanek, Dirk Sandmann, Gunther Neumeier

**2015 Best Article in *Rocks & Minerals*:**

Reading Pegmatites: What Beryl Says (Volume 90, issue 2, pages 138-149.)  
 David London

**2015 Best Article in *Mineral News*:**

The 50's Uranium Boom; the Winners, Parts I and II (October and November 2015, Vol. 31, Nos. 10 & 11.)  
 Robert Werner

**2016 Best Educational Exhibit at the 2016 Tucson Gem & Mineral Show by an Institution:**

Fersman Mineralogical Museum RAS (Moscow, Russia)  
 Fifteen Shades of Blue

**2016 Best Educational Exhibit at the 2016 Tucson Gem & Mineral Show by an Individual:**

David Kalins  
 Garnets. Just About Every Color Including Blue.

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**Consider a Donation to**  
**Friends of Mineralogy**



On December 18, 2015, President Obama signed into law a bipartisan measure that extends the IRA Charitable Rollover. It allows anyone age 70 ½ and older to make a tax free donation of up to \$100,000 from their Individual Retirement Account (IRA) to support the work of Friends of Mineralogy and any of its chapters. The tax-deductible gift can be restricted to a specific program or area of your choosing, or placed into an endowment to benefit generations to come in support of our mission.

Donations to Friends of Mineralogy help us to extend support to mineral symposia, including efforts to increase the number of symposia, chapters, and our ability to provide financial support for undergraduate and graduate students to attend symposia and present their research.

We hope you'll consider donating to Friends of Mineralogy. It will make a difference.

## MINUTES OF THE FM BOARD, FEBRUARY 13, 2016, Tucson, AZ

President Alex Schauss called the meeting to order at 8:00 am, following a good breakfast supported by Marty Zinn. A quorum was present, including all of the Executive Committee. There were two visitors, Jolyon Ralph of Mindat and Albert Liebetrau from the Fluorescent Mineral Society (FMS).

**Minutes** from the previous Board meeting (February 2015), as printed in the April 2015 newsletter, were approved as corrected for typos. The following related questions were raised:

1. Has the American Geosciences Institute (AGI) corrected the overestimated number of professional geologist FM members? The error has resulted in abnormally high FM-related costs. Virgil Lueth reported that no word has been received from AGI.
2. Al Liebetrau was asked whether the FMS has developed any further procedures and policies regarding requests for support. Al reported that with the exception of an annual contribution to the Warren Museum, requests are generally handled informally by the FMS Board. Procedures are still a "work in progress."

### Election of Board Members

Secretary Sue Liebetrau reported on the election results: **Bob Meyer** and **Virgil Lueth** were re-elected to the FM Board. Newly elected Board Members are **Chris Whitney-Smith** and **Linda Smith**. Their terms will expire in 2019. [Secretary's note: Carol Smith and Regina Aumente are no longer on the Board.] Randy Marsh was recognized as the new FM representative for the Midwest Chapter.

Sue Liebetrau noted that 18 ballots were received by Alex, who was designated the recipient by Sue. This number is better than usual for FM, and Sue asked whether submitting the ballots separately from the newsletter helped. Gloria Staebler suggested sending the ballot at a different time (e.g., a week earlier) for a better result and not as an attachment, which people don't like to open. She said that their records indicate that only about 25 newsletters are ever opened!

### Officers' Reports

#### PRESIDENT (Alex Schauss)

**Newsletter Status:** Alex noted that there now more substance in the newsletter, in size, content, and diversity of materials that communicate to FM members. After several comments about the bulkiness, he reported that he has been experimenting with formats and fonts, and that perhaps the newsletter bulk can be reduced. Alex will discuss the matter with the editor, Beth Heesacker. Clyde Spencer remarked that it is something of an anachronism in this electronic age and suggested that maybe the photos could be put on the website rather than in the newsletter. Alex noted that a newsletter serves as an important historical record of the organization. There was then discussion of various ways in which the newsletter could be streamlined. Alex Schauss will try to obtain an ISSN number for the newsletter, which would enable easier access.

**Newsletter Name:** Alex suggested changing the newsletter name from *Friends of Mineralogy National Newsletter* to *Bulletin of Friends of Mineralogy*. This change may avoid confusion between chapter newsletters and the national publication. Clyde Spencer made a formal motion to change the name, which was seconded and carried with one abstention.

**FM 50<sup>th</sup> Anniversary:** Alex noted that the 50th anniversary of FM coincides with that of the *Mineralogical Record* and that he had discussed with Wendell Wilson, Editor of the *Mineralogical Record*, an article or perhaps even a supplement. The issue was deferred.

**Organizational Status:** Alex noted that issues regarding mineralogy are international in nature, so he is working to increase memberships on a worldwide basis. FM now has members in 16 countries (up from four!) and is considering establishment of a committee to work on developing chapters in different countries. Several issues exist. How, for example do we monitor international chapters? This issue and others is something to consider; it would dramatically increase our growth and influence. However, Allan Young noted that this direction would be very different from FM's original focus. Alex suggested that a long-range committee should study the idea.

**Increasing Recognition:** Randy Marsh suggested that for increasing recognition, a stand-alone banner would be useful, and he volunteered to create one. Clyde moved that FM spend up to \$150 to make a stand-up advertisement banner. Randy promised to show the Board a draft. The motion was seconded and carried unanimously.



**VICE PRESIDENT (Clyde Spencer)**

**Best Article Awards:** The judges awarded the 2015 publication Best Articles as follows:

**Mineralogical Record:** Andreas Massanek, Dirk Sandmann, & Günther Neumeier, "Freiberg Mining District" 46:3, May-June 2015, pp. 310-372.

**Rocks and Minerals:** David London, "Reading Pegmatites: Part 1—What Beryl Says," 90:2, March-April 2015, pp. 138-149.

**Mineral News:** Bob Werner, "The 50's Uranium Boom," Parts 1 & 2, 31:10-11.

**SECRETARY/HISTORIAN (Sue Liebetrau)**

Sue reported that she has no historical record of FM earlier than her term as Secretary. However, Gloria Staebler has retrieved the old files (eight containers of material dating from 1981, including the original charter) from Carol Smith, has scanned them all, and stored them in her office. Alex noted that he is opening a new office in Tucson where FM was founded, with library space for a historical archive. This comment was followed by discussion about making the records public. There is also other material in various places. Gloria moved that she and Mark Jacobson sort through the material this year, finalizing with a PDF report and recommendations. The motion was seconded and passed. Alex suggested that a representative from Southern California be Co-Chair. The Southern California chapter has backups of much of the material.

**TREASURER (Gloria Staebler)**

Gloria distributed copies of her year-end report for 2015. Net expenses were \$1,361.34 and net income was \$1,057.29, leaving a balance of \$24,099.07. Clyde Spencer moved to accept the report; the motion was seconded and passed.

**WEBMASTER (Jim Etzwiler)**

Jim reported that he needs updates and other information from the chapters. E-mails should be sent to his e-mail address (kd7bat@arri.net). He noted that TGMS has asked him to update the trademark "™" for the Tucson Gem and Mineral Show to a registered trademark "®".

**COMMITTEE REPORTS**

**Facebook (Gloria Staebler):** Gloria reported that the Facebook page is growing and that inappropriate comments have been removed. She requested input on what is or is not appropriate. For example, what about new baby congratulations? Clyde moved to adopt a preamble advocating which issues would be allowed on the site. This issue was moved to the Board for later discussion about the purpose of a Facebook page and about standards.

**Case Awards (Alex Schauss & Clyde Spencer):** Alex reported that at the 2015 Denver show, the award for Best Educational Case by an Institution was awarded to the Colorado School of Mines for a display of minerals from the Southwestern USA. The award for an individual's case went to Evan Jones (Phoenix, AZ) for Arizona native coppers. Clyde reported that for the 2016 Tucson show, the Institutional Case Award was given to the Fersman Mineralogical Museum of Moscow for "Fifteen Shades of Blue" and the Best Individual Case to David Kalins for, "Garnets, Just About Every Color Including Blue."

**Publicity (Regina Aumente):** Regina reported on various magazine ads for FM. She also noted that the Board's social time and refreshments are courtesy of Marty Zinn, although FM will pay for the breakfast (bill forthcoming). Although she is no longer on the Board, Regina will continue to help with future arrangements.

**Mindat Report (Jolyon Ralph):** Jolyon noted that the passing of Rock Currier was a huge loss to Mindat, as Rock was very active. Rock left a bequest to the Mindat/Hudson Foundation which will be of great help. Perhaps articles published in Mindat will also be eligible some day for an FM Award of Excellence. As for the Mindat-FM connection, Jolyon asked for ideas for mutual assistance. For example, safe, legal collecting by amateurs is in decline. Both organizations need to take steps to slow or reverse this trend. Gloria asked whether Mindat could host the website to increase visibility and capability of both organizations. Jolyon replied in the affirmative. Mindat will cover the cost. Clyde asked whether this could also involve individual chapters. The reply: it depends on what the chapters want to do. Gloria moved that the FM website be hosted by Mindat. The motion was seconded and passed unanimously.

**TGMS FM Booth:** Nelson Schaffer reported that the booth is ready for use and needs staffing.

**TGMS FM Symposium:** Julian Gray wishes to give up the FM Symposium chairmanship. A suggestion was made that we need a co-chair to help with speakers. There was general approval. Alex appointed Clyde Spencer as Co-Chair for 2017, as the TGMS theme will be Midwest Minerals. Different Co-Chairs can be chosen as the show themes change. They will have knowledge of desirable speakers on a particular theme.

**By-Laws Working Group:** Virgil Lueth asked for acceptance of the revised By-Laws and Operating Regulations, which have been sent to the Board for review. Then the By-Laws will go to the FM membership for approval. (The Operating Regulations can be changed and approved by the Board at any time.) The only major By-Laws change was the addition of a Mission statement (Article I Section 3). The other changes are housekeeping and modernizing. It was moved and seconded to accept the By-Laws and the Operating Regulations. The motion was passed unanimously.

**FM Brochure:** Alex passed out copies of the new FM membership application brochure. It has already been approved.

**TGMS FM Display:** Virgil Lueth requested that someone else take over this display. Clyde Spencer and Randy Marsh agreed to take on the task for 2017.

**Chapter Reports: Pacific Northwest.** Bruce Kelley reported on the recent symposium (October), which was co-sponsored with the Fluorescent Mineral Society, also on the Seattle Mineral Market (May), at which the PNWFM board met. He encouraged members to attend this interesting, enjoyable meeting. This was the only chapter report presented at the meeting.

#### **New Business**

##### **FM Support of Symposiums and Organizations**

The issue concerns funding of organizations requesting support—which ones and how much. It was moved, seconded, and passed to defer this matter to the Executive Board for a future meeting. It was also moved and seconded to form a three-member selection committee, not consisting of members of the Executive Board. It was felt that a representative from the Executive Board should be on the committee. There was discussion; then the motion passed. The Executive Board, however, will handle the request from the Rochester Symposium. The list of symposiums requesting funds was distributed electronically before the meeting in a packet of materials. In the meantime, Alex Schauss will ask for financial support from the mineral community. Action concerning support of the Dallas Mineral Collecting Symposium held each August was deferred by motion to an e-mail discussion and later vote by the Board.

Brief discussion took place regarding the following items, but no action:

Creation of a welcome letter for new members; Badges or pins for members; Mining Safety and Health Administration (MSHA) activities to close down mines; the lack of sufficient focus by FM on young people; the lack, in most rock clubs, of interest in minerals; proposal for a New England chapter (in progress); a motion to add *Gems & Gemology* to the Best Article Awards list (withdrawn); establishment of a three-member committee to identify occasional FM service awards. This motion was seconded, but failed.

The meeting was adjourned at 10:10 am.

Sue Liebetrau  
FM Secretary

### **Friends of Mineralogy 2016 General Membership Meeting, February 9th, Tucson, Arizona**

President Alex Schauss called the meeting to order at 4:00 PM. The minutes were approved as published in the March 2015 national newsletter.

**Newsletter:** Alex commented on the improvement and increased substance of recent newsletters, and recognized our new Editor, Beth Heesacker. Some discussion followed about the length and possibilities for

condensing the format. It was noted that past issues are archived in an FM file at Indiana University in Bloomington, a good place for such historical records. Alex noted that he will seek support from the board to have the newsletter title changed to "The Bulletin of Friends of Mineralogy." An effort will be made to obtain an ISSN number to facilitate searches on the Internet for those seeking a particular past issue.

**50<sup>th</sup> Anniversary:** The 50<sup>th</sup> Anniversary of FM coincides with that of the *Mineralogical Record*. Alex discussed the possibility of including an article about FM in the *MR*. An entire supplement would be nice, but prohibitively expensive. Alex's vision includes photos of past members, especially FM authors, stories, histories of chapters, etc. Vice-President Clyde Spencer suggested touching base with long-time members Ann Clark, Kay Robertson, and others. No action was taken, but there was general approval of the project.

**FM Bylaws:** Board member Virgil Lueth reported that a new version of the Bylaws had been completed and its operating regulations updated (such as e-mail correspondence). Once the Board of Directors has approved the changes, the new version will go to the FM membership for approval.

**FM Recognition and Awards:** Alex suggested that the periodical *Gems & Gemology* be added to the FM list of recognized publications. He will bring up the issue to the Board at its meeting on Saturday. Brief discussion followed.

**MSHA:** Alex reported that the Midwest Chapter of FM has had discussions with the Mining Safety Health Administration (MSHA) about issues related to mineral collecting in mines and quarries (see below).

Alex noted that it is important to develop models for keeping quarries and mines open to mineral collectors.

**Chapter Reports:** Alex reported interest in a New England chapter. An upcoming symposium in Bethel, Maine, could have over 300 attendees. Several people are active there. Mark Jacobsen will keep in touch and perhaps attend the May meeting. Also the **New Jersey** chapter is doing well, according to Alex, and keeping in touch with him. Randy Marsh, the new **Midwest** chapter representative, returned to the issues on what is going on with their efforts related to MSHA (See above). The chapter is working with the Ohio Department of Natural Resources about some basic safety training, and questions concerning who will provide it and who will attend. Alex noted that the mining industry's viewpoint is that amateurs are like exploration geologists and thus can be advantageous to mining interests. States should develop a permit for places like the Herkimer Diamond sites. After some more discussion, Randy asked the following questions: What is the FM stance on mass media programs like "Prospectors" and how do we keep people involved? Alex noted that the cabinet level of the government which oversees MSHA, the Department of Labor, is now involved due to what is perceived as unjust retribution by some mines for complaining about the way MSHA inspectors have behaved and their district and regional offices, particularly in the Rocky Mountain region, that can affect the willingness of owners and managers of mines and quarries to provide access to collectors. The FM position has been "safety comes first." The **Southern California** chapter reported that the Crestmore Quarry/Mine, a well-known collecting spot, has been sold and will be turned into a housing development. A sign of things to come! The chapter's symposium, to be held in March, will feature a field trip to the Darwin collecting area for pyrite, hematite, etc. Information is available on the southern California chapter's website.

**Brochure:** Alex showed the new FM brochure. He noted that FM is growing and becoming something of an international organization, and noted that we gained over 50 new members at the August Dallas Mineral Collecting Symposium, thanks to their willingness to promote FM during the meeting and at its dinner., Alex also suggested that we need a welcome letter for new members. No action was taken.

**Requests for Support:** Alex named 11 groups that have asked FM for support and/or funding for their symposiums. Clyde Spencer stressed the need for a policy regarding such support. Discussion followed. No action was taken.

**Formation of Lobbying Organization:** Alex suggested that we need a 501-C-4 (nonprofit, political action organization) that would be a sister organization to FM to enable our organization to have it legally lobby on our behalf, given the restrictions on lobbying imposed by the IRS on 501-C-3's. Contributions to a C-4 would not be tax deductible, however, FM would be allowed under IRS rules to contribute a percentage of its revenues, usually not more than 15-20%, for the C-4. Allan Young asked how lobbyists would be paid, to which Alex mentioned that in



working with previous non-profit organizations, the lobbyists can be volunteers, and do not need to be paid to serve in such a capacity. Clyde remarked that we need a champion in Congress to support legislation of interest to FM or oppose efforts that would be detrimental to the mission of FM.

**Chapter Reports, Continued:** At this point, as time was running out, Sue Liebetrau suggested that chapter reports be tabled and reported in a forthcoming FM newsletter.

The meeting was adjourned at 5:45 p.m.

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### **4th Annual New England Mineral Conference** **May 6-8, 2016**



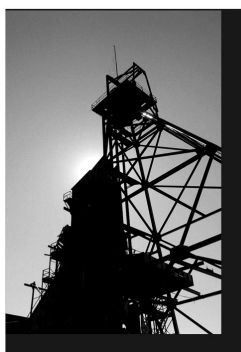
The *4th Annual New England Mineral Conference (NEMC)* will be held from May 6 - May 8 at the Grand Summit Resort Hotel and Conference Center at Sunday River, Newry, Maine. The conference is a division of the non-profit *New England Mineral Association*, and was developed as an educational event to promote further knowledge in the fields of mineralogy and geology.

Educational presentations are scheduled on Friday evening and Saturday. Speakers and their topics include Joe Dorris, (mining and filming experiences in Colorado);

Steve Chamberlain (Pierrepont, New York); Skip Simmons (current research at the Maine Mineral and Gem Museum); Ken Carlson and Woody Thompson (Belvidere Mt., Lowell, Vermont); and Frank Perham, who will speak about some aspect of his mining experiences in Maine.

In addition, there will be mineral exhibits, a separate room for the *New England Micromounters*, and a voice and a silent auction in support of the conference. Dealers can be visited in their hotel rooms from Friday afternoon through Saturday evening. The weekend culminates with a field trip on Sunday. For further information about the NEMC please visit: [www.nemineralconference.org](http://www.nemineralconference.org).

Two important features of the conference for students in grades 3-12 are *Education Day* (May 6) and the *Poster Contest*. The poster contest gives the opportunity for students throughout New England to do a research project about anything relating to the rocks and minerals of New England, display it on a poster, and submit the poster electronically. The posters will be judged according to grade level, and the winning posters will be printed and displayed at the conference. For additional information about *Education Day* and the *Poster Contest* please visit: [www.nemineraleducation.org](http://www.nemineraleducation.org).



## 2016 MINING & MINERAL SYMPOSIUM

MONTANA TECH, BUTTE, MONTANA  
OCTOBER 18-22, 2016

### CALL FOR PAPERS

The Montana Minerals and Mining Symposium, hosted by the Montana Bureau of Mines and Geology, will be held in historic Butte, Montana on October 18-22, 2016. The conference theme, "Geology of Metallic Mineral Deposits of the Northern Rocky Mountain Region," is in tribute to a long history of geologic studies, mineral exploration, and mining.

Abstracts from the following categories are welcome:

- Geology
- Economic Geology
- Mineral deposits
- Mineralogy

Abstracts submitted by professionals, students, and amateurs and for both oral presentations and poster sessions will be considered by the selecting committee. Abstracts can be up to four pages in length and should be in Microsoft Word format for publication in the meeting proceedings.

Abstracts must be submitted by August 1, 2016, to Stanley Korzeb at [skorzeb@mtech.edu](mailto:skorzeb@mtech.edu), (406) 496-4171. Additional information on registration and potential field trips can be obtained from Stanley Korzeb. Registration fees will be waived for speakers. More information can be found at [www.mbmgs.mtech.edu/2016\\_symposium.asp](http://www.mbmgs.mtech.edu/2016_symposium.asp).



## The Mineralogy of Texas



Arthur Edward Smith, Jr.  
2016

## The Mineralogy of Texas by Arthur Edward Smith, Jr.

The project of publishing Art Smith's 2009 manuscript of "Mineralogy of Texas" has been completed. Although the book is not as expansive as possible, it does allow others to benefit from Art's work. The published book is in paperback with a perfect binding, ample margins, 226 + iv pages, 8.5 x 11 inch format, color covers, black & white interior, 32 photographs and three maps.

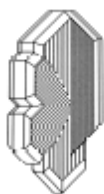
Purchase of the book can be done online and comes in two versions, both containing the same text. The two versions are a B&W and a color version. Details for purchase is shown below.

The Mineralogy of Texas is the most complete documentation of all the minerals known in Texas. Its reference list allows readers access to the original sources documenting discoveries of minerals in Texas. The author, Arthur E. Smith, was a lifelong expert in Texas minerals and their localities. He had been a mineral collector in Houston since 1963, specializing in collecting and documenting all mineral occurrences in Texas. As an oil geologist, he was uniquely qualified to have access to salt dome cores, well cores and well cuttings to obtain minerals hidden below the surface. For Texas field collectors, this book is a must-to-have for searching for new localities (with landowner permission). For Texas specimen collectors, this book will assist in better documenting the provenance of your minerals.

The black and white photographs version book (ISBN 978-1-329-80474-6) can be purchased by mail order from Lulu.com at a retail price, \$25.50 plus shipping.

Using link: <http://www.lulu.com/shop/http://www.lulu.com/shop/arthur-edward-smith-jr/the-mineralogy-of-texas/paperback/product-22535079.html>

The color photograph version book (ISBN 978-1-329-84876-4) can be purchased by mail order from Lulu.com at a retail price, \$81.94 plus shipping.



## 2016 (43<sup>rd</sup>) Rochester Symposium Program

The 43<sup>rd</sup> Rochester Mineralogical Symposium will be held April 14-17, 2016, at the Radisson Hotel Rochester Airport, Rochester, New York.

Featured speakers and titles of their presentation include:

Brad Wilson on "Collecting Adventures on Baffin Island"

Bob Lauf, "Mineralogy of Uranium and Thorium"

John Koivula, "Crystalline Showcases"

Jeff Scovil, "What's New in Minerals"

Audience contributors to "What's New in Minerals"

Bob Martin, "Minerals and Mineralogists of France"

Elise Skalwold, "From Gemology to Mineral Physics and Back Again"

Ken Carlsen and Woody Thompson, "Minerals of the Belvidere Mountain Asbestos Quarries, Lowell-Eden, Vermont"

The symposium includes an additional Technical Session of contributed papers in specimen mineralogy, and a silent and voice auction. One of the noted features of the symposium are the evening socials in mineral dealer rooms.

To register and receive the symposium's Program Notes go to: [www.rasny.org](http://www.rasny.org) Registration for juniors (under 18) is free, students (with ID) \$5.00, and others depends on the date registration is made. For further information, contact Steve Chamberlain, Chair, [sccham2@yahoo.com](mailto:sccham2@yahoo.com), or Helen Chamberlain, Registrar, [contactrms@hotmail.com](mailto:contactrms@hotmail.com)

April 15-17, 2016

### Minerals of Arizona Symposium

Clarion Hotel at the Phoenix Tech Center,  
Phoenix, Arizona

Speakers have yet to be announced. The Flagg Mineral Foundation sponsors the annual Minerals of Arizona Symposium. This symposium is usually held in either March or April and features a variety of presentations on minerals, mineral collecting, new and classic localities, and mining history. In addition, the symposium includes a mineral sale/silent auction where collector quality specimens and other items are available to attendees.

For more information contact: Chris Whitney-Smith, President, Mineralogical Society of Arizona at: [Ask.ChrisWS@yahoo.com](mailto:Ask.ChrisWS@yahoo.com) or visit: <http://flaggmineralfoundation.org/home/minerals-of-az-symposium/>

### MINERALS OF ARIZONA TWENTY-THIRD ANNUAL SYMPOSIUM



Sponsored By  
Flagg Mineral Foundation  
March 27-29, 2015  
Co-Chairpersons:  
Phil Richardson - Chair, Flagg Mineral Foundation  
Ray Grant - Vice Chair, Flagg Mineral Foundation



May 21-22, 2016

### Seattle Mineral Market 2016

10 AM to 6 PM

Lake City Community Center,  
12531 NE 28th Ave NE, Seattle, WA 98125

## FM Chapter Reports



## Pennsylvania Chapter Update

### President's Message Field Trips and More

from Joe Marchesani

Hello friends. It looks like we have another great year of collecting ahead of us in 2016. The three field trips planned for this spring are coming together quite nicely. Please note, all field trips are weather permitting, and are subject to last hour cancellations.

The first field trip is to Middleburg Quarry in central Pennsylvania, on April 16th, 2016. Current plans are to meet owner Eric Stahl at the Mount Pleasant Mills Quarry entrance at 10:00 a.m., then commute over to Middleburg Quarry. This is a trip co-sponsored by Delaware Mineralogical Society. Be aware... last year there was a detour due to a bridge being out between Mt. Pleasant Mills and Middleburg. Instead of taking Rt. 104, we had to go to Rt. 15 and up to Rt. 522, just above Selinsgrove. This bridge may still be out. RSVP to Joseph Marchesani Jmarch06@comcast.net or 609-433-5129 (leave a message).

The second field trip is to Brandywine Springs in Delaware, on May 7th 2016 at 9:00 a.m., where we will meet with the Delaware Mineralogical Society at Brandywine Springs County Park, famous for sillimanite. See page 2 for details. RSVP to Joseph Marchesani Jmarch06@comcast.net or 609-433-5129 (leave a message).

The third trip is to Brinton's Quarry, New Street, West Chester, PA May 14th 2016 at 8:00 a.m. where we will meet again with the Delaware Mineralogical Society through the gate to the left. Collecting here is limited to 25 specimens this year. No quarrying permitted. RSVP to Joseph Marchesani Jmarch06@comcast.net or 609-433-5129 (leave a message).

Including the Fall 2016 symposium, there are two potential field trips planned but not yet in the books for Fall 2016... a TBD September trip and the symposium trip in November. There is more to come on this in future newsletters.

We are hoping to have a Board of Directors meeting sometime this spring, possibly mid- May before Memorial Day weekend, though as of press time a date has yet to be established.

These are hard economic times, and membership dues remained unchanged again this year. The simple structure is \$20 for an individual membership and \$15 for students and seniors (over 62). There are no family memberships.

If you are working on anything interesting or know of somebody who is, consider making a presentation at the annual FM-PA Symposium at Franklin and Marshall College this year. Usually and unofficially, it is held the first full weekend of November. And if you are aware of an interesting collection locality, step up and sponsor a trip!

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### Pennsylvania Geology

The Pennsylvania Geological Survey's magazine, *Pennsylvania Geology*, can be found on their web site; volume 45 number 4 is now available at <http://www.dcnr.state.pa.us/topogeo/publications/>

State Geologist Dr. Gale Blackmer provides an editorial on "Holes in the Ground." There is also an interview covering her background and her thoughts on the Survey's work, and her goals as State Geologist.

"An updated version of the *Directory of Nonfuel-Mineral Producers in Pennsylvania* has been released as Open-File Report OFMR 15-01. This is the most recent version of a report that has been updated many times since its initial release fifty years ago (O'Neill, 1965). The directory can be accessed in two formats: as a tabular listing and as an interactive web mapping application." The interactive application is illustrated in two color figures.

This and most other Survey publications are available for download from the Publications web page listed above.

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## COLORADO CHAPTER UPDATE



The Friends of the Colorado School of Mines Geology Museum, the Friends of Mineralogy Colorado Chapter, and the Denver Region Exploration Geologists' Society invite all academics, industry professionals, pegmatite researchers, geologists, mineralogists, mineral collectors, lay persons, and students to attend the **2nd Eugene E. Foord Pegmatite Symposium, July 15 -19, 2016**. There will be two full days of talks (July 16-17), followed by two days of field trips (July 18-19). The talks will be held on the Colorado School of Mines campus, Golden, Colorado. Invited speakers include:

• Dr. David London, University of Oklahoma,

author of "Pegmatites"

- Dr. William "Skip" Simmons, Univ. of New Orleans & Maine Mineral Museum, co-author of "Pegmatology"
- Dr. Michael Wise, Smithsonian Institute

**This exciting Symposium** will cover pegmatite geology and mineralogy in the Colorado region, as well as world-wide occurrences, pegmatite genesis, pegmatite mineralogy/geochemistry, structure and crystallography, and pegmatite mining histories. The registration fee of \$100 will include a Friday night reception, two days of presentations, a black and white hard copy proceedings volume, a color digital proceedings volume, and free field trips (travel will be by car-pooling). Registration for full time university (student ID required) or high school students is \$50. Registration fees are waived for invited speakers and field trip leaders. Speakers, poster presenters and field trip leaders will be provided with a one year (2016-2017) free membership in both Friends of the CSM Geology Museum and the Friends of Mineralogy Colorado Chapter. A Saturday evening banquet and box lunches for the field trips will be optional at cost. Housing will be available in single or double room college dormitories on the CSM campus as well as in motels/hotels near Golden. Look for further information on the Friends of the CSM Museum page, <https://www.facebook.com/LikeCSMGeoMuseum/> ; the symposium website <http://www.colorado.edu/symposium/pegmatite/> has full registration details. To receive future updates about the symposium or to offer to present a paper, please contact Mark Jacobson, [markivanjacobson@gmail.com](mailto:markivanjacobson@gmail.com), or Pete Modreski, [pmodreski@usgs.gov](mailto:pmodreski@usgs.gov). Proposed presentation or poster titles should be submitted by April 1, 2016; abstracts will be required by May 15, 2016. Call for Papers information at <http://www.colorado.edu/symposium/pegmatite/call-papers>.

**Below is a tentative list of field trips** which we hope to include in the conference. Though some of these have been confirmed, many are still dependent on access permission and enlistment of suitable trip leaders and, once a list is circulated to registrants, on sufficient signup preference among registrants to hold each trip. Each trip will be limited to about 20 participants; we will do our best to give everyone their top choice(s) on field trip participation, but may give preference to out-of-state attendees. Field trip participants will be required to sign a liability release. For third-party liability insurance, participants will also need to belong to either the Friends of Mineralogy Colorado Chapter, Friends of the CSM Geology Museum, or another American Federation mineral club that provides that insurance. If not already a member of a Federation club, membership to either of the others can be purchased with registration. **A list giving**

details about the mineralogy, geology, and location of all the field trips is on the symposium website at <http://www.colorado.edu/symposium/pegmatite/field-trips> ; click on the link to the pdf file, "2016 Pegmatite Symposium Field Trips".

- 1) Smoky Hawk amazonite-pegmatite claim and other adjacent Crystal Peak areas
  - 2) Eight Mile Park area, Fremont County - Mica lode, Meyers, and School Section pegmatites
  - 3) Devils Hole area, Fremont County - Devils Hole and Chief Lithia pegmatites
  - 4) Clear Creek area pegmatites - Bald Mountain (inspection only), Burroughs, other pegmatites
  - 5) Southern Crystal Mountain district - Hyatt and Storm Mountain beryl and phosphate pegmatites
  - 6) Northern Crystal Mountain district - Big Boulder, Bull Elk, Sherwood pegmatites
  - 7) Extreme northern Crystal Mountain district: Crystal Mountain and Wisdom Ranch pegmatites
  - 8) Micanite district, Fremont & Park Counties - Rose Dawn and Climax Mica pegmatites
  - 9) Trout Creek Pass district - Clara May, Crystal no. 8 (Luella), and Yard pegmatites
  - 10) South Platte district - Little Patsy, Oregon, Big Bertha, and Luster or White Cloud pegmatites
  - 11) St. Peters Dome area - Alkali granite pegmatites with cryolite, riebeckite, astrophyllite, zircon
  - 12) Platt pegmatite, southeast of Encampment, Wyoming, rich in radioactive minerals
  - 13) Quartz Creek district - Brown Derby and Bazooka lithium pegmatites, Gunnison County *updated*
- 3/5/2016



## PACIFIC NORTH WEST CHAPTER UPDATE

### President's Message

Greetings, mineral lovers!

Winter is usually quiet for PNWFM, with many in the mineral community travelling south to Tucson. I love getting a break from the dreary gray of the Washington winter and a visit to a world class mineral show is the perfect excuse for a trip. This year, I will give a presentation on the 2016 theme, "Shades of Blue." If you are in Tucson for the show, come and hear the talks on Saturday, Feb. 13! I have given a preview of a few photos from the presentation elsewhere in this newsletter.

### Complaints and Suggestions

Every newsletter and event, I ask people to give me their comments on how we're doing. "How can PNWFM better serve you and the mineral collecting community?" Most are hesitant to say much, but once in a while, I get an earful. There are two general themes to the responses:

Less experienced members want more opportunity to learn at their level.

I've written about this one in the past and feel it is very important to our future, especially as we try to grow the membership. Maybe we could organize an informal one-day event every year that gives people a chance to learn collecting techniques, get help with mineral ID, explore some chemistry or crystallography, etc. In the past, I've tried to think of how to shoehorn this into our annual symposium, but I think it spreads our resources too thin at this time. I would love to hear more ideas from people about how to accomplish this within our organization.

The structure of the symposium could use some tweaks.

Number one complaint: "We don't like the banquet." The specifics vary, "don't like that it takes away from the quieter, small group social time in the dealer rooms", "don't like paying for food that I don't like", "there are minerals to explore and I don't want to sit around eating for hours."

Ironically, the banquet social time is also one of the things people like best. From the organization's point of view, the banquet is the time when we formally announce contest winners and awards and is one of the main fundraisers for the operation of PNWFM.

Don't worry, the banquet is not going to disappear, but I'd like to hear specifically from members who have opinions and suggestions on this topic. It will be an agenda item for our May business meeting at Seattle Mineral Market.

**Symposium – October 14-16, 2016**

We have been doing a bit of fine tuning to the theme for this year's PNWFM symposium. The general theme voted on in October was "*Minerals of Butte and other Copper Localities*", but we'd like something a little catchier, so some current ideas are:

*"Butte and Bisbee, Copper in the USA"*

*"Butte, Bisbee and the Upper Peninsula"*

Allan is working on getting our speakers lined up and I'm sure it will be a fantastic program!

We will announce the full program soon, but meanwhile, please consider bringing a display. One of the best aspects of our symposium is that PNWFM members share parts of their fantastic collections. I will be bringing a display of copper minerals this year, given that much of my blue collection does contain copper, but there is no requirement that the displays be "on theme."

**Seattle Mineral Market 2016**

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 21-22: 10 am – 6 pm

**Lake City Community Center**

12531 28th Ave NE, Seattle, WA 98125

For more information, visit their web site: [www.seattlemineralmarket.com](http://www.seattlemineralmarket.com) or Facebook event page:

<https://www.facebook.com/events/1610679662528636/>

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

Write an article or send in a few photos for the newsletter. Going to a 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, 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 21-22, 2016** at Lake City Community Center, 12531 - 28th Ave NE, Seattle, WA 98125. See [seattlemineralmarket.com](http://seattlemineralmarket.com) for details.

Plan to attend our 2016-2017 symposia:

October 14-16, 2016 ***Butte and Bisbee, Copper in the USA***

October 13-15, 2017 ***Minerals of Morocco***

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

**Friends of Mineralogy  
USA State Locality Index Project  
By Mark Jacobson  
Colorado Chapter President**

Friends of Mineralogy members soon after its founding started coordinating the compilation of state mineral indexes. Knowledgeable individuals had been encouraged to compile and publish articles on the subject and other authors have submitted unsolicited papers on the subject. The following is a compilation of state mineral indexes which have been published in hardcopy up to 2012.

This project started before the internet existed and continued at a slower pace after the internet as the source of locality information became available, which started circa 1995 with dial-up service. By 2000, internet locality information had started to flood the websites and redundant and erroneous localities started to be added. Mindat, even with its able administrators, could no longer keep up and cleanse the locality information of erroneous data.

Today's situation has evolved to several challenging aspects. Many people feel that the internet as a source of locality information is adequate. For some the lack of adequate source literature data, peer reviewed and referenced in standard, understandable formats is a severe challenge. For them, and I am one of them, the internet will never be a locality source that can be relied on and citable. The internet is still and will continue to be particularly useful for an abundance of reasons. Published, hardcopy locality indexes with their collation of locality names for the same place and hoped for inclusion of location coordinates (with explicit cited datums) should remain the standard for accuracy.

The preparation of a locality index is not a trivial intellectual and scientific task – it is not for the faint hearted or those without intellectual and physical stamina. It requires knowing the scientific mineralogical literature of a state, knowing the errors of the previous researchers, knowing the geography and place names of the state and probably knowing the political history of the state. Add to this the task of the writing the document and then indexing the locality names to form a supplemental index to be included with the text. At least obtaining pictures and creating maps falls to other editors and not the author. If you are a working person, estimate that the task is a 6 months to 2 year project depending on your base knowledge and your family demands. With such tasks, it should not be a surprise that few avocational scientists take on this tasks. Paid, academic researchers won't, the product does not support their career statue or stability. For a curator, to take on such a task is quite professionally dangerous.

So with such warnings, can FM hope to find volunteers to complete the locality indexes of the USA and that isn't even considering that not all states have a "mineralogy of their own state" book, which is an eminently more promotable product but larger task. I believe yes, because they will join an exclusive intellectual community that is well known within a select group in the USA. You may not have the megabucks to own a world class top display collection but you can have knowledge that those collectors will appreciate and respect. You can be part of that community and appreciated on a national if not worldwide basis. Provenance of specimens has become a critical component for collecting. A mediocre celestine can become extremely valuable if you can prove its locality and age predates 1900 and that it probably passed through George English's or Albert E. Foote's store.

I have listed 20 states that don't have any indexes at all. Some of these states have state mineralogies (Arizona, New York, North Carolina, Pennsylvania, among others) so getting locality indexes for these states might a challenge. But for states which have neither a mineralogy nor a locality index – perhaps these might be exciting opportunities for an avocational scientist (an unpaid researcher).



|     | <b>State</b>   | <b>Publication</b> | <b>Year</b> | <b>Author</b>                 |
|-----|----------------|--------------------|-------------|-------------------------------|
| 1   | Alabama *      | R&M 70; 320-333    | 1995        | L.S. Dean                     |
| 2   | Arkansas *     | R&M 63; 104-125    | 1988        | A.E. Smith                    |
| 3   | California     | MR 20; 129-142     | 1989        | A.R. Kampf et. al.            |
| 4   | Colorado       | MR 10; 323-328     | 1979        | B.L. Muntyan                  |
| 5   | Connecticut    | R&M 70; 396-409    | 1995        | M.H. Webber / E.C. Sullivan   |
| 6   | Georgia *      | R&M 64; 184-209    | 1989        | J.B. Gordon                   |
| 7   | Idaho *        | R&M 70; 242-255    | 1995        | L.R. Ream                     |
| 8   | Illinois       | R&M 85; 206-219    | 2010        | Arthur E. Smith               |
| 9   | Indiana        | R&M 61; 136-151    | 1986        | T.E. Huizing / R.E. Russell   |
| 10  | Iowa *         | R&M 77; 404-413    | 2002        | A.E. Smith / H.L. Prior       |
| 11  | Kentucky       | R&M 81; 420-437    | 2006        | Alan Goldstein                |
| 12  | Louisiana *    | R&M 69; 156-162    | 1994        | A.E. Smith                    |
| 13  | Michigan       | R&M 58; 197-213    | 1983        | T. Morris, Jr                 |
| 14  | Missouri *     | R&M 73; 98-117     | 1998        | M.D. Sherwood / G.A. Williams |
| 15  | Montana        | R&M 87; No. 3      | 2012        | Michael Goble                 |
| 16  | Nevada *       | R&M 74; 370-379    | 1999        | S. Pullman / R. Thomssen      |
| 17  | New Hampshire  | R&M 80; 242-261    | 2005        | A.E. Smith                    |
| 18  | New Mexico     | R&M 67; 314-329    | 1992        | Ray S. DeMark                 |
| 19  | Ohio, Part 1 * | R&M 65; 512-540    | 1990        | E.H. Carlson                  |
| 19B | Ohio, Part 2 * | R&M 77; 306-314    | 2002        | E.H. Carlson                  |
| 20  | Oklahoma *     | R&M 72; 252-264    | 1997        | A.E. Smith et. al.            |
| 21  | South Dakota * | R&M 75; 156-169    | 2000        | A.E. Smith / E. Fritzsche     |
| 22  | Tennessee      | R&M 86; 300-328    | 2011        | Updated by A.E. Smith         |
| 23  | Texas *        | R&M 66; 196-224    | 1991        | A.E. Smith                    |
| 24  | Utah *         | R&M 68; 381-393    | 1993        | P.D. Richardson et. al.       |
| 25  | Vermont *      | R&M 71; 324-338    | 1996        | Van T. King / J.W. Cares      |
| 26  | Virginia       | R&M 60; 164-170    | 1985        | D.A. Penick, Jr               |
| 27  | Washington     | R&M 66; 286-292    | 1991        | Lanny R. Ream                 |
| 28  | Wisconsin *    | R&M 73; 378-399    | 1998        | W. S. Cordua                  |
| 29  | Wyoming *      | R&M 76; 380-391    | 2001        | N. Dan Hausel / M.I. Jacobson |

|     |                |                        |                                                                                                                                                                                                                   |                                                                                         |
|-----|----------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1   | Alaska         | (In progress)          | (In progress)                                                                                                                                                                                                     |                                                                                         |
| 2   | Arizona        | (In progress)          | Steve Pullman                                                                                                                                                                                                     |                                                                                         |
| 3   | Delaware       |                        |                                                                                                                                                                                                                   |                                                                                         |
| 4   | Florida        | No Progress            |                                                                                                                                                                                                                   |                                                                                         |
| 5   | Hawaii         | No progress            | Eric Heinen De Carlo, Professor, Department of Oceanography, University of Hawaii at Manoa, Honolulu, HI 96822 USA, Tel: 1-808-956-5924, <a href="mailto:edecarlo@soest.hawaii.edu">edecarlo@soest.hawaii.edu</a> |                                                                                         |
| 6   | Kansas         | (In progress)          | Mark Sherwood                                                                                                                                                                                                     |                                                                                         |
| 7   | Maryland       |                        |                                                                                                                                                                                                                   |                                                                                         |
| 8   | Massachusetts  |                        |                                                                                                                                                                                                                   |                                                                                         |
| 9   | Minnesota      |                        |                                                                                                                                                                                                                   |                                                                                         |
| 10  | Mississippi    |                        |                                                                                                                                                                                                                   |                                                                                         |
| 11  | Nebraska       |                        |                                                                                                                                                                                                                   |                                                                                         |
| 12  | New Jersey     |                        | Possibly KC Dalby                                                                                                                                                                                                 |                                                                                         |
| 13  | New York       |                        |                                                                                                                                                                                                                   |                                                                                         |
| 14  | North Carolina |                        |                                                                                                                                                                                                                   |                                                                                         |
| 15  | North Dakota   |                        |                                                                                                                                                                                                                   |                                                                                         |
| 16  | Oregon         | (In progress)          | Aaron & Jade Wieting                                                                                                                                                                                              |                                                                                         |
| 17  | Pennsylvania   |                        |                                                                                                                                                                                                                   |                                                                                         |
| 18  | Rhode Island   |                        |                                                                                                                                                                                                                   |                                                                                         |
| 19  | South Carolina |                        |                                                                                                                                                                                                                   |                                                                                         |
| 27B | Washington     | (revision in progress) | John Lindell, Bart Cannon                                                                                                                                                                                         |                                                                                         |
| 20  | West Virginia  |                        |                                                                                                                                                                                                                   |                                                                                         |
|     |                |                        |                                                                                                                                                                                                                   | * = Available per the July/August 2005 R&M 80; 257.                                     |
|     |                |                        |                                                                                                                                                                                                                   | R&M = <i>Rocks and Minerals</i> magazine.<br>MR = <i>Mineralogical Record</i> magazine. |

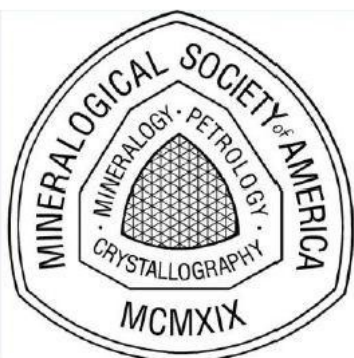
Publication of the indexes is dependent on available articles and publication space as determined by magazine editors. Authors interested in participating in this effort should contact the webmaster listed below and the information will be forwarded to the coordinating FM board member.

## 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).



### MINERALOGICAL SOCIETY OF AMERICA

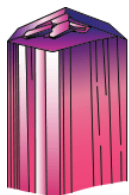
If you are interested in earth, planetary, industrial, or biologic minerals or mineral-like materials, you may want to learn about the Mineralogical Society of America



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Canada



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