

Friends of Mineralogy

A Quarterly Newsletter



VOLUME 33, ISSUE 2

JUNE-AUGUST 2003

Mineralogy FAQs

What is Tiger's-Eye?

Shimmering tiger's-eye is a popular semi-precious gemstone. Almost all mineral collectors have seen the fibrous, golden-brown material and most systematic collectors will typically have a piece or two with the label "quartz, variety tiger's-eye" in their collections labeling tiger's-eye with the chemical formula of silica, SiO_2 . In antiquity, tiger's-eye was rare, and lapidaries prized the material. Although discovery of abundant sources of tiger's-eye in South Africa in the 1870's sent prices for good material plummeting, it is still popular with stone-cutters and kids beginning to collect minerals.

Until recently, tiger's-eye was thought to be a pseudomorph after asbestos. After all, with its fibrous appearance, it does look asbestiform. The standard explanation was that crocidolite (a variety of the mineral riebeckite which occurs as asbestos, and is found as veins in rocks), was replaced by silica on an atom-for-atom basis so that the original fibrous habit was preserved.

But the tiger's-eye story was recently re-examined by Peter Heaney and Donald Fisher, geosciences professors at the Pennsylvania State University. Using the optical microscope and the transmission electron microscope, they discovered that tiger's-eye is made up of quartz encasing minute crocidolite fibers. In other words, the crocidolite is still present. Observations by Heaney and Fisher indicate that, as cracks in the host rocks opened and widened due to tectonic stresses on the rocks, both quartz and crocidolite were deposited in the veins. It appears that crocidolite and quartz nucleated (i.e., the crystals started to grow) on different sides of the fractures and grew toward each other, sealing the fractures and creating the intergrown quartz/crocidolite mixture we call tiger's-eye. The brown color of tiger's-eye appears to be due to the later addition of small crystals of iron oxide minerals (goethite, hematite, etc.). The zig-zag growth patterns seen in tiger's-eye are due to the reopening of the cracks as the host rocks shifted under tectonic stresses. Shifts in the host rocks' orientation lead to a change in the growth direction of the tiger's-eye mixture, thus the kinks or bends seen in most specimens.

By Andrew A. Sicree, Editor, FM Newsletter

Important Notices

NATIONAL FRIENDS OF MINERALOGY GET-TOGETHER AT 2003 DENVER SHOW

Just a reminder that there will be an informal get-together during the Denver Show on SATURDAY, SEPTEMBER 13th, at 11:00 a.m.. We'll have coffee and donuts in the meeting room in Aisle E (I think) - back right corner of the building. All members and potential members are invited. Hope we'll see all of you there.

Regina Aumente

NATIONAL BOARD MEETING FOR FRIENDS OF MINERALOGY

There will be FM Board of Directors Meeting FRIDAY, SEPTEMBER 12th at 11:30 a.m. at the Denver Gem and Mineral Show, Merchandise Mart - Expo Hall. Check with the Denver Show Committee for the meeting room assignment.

Reports

DRAFT OF AMENDMENTS TO NATIONAL FRIENDS OF MINERALOGY BY-LAWS

This is a rough draft of proposed amendments to the FM By-Laws for your review and comment. All members will be sent a ballot so that they may vote on these proposed changes:

The officers of FM support a ballot to amend four FM bylaws. The ballot will have to be mailed the first week of 2004 to insure it meets the deadline requirements. It will be mailed by the Secretary, with instructions to return the ballot to the Secretary by mail postmarked no later than February 1, 2004. (Current requirements for ballots in the bylaws: "Ballots for amendments shall be mailed to all members not more than 40 and not less than 30 days before the voting date. Mail ballots must be send (sic) to the Secretary postmarked two weeks ahead of the General Meeting." (Article IX, Section 2))." It appears mail ballot timing is at present tied to the date of the General Meeting.

We would like to put these proposals to the general membership: The officers (directors) of FM propose the following bylaws changes. According to Article IX, Section 2 of FM's Bylaws, all FM members vote on bylaw changes. Ballots addressed to the Secretary must be postmarked no later than February 1, 2004 in order to be valid. The annual meeting this year will be Saturday, February 14, 2004. We strongly urge all members to vote by mail, although ballots will be accepted at the beginning of the General Meeting where final tabulation by the Secretary will take place.

We view all four of these proposed changes as relatively minor adjustments to make it easier for FM to function in today's world and to bring its procedures more in line with other similar organizations.

Proposal #1. We changed the bylaws in February 1999 to make it possible for directors to do business by e-mail and fax. This change has not been made for general membership issues. Such a change would facilitate some issues and could greatly improve communications. We are aware that not all members use e-mail, and have specifically allowed for continued use of U.S. mail. We suggest a new Section under Article IV, Meetings, as follows:

Section 6. Business of the general membership can legally be conducted by e-mail, FAX or U.S. mail. Provision for postal mail shall be made for voting purposes for use by those who choose to use it or who do not have electronic mail facilities.

Proposal #2. As noted above, bylaw changes are tied to the annual meeting. But currently, most FM member do not attend the meeting and are comfortable with e-mail. Some are not. We propose changing the procedure to take into account the needs of all FM members while not tying all action to one meeting which very few members attend by also changing Article IX, Section 2 of the bylaws (on Amending the Bylaws). It now reads:
"Ballots for amendments shall be mailed to all members not more than 40 and not less than 30 days before the voting date. Mail ballots must be send (sic) to the Secretary postmarked two weeks ahead of the General Meeting." New wording:

Article IX, Section 2
Ballots for amendments shall be mailed via the U.S. Post Office or e-mailed to all members not more than 50 and not less than 30 days before the voting date. The voting date will be agreed by a majority of directors. E-mail and postal mail ballots must be sent to the Secretary, postmarked or transmitted two weeks before the voting date.

Proposal #3. Officers are now elected by the Board for one-year terms. New officers barely get a feel for their job in one year, and are almost always re-elected for at least one more year. Since meetings are only held once per year, and it takes time to learn the job, set up files and accomplish goals, officers terms should be for two years. This change would not take place until after the 2004 Board meeting, i.e. officers elected in February 2004 will be elected for one year only under the old rules. Section 5 of Article VII states that officers may serve more than one year. We propose that officers be allowed two full terms in one officer position.

Currently the relevant articles read as follows:

Article VII, Section 3: "Officers shall be elected from the elected Directors at the annual meeting of the Board."

Section 4: "Officers shall serve until the next annual meeting of the Board."

Section 5: "Officers may serve more than one year."

Section 6: "Vacancies in office may be filled by a majority vote of the Board except that the Vice President shall serve as President in the event that the President resigns."

We propose combining sections 3,4 and 5 and renumbering Sections 6,7 and 8 accordingly:

Section 3. After February 28, 2004 officers shall be elected from the elected Directors at the annual meetings of the Board. Officers shall serve two years per term in office, except those officers selected to fill interim vacancies under Section 6, who shall serve concurrently with the then-elected officers for a maximum of two years. Officers may serve a maximum of two full terms in any one office.

Reports (CONT'D)

Proposal #4. Our Board meetings now are quite large, too large and unwieldy to accomplish business in an efficient manner. There are eighteen voting Board members elected by members, six each year for three year; seven voting members elected/selected by chapters; and four nonvoting representatives. It is also difficult to find six qualified nominees every year who are willing to devote time actually working for FM. Currently, Article V Section 1 states:

Article V – Board of Directors

Section 1. – Members

- A. Eighteen members elected by the general membership.
- B. One member from each Chapter.
 - 1. Each Chapter shall designate a Director. Directors designated by chapters are not eligible to be officers.
 - 2. A Chapter with written notice to the Secretary can designate an alternate in the event the Director cannot attend a meeting.
- C. One nonvoting representative from the American Federation of Mineralogical Societies.
- D. One nonvoting representative from the Mineralogical Society of America.
- E. One nonvoting representative from *The Mineralogical Record* and *Rocks and Minerals* magazines.

We propose that the Directors elected from the General Membership be reduced from 18 to twelve. These twelve plus the seven Chapter representatives gives us nineteen voting directors (sometimes there is overlap), still more than most other organizations, as well as four other nonvoting directors whose opinions are listened to and taken seriously. These changes would not take place until next year, of course. We propose changing Article V, Section 1-A thus:

Twelve members elected by the general membership.

The current officers hope you can agree to these changes. Please return your ballots to the Secretary at the address noted on the ballot postmarked no later than February 1, 2004.

Submitted by Susan Eriksson, President, Bill Dameron, Vice President, Virgil Lueth, Secretary Jim Hurlbut, Treasurer

Awards and Competitions

NATIONAL FM AWARDS FOR EDUCATIONAL CASES

The Friends of Mineralogy sponsors non-monetary awards at the Tucson Gem & Mineral Show for cases which help explain an aspect of mineralogy. There is no restriction on the theme, but the case should have some special "instructive" feature. In keeping with the high standards of the TGMS, they should be aesthetically pleasing and contain specimens worthy of the show. Two certificates are awarded, one for private collections and one for museums/institutions, and the winners are honored at the Saturday night banquet, and the winners names are added to a plaque which will be featured at the Tucson show. No entry is necessary; all cases are judged. Instructive cases help the hobby grow and underline its scientific basis. Exhibitors at Tucson, both individuals and institutions, are asked to consider seriously such a feature for their cases.

PRELIMINARY ANNOUNCEMENT: WERNER LIEBER PHOTO CONTEST

FM sponsors the Werner Lieber Photo Contest annually. There are four categories for entries: Juniors - under 18; Amateur Adults; Professional Adults; Digital/Computer-Enhanced Photos

Rules:

- 1. Submit matted 8"x10" print. Mat must be 11"x14".
- 2. The photo must be related to the theme of the upcoming Tucson Gem and Mineral Show (TGMS) - in 2004, the theme is "Gold".
- 3. On the back of each mat, in any form, provide the name(s) of the mineral(s); specimen locality; bar scale or crystal size; photographer; category.
- 4. Photos will be added to a CD with previous winners. The CD is publicly available. The photos are judged by the FM Board and will be displayed at the TGMS. Winners will be awarded certificates at the TGMS Saturday night banquet.
- 5. Contest deadline: December 1, 2003. Mail entries to: (contact FM officer).

Symposia

PACIFIC NORTHWEST CHAPTER SEPTEMBER 2003 SYMPOSIUM

September 26-28, 2003, Red Lion Inn, Kelso, Washington (40 min. north of Portland, OR).

Recently improved trade relations with China have been a boon to mineral collectors as some truly spectacular finds have been discovered and made available to museums and collectors. Hence, this year's symposium highlights the "Minerals of China". Saturday's featured speakers include Rock Currier and Bob Cook who will be discussing, among other things, the evolving mineral market in China. The Sunday program will include sessions on digital photography and updates on "What's New in the Northwest". Additional show highlights include floor dealers offering the latest finds on the mineral market, satellite dealers featuring professional dealers and Northwest collectors, and mineral displays with spectacular specimens from Northwest private collections. Other activities include the micromineral program on the main floor, contests, Saturday evening banquet, and the annual benefit auction. For registration info, please contact Aaron & Jade Wieting at <pdxpounder@hotmail.com>. Submitted by Aaron B. Wieting.

MISSISSIPPI VALLEY CHAPTER OCTOBER 2003 SYMPOSIUM

October 18th-19th, 2003, at the Holiday Inn Express in Keokuk, Iowa

The Mississippi Valley Chapter of FM will hold its Symposium on the weekend of Oct. 18-19th, 2003 at the Holiday Inn Express in Keokuk. Saturday will feature field work and collecting at sites around the Keokuk, Iowa and Hamilton, Illinois area. Bring picnic lunch – will possibly stop along the river road around Navoo, Illinois. Buffet Dinner at the Holiday Inn Express Saturday evening. Speakers include: Dr. David Hess, Ken Vaisvil, Dr. Virginia Ragan, Mark Sherwood. To register, contact Ted Ferguson, 3912 Queen Ridge, Independence, MO 64055. Questions? email Carol Ferguson at <hbkcphc@msn.com>

MIDWESTERN CHAPTER OCTOBER 2003 SYMPOSIUM

October 25th, 2003, at the Indiana State Museum in Indianapolis.

The Midwestern Mineral Symposium is to be held on October 25 at the Indiana State Museum. We have, to date, 1) Ernie Carlson who will do MTV minerals of Ohio or concretionary minerals, 2) Enrique Merino, Indiana University, Concretions and other round forms, 3) Alan Goldstein Illinois District, 4) Nelson Shaffer, Minerals from outer space, 5) Drik Fullerton, Diamonds, 6) Warren Anderson, Kentucky Survey Kentucky Minerals (tentative). I still need to contact one micro minerals person and one more to fill out the program. In the afternoon we will have a visit to the Museum and their mineral and fossil collections. If you can come and provide a talk, you will be most welcome and there should be opportunity to set up a display for the GEOFEST event. For more info. contact: Nelson R. Shaffer, Head, Coal and Industrial Minerals Section, Indiana Geological Survey, 611 N. Walnut Grove Ave., Bloomington, IN 47405. Phone: 812-855-2687 Fax: 812-855-2862 E-mail: shaffern@indiana.edu. Submitted by Nelson Shaffer.

Membership Form

Friends of Mineralogy ❖ Application for Membership (or Renewal) / Member Data Sheet

Last Name: _____ First Name: _____

Street Address: _____

City: _____ State/Province: _____

Country: _____ Zip/Postal Code: _____

Telephone: _____ (Home) _____ (Office)

FAX: _____ (Home) _____ (Office)

E-mail address: _____ Chapter Affiliation Desired: _____

Signature: _____ Date: _____

Friends of Mineralogy, Inc., is composed of members of 7 local chapters, plus national members not affiliated with a chapter. Prospective national members should send their application and \$10.00/year dues to Jim Hurlbut, 2240 S. Adams St., Denver, CO 80210-4912. Phone 303-757-0283. Prospective members of a chapter may submit form directly to the chapter contacts (Colorado, Midwest, Pacific NW, Miss. Valley, SouthEast, Pennsylvania, or Southern Calif.), to Jim Hurlbut who will forward it to the appropriate chapter. (You will be billed for your chapter dues, since they vary with individual chapters.)

Leadership

NATIONAL OFFICERS

President: Susan Eriksson, 1013 Draper Rd., Blacksburg, VA 24060, <serikssn@vt.edu>.
Vice President: Bill Dameron, 1609 NW 79th Circle, Vancouver, WA 98665, <baritebill@aol.com>.
Secretary: Virgil Lueth, New Mexico Tech, 801 Leroy Place, Socorro, NM 87801 <vlueth@nmt.edu>.
Treasurer: Jim Hurlbut, 2240 South Adams St., Denver, CO 80210-4912. Phone (303) 757-0283.
Editor: A.A. Sicree, 112 Steidle Bldg, University Park, PA 16802, 814-865-6427 <sicree@geosc.psu.edu>
Web Site Committee Chair: Mike Howard / Darcy Howard: <dhoward954@aol.com>.
FM Web Site Address: <http://www.friendsofmineralogy.org/>.

MEMBERS OF NATIONAL FRIENDS OF MINERALOGY BOARD OF DIRECTORS

Term expiring in 2004: Regina Aumente RAumente@aol.com (303) 978-9926
Bill Dameron baritebill@aol.com (260) 546-1267
Virgil Lueth vlueth@nmt.edu (505) 835-5140
Bob Reynolds Bob.Reynolds@lsa-assoc.com (909) 792-3548
Andrew Sicree sicree@geosc.psu.edu (814) 865-6427
William (Skip) Simmons wsimmons@uno.edu (504) 250-6791

Term expiring in 2005: Ray Grant raycyn@cox.net (602) 461-7008
Sharleen Harvey bill-sharleenharvey@worldnet.att.net (503) 248-4194
Jim McGlasson mineralminer@hotmail.com (520) 760-1501
Nelson Shaffer shaffern@indiana.edu (812) 855-2687
Tom Wilson jtomwilson@earthlink.net (828) 232-1329

Term expiring in 2006: Susan Eriksson serikssn@vt.edu (540) 231-3703
James F. Hurlbut jhfu@vanion.com (303) 279-7796
Walt Lombardo wlombard@govmail.state.nv.us (702) 453-5718
Anthony J. Nikischer info@excaliburmineral.com (914) 739-1134
Carol Smith smith72@attglobal.net (303) 466-5863
Art Soregaroli arockdoc@telus.net (604) 731-8946

CHAPTER PRESIDENTS / CONTACTS

Colorado Chapter: President, Pete Modreski, 3555 Miller St., Wheat Ridge, CO 80033, (303) 425-9549, <pmodreski@usgs.gov>; V-P, Eunice York; Treasurer, Jim Hurlbut; Secretary, Ray Berry.
Midwest Chapter: President, Nelson Shaffer, 530 Cabot Ct., Bloomington, IN 47408, (812) 339-6623; <shaffern@indiana.edu>; website <http://www.indiana.edu/~minerals/index.htm>
Pacific Northwest Chapter: President, Jim Etzwiler, 3935 Interlake Ave. N., Seattle, WA 98103-8131, (206) 633-1512, <Kd7bat@arrl.net>; Sharleen Harvey, 2309 SW 1st Ave. #2142, Portland OR 97201-5080, (503) 248-4194, <bill-sharleenharvey@worldnet.att.net>.
Pennsylvania Chapter: President, Arnold Mogel, 15 Oak Rd., Schuylkill Haven, PA 17972, (570) 739-4034, <pioche@losch.net>.
Southern California Chapter: President, Bob Reynolds, 220 South Buena Vista St., Redlands, CA 92373-5129, (909) 798-8570, <Jreynolds@empirenet.com>; Jack Nieberger, 25231 Pico Vista Way, Moreno Valley, CA 92557, (909) 242-1777; website: <http://www.mineralsocal.org/scfm/welcome.htm>.
Mississippi Valley Chapter: President, Mark Sherwood, P. O. Box 436, Oak Grove, MO 64075-0436, (816) 690-8226, <msherwood@swbell.net>; Ted and Carol Ferguson, 3912 Queen Ridge, Independence, MO 64055 (816) 478-6418, <Hbkcphe@aol.com> or <Tferg62953@aol.com>.
Southeast Chapter: President, Julian C. Gray, 524 Robin Lane, Marietta, GA 30067; (404) 651-2272, FAX (404) 651-1376, <jcgray@gsu.edu>.
Tucson Society: Peter Megaw <Tgmshg@azstarnet.com> (520) 529-2231.
Rocks & Minerals Magazine: Ex-Officio, Marie Huizing, <rocks&minerals@fuse.net> (513) 574-7142.
Mineralogical Record Magazine: Ex-Officio, Wendell Wilson, <minrec@earthlink.net> (520) 299-5274.

Friends of Mineralogy, Inc., is affiliated with *The Mineralogical Record Magazine*, *Rocks & Minerals Magazine*, The Mineralogical Society of America, and the American Geological Institute. Please send corrections/changes to Andrew A. Sicree, FM Newsletter Editor, <sicree@geosc.psu.edu> (814) 865-6427

From the Editor: Welcome to the Friends of Mineralogy Newsletter. I'd like to encourage everyone to submit one- to two-page articles for consideration for publication in the FM Newsletter. Please send submissions directly to Dr. Andrew A. Sicree, Penn State Earth & Mineral Sciences Museum, 112 Steidle Bldg., University Park, PA 16802, (814) 865-6427 or email <sicree@geosc.psu.edu>. This newsletter will be posted at FM National's website: www.friendsofmineralogy.org/. Hope to see you all in Tucson at the FM Meeting and the Symposium.

Dues Notice: Dues are past due as of April 1. If you haven't paid your dues yet, please do so now. Please fill out and send in the form in this newsletter along with your dues. Former members of FM are strongly encouraged to re-join. We will be issuing a new FM National Directory soon. Past due members will not be included. Please renew now if you'd like to be included in the Directory.

Andrew A. Sicree, Ph.D., FM National Newsletter Editor

SPECIAL RECOGNITION FOR EDUCATIONAL CASES

At the Tucson Gem and Mineral Show, the Friends of Mineralogy sponsors non-monetary recognition for cases which help explain an aspect of mineralogy. There is no restriction on the theme, but the case should have some special "instructive" or "educational" feature. In keeping with the high standards of the TGMS, they should be aesthetically pleasing and contain specimens worthy of the show. Two certificates are awarded, one for private collections and one for museums. The winners are honored at the Saturday night banquet and their names are added to a plaque which will be featured at the Tucson show. No entry form necessary; all cases are judged. Educational/Instructive cases help the hobby grow and underline its scientific basis. Individual and institutional Tucson exhibitors are asked to consider seriously such a feature for their cases.

Past institutional and individual winners have been: 1999: U. of Bonn Mineral Museum – *German Mining Districts*; Mary Murphy – *Mineral Books*; 2000: Calif. Academy of Sciences – *Refractive Index*; Si & Ann Frazier – *Quartz Pseudomorphs*; 2001: Colo. School of Mines – *Mineral Fakes*; Jack Thompson – *Quartz*; 2002: Cincinnati Nat'l Hist. Museum – *Encrustation Pseudomorphs*; Chuck Houser – *Calcite Twins*.



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