friends of mineralogy colorado chapter

Friends of Mineralogy - Colorado Chapter
Newsletter No. 12, August 19, 1994

September Meeting: 7:30 p.m. Thursday, September 8, 1994
Denver Museum of Natural History
VIP Room of the Cafeteria
(enter through employees entrance on the north)

Board Meeting at 6:30 before September Meeting in the cafeteria

PROGRAM
Dr. Peter Modreski

He will speak on his recent trip to St. Petersburg and the Kola Peninsula of Russia.

AUCTION REPORT

The Friends of Mineralogy 1994 auction held in May was a success. We had 15 sellers and 43 buyers. One hundred and ninety specimens were sold for a total of $1,291.69. The net amount donated to FM from these sales was $874.46. The highest priced specimen went for $65.00. The proceeds of the auction will be used for the "Update". Thanks to all who donated specimens, the buyers, the helpers on the set up, close down, check out, and the people who brought the refreshments. Caroline Gray, Treasurer.

OFFICERS AND BOARD MEMBERS

President James F. Hurlbut-------757-0283
Vice President Ray Berry-----719-598-7877
Secretary Robin Wright----------449-0836
Treasurer Caroline Gray----------733-1026
Board Ed Raines----------443-0714
Board Ed Gray----------980-0581
Board Dave Weller----------238-9803

NEWS FLASHES (items from the mineral grapevine) -

COLORADO DIAMOND MINING - A pilot-scale diamond mining and sampling operation has been in progress since this winter at the Sloan kimberlite pipe in Larimer County. A 430-foot adit has been drilled into the hillside; mining began in January 1994, and recovery of diamonds at a near-by processing plant began in March. The mine is being operated by Mr. Bernhard Free, for Royal Star Resources Ltd.

of Vancouver, B.C. The largest diamond recovered so far on the property has been 5.5 carats.

MORE DIAMOND NEWS - Another newspaper item back in January reported that a 6.2-carat diamond was recovered from the Kelsey Lake kimberlite. This mine, located directly on the Colorado-Wyoming state line, has been the site of pilot-scale diamond processing of kimberlite for about the past two years; weathered diamond-bearing kimberlite and alluvium are being excavated from surface pits and trenches. It is operated by Colorado Diamond Corp., for Redaurum Red Lake Mines Ltd. More recently, there has been a report (said to have appeared in a Canadian newspaper) of a 14-carat diamond being found at the Kelsey Lake deposit.

"MINERALS OF COLORADO, A 100-YEAR RECORD" - The original (unrevised) Bulletin 1114 by Edwin Eckel, out of print for several years by the USGS, has been reprinted commercially by Gary Christopher of The Prospector's Cache gold-prospecting shop (3461 S. Broadway, Englewood). Government publications are not copyrighted; all are considered public domain, and may be reproduced or reprinted freely by anyone by any means. The book, softcover with a color picture of Sweet Home rhodochrosite on the cover, sells retail for $24.95; slightly over 1000 copies are said to have been printed. If you don't have a copy, this is now the alternative to finding one from a used book dealer.

MINERALS OF COLORADO UPDATE (the new one) - We're pleased to report that the complete manuscript of "the update" has been printed out and delivered to the USGS Branch of Technical Reports for final review and approval. The manuscript as printed out amounts to some 1647 pages, including a 201-page bilbiography (the final version when typeset for printing will occupy considerably less space). The manuscript is not absolutely "completed", because corrections are still being made to it, and more will need to be made once the USGS review is completed; but over the next approx. 6 months, the authors and other assistants will be adding the final round of editorial corrections, so that we may expect to see the book in print sometime in 1995.

OPPORTUNITIES TO HELP AT THE DENVER SHOW -

We are soliciting volunteers to help at two booths at the Denver Show, Sep. 16-18 1994. The first is our traditional **Mineral Identification Booth**, at which we'll do our best to identify rocks and minerals brought in by the general public, as well as give out information about Friends of Mineralogy. (Gemstone questions can be deferred to the separate Gem Identification booth, run by the Colorado Gem Association.) An additional, new booth this year is a **"Kid's Corner"** rock and mineral discovery booth, at which children are invited to look at, touch, and learn about the properties of rocks and minerals. We are soliciting volunteers for both booths--if you don't feel your technical expertise is up to the Mineral Identification challenge, please offer to help at the Kid's Able bodies are always needed during setup and tear-down of the show. There is no sign-up for either time--just show up at (or after) noon on Wednesday, September 14, and/or plan to stay around to help when the show closes on Sunday at 5:00 p.m. Refreshments will be provided to workers. Remember that FM is one of the sponsoring organizations of the Denver Show, and your help is expected. Be one of the participating FM members!

Corner. Call Pete or Regina Modreski (978-9926) to volunteer help with either booth.

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Exhibit applications have been mailed out to those who have displayed in previous shows. If you

PUBLICATION OF "MINERALS OF COLORADO"
A REPORT TO FM MEMBERS---Pete Modreski, Update Committee

Members of the Minerals of Colorado "Update" committee met recently (Aug. 18) with Betsy Armstrong, Director of Publications for the Denver Museum of Natural History, to discuss plans for publication of our book. Because we feel it is important for all FM members, as well as the officers, directors, authors, and update committee, to be aware of the decisions and approvals which now need to be made about this long-anticipated publication, I would like to summarize here the present state of the plans.

Having produced what they believe is a comprehensive, accurate, and well-written manuscript on the minerals of Colorado, the FM/Update authors and committee have been committed to seeing this book published: 1) in a high-quality form as regards printing, layout, paper, binding, photographs, etc.; 2) as promptly as possible once final review of the manuscript is completed; and 3) at a cost that is affordable to potential readers, and particularly to members of the Colorado mineralogical community who have supported this project with their time, information, and financial contributions over many years. It is the task of all of us to see that these goals are met as well as is possible.

The Denver Museum of Natural History is willing and eager to publish our book, Minerals of Colorado. The currently proposed timetable for publication is: authors' final review of the entire manuscript, Aug.-Oct. 1994; entry of final authors' and review corrections into the disk copy of the manuscript, Nov. 1994-Jan. 1995; delivery of completed manuscript on diskette + photographs to DMNH, Feb. 1995; allowing 9-12 months for final editing, proofreading, layout, typesetting, printing, and binding, actual delivery of finished copies would be between approx. Nov. 1995 to Feb. 1996.

The projected parameters for the book and its printing are: approx. 1000 pages (between 750-1100 pages depending on exact layout and page size), between 100-120 color photographs, approx. 20-25 black and white (SEM) photos, 10 page-size 2-color maps, hard binding with color dust jacket, and printing of 1500 copies.

Our major difficulty is to reconcile the projected retail cost of the book with our expectations of the project. It must be borne in mind that any published book must sell at a price that is considerable higher than the actual per-copy printing cost, to allow for costs of layout and typesetting, preparation of color separates, warehousing, shipping, advertising, distribution, billing and other record-keeping, wholesale discounts to dealers and distributors, other overhead expenses, and profit. For example, all books are normally sold to dealers at a wholesale discount of 40 to 55 percent. The typical ratio of retail price to actual printing cost is a factor of 4 to 8 times; this is true, regardless of whether a book is published by a commercial publisher or a non-profit institution. Commercial publishers prefer a ratio between 6 to 8; the Museum has published books at a cost ratio as low as about 3.3, but they believe this has not been high enough to allow them to recover their costs.

Based on two price quotations the Museum has obtained, the per-copy printing cost of Minerals of Colorado would be approx. $30. The Museum believes that the book could be published at a cost ratio of 4.0, for a projected retail price of $120.

Once the final manuscript and photographs are delivered to DMNH, their publication department would handle final editing, proofreading, composition & layout, integration of maps and photographs, preparation of color separates, and prepare a final disk version of the book which can be directly used for computer typesetting. The cost to the Museum for doing this work will be approx. $10,000-12,000, in addition to approx. $46,000 actual printing cost. The Museum will contract with a printer to actually print and bind the books, and with a commercial publishing company to handle all aspects of publicity, advertising, storage, distribution, and sale of the books. The museum would not ever be directly involved in sales of the book, except for sales in its own gift shop. The museum does not have funds on hand in its own budget to pay for the printing plus layout costs of the book. They would need to solicit donations to the museum to sponsor the publication of the book (this is routinely done by them); this represents money which would eventually be returned to the Museum, as proceeds from the sale of the book.

We would be able to alleviate the high cost of the book to local club members, by making

available a discounted pre-publication offer, whereby members of FM and presumably other local mineral clubs could order copies at a large discount, probably 50%; thus, there would be a one-time opportunity for purchase of the book at a cost of approximately $60. The Museum states that a pre-publication purchase offer under these terms could probably be arranged for not more than 20-25% of the entire printing order--i.e., about 300-350 copies maximum. The rest would be sold under standard retail and wholesale arrangements.

Over the past months, we have discussed possible alternative arrangements to this type of publication plan. These would involve printing of the books directly by FM, with no museum involvement. Gene Foord has contacted people who would be willing advance us sufficient money to pay for the printing of the book; these funds would eventually be reimbursed, after sale of the books. However, to do this, FM would have to be totally responsible for all layout, color separations, typesetting, printing arrangements, warehousing, advertising, sales & distributing, record-keeping, tax accounting, etc. FM would probably have to contract with one or more paid employees to handle the final computer-layout of the manuscript for printing, for storage of the books, and for someone to be responsible for filling orders and keeping records. We are not confident that FM has the people with time available to take on these kinds of responsibilities. The idea of printing the book ourselves so it can be sold at a mimimal amount above printing cost is tempting, but the amount of work and bookkeeping involved may not make this a practical option; everyone would like a cheap book, but who is going to do the hundreds of hours of work involved, and be responsible for the record keeping for tens of thousands of dollars of sales?

Therefore, our tentative plan is to proceed with the Museum's proposal to handle publication--consisting of preparation, printing, and distribution of the book--as described above, given that this plan will include the opportunity for pre-publication sales to the local mineral community. These arrangements will need to be spelled out in detail, and approved in advance by the Update authors and by the FM board of directors and members. FM also has some $10,000 (approx.) in its treasury, raised at past auctions to support the Minerals of Colorado project; at some time in the coming year, this money will be used to pay for or subsidize some part of the publication process, and this expenditure will need to be approved by the FM membership.

We would appreciate everyone in FM giving this matter their careful consideration. Any ideas or creative suggestions about how to complete the publication process are welcome. Every member is invited to contact the FM president or other board members, either verbally or (perhaps preferably) in writing, to give their opinion about how we should proceed, and whether we should accept the Denver Museum of Natural History's proposal to publish Minerals of Colorado.

TALKS - 1994 DENVER GEM & MINERAL SHOW

Friday:

4:00 p.m. "Pyrites and Pyritized Fossils from Ohio and the Midwest" - John Medici

Saturday:

10:00 a.m. "Dinosaurs for Kids" - Neal Larsen, Black Hills Natural History Museum

11:00 a.m. "Tyrannosaurus Rex Through the Ages" - Brent Breithaupt, University of Wyoming

1:00 p.m. "Minerals, Myth, and Magic: The Hidden Power of Gems" - Joseph Peters, American Museum of Natural History

3:30 p.m. ""Beads, Ancient to Modern Uses" - Doris Kemp, Lizzadro Museum of Lapidary Art

Sunday:

11:00 a.m. "The Genesis of Minerals" - George Robinson, Canadian Museum of Nature

1:00 p.m. "Minerals in Archaeology" - Dr. Jean DeMouthe, California Academy of Sciences

2:30 p.m. "The Mineral and Gem Mines of Minas Gerais, Brazil" - Dr. Anthony Kampf, Natural History Museum of L.A. County

Saturday Night Special:

6:30-9:30 p.m., Saturday, in the Terrace Garden Center --

Social with snacks, cash bar, and silent auction to benefit *Rocks and Minerals* magazine, followed by a brief Awards Ceremony, then a talk by noted author John Sinkankas on the topic of "The Development of Mineralogical Illustration in Books". Public is invited, no charge.

have not received an application, and would like to enter a non-competitive case, or place a specimen in one of the special competitions, contact **Linda Algra (986-1340)** for a form. The theme mineral for 1994 is **pyrite.**

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1994 Summer-Fall Calendar

Sept 7 FM Meeting 7:30 PM VIP room DMNH
Sep. 14-18 Colorado Mineral and Fossil Show (Holiday Inn)
Sep. 14 Museum Benefit Auction, Holiday Inn, 5-7 p.m.
Sep. 16-18 Denver Gem and Mineral Show, Merchandise Mart (9-8 Fri., 9-6 Sat., 9-5 Sun.)
Sep. 17 Informal national FM social hour, Saturday a.m. (coffee and donuts; check show program for exact time)
Sep. 1717 Denver Show - Saturday Night Awards & Lecture Program,featuring John Sinkankas on "The development of mineralogical illustration in books"
Oct. 13 FM October Meeting, VIP Room, Denver Museum of Natural History
Nov. 10 FM November meeting, Ricketson Auditorium, Denver Museum of Natural History
Nov. 12-13 Fifteenth Annual New Mexico Mineral Symposium, Socorro, NM

FM annual dues are $13.00.
All persons interested in the mineralogy of Colorado and in the study and preservation of minerals are welcome to join.

ZEOLITES OTHER THAN IN COLLECTIONS

Zeolites are members of the aluminosilicate family. Most mineral collectors have examples of them in their collections. They are found in most geologic type environments on most of the continents of the world. This vast multiplicity of sources indicate that zeolites are much more than rare, prized collectable minerals. They are one of the most abundant mineralogical species on the earth.

Zeolites have their beauty at the atomic level as well as in the crystaline forms. To date, 85 zeolite and zeotype structural frameworks have been fully characterized. These structures have many industrial uses.

The largest tonnage use per annum of zeolites rests in their ability to act as highly selective cation exchangers. Foremost is the ability of the synthetic zeolite A to take up calcium which accounts for over 500,000 tons per year being used in household detergents (liquid and powder) as a builder to soften wash water. Its use in this manner has significantly reduced the release of phosphates into the enviorment by replacing the more traditional sodium tripolyphosphates as washing agents. This has produced some clever manipulation of the crystal habit as zeolite A crystalizes as near perfect cubes, so synthesis design has produced powders of the same size but with champhered edges. These are less likely to cling to fabric fibers. A new product on the market contains synthetic gismondine which has a higher capacity per unit weight for calcium. The natural zeolites clinoptilolite and chabazite can be substituted in detergents but their natural off white color is less acceptable to our western world.

Clinoptilolite also has the desirable property of being able to selectively remove radioactive cesium and strontium from aqueous solutions. Planes dropped tons of clinoptolite on the chernoboyl reactor to prevent the spread of radioactive cesium.

Molecular sieving is one of the most well know used properties of zeolites. Another is the use of

zeolites as a catalysts in the petroleum industry. An adjunct to zeolite ion-exchange properties is in the addition to animal feeds to attain a balanced ph in the gut, improving weight gains and improved health.

In the future increased use of natural zeolites for enviormental clean-up can be expected. It has been proven to remove traces of pesticides and biological mutagens from drinking water.

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In the March issue of the National FM Newletter was a questionaire requesting up-todate information on you for the new national directory. If you failed to send it in please do it **NOW!** The directory is being compiled at the present time. This is your last chance. Copies of the form are available from our Membership chairman and or the Secretary.

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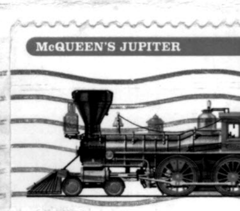

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Be In Envelopes Or
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