

# Friends of Mineralogy

## Colorado Chapter Newsletter

summer edition \*

September, 1990

President:	Dan Kile	Directors:	Don Belsher
Vice President:	Pete Modreski		Ed Gray
Treasurer:	Jim Hurlbut		Bill Smith
Secretary:	Regina Modreski		

### Notes From the President:

This newsletter is an "abbreviated" summer edition - published under duress during a time when everyone, including me, is (a) out of town, or (b) preoccupied with all manner and sorts of other things. Hopefully sometime this fall I will have the time to write some things that may be of interest. In the meanwhile, thanks are due to Bill Smith, Pete Modreski, Keith Williams, and Kory MacFarlane for contributions to this newsletter, which otherwise would be very short.

NOTE THAT THE MEETING DATE IS CHANGED (ON ACCOUNT OF A CONFLICT WITH THE DENVER SHOW, TO SEPTEMBER 6<sup>th</sup>, WHICH IS THE FIRST THURSDAY OF THE MONTH!!! The date for the board meeting has been changed to the 6<sup>th</sup> also, and will start at 6 p.m.

### **\*\* important announcement \*\***

One item on the agenda for the business meeting in September will be a discussion of the progress (or lack thereof) on the Update to the 100-Year Record (see enclosed progress report by Pete Modreski). There has been little perceptible progress during the past three (or more) years, and the calculated date of completion based on current productivity is (optimistically) the year 2040 (!). It is apparent that the magnitude and scope of this project has exceeded expectations, and that four authors (who are otherwise very busy and are working on a volunteer basis) simply cannot expect to complete this task within a reasonable period of time. The projected completion date is, in my opinion, is unacceptable by any criteria; we either need to find a way to attain a greater degree of member input on this project to expedite completion, or decide if continued support is desired by the majority of FMCC members. I think it is time to gauge member interest and support of this project, at least in terms of continuing to "sequester" considerable funds for this project in our FMCC account, which might otherwise be put to use on another project with a foreseeable conclusion. This will be an important meeting, during which a vote (sealed ballot) may be taken. Please make every effort to attend this meeting so your opinion can be heard.

The May auction yielded a gross of (about) \$1,525, with a net of \$1,348; this total is up from previous years, and the quality of the material donated was very good. I am unfortunately unable at this time to print a list of those who donated material to the auction because my records are still incomplete - but I want to thank all of you who helped contribute to a successful and very enjoyable auction. Special thanks go to Ginny Mast, who donated her time to give a "personalized" tour of the Colorado School of Mines Geology Museum to the successful high bidder. Thanks also are extended to those who brought food to the auction (Gloria Charette,

Regina Modreski, Marge Regal, Carol Smith, and Sandy Walden) and also to the anonymous wino who donated a bottle of wine for the vocal auction.

The September meeting also provides an opportunity to see what new has been found in the field (or elsewhere) during the past summer. Members are encouraged to bring recent acquisitions to the meeting - an exhibit case will be provided (also note the "what's new in minerals" column).

### September Program:

"The Minerals of Point of Rocks, Colfax County, New Mexico - - a Miniature Mont St-Hilaire right in our own back yard (almost)"

Point of Rocks, located southeast of Raton, New Mexico, about 40 miles south of the Colorado border, is a mesa 8 km<sup>2</sup> in areal extent, composed of a 100 meter thick sill of phonolite (the volcanic equivalent of nepheline syenite). Vugs in the phonolite are host to a varied and remarkable suite of alkali-rich minerals, most of which occur as microcrystals. Relatively abundant mineral species found at Point of Rocks include the red, water-soluble sodium fluoride, villiaumite; acmite; nepheline; analcime; cancrinite; sodalite; natrolite; neptunite and mangan-neptunite; polythionite mica; eudialyte; pectolite; and serandite. Some of the rarer species at Point of Rocks include kenyaite, kupletskite, lorenzenite, lovardite, rasvumite, rosenbuschite, searlesite, and several unknowns which are still being investigated. About 55 different species are presently known from Point of Rocks, as compared to 250 from Mont Saint-Hilaire, Quebec - but the list is growing! [Mont Saint-Hilaire only had 150 species in 1984.] Collecting at Point of Rocks is allowed if permission is obtained from the adjacent ranch owner, Mr. Pete Gaines. This evening's talk will describe the minerals of Point of Rocks and compare them to those of Mont St-Hilaire; it will be illustrated with slides taken by the speaker, supplemented by others obtained courtesy of Robert Barrell, Ray DeMark (see his article on Point of Rocks in *Min. Rec.*, v. 15, May-June 1984), Arnold Hampson, and Julius Weber.

### Current Rumors and Events:

The 1990 Denver Gem and Mineral Show will be held at the Denver Merchandise Mart (I-25 and 58<sup>th</sup> Ave.) September 14 - 16. The featured mineral this year is rhodochrosite.

The 11<sup>th</sup> Annual New Mexico Mineral Symposium is scheduled for November 10 and 11, 1990.

The Friends of Dinosaur Ridge announces that it will be holding two open field trip tours for the general public of the dinosaur tracks and bones on the Dakota Hogback: on Monday, September 3 (Labor Day), and on Saturday, September 29. On both days, the road over the hogback will be closed to traffic from 10 a.m. to 3 p.m.; a trolley will be available to take people up and down the road, and volunteer field trip leaders will be present to interpret the fossil sites. The trolley ride will cost \$1 per person, otherwise the tours are free; park at the intersection of Alameda Parkway and Rooney Road. New interpretive signs are being constructed for placement along the hogback to explain the fossils and the geology of the area; the Greater Denver Area Gem and Mineral Council has voted to contribute up to \$1000 to pay for one of these signs.

Friends of Dinosaur Ridge and The University of Colorado at Denver Dinosaur Trackers Research Group have recently published a book titled "A Field Guide to Dinosaur Ridge", by



Martin Lockley, which is an excellent summary of the geology and fossils of the area, keyed to various road stops along Alameda Parkway. It is available, postpaid, for \$6.00 from

Friends of Dinosaur Ridge  
Morrison Natural History Center  
P.O. Box 564  
Morrison, Colorado 80465

or for \$5.00 if purchased at one of the field trips or from Pete Modreski.

A new book, "Carbonate-Hosted Sulfide Deposits of the Colorado Mineral Belt", is being published by the Society of Economic Geologists (Economic Geology Monograph 7; edited by David Beaty, Tommy Thompson, and Gary Landis). It contains 25 articles which are "... the first major comparative reports of carbonate-hosted deposits in the central Colorado mineral belt in more than a generation. Included are definitive genetic studies of the famous mining districts of Leadville, Aspen, and Gilman, plus interpretations of the much-debated Sherman-type deposits." The book will be published November, 1990; the prepublication price is \$40.00 (it will be \$50.00 after November 1). It may be ordered from PUBCO, Monograph 7; P.O. Box 637, University of Texas, El Paso, TX 79968 (make checks payable to "PUBCO, Monograph 7").

#### CALL FOR PAPERS

The twelfth Mineralogical Symposium sponsored jointly by Friends of Mineralogy, the Tucson Gem and Mineral Society, and the Mineralogical Society of America will be held in Tucson, Arizona, on Saturday, February 16, 1991. The topic of the symposium will be "Azurite and other Copper Carbonates", which includes descriptive mineralogy, associations or paragenesis, classic localities, etc. An audience of knowledgeable amateurs as well as professional geologists and mineralogists is expected.

If you feel you would like to present a paper, please write or call immediately Dr. Karen Wenrich, Chairman [USGS, Mail Stop 905, Federal Center, Denver, CO 80225; telephone (303)236-1563], with your topic, a few sentences describing the paper, your address and phone number at which you may be contacted. Presentations will be 15 or 20 minutes in length followed by a period for questions. Upon acceptance of topics all authors will be required to submit a 200-300 word abstract by September 30, 1991 which will be published in the January-February issue of The Mineralogical Record.

#### News of Members:

Mark Jacobson has been transferred to Indonesia; the book on Mount Antero that he has been working on is nearing completion, and in spite of being sequestered in a far-away place, he plans to have the book ready for printing by August, 1991. Interested FMCC members who would like to contribute photographs, information of the Mount Antero mineral locality, or who desire to review chapters of the manuscript should contact Mark at the address below (a copy of the manuscript is on file at the Geology Department, Denver Museum of Natural History):

Mark I. Jacobson  
Amoseas Indonesia, INC.  
P.O. Box 2782/JKY  
Jakarta, 10001 Indonesia

All assistance will be acknowledged. The completed text is over 100 single-spaced pages, with captions prepared for over 100 black and white illustrations or pictures. The history section alone is more than 30 single-spaced pages.

### What's New in Colorado Minerals:

The Hayseed Tunnel, in Chase Gulch, was operated from 1897 to 1937. The total production, based on current ore values, was about \$40,000, which is considered to be small for the Central City mining district. Minerals collected under a lease agreement with the owner, over a two year period, consist of quartz, siderite (as a coating on other minerals), chalcocite, chalcopyrite, pyrite (as pyritohedrons on galena), argentite (rare, as dustings), cerussite (coating galena), and sphalerite. The minerals occur on 1/2" to 4" plates; galena ranges in size from 1", and all have secondary coatings.

-- Kory MacFarlane  
Black Hawk, Colorado

### Mining in the San Juan Mountains of Colorado

Keith Williams  
Idaho Springs, Colorado

Extensive exploration and development work in 1988 through 1989 and continuing into 1990 at the Savage mine has generated high-grade visible gold for Mr. William (Bill) Wenger. Mr. Wenger, owning a current lease on this mine, has located sufficient free gold to continue the mining when the snows melt in late June or early July. The Savage mine is located in the upper San Miguel Mining District (La Junta Basin), near Telluride, San Miguel County.

The high-grade gold has been located in a hydrothermal vein, typical of the mineralization of the San Juan Mountains, in the upper zone of a stope developed in 1989. This zone appears to be an offshoot or shear of the dominant vein very near the surface of the mountain. Proposed development will follow this shear along the strike of the vein, exposing some 75 to 100 feet of vein with nearly 75 feet of back for accessible ore. This trace along the strike corresponds very well with the mining completed further into the mountain in the 1930's through 1967. Hopefully this new development will continue to be successful.

The free gold is associated with small fractures filled with milky to clear quartz. Individual plate-like gold crystals have been observed up to 1.5 cm in length, but the average size appears to be more like 2 - 4 mm. Small hand samples of quartz matrix up to 6 cm have been observed with free gold covering the surface. The gold is very clean and brilliant - a micromounters dream!

Those interested in more information should contact:

Mr. William Wenger

P.O. Box 1961

Telluride, Colorado 81435

### FMCC Activities:

FMCC has just reprinted the "Colorado Pegmatites" volume from our 1986 symposium, and the book is again available for \$15 (postpaid). This is the fourth printing of the book, which has proved to be fairly popular. This time, 50 copies were printed, at a direct cost to FMCC of \$320.



At the present time, approximately 25 copies of the "Mineralogy of Precious Metal Deposits" volume from the 1988 symposium are still left; they are also available for \$15.

Plans to send out a questionnaire of member interests have not been abandoned - only sidetracked during the summer. Sometime this fall you should be getting this form in the mail; results will be tabulated and published as part of a directory that will let other FMCC members know what your specialties and interests are. Marty Zinn has volunteered to coordinate this activity.



The following four pages were contributed by Bill Smith, who has been delegated to be on an Advisory Council to the Colorado Inactive Mine Reclamation Program. Bill's participation on this committee is laudable, but I somehow can't resist the urge to comment on the activities of this organization. These comments in no way are intended to reflect a negative connotation towards Bill's work on this committee, which can only serve to further the interests of the mineralogical community - the comments are directed strictly toward the policy of the Mined Land Reclamation Program:

The Mined Land Reclamation Program, in my opinion, is an agency that has gone out of control - and with no fiscal accountability to anyone. It is evidently composed of self-serving bureaucrats whose sole purpose is to insure their continued employment by delegating multitudes of inactive mines in Colorado (and elsewhere) to be sealed under the guise of their being hazardous. The considerable amount of work I noted in the San Juans (and elsewhere) this past summer attests to the multiple millions of dollars expended on this program each year - and taxpayers never had a vote in whether these monies should be obligated in this direction. Continued public support is gained for this program through extensive media releases every time someone's poor judgment leads to a mine accident. The original intent of the reclamation program was to reclaim strip coal mine land - a worthwhile cause in itself. But judging by the work currently in progress, it seems that this original intent has gone astray - to the point where the agency is attempting to idiot-proof every mine, no matter how innocuous, in the country. Are we to assume that we must pay to pad the corners of the world in order to protect fools from themselves? [If you subscribe to that philosophy, then maybe we should fill the Grand Canyon!] More people are killed in Mt. Vernon Canyon each year as a result of careless driving than have been lost in Colorado mines in the last ten years - and yet such traffic hazards can be effectively mediated if the money spent sealing otherwise inaccessible mines was redirected toward more cost effective measures. For all that matters, we lose probably ten times the number of people on the ski slopes each year than we do on inactive mine property. The likelihood of an inattentive hiker falling into a mine shaft, or injury to an improperly equipped collector or trespasser, is remote at best compared to the loss of life elsewhere in Colorado. But it is probably a bit farfetched to expect that these bureaucrats will stop at simply sealing only the very most hazardous mines, and obligate themselves out of jobs. Enough said...

## COLORADO INACTIVE MINE RECLAMATION PROGRAM

On April 25, 1990, the Mined Land Reclamation Board voted to make me a member of the Advisory Council to the Colorado Inactive Mine Reclamation Program. I suspect my name was offered up by Jim Hurlbut; he has heard me plead for more collectors' involvement in public affairs, and he is forcing me to live up to my words.

At this time I have yet to fully understand all the bureaucratic details of what I am involved in, nor do I know the history of these programs, nor (most importantly) the details of the funding. I do believe, however, that what the Mined Land Reclamation Division (MLRD) does is important to mineral collectors, so I will sketch what is going on here. (Because of my imperfect knowledge, all these words are subject to revision.)

At various times in the past several decades, many states came to realize that reclaiming previously mined land was a real problem; the enormous and very visible strip coal mines of Appalachia probably were the biggest provocation to action. In due course, U.S. laws were enacted that placed a tax per ton of coal mined, that was to be used at least primarily to pay for clean-up of the sins of the past. This tax is collected by the U.S. Government, and its proceeds are used to support clean-up programs. One half of the money is remanded to the states "directly", but it must be used to support mined land remediation. Let us not talk about the other half. The States may, of course, add further money to these programs, and the States must establish a program office (however named) to manage these programs; this office is funded by the State. Note that though the State must appropriate money to maintain the program office, it does not have to appropriate money to do the substantive work. Though some of the money comes from Colorado (via the tonnage levy on Colorado coal mines), no State legislator is guilty of assessing this tax, and the program money that comes to the MLRD is thus not dependent on Colorado appropriations. If the State were to economize by abolishing the MLRD, the federal money would just go away; it would then be spent by Kentucky, or Wyoming, or the Crow Nation, or maybe it would go to the Resolution Trust Fund for S&L bailouts. The reader can guess how often States turn away Federal money.

In Colorado the money discussed above is spent by the Mined Land Reclamation Division; this division is part of the Department of Natural Resources (DNR). The division is responsible to two masters: the DNR and the Mined Land Reclamation Board (MLRB). The MLRB consists of seven members: two from the mining industry; two from conservation interests; one from agriculture; one from the DNR; one from the Soil Conservation Board. The MLRB is analogous to the legislature; it initiates or approves all substantive actions by the MLRD. The MLRD is analogous to the executive branch; it executes all decisions initiated or approved by the



Board. The MLRD is also responsible, of course, to the DNR for the proper care and feeding of its resources, like any other division of the DNR.

The MLRB supervises, and MLRD executes, three programs: the Minerals Program, the Coal Program, and the Inactive Mine Reclamation Program. In order to "mine" in Colorado, you must obtain a variety of permits; one of these is from the MLRB. The Mineral Program issues these permits (except for coal), as authorized by the MLRB. The permits assure that the "miner" will protect the environment and will restore the land to "beneficial use". Surety bonds are usually required. I believe that all "mines" disturbing more than one acre must obtain such a permit. I have put "mine" in quotes, because the term is used to include not only metal and uranium mines, but also oil shale, sand and gravel pits, and crushed stone and dimension stone quarries. This program is of little direct importance to mineral collectors, unless they plan to disturb more than one acre, when it becomes of high importance.

The Coal Program performs a function for coal analogous to the Mineral Program for everything else; to mine coal in Colorado, you must get a permit from the MLRB through the Coal Program. This program is a very big deal indeed, but has even less direct impact on mineral collecting than does the Mineral Program.

The third program is the one that has direct and immediate effect on mineral collecting: the Inactive Mine Reclamation Program. This program spends the bulk of the federal grants coming to the MLRD; the money is spent closing mine openings, grading old excavations, devising polluted water treatments, and alerting the public to hazards created by abandoned mines. This is the program that destroyed the Alice Glory Hole, and that has installed all the steel closures on old adits, shafts, and drifts in Clear Creek and Gilpin counties (well seen on the drive from Central City to Idaho Springs, down Virginia Gulch).

This program has its own external panel called the Advisory Council; this Council has no powers other than those of persuasion, but it is so constituted that it can be quite persuasive. The Council has fifteen members, all appointed by the MLRB; they are distributed as follows: three from coal companies, one each from a metal mining company, a consulting geology firm, the BLM, School of Mines, the city of Colorado Springs, Colorado Geological Survey, MLRD, DNR, and Women in Mining. Also on the Council are a County Commissioner, a mining historian, and a member of FM. All the actions and plans of the Inactive Mine Reclamation Program are reviewed by the Council at least twice yearly at two-day meetings. I attended my first such meeting early last June. Also at this meeting were nine members of the MLRD staff, to provide briefings and to provide answers to questions from the Council.

Of all the actions taken by the MLRD, the most important to mineral collectors, it seems to me, are the closures of inactive mines. The important questions are: what "mines" are to be closed; how are they closed; can they be accessed after they are closed? The last two questions are easier than the first one, so I will address them first. Mines are closed in a variety of ways but the most common are: grading; sealing the entrance; sealing the entrance but retaining access. However desirable from a safety standpoint, grading, and sealing without access are very undesirable for the mineral community. I view it as my charge to resist such closures except for coal mines; such closures result in the Alice Glory Hole type of extinction of valuable collecting environments. I will attempt to avert such closures in metal mines unless the safety or environmental trade-offs are too great; such concerns may be overwhelming when there is sufficient polluted drainage.

Sealing with access retained is typically accomplished by installing one of a variety of closures, plus a locked gate or door. A locked access is always done if the land owner insists on such a procedure; keys to the lock are retained by both the owner and the MLRD. I do not see how we could reasonably object to this procedure; access remains available to anyone with a legitimate right to enter (ask the owner for the key).

The case of unpatented, or even worse, unlocated land is more difficult. When the owner is the BLM or the U.S. Forest Service, the owner frequently not only does not insist on a locked entry, but instead actively desires total eradication. This is where I hope to intervene to encourage retaining access, at least via a locked gate, with keys held at the MLRD and by the BLM district or the National Forest HQ. Since the "landowner" does not require access, and it costs extra (typically, more than a thousand dollars) to install a locked gate, I am forced to run uphill in this contest.

The first question alluded to above: what "mines" are to be closed, is the one that will decide where I try to influence MLRD actions. The MLRD proposes closures to the MLRB on the basis of two primary considerations: safety to the "public"; damage to the environment. Both these considerations are fraught with ambiguities: is the public to be protected that of experienced backpackers, horsemen and mountaineers; or is it thought to be composed of air-headed couples from Ashtabula and their five under-age-nine children, and five pot-high teenagers in their dune buggy? Is environmental damage limited to cases like the Yak Tunnel drainage and the UO<sub>2</sub> mill tailings, or does some chipped paint on a used headframe constitute "visual" damage? You may be certain that no final answers to these questions will be forthcoming, only ad hoc compromises that flow with the moods of public opinion. (But remember, collectors, you are part of the public!)

branch; it executes all decisions initiated or approved by the



Inexperience in working with the Council and with MLRD makes my early interventions somewhat tentative, but I have made a start by proposing that access be maintained to all "important" mineral sites; there was general acceptance of this position. Fortunately, Colorado is blessed with a definition of "important mineral site": Minerals of Colorado, A 100-Year Record (USGS Bulletin 1114). When I held up 1114 at our meeting, using it to defend collector access, there was general interest and I was asked to pass it around; the USGS carries great weight in these circles. I realize that 1114 is old, incomplete, and otherwise flawed, but what would I have done without this authoritative text to fall back on? Pity the defenders of collectors rights in States devoid of such professional support! Obviously the FM update in the works (it is in the works, isn't it?) will strengthen our hand. I admit to being very pleasantly surprised by the Council's ready recognition of the desirability of collector access to non-working mines. I feared a doctrinaire attitude of: SEAL WE MUST!; I did not meet this at all. The mineral community's voice can be heard; it must, however, speak up.

Much remains to do by way of notifying our community of candidates for closure in time for our reaction, and in time to adjust MLRD planning. I have not figured out a mechanism to do this, and I am open to suggestions. I am also open to any other suggestions or comments concerning abandoned mine closures, or other matter before the MLRB, but I ask that such comments be thoughtful and realistic. For instance, I don't want to hear about why there should be no federal tax on coal for reclamation purposes, not because that position may be wrong, but because neither I nor the Advisory Council nor the MLRD, the MLRB, nor the DNR can do anything about this tax. Similarly, I cannot take a position against closures in National Parks (the Eugenia Mine, in RMNP, for instance) since all collecting or disturbance is and has been universally prohibited.

Bill Smith  
 1731 Daphne Street  
 Broomfield, CO 80020-1157  
 303-466-8723 or 303-466-5863

*Bill Smith*  
 Bill Smith  
 Update coordinator

August 7, 1990

Progress report on Minerals of Colorado update  
Addendum to the Aug. 6 report--additions following the 8/7/90 update meeting

Present at the meeting on 8/7 were Jack Murphy, Jim Hurlbut, Dan Kile, and Pete Modreski. Jack brought along revised draft versions of 5 minerals: pearceite, polybasite, polycrase, proustite, and pyrargyrite. This was the only specific new progress on finalizing mineral entries reported at the meeting. Otherwise, Jack has continued to work on incorporating various notes and corrections from the written files into the computer disk copy of the manuscript.

There was some discussion about the rate of progress on the update, and whether the slow rate of progress is as serious a problem as I have implied. With the addition of the 5 new "final draft" species prepared by Jack as noted above, I have revised my figures (see enclosed two sheets) for computed time to completion of all species (during the last several months, the total number of species has also risen to 788 from 782, due to the recognition of 6 new minerals from Colorado: huntite, trolleite, wairakite, cameronite, keystoneite, and magnolite. The present calculation of time to completion of the project is now back to the year 2040, in contrast to the year of 2071 to which it had risen before Jack brought in the five revised mineral entries. To restate the problem--if we had four persons each producing finalized mineral species drafts at the rate of 2 per week, the update could be finished in two years. However, our progress so far has been at nowhere near that rate (only about 1/25 of it!); so I conclude that we need to do as many things as possible to facilitate a stepped-up rate of work on the book.

We had a short discussion about possible ways to expedite the progress on the update, but no definite new decisions were made. I suggested a next meeting of the full update committee in the first week of September, but Jack felt that just a working meeting of the four authors was more in order first. Jack will schedule such a meeting sometime in late August; then, we will talk about when the next meeting on update progress should be. Dan suggested that the question of progress on the update should be discussed at either the September or the November general FM meetings. Perhaps, the FM membership should be polled as to how they would like to earmark the the funds which were raised to support the update, and are currently in our bank account not really being used for anything; or as to whether the membership still supports the update project in its present form at all, given the almost indefinite postponement of completion of the book.

My own feeling still is that we need to take some serious steps to restructure the way we are working on the project, to assure that it gets completed in a reasonable amount of time.

*Pete Modreski*

Pete Modreski  
Update coordinator