

FRIENDS OF MINERALOGY - COLORADO CHAPTER

Newsletter: June, 1978  
Editor: Dub Crook

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Once again it is time for the Chapter Newsletter and I am sitting here with not a single response from any of the members. One does not have to hold a Ph.D. in crystal chemistry to contribute an article or a comment. There is a large variety of talent in the Colorado Chapter, varying from lapidary expertise to crystal structures, but I'd never know it from the response I've received. Unless you wish to see the newsletter die, please take the time and contribute an article, story, idea, etc. I will not let this newsletter become a monologue like the Pennsylvania Chapter's letter, so unless I can see some active participation from the chapter, do not look for the newsletter to continue. The next newsletter is scheduled for late October. Deadline for submitted material is October 20. All material should be mailed to:

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Chapter News

The July 13th meeting has been cancelled and replaced by a chapter field trip. The trip will be made to the Calumet Iron Mine near Salida. Date of the trip is Saturday, August 5. Rick Collins will lead the trip to the mine; assembly point will be at the mine dumps on the road below the mine at 10:30 AM, August 5. A complete road log to the mine can be found in Richard Pearl's book, "Colorado Gem Trails and Mineral Guide", 1972 ed., pages 101-105 under the section on the Turrett District. Recommended field tools are a shovel, small pry bar, and a small sledge. If you need a ride or have extra space for a ride, please contact Steve Rose at 237-0557.

The next regularly scheduled meeting will be September 14, 7:30 PM at the Denver Museum of Natural History. The program will be announced at a later date.

The Colorado Minerals 1958-1978 project is still underway. Revised mineral data cards are now available from either Phoebe Hauff or Jack Murphy. To encourage the competition for the completion of more cards, Phoebe has offered a prize for the person who completes the most data cards. First prize is a specimen of pyrite from the Gilman Mine. A runner-up prize may be offered if the competition is close. So, rack your brains, remember those mineral localities, and fill out the data cards to help in the eventual revision of Bulletin 1114.

### Treasurer's Report

As of June 15, 1978, the FMCC bank balance was \$641.20. This increase was due to membership dues. We have not received to date our tax except status, however, it is expected soon.

-Jim Nelson-Moore, Treasurer

### Notes from the President

The Colorado Chapter of Friends of Mineralogy is about one year old now and we have a total membership of about 50. I feel that these people are some of the more talented and dedicated individuals in the mineralogical community in the Front Range Colorado area. I am impressed with the fact that the group is a blend of professionals, amateur and advanced mineral collectors. This is an ideal mixture of people who can communicate to each other on a variety of different experiences.

The Chapter is still getting started and there is much left to do. It has taken quite a while to develop our legal foundation including the Articles of Incorporation and Bylaws. There are still some operating procedures to define as well as completion of our tax except status. As the months go by, our main job as I see it is to become increasingly involved in Phoebe Hauff's work on the sequel to the U.S.G.S. Bulletin 1114. This is some of the finest work we can do and I hope that the members will become seriously involved in this important project. We also need to get more involved with field trips and collecting projects when appropriate and I would also like to see a greater degree of participation with people volunteering to assist with such things as the Newsletter, in mailing and helping with mineral shows and other Chapter functions. The main business coming up this fall will be the Denver Council Show, which is September 8th through 10th. We need to firm up our plans on the appraisal function and the FM,CC display.

I would like to remind members that the July meeting has been cancelled in lieu of a field trip to the Calumet Iron Mine and the next official meeting for the Chapter is not until September 14th after the Denver Council Show. I will be calling on some individuals in the membership to help out.

-Jack Murphy, President

### Misc. News

One of the largest blue topaz cut stones is presently on exhibit in Denver. The gem, weighing 2,165 carats, is the property of James Stradley of Stradley Lapidary Co., 430 16th Street. The gem is on display in his Empire Building shop along with two smaller Brazilian topaz gems (745 carats, 496 carats). Estimated value of the large stone is \$151,550.

May Program: "Gemology and Current Problems" by John Hoover

John gave us a brief look at the scientific aspects as well as the more aesthetic side to gemology. Tools used for the characterization of gemstones, such as the dichroscope, refractometer, and the diamond-scope were discussed in detail. The talk and the beautiful accompanying slides showed some of the complex but every-day problems of the gemologist.

Since the chapter newsletter began in April, several of the preceding meeting's talks were not given a review. Thus the January program of Gene Foord's talk on the Pala district of California will be included here.

January Program: "Mineralogy and Petrogenesis of Layered-Aplite Dikes in the Mesa Grande District, San Diego County, California" by Eugene Foord

The Himalaya pegmatite-aplite dike system, in the Mesa Grande district of San Diego County, California, is world-famous for its past yield of gem-quality tourmaline and mineral specimens of exceptional value. It is also of special interest as a complex product of crystallization in a system comprising silicate melt and aqueous vapor.

Two major dikes, with a combined thickness of about five feet and an exposed length of nearly 1.5 miles, trend north-northeast and dip westward at moderate angles. Three major rock units are present in each dike; a footwall pegmatitic aplite overlain by layered aplite and pegmatitic aplite, a hangingwall graphic pegmatitic unit, and a centrally disposed unit of "pocket" pegmatite. In general the dikes are separated by country-rock norite, but at several places one of them intrudes the other or they join to form a single complex dike.

Properties and compositional zoning were determined in detail for major and minor minerals of each rock unit, with much use of electron microprobe techniques. The major minerals include feldspars, garnets, micas, and tourmaline, and the minor minerals Nb-Ta oxides, apatite, spinel, and several rare species. A crystal structure refinement was completed for manganocolumbite. One new mineral species, rynersonite (calcium tantalate), was recognized and described in detail.

Among the tourmalines, schorl is widely distributed through both pegmatite and aplite, and elbaite occurs in central parts of the dikes within quartz-rich pegmatite and associated cavities, or "pockets" that commonly are filled with clay minerals. Much of the elbaite projects into the cavities as singly terminated color-zoned crystals, some of which are extensions of schorl crystals formed earlier in void-free pegmatite. Elbaite also occurs within the cavities as doubly terminated individuals with pencil-like form.

