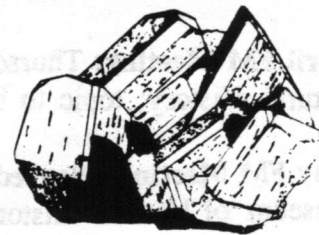


# friends of mineralogy colorado chapter



## Friends of Mineralogy - Colorado Chapter Newsletter No. 2, March, 1993

March Meeting: 7:30 p.m., Thursday, March 11, 1993

Denver Museum of Natural History

V.I.P. Conference Room, at rear of T-rex Cafeteria

(enter museum at security door to left of main entrance)

### Program: "Colorado (and Other) Garnet"

Plus a slide review of Tucson, 1993

by various persons

"Garnet" was the theme mineral for the Tucson show this year. In keeping with this topic, we are presenting a multi-part program on garnet, emphasizing Colorado garnet occurrences, plus a slide review of "Tucson '93".

The 1993 Tucson show included the 14th Annual FM-TGMS-MSA Symposium, on "Garnet". It was organized and chaired by Karen Wenrich, and included 10 talks, among which were "Garnets in the gem-bearing pegmatite dikes of San Diego County, California" by Eugene E. Foord and Wallace D. Kleck; and "Geologic occurrence of minerals in the garnet group" by Peter J. Modreski. As part of our program tonight, Gene and Pete will each present a somewhat abbreviated version of the talks they gave in Tucson. Abstracts of all the papers from the FM-TGMS-MSA symposium are printed in the Jan.-Feb. 1993 issue of *Mineralogical Record*.

We will then conduct a general, audience-participation session on "Colorado Garnet", led (in part) by Jack Murphy. Jack will make a few comments about some of the more distinctive Colorado garnet specimens in the DMNH collection. Our discussion will be keyed to what any of the members have to say, and to those specimens that people have brought in to display at the meeting.

### How you can participate (yes, we'd like you to):

Please bring some of your "unique" specimens of garnet from Colorado. We'll have a display case set up for them, and any "big honkers" can just go on the table. We'd like to assemble a good selection of garnets from Colorado localities (see the garnet locality list later in this newsletter).

If you would like to say a few words about some notable (or just unusual) garnet locality in the state with which you have special familiarity, please come prepared to do so! Either call us in advance, or just come prepared with specimens, words, or even slides to show.

If you have good slides of minerals (or whatever) from the Tucson Show, we invite you to bring them to add to the slide program. Again, either just bring your slides, or call Pete Modreski to coordinate what you have with what we've already got. Did anyone photograph the big hairy (literally) tourmaline specimen from Brazil?

\*\*\*\*\*

FMCC officers:	Pete Modreski, pres.	Ed Raines, secretary.	Ed Gray, director
	Jim Hurlbut, vice-pres.	Eunice York, treas.	Glen Johnson, director
			Dave Weller, director

Mailing address: FMCC, P.O. Box 150401, Lakewood, CO 80215-0401

**April FM Meeting:** Thursday, April 8, 1993, 7:30 p.m., Ricketson Auditorium, Denver Museum of Natural History; topic to be announced.

**May FM Meeting:** Planned to be our annual fund-raising auction, Thursday, May 13, 1993, Denver Museum of Natural History.

**Minerals of Colorado Project:** Perhaps we should have put this paragraph first, because it's the Update that has been taking up most of the time of a number of us lately. We are looking at having a complete, ready-to-print manuscript plus maps and photographs by the end of 1993. Arrangements for actual publication are still to be made; this will be discussed with the Denver Museum of Natural History in the coming months. We now have a complete draft of the entire manuscript; it is being reviewed and corrected by each of the authors, and will be delivered for official review and approval by the U.S.G.S. Branch of Technical Reports (necessary because some of the authors are USGS scientists, even if it is not published by the Survey) sometime this spring.

What can you do? (Glad you asked!). The fact is, there are several areas in which we can use the help of a number of people, to see that this project is (a) completed on schedule by the end of this year, (b) made as accurate and complete as possible in the available time, and (c) completed with a minimum amount of grief and agony to the people doing it--i.e., we are real eager to spread the work around as much as possible. Here are several specific ways you can offer to help:

**Mineral review:** If you think you have a good knowledge about the occurrence of particular minerals in Colorado, or about particular regions or mining districts, we would be very happy to have you read and review those sections of the manuscript. If you know of information about localities or minerals found that should be in the Update and you're not sure if it is, now is the time to check!

**Manuscript editing:** We know that we can use some help with proofreading, making corrections to the manuscript on word processor (we're using Word Perfect 5.1 on DOS), cross-checking the bibliography with text citations, etc. If you can help with some of this, either as a volunteer at the DMNH or at your own time and place, let us know.

**Maps:** The Update will contain approx. four small-scale maps covering the entire state, plus about 5 larger-scale maps showing multi-county regions which have numerous mineral localities (San Juans, Chaffee + Lake Co., etc.). The maps will be photo-reproduced from USGS base maps, with numbers added to mark "noteworthy mineral localities". Bill Chirnside is the head of a map preparation committee, which will be able to use some help in drafting, plotting numbers to mark localities, etc.

**Photos:** The Update will include both black-and-white and color photographs. Ed Raines is the head of a photo committee (so far mostly just him), and Ed himself is doing most of the actual photography that needs to be done. What we can use are several people, familiar with Colorado minerals, who can serve on the committee with Ed to confer about what mineral species and which specimens need to be photographed, to make recommendations about which photos are the best ones to use, etc.

Can you help? If so, please contact any one of the Update authors/editors/committee chairmen: Gene Foord, Jack Murphy, Bob Cobban, Rick Collins, Pete Modreski, Dan Kile, Bill Chirnside, Ed Raines. Beginning about 15 (!) years ago, a lot of people began helping us collect data for the Update; now is the time to pitch in and help us complete the project. We're not kidding!

\* \* \* Anything else that has been promised to appear in this newsletter and hasn't done so in recent months, has been deferred because of work on the Update! Wish us luck! \* \* \* \*



## Colorado Garnet Localities

To serve as "grist for discussion" for our program this month, and also to give you some extra insight into what is in the Update, following is a list of all the garnet localities presently included in the "Minerals of Colorado Update", arranged by species:

### *Almandine:*

Chaffee Co., Sedalia mine  
Chaffee Co., Poncha Pass, Bonus Extension pegmatite  
Custer Co., Rosita district  
Fremont Co., Cotopaxi mine  
Fremont Co., Grape Creek  
Fremont Co., near Royal Gorge, Meyers Quarry  
Gilpin Co., Central City district  
Gunnison Co., Gold Brick district  
Gunnison Co., Quartz Creek dist., Bucky pegmatite  
Jefferson Co., Clear Creek Canyon  
Jefferson Co., Douglas Mountain Road  
Jefferson Co., Deer Creek  
Jefferson Co., Ralston Buttes area  
Lake & Summit Co.'s, Kokomo-Tenmile district  
Larimer Co., Thompson River, North Fork  
Larimer Co., Poudre Canyon pegmatite  
Larimer Co., Poudre Canyon, Water Works Hill  
Larimer Co., Crystal Mountain  
Larimer Co., Big Thompson Canyon  
Mesa Co., Unaweep Canyon

### *Andradite*

Chaffee Co., Monarch district, Taylor Guich, Cree  
Camp, Taylor Mountain  
Clear Creek Co., Henderson mine  
Costilla Co., Grayback Mountain  
Dolores Co., Rico district  
Gilpin Co., Evergreen mine  
Gunnison Co., Italian Mountain  
Gunnison Co., Gold Brick district  
Gunnison Co., Ruby-Irwin district, Forest Queen mine  
Gunnison Co., Powderhorn district, Iron Hill  
La Plata Co., La Plata district  
Moffat Co., Green River Formation  
Ouray Co., Mount Sneffels  
Park Co., Tarryall Creek  
Summit Co., Breckenridge district  
Summit Co., Kokomo district, Jacque Mountain, and  
Copper Mountain - Tucker Mountain area  
Teller Co., Cripple Creek district

### *Grossular*

Boulder Co., Allens Park  
Chaffee Co., Calumet mine  
Chaffee Co., Poncha Pass area  
Clear Creek Co., McManus Gulch  
Fremont Co., Ducks Creek area  
Gunnison Co., Italian Mountain  
Gunnison Co., Snowmass Mountain  
Jefferson Co., Genesee Mountain  
Jefferson Co., Cody Park area  
Jackson Co., Pearl district  
Larimer Co., Pingree Park  
Park Co., Meyers sillimanite deposit  
Park, Fremont, and Chaffee Co.'s, various scheelite-  
bearing skarn deposits

### *Pyrope*

Boulder Co., Green Mountain kimberlite  
Jackson Co., Pearl, Cap Rock prospect  
Larimer Co., State Line kimberlite district; Sloan  
diatreme, Schaffer diatreme

### *Schorlomite*

Gunnison Co., Powderhorn district

### *Spessartine*

Chaffee Co., Mount Antero  
Chaffee Co., Ruby Mountain  
Clear Creek Co., Henderson mine  
Fremont Co., Eight Mile Park, Mica Lode mine  
Fremont Co., Texas Creek district, Chief Lithium  
pegmatite  
Gunnison Co., Quartz Creek district, Brown Derby mine  
Jefferson Co., Ralston Buttes area  
Jefferson Co., Guy Hill  
Saguache Co., Bobcat pegmatite

### *Uvarovite (unconfirmed)*

Fremont Co., Eight Mile Park, Mica Lode mine (??)  
(probably a misidentification)

**"Antero Aquamarines":** Mark Jacobson's book is on track to be published by L.R. Ream, Inc., this spring. The complete manuscript is due to be sent to the printer about the time you read this, and printing is expected to be complete by about May. All members should have received the notice about the prepublication offer for FM members (and members of other Denver Council clubs) to order the book at a 40% discount, \$13.00 softcover or \$22.00 hardcover. We have forwarded orders from our members for 37 hardbound and 36 softbound copies; we will notify you when these are available--*perhaps* as early as our May meeting. Please remember, if you ordered a book or books, to send us your payment for it by April 1. The publication of this book has proceeded faster than was anticipated (what a pleasant surprise!--that was the reason for the rush request to order copies--and we look forward to seeing Mark's book in print. Two thousand copies are being printed, of which 200 will be hardbound (up from the original plan of 100, because orders from the Denver Council clubs have already reserved 95 hardbound copies).

**Minerals of Arizona, First Annual Symposium:** Leaflets distributed at Tucson announced this first Arizona symposium, to be held Saturday, March 20, 1993, 8 a.m. to 5 p.m., at the Arizona Mining and Mineral Museum, 15th and Washington Streets, Phoenix, AZ. Cosponsors are the Arizona Mineral and Mining Museum Foundation, and the Arizona Department of Mineral Resources. The announced program of 10 talks includes several talks about Arizona mineral museums, "Pegmatite minerals of Arizona", "Topaz rhyolites of Arizona and the Southwest", "Minerals of the Mammoth-St. Anthony mine", "Supergene minerals of Bisbee", and short presentations of new information about Arizona minerals. Registration is \$20, which includes abstracts, lunch, and coffee break refreshments. To register (by Mar. 6 is requested) send \$20 to Arizona Mineral and Mining Museum Foundation, 4310 N. Brown, Suite 3, Scottsdale, AZ 85251; or call (602) 255-3791.

**Mining Conference:** As noted in the last newsletter, on March 23-26, 1993, the (96th annual) National Western Mining Conference and Exhibition will be held in Denver, co-sponsored by the Colorado Mining Association and the Denver Region Exploration Geologists Society (DREGS). For registration information, contact the CMA at 1340 Colorado State Bank Building, 1600 Broadway, Denver CO 80202, telephone (303) 894-8416.

**Preservation of Localities/Preservation of Collecting Rights:** We've commented before (a little; not nearly enough!) on matters of preserving the "right" to collect minerals on public lands in the U.S. This is a matter which merits a lot of thought, and discussion, and action, from every one of us (go back and re-read Bill Smith's editorial in M.R.!). We live in a time when the attitudes, and laws, of our society and our government to people's "rights" to freely collect *anything* on public land is being subjected to re-evaluation and change. As many people have said, if we don't make some serious efforts to educate and influence the general public and our elected representatives, these decisions and changes are going to be made, with or without our input. I (PJM) would attempt to write a more serious editorial statement about this if I weren't so ^#&\*(?/+|~@!\ busy with the Minerals of Colorado project! We very much welcome any letters or comments from any of our members about this--we'll be glad to print them in this newsletter.

One project that addresses this problem from a rather unique angle is being coordinated by Vandall T. King, P.O. Box 90888, Rochester, NY 14609. Several of us talked with Van in Tucson about this. Working with the Eastern Federation of Mineralogical and Lapidary Societies, Van has proposed, and has begun compiling, a "Critical Areas Program" (CAP). "The philosophy of CAP is to preserve scientifically important geological sites for the mutual benefit of scientific, educational, and recreational purposes." Van's objective is to compile a list of "Critical Areas" of mineral occurrence for the entire U.S. A letter by Van (repeated below) summarizes his goals and approach.



By bringing this list to the attention of public agencies, Van hopes to make a start at insuring that areas of important scientific or specimen value receive comparable consideration to that which is accorded endangered natural areas, scenic areas, wildlife habitat, etc. The crux of Van's project is to promote the idea that, in contrast to the way we treat endangered wildlife or plant environments, the way to most usefully "protect and preserve" mineral locations is to *keep* them open and accessible to collecting by geologists, students, and mineral collectors. He has given first attention to compiling a complete Critical Area list for the state of Maine, and has had some preliminary success in getting the State of Maine to recognize these areas; one city in Maine (Auburn) has designated a mineral collecting park which includes two of the areas. Van's present goal is to compile a reasonably comprehensive list of Critical Area localities for the entire U.S. His draft list for Colorado, reproduced further below, includes, for a start, only type localities (and perhaps it is a little heavy on "discredited type localities"; but if you would like to help augment this list (by June 1), please contact Dan Kile or Pete Modreski.

### **Proposal to Influence Mineral Locality Preservation -- by Vandall T. King**

Mineral and gem collecting has become ever tenuous as various pressure groups have influenced the accessibility of collecting sites. We can take a lesson from the biologists who began with modest proposals and who have been successful in demonstrating the need for habitat conservation. In the case of minerals and gems, **collecting is the only form of conservation** - weathering and erosion, etc. will destroy minerals which are exposed at the surface. A policy to designate "critical areas" will have great benefit to science and the educational goals of the federation.

One way to help preserve known mineral and gem sites is for the Eastern and American Federations, etc. to designate "critical areas" which should be open for future collecting. While the focus of mineral and gem collecting does not universally target scientific materials, it is a common fact that scientifically important minerals are found in association with gems and other good crystals, etc. Additionally, nearby collecting sites might acquire protection through a critical area's proximity.

By the Federations' having such lists, the political implications could have far reaching consequences. Construction on public lands would have to consider not only the impact on biological systems, archaeological sites, etc., but also consider the impact on critical mineral areas. By extension, some critical areas, such as type localities might be granted immunity from construction even if they are on private land. While collecting might not be possible on private land during some time periods, which might be of long duration, the preservation

of a site might be useful for future generations. Of particularly sensitive concern is the educational value that critical geological sites might possess. A beginning exists with the State of Maine having already designated several critical mineral areas and a committee has been established to propose comprehensive critical areas for all states.

The two critical area lists would include: 1. type mineral locations, and 2. endangered mineral species (for example, minerals from a particular area for which fewer than some number of specimens are known to exist). While such lists have to be realistic in their designation of critical areas, to be useful, such a concern exhibited by a national organization could have enormous effect concerning future collecting policies and the allowing of collecting as a conservation measure. Construction which can not occur near a mine site (say 100 meters) would not only help in locality preservation, but also be a reasonable safety measure to keep habitation away from sites of potential subsidence, etc. Of course, laws which require the reclamation of recently abandoned mine land could not be superseded, but there might be the suggestion that critical minerals found at a mine should have some degree of recovery attempted before the site becomes buried. (By extension, other groups might be willing to participate in the program including professional groups and they should be invited to participate in the program.)

The Federations could issue lists to various government agencies, planning boards, etc., and through time acquire significant influence for this program.

## Colorado

- Beegerite (Koenig, 1881) Baltic Lode, Geneva Gulch, Revenue Mountain, Park Co.
- Beidellite (Larsen & Wherry, 1925) Beidell, Wagon Wheel Gap, Saguache Co.
- Berryite (Nuffield & Harris, 1966) Missouri M, Halls Valley, Park Co.
- Beyerite (Mallet, 1875) Middle Park
- Brockite (Fisher & Meyrowitz, 1962) Wet Mountains
- Cameronite (Roberts et al., 1986) Good Hope M, Vulcan, Gunnison Co.
- Carnotite (Friedel & Cumenge, 1899) Montrose Co.
- Cebolite (Larsen & Schaller, 1914) Cebolla Creek, Iron Hill, Gunnison Co.
- Coconinoite (Young et al., 1966) Jomac M, T34S R14E (13 miles NE of White Canyon, San Juan Co.
- Coffinite (Weeks & Thompson, 1954) White Canyon, San Juan Co.
- Coloradoite (Genth, 1877) Colorado Plateau
- Corvusite (Henderson & Hess, 1933) Keystone M, Magnolia District, Boulder Co.
- Creedite (Larsen & Wells, 1916) Mountain Lion M, Magnolia District, Boulder Co.
- Creniadite (Strunz, 1957) Smuggler M, Ballerat District, Boulder Co.
- Cuprobismutite (Dana, 1892) Ponto #3 claim, northern Gypsum Valley, San Miguel Co.
- Cupropavonite (Karup-Møller & Makovicky, 1979) Fluorite/Barite M, Wagon Wheel Gap, Mineral Co. no locality specified
- Delrioite (Thompson & Sherwood, 1959) Missouri M, Halls Valley, Park Co.
- Dickite (Ross & Kerr, 1930) Alaska M, San Juan Co.
- Doloresite (Stern et al., 1957) Jo Dandy M dump, Montrose Co.
- Domingite (Groth, 1889) American (National) Belle M, Red Mountain, San Juan Co.
- Doughtyite (Headden, 1905) La Sal #2 M, Lumsden Canyon, near Dolores River A, SW of Gateway, Mesa Co.
- Duttonite (Thompson et al., 1956) Domingo M, Ruby-Elk Mountain District, Gunnison Co.
- Elpasoite (Cross & Hillebrand, 1885) Doughty Hot Springs, Delta Co.
- Empressite (George, 1914; Bradley, 1914) Peanut M, Montrose Co.
- Ferrotellurite (Genth, 1877) Cincinnati M, St. Peters Dome Cryolite Locality, Pikes Peak Region, El Paso Co.
- Fervanite (Henderson & Hess, 1931) Empress Josephine M, Bonanza, Kerber Creek District, Saguache Co.
- Fremontite (Schaller, 1916) Keystone M, Magnolia District, Boulder Co.
- Fluor-Chlor-Oxy-Apatite (Young & Munson, 1966) Tiny M, Gypsum Valley, San Miguel Co.
- Genthelvite (Glass et al., 1944) Eight Mile Park pegmatite, 4 miles NW of Canyon City, Fremont Co.
- Gilpinitite (Larsen & Brown, 1917) Eagle, Devils Canyon
- Goldschmidtite (Hobbs, 1899) western Cheyenne Canyon, West Cheyenne Mountain, El Paso Co.
- Gütermannite (Hillebrand, 1885) Gilpin Co.
- Gunnisonite (Clarke & Perry, 1882) Gold Dollar M, Cripple Creek, Teller Co.
- Hendersonite (Lindberg et al., 1962) Zuni M, Silverton, San Juan Co.
- Hinsdalite (Larsen & Schaller, 1911) Iron Hill, Gunnison Co.
- Hummerite (Weeks et al., 1950) J. J. M, Paradox Valley, Montrose Co.
- Ilesite (Wünsch, 1881) Golden Fleece M, 3 miles S of Lake City, Hinsdale Co.
- Juanite (Larsen & Goranson, 1928) Hummer M, Bull Canyon District, Paradox Valley, Montrose Co.
- Kentsmithite ("Lee, 1921") McDonnell claim, head of Hall Valley, Montezuma District, Park Co.
- Keystoneite (Back et al., 1988) uncomphagrite, Iron Hill, San Juan Mountains, Gunnison Co.
- Kent Smith Claim, near Norwood, Paradox Valley, Montrose Co.
- Keystone M, Magnolia District, Boulder Co.

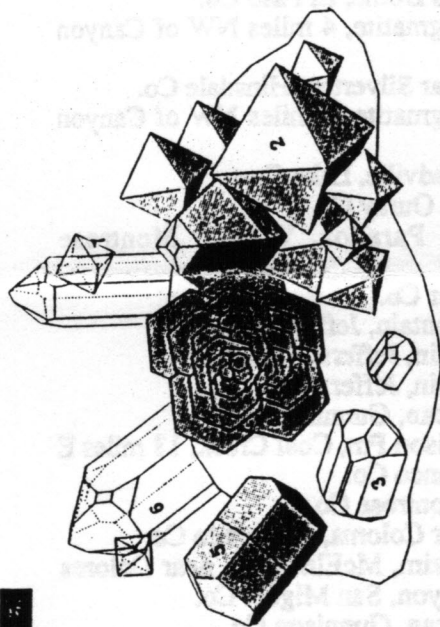


- Kogarkoite (Pabst & Sharp, 1973) Hortense Hot Spring, Chaffee Co.  
Wrights Well, Princeton, Chaffee Co.
- Lillianite (Keller, 1889) Lillian Company M, Printerboy Hill, Leadville, Lake Co.  
Mountain Lion M, Magnolia District, Boulder Co.  
Keystone M, Magnolia District, Boulder Co.  
Jo Dandy M, eastern Paradox Valley, Montrose Co.  
Jo Dandy M, eastern Paradox Valley, Montrose Co.  
Burro M, San Miguel Co.  
Deremo-Snyder M, San Miguel Co.
- Lionite (Genth, 1877)
- Magnolite (Genth, 1877)
- Metadelrioite (Smith, 1970)
- Metaheawettite (Hillebrand et al., 1914)
- Metamunirite (Evans, 1991)
- Metarossite (Foshag & Hess, 1927) William O'Neills claim, McElmo Fm, near Dolores River, Bull Pen Canyon, San Miguel Co.  
Jo Dandy M, Montrose Co.  
Small Spot M, Calamity Mesa, Mesa Co.  
May Day M, Calamity Mesa, Mesa Co.
- Metatyuyamunite (Stern et al., 1956) Bitter Creek M, northeastern Paradox Valley, Montrose Co.  
Jo Dandy M, Montrose Co.  
Whitney Mines, Montrose Co.
- Montroseite (Weeks et al., 1950) pegmatite, St. Peters Dome, El Paso Co.  
Eight Mile Park pegmatite, 4 miles NW of Canyon City, Fremont Co.
- Murataite (Adams et al., 1974)
- Natroamblygonite (Schaller, 1911) National Bell M, near Silverton, Hinsdale Co.  
Eight Mile Park pegmatite, 4 miles NW of Canyon City, Fremont Co.
- Natroalunite (Hillebrand & Penfield, 1902)
- Natromontebasite (Gonnard, 1913) Blue Limestone, Leadville, Lake Co.  
Old Lout M, Ouray, Ouray Co.  
Bitter Creek M, Paradox Valley, Montrose Co.
- Nicholsonite (Butler, 1913)
- Ourayite (Karup-Møller, 1977)
- Paramontroseite (Evans & Mrose, 1955) Cripple Creek, Teller Co.  
northern Green Mountain, Jefferson Co.  
North Table Mountain, Jefferson Co.  
South Table Mountain, Jefferson Co.  
Good Hope M, Vulcan, Gunnison Co.
- Pentahydrate (Fronzel, 1951)
- Ptilolite (Cross & Eakins, 1886) Riland Claim, Morrison Fm, Coal Creek, 13 miles E of Meeker, Rio Blanco Co.  
carnotite deposit, Montrose Co.  
Stuckslacker M, near Coloma, El Dorado Co.  
William O'Neills claim, McElmo Fm, near Dolores River, Bull Pen Canyon, San Miguel Co.
- Rickardite (Ford, 1903)
- Rilandite (Henderson & Hess, 1933) Good Hope M, Vulcan, Gunnison Co.  
New Discovery M, Leadville District, Lake Co.  
Yankee Doodle M, Leadville District, Lake Co.  
Red Cloud M, Gold Hill District, Boulder Co.  
Cold Spring M, Gold Hill District, Boulder Co.  
Treasure Vault Lode, Geneva District (= Montezuma District), Park Co.
- Robellazite (Cumenge, 1900)
- Roscoelite (Blake, 1876)
- Rossite (Hess & Foshag, 1926)
- Sanfordite (Ores and Metals, 1903)
- Sauconite (Ross, 1946)
- Schirmerite (Endlichite, 1874)
- Schirmerite (Genth, 1874)
- Sherwoodite (Thompson et al., 1958) Peanut M, Montrose Co.  
Matchless M, Mesa Co., Colorado Plateau  
St. Peters Dome, Pikes Peak Region, El Paso Co.  
Lake Como, Hinsdale Co.  
Sundown claim, Morrison Fm, San Miguel Co.  
Peanut M, Morrison Fm, Montrose Co.  
Shattuck-Denn lease, Morrison Fm, Club Mesa, Montrose Co.  
J. J. M, Morrison Fm, Paradox Valley, Montrose Co.
- Siderophyllite (Lewis, 1880)
- Sidwillite (Cesbron & Ginderow, 1985)
- Simplotite (Thompson et al., 1956)
- Steigerite (Henderson, 1935) Sullivan Brothers claim, Gypsum Valley, San

**Rätsellecker**

Eine wunderbare Mineralstufe aus der Schweiz... mit dem Computer gebastelt

Ein Bestimmungs- und Zahlenrätsel von Erich Offermann



**Gefällt Ihnen dieses Rätsel?**

Dann senden Sie bitte den folgenden Abschnitt (oder eine Fotokopie) mit Ihrer Lösung an Erich Offermann, Lettenweg 16, CH-1144 Ariesheim. Die ersten 20 hier eingegangenen richtigen Lösungen werden in einem der nächsten „aktuell“ veröffentlicht.

Bestimmen Sie die 7 Mineralarten. Die Zahlen vor den Buchstabenfeldern beziehen sich auf die Mineralarten. Gleiche Zahlen in den Buchstabenfeldern bedeuten gleiche Buchstaben.

**Meine Lösung des Bestimmungsrätsels  
"Eine wunderbare Mineralstufe..."**

1	2	1	3	1	4			
5	1	6	2	7	3	8	3	
D	9	1	2	10	11	12	8	3
4	13	1	7	5	1	3	8	3

..und eine Frage für Experten:  
Welcher Kristall ist verzwilligt?

5	14	1	15	14	8	3	
6	16	11	1	12	17		
7	18	15	11	19	12	8	3

Eingesandt von:

.....  
.....  
.....

- Telaspyrine (Shepard, 1877)
- Theisite (Bevins et al., 1982)
- Treasurite (Karup-Møller, 1977)
- Tysonite (Allen & Comstock, 1880)
- Uvanite (Hess & Schaller, 1914)
- Vandiestite (Pearce, 1898)
- Vanoxite (Hess, 1924)
- Vulcanite (Cameron & Threadgold, 1961)
- Warrenite (Eakins, 1888)
- Weissite (Crawford, 1927)
- Wolfonite (Butler, 1913)
- Zinc-melanterite (Larsen & Glenn, 1920)
- Zunyite (Hillebrand, 1884)

- Miguel Co.
- Sunshine Camp near Durango, La Plata Co.
- Treasury M, Montezuma District, Park Co.
- base of Stove Mountain, Pikes Peak Region, El Paso Co.
- Temple Rock, San Rafael Swell, Emery Co.
- Hamilton M, Sierra Blanca, intersection of Alamosa, Costilla, Huerfano Co.
- Little Gerald M, Sierra Blanca, intersection of Alamosa, Costilla, Huerfano Co.
- Jo Dandy M, SW wall of Paradox Valley, Montrose Co.
- Good Hope M, Vulcan, Gunnison Co.
- Domingo M, Ruby-Elk Mountain District, Gunnison Co.
- Good Hope M, Vulcan, Gunnison Co.
- Wolfstone M, Leadville, Lake Co.
- Good Hope M, Vulcan, Gunnison Co.
- Zuni M, Silverton, Anvil Mountains, San Juan Co.



**1993 Calendar**

- Mar. 11 - - March FM meeting, VIP Conference Room**
- April 8 - - April FM meeting, Ricketson Auditorium**
- March 20 - Minerals of Arizona, First Annual Symposium**
- March 23-26 National Western Mining Conference, Denver**
- Mar. 26-28 Fort Collins 32nd Annual Mineral Show, Lincoln Center, Ft. Collins**
- Apr. 24-25 Flatirons Mineral Show, Fisher Chevrolet, 6025 E. Arapahoe, Boulder**
- May 13 - - May FM meeting (annual auction)**
- July 16-18 Pikes Peak Gem & Mineral Show, City Auditorium, Colorado Springs**
- Aug. 13-15 Contin-Tail rock swap, Buena Vista, Colorado**
- Sep. 9 - - September FM meeting, Ricketson Auditorium**
- Sep. 16-19 Denver Gem and Mineral Show/American Federation Show**
- Oct. 14 - - October FM meeting, Ricketson Auditorium**
- Nov. 11 - - November FM meeting, Ricketson Auditorium**
- Nov. 13-14 Fourteenth Annual New Mexico Mineral Symposium, Socorro, NM**

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\* *FM dues for 1993, \$13.00, are delinquent after March 1.* \*

\* *If you have not already done so, please send us* \*

\* *your dues payment ASAP. Otherwise you will not* \*

\* *receive any further newsletters. Thanks, you bet!* \*

\*\*\*\*\*

**Friends of Mineralogy,  
Colorado Chapter  
P.O. Box 150401  
Lakewood, CO 80215-0401**

