# THE 736th MEETING of the MINERALOGICAL SOCIETY of SOUTHERN CALIFORNIA

7:00 p.m., Friday, May 14, 1999 Geology Building E220, Lecture Hall Pasadena City College Pasadena, California

# **Doug Mitchell**

# "Luminescence in Minerals"

### **MAY PROGRAM**

Doug Mitchell has been a member of the Fluorescent Mineral Society for ten years and edited its newsletter for four years. His talk entitled "Luminescence in Minerals" will describe how certain mineral specimens have the natural ability to absorb various sorts of energy, especially ultraviolet light, and release this energy as visible light. As with ordinary colors, luminescence can be breathtakingly beautiful and provide alerts regarding the composition and source of a mineral specimen. The discovery of various forms of luminescence and the study of their mechanisms has opened a number of areas of modern physics and technology.

# SPRING FIELD COLLECTORS' FORUM

We will start our May meeting at PCC with a short Field Collectors Forum beginning at 7 p.m. All members and guests are invited. Those who have had interesting recent trips are especially encouraged to bring samples, slides, pictures, maps et cetera as well as their stories to tell.

# PRESIDENT'S COLUMN

# **Bob Housley**

I look forward to returning to Friday night meetings at PCC with pleasant anticipation, because I believe it will be more satisfactory and convenient for most of our members. Since it will be a joint meeting with Dana Club we expect it will encourage the participation of PCC students in our activities. We also hope it will be more conducive to attracting students from other colleges and high schools in the area since they will not

have homework due or tests to take the next day. We hope it will even be more convenient for families with school age children and people with long commutes.

I think we could benefit greatly by establishing better communication with local colleges and high schools so that some Geology Professor or Science Teacher could tell interested students about us and mention our meetings and programs, or direct them to our website. Any member who would like to help with this should go ahead and contact people they know and then talk to myself or Ron Thacker for more names and so we can keep track of progress.

There is one important item of news I should discuss. The California Division of Mines and Geology is planning to issue a new Minerals of California in the near future which will update the information in Bulletin 189. Now is the time to provide them with data on new minerals and new occurrences that have been found since Bulletin 189 was published and on any corrections to the information it contains. Southern California Friends of Mineralogy is collecting such information as part of a long standing project. They can be accessed through the San Bernardino Museum website. I am also planning to personally forward a lot of information to the state, so anything sent to me will be included one way or the other. I will try to keep MSSC members posted on this activity as it develops.

I hear the Crystal Ridge field trip was a big success as usual, so I expect we will see some nice samples from there at the meeting. I look forward to our program. We have not had a talk on fluorescent minerals in a long time and I am sure we all can learn some interesting things.

# YOU CAN GO HOME AGAIN

John Schwarze

This month, May of 1999, sees the MSSC move its monthly meetings to the second Friday of the month to the <u>Geology building of Pasadena City College</u>. This is an auspicious occasion as it marks both a homecoming as well as an anniversary.

On May 24, 1929, slightly less than 70 years ago, Professor Edwin Van Amringe of Pasadena Junior College led a field trip of interested geology students to Keeler, California to tour the Natural Soda Products plant. Keeler is on the eastern side of Owens Lake in Inyo County and is difficult to reach today. Can you imagine the journey it was in 1929? Nonetheless, apparently during that trip, the general manager of the Natural Soda Company; a resident of Altadena, mentioned the lack of a local club of mineral collectors. Thus the idea was born for the Mineralogical Society of Southern California.

Not so fast! As most of you have noticed, things in the MSSC tend to follow geologic time, not Pacific Standard. Two years of discussion, thought, and probably procrastination followed before the first official meeting was held on June 23, 1931 at the Pasadena City Library. There were forty people in attendance, and, after hearing a talk by Prof. Van Amringe on "Mineral Collecting as a Hobby", formed the Society with John Renshaw as President, W.S. Morton as Vice-president, Van Amringe as Secretary, and Helen Fowler as Treasurer. At the third meeting, held on September 1, one hundred and seventy-five persons attended and the first "constitution" was adopted. I'd love to see those kind of numbers again; but Carolyn Seitz would definitely need help in handing out cookies.

The first field trip was held in October (I don't know where; but would love to know) and the Bulletin first appeared in November. By 1933 the Los Angeles Mineralogical Society and the Orange Belt Society of San Bernardino had apparently spun off from the MSSC. In 1936, at the suggestion of the MSSC's second

president, Earnest Chapman, seven groups had united to form the first California Federation of Mineralogical Societies.

All this took place in the City of Pasadena, much of it at what is now Pasadena City College. Under any name, it's good to be back. We should all stop during this May 1999 meeting, search out Janet Gordon of Pasadena City College, thank her for working to get us back where we started, and reflect on the long journey.

### A LITTLE BIT OF FRANKLIN

John Schwarze

Our guest speaker at the May meeting is, as you'll read elsewhere in this bulletin, Mr. Doug Mitchell. It is my understanding that Doug's topic will be on fluorescent minerals, what makes them fluoresce, why they want to, etc.

As many of you also know the premiere fluorescent mineral localities in the world are in, of all places, New Jersey. If you don't know that, don't feel bad. I am on good speaking terms with at least four different people who were born and raised in New Jersey and they don't have a clue as to what I'm talking about. One even sculpts in marble, you'd think he'd know.

Anyway, these localities, Franklin and Sterling, were, I believe, actually mined for lead and zinc. However, it was noticed early on that some of the ore exhibited the weird property of fluorescence. If you've been faithfully reading my musings in the Bulletin, you know what that is; if you haven't come to the lecture and listen to Doug Mitchell. The miners became attuned to this and used it to find or avoid desirable or undesirable ore.

One of the more spectacular fluorescing specimens from those locales was a combination of Calcite and Willemite. Both are found in massive form, closely mixed together, and in natural daylight are, charitably, unremarkable. But hit them with an ultraviolet light and WOW! The Calcite glows bright red and the Willemite bright green. And I mean bright! It looks like a Christmas display run amok.

The question arises: "Why in New Jersey?" Well guess what, it's not all in New Jersey. In the Jan/Feb 1986 issue of Rocks & Minerals their Fluorescent Forum columnist, Manuel Robbins wrote of a locality of "brilliantly fluorescing" Calcite and Willemite from the Holcomb Valley, north of Big Bear Lake in San Bernardino County. In his article he talks of mistaking it for the New Jersey material and also describes finding fluorescing Apatite and Manganapatite. I won't use up valuable Bulletin space by reproducing Robbins' article. Suffice it to say that he describes the area as I remember it. I was up there collecting sponge like accumulations of Epidote and Mississippian age rugose corals and brachiopods. The actual site is the Greenlead mine, which is on the far north side of Holcomb Valley. Right now it is probably snow bound and in a few months it will be covered with recreational 4x4 vehicles; but if you're interested, search me out and I'll show you the article. In any event don't take off to New Jersey: there's a piece of it just 80 miles away.

### MINUTES OF THE 735th MEETING OF THE MSSC

The 735th meeting of the Mineralogical Society of Southern California was on April 14, 1999. Bob Housley called the meeting to order at 7:50 p.m. Bill Rader then introduced Darryl Futrell who spoke on the subject of "Tektites M – Why They Must Be A Type of Lunar Volcanic Glass."

Bob then made some announcements for shows and other activities summarized in the calendar section of the Bulletin. The most important announcement he made was that next month our meeting will be held at Pasadena City College. The meeting will be held on the second Friday of the month instead of the second Wednesday. The Bulletin will contain an announcement and maps of the campus showing the meeting location.

For the Show Committee, Jim Schlegel announced that he had received 27 Dealer applications for the show. He indicated that enthusiasm for our return to Pasadena was high. He said that we would soon need volunteers to support our show. He said that we would soon have a "Trailer Party" to perform repairs on the display cases used at the show. He will announce that in the Bulletin.

Carolyn Seitz spoke on speakers for the show. She has confirmed that both John Sinkankas and Bob Jones will speak both days of the show. They have told us the topics for their presentations; those topics will be announced later. As other speakers confirm, we will be announcing them and the speaker schedule.

Jim Schlegel moved we approve the minutes as published in the Bulletin. Carolyn Seitz seconded the motion and it was approved unanimously.

Charlie Crutchfield won the Door Prize and chose a sample of Pyrite. The meeting adjourned at 9:30 p.m.

Respectfully submitted, David Smith, Secretary

# MINUTES OF THE APRIL 11, 1999 MSSC BOARD MEETING

A meeting of the MSSC Board of Directors was held on April 11, 1999, at the home of Steve Shailer's parents at 2:25 p.m. Board members in attendance were: Ron Pellar, Jim Schlegel, Carolyn Seitz, Bob Housley, John Schwarze, Ed Smith, Steve Shailer, and Dave Smith.

John Schwarze nominated Jim Schlegel to fill the open Director position vacated by John Schwarze when he became Vice President. Seconded by Carolyn Seitz. This action was to re-affirm an e-mail vote to appoint him after the January Board meeting. The motion was approved 5 to 0 with Jim abstaining.

Bob Housley discussed the agenda with primary categories of field trip insurance, meeting location change to PCC and show business.

Jim Schlegel commenced the first agenda item with a summary of field trips currently planned. He currently has firm plans for Crystal Ridge later this month and Peterson Mountain on Memorial Day weekend. He is also considering a trip to Topaz Mountain.

We discussed putting all field trips in the E-Group club consortium. Jim will provide info the Carolyn and Carolyn will transmit it to the group at "Rockhounds."

The insurance policy carried by the Federation to cover all the member societies does not cover field trips starting this year. Instead, it covers shows and field trips require us to purchase a rider to the policy to cover the field trips. The Board had a discussion that ranged over subjects like having all field trip attendees fill out applications with waivers of liability and charging fees to cover the insurance fee. No action was taken at this time; the rider is inexpensive and the administration of these actions would be too cumbersome.

To ensure that the move of the meeting to PCC goes smoothly, the Board indicated that a full page of the bulletin be dedicated to an announcement of the new location. Also, all involved with the Bulletin contents were advised to get materials to Ron in a timely fashion to ensure the Bulletin is delivered early enough to allow members to plan for the new location of the meeting.

Carolyn announced that May is the 70th anniversary of a field trip attended by PCC Geology professors. At that field trip, discussions about the lack of a good mineralogy club in the Southern California area resulted in the formation of the MSSC two years later. She observed how appropriate it is that 70 years later we are returning to PCC.

For the show committee, Jim said that he had already received application of 27 Dealers. Many others had already indicated they would be sending theirs in. Jim also mentioned that we are rapidly approaching the deadlines for Oct/Nov issues of publications we would like to advertise in. Jim said that he has the contract for the Hall and Conference rooms. He will call a Show Committee meeting soon to plan other tasks.

The Board of Directors' meeting was adjourned at 4:20 p.m.

Respectfully submitted, David Smith, Secretary

# WE'RE MOVING

Beginning THIS month, we will hold our meetings on the second Friday evening in the Geology Building which is <u>Building E, in the Lecture Hall Room E220 at Pasadena City College, 1570 E. Colorado Boulevard, Pasadena</u>. From the corner of Colorado Blvd. and Bonnie Avenue (the northeast corner of the PCC campus), go south on Bonnie Avenue about 100 yards and turn right into campus at the driveway with the information booth and shuttle stop. Immediately turn right (north) into the parking lot and park. From the shuttle stop, follow the walkway to the west past the large Shatford Library building to E-building. Enter E-building from the south door, go up one-half flight of stairs and to the end of the hallway to Room 220.

Handicapped access is via the ramp between the Library and E-building. From this basement entrance, take the elevator to the second floor.

# NOTES FROM JIM SCHLEGEL

- 1. There are still a few spaces open for the Memorial Day Weekend field trip to Petersen Mountain but you must contact Jim Schlegel NOW!
- 2. The MSSC needs your help. Volunteer to help with the Pasadena Show. There are a number of activities before, during, and after the show as well as some in the very near future.

# **FUN DAY PLANNED**

What: The Great Exhibit Case Repair Day, Exhibit Case Liner and Riser Making Day and a Potluck that will only be great if you show up and bring food!!!

When: Saturday, June 5, 1999, from 9 a.m. until after potluck. . .

Why: We have exhibit cases in need of repair for the display of fabulous mineral collections at our show upcoming in November in Pasadena. We also have many cases that need new liners and risers. Ron Pellar and Bill Besse have agreed to use this opportunity as a workshop to help you learn how to make your own attractive displays, and how to show off your collection to its best advantage!!! The way you'll learn is to be present and help repair old liners and risers or make new ones. Learn from the experts.

Who: We need able bodied people to help assemble the exhibit cases and check them for missing or broken components or for hardware needing replacement or repair. We also need those less able bodied folks to help with the liners and risers.

Where: Home of Rock Currier.

What to Bring: Food and drinks to share. Your own folding chair or chairs. A willingness to be a big help and have plenty of fun in the company of many other great mineral enthusiasts. Questions? Call Carolyn Seitz, 714.895.6754 or e-mail: CMSeitz@mindspring.com. See you the 5th of June!!

Look forward to seeing you, Rock

## THE WAY WE WERE

# Bill Moller

The story about to be related is true. The statute of limitations has long passed, and besides, even threatened with a session upon the rack, the author would refuse to divulge the identities of these heroes. This tale is intended only to show how adventuresome (and foolish) at least some in bygone years were in their quest for their holiest of grails: mineral specimens.

Our scene opens as two adventurers exit the Biddy McCarty mine at Ryan, Calif. The mine is just on the outskirts of Death Valley, and its entrance is high above the valley floor. The sun has nearly set. Far below is the vehicle which offers succor to these weary collectors who had spent the day deepening the mine for U.S. Borax and Chemical Company, perhaps without the latter's awareness.

How best to descend to the auto? They could trudge the distance, despite the heavy trophies upon their backs or they could ...

The germ of an idea brightened their musings. A small, flat railroad car, dilapidated beyond belief, yet with four wheels seemingly intact, lies quietly rusting away to the side of the tracks which served the mine. Now if they are able to wrestle the relic up onto the ribbons of corroded steel, they just might be able to ride unscathed to the valley floor, saving the need for a long, tiresome hike.

Exercising a bit of ingenuity punctuated by much grunting, the miniature car is wrestled onto the tracks, pointing down hill. With a bit of a push it begins to move. "Because your light is in better shape than mine, you can be the conductor, pointing out the track ahead," the larger of the two adventurers concluded. "I'll be the brakeman."

"But what about some of the bridges we have to cross?" his companion queried. "We'll just go over them real fast and they can collapse behind us," was the response.

The bridges to which reference is made are indeed problems. Built eons ago these spindly structures spanning enormous canyons have long ago surpassed their anticipated lives. Indeed a slight breeze causes a sickening swaying of their fragile timbers, not unlike huge curtains being rippled by a high wind. "That's what I say. We will have to cross them fast," remarked the more adventuresome of the pair.

Except in our imaginations we are unable to accompany the duo on their mad descent. The rooster tail of sparks which follows them down the mountain as the brakeman fights the pull of gravity borders on the awesome, especially while the conductor's light pierces the darkness, fearful every foot of the way that suddenly a gaping hole will replace solid track.

On and on they hurl through the deepening gloom. Finally the car begins to slow and they burst into the exchange yard at the end of the line. The brakeman struggles with his handle. With a final shriek the car skids to a halt.

"Hey, there! What's going on?" cries the caretaker as he runs toward the pair jumping off the flat car. But that pair is in no mood for conversation. They quickly disappear into the night with their trophies intact.

Some several weeks later this remarkable event is described to me, and by sheer coincidence shortly thereafter I am invited to visit the Biddy McCarty mine. It comes as no surprise that I spot a little flat car sitting on a siding in the exchange yard as I approach the mine. Casually I remark to the caretaker "What a cute car that is." "Yes," is his reply, "and do you know the damndest thing involving that car took place the other night......"

I could hardly keep a straight face.

### **ROCK POUNDING**

Lanny R. Ream

There have been a lot of messages on tools recently, and although all of them have contained information that others could use and get along reasonably well with in the field, I would like to offer some differences of opinion.

First, on chisels. Don't buy/use cheap junky chisels. Carrying a couple dozen chisels with you because you are going to break some each time is a waste of your time, effort and money. Buy good chisels. Whereas you can dull, break or bend a cheap chisel in just a few hammer blows, a good chisel will last many years. My main tool supply has two heavy duty chisels 6-8 inches long by around 3/4 inch diameter for doing most of the rock breaking/splitting. These slowly wear out from the pounding end being slowly mushroomed and the cutting end being slowly dulled and sharpened every few trips. Typically, each one lasts several years, and I break a lot of rock with them. Add to this one long chisel of similar diameter and 14 inches or so long. This tool provides the additional ability to reach deeper into a cavity, and (unwisely, but quite usefully) do a lot of small prying jobs. I say unwisely because a chisel isn't made to pry with, yet I get a lot of service out of a good chisel being used this way (even hammering sideways on it).

In addition, carry one or two 10-12 inch skinny chisels. The cutting end should be around 1/2 inch, the diameter about 3/8. These should always be kept sharp. They work very well for cutting small matrix pieces and slabs off the walls. Some people like gad points for breaking rock. They probably have their use, I just never warmed up to them.

I recommend any good brand of the common cold chisel. I use Craftsman (Even though Sears guarantees them for life, don't take them back after abusing them breaking rock. A cold chisel is made to cut metal, not rock.) There are better chisels for breaking rock, they have a little bit tougher cutting end. These are made for cutting rock, concrete, etc. One of the best I had was purchased at a yard sale; by its shape, it was obviously made for fitting into some kind of jackhammer. It had an inch wide blade then stepped down to a 1/2 inch diameter round shaft. It stayed sharp for a long time, but finally wore out from the slow mushrooming or the driving end and resharpening of the cutting end. Conveniently, I lost it down a hole when it was becoming dangerous because it was really too short to hold and hit.

Also, sharpen your chisels regularly. Don't put a really sharp edge on them, that will be gone quite rapidly, but do sharpen them. Obviously, a dull rounded edge will have to smash its way through the rock more than cut its way, requiring more time and effort to do the job you need. Cold chisels come with short steep tapers or longer thin tapers. Grind them down to a long thin taper. Obviously, this will cut into the rock faster; it does make a significant difference. You may have to spend some time with your grinder. A little experience and you will learn where too thin means bendable/breakable.

Hammers: I've pretty well gravitated away from using a rock hammer at all. On occasion, I will use one where there is minor digging involved, need to do a lot of work with the small chisel (for peeling the slabs off walls or using other small chisel), or trimming rock (a small hammer works better than a large hammer for cobbing small pieces off a rock). Rock hammers are often used for, but are not made for being driven into a rock by another hammer. Use a gad point or the Estwing "L" shaped tool if you do much of this. For safety purposes, driving/hitting a hammer head with a hammer head is not recommended. Rock hammers typically have a warning label that splintering may occur if the head is hit with another hammer. Hammer heads are harder than chisel heads and splinter. Hammer size: I use a 4 pound. Buy an Estwing with a steel handle. It will last for years, most likely, for decades. In the last 20 years, I've broken several backup wooden handled hammers, but still have the same 4 pound Estwing which gets the most use. I use a 4 pound because it breaks a lot more rock than a 2 pound. Most men can swing a 4 pound all day after you get your muscles built up for it. If you can handle a 6 pound, use it. If you can't swing a 4 pound, or just happen to like a 2 pound, then use that. One problem is that many of us don't collect often enough to keep the muscles in shape for swinging a heavy handle all day, so a 2 pound may be necessary. The difference in what a 4 can do over a 2 or a 6 over a 4 is large. If you are bending or breaking your chisels easily then you need to either buy better quality chisels or larger diameter chisels. A 3/4 inch 8 inch long chisel of good quality will not bend or break under the blows of a 4 pound hammer. It might bend with a 6 pound and probably will bend with an 8 pound sledge. If you like to drive chisels with the heavier hammer, then use larger diameter chisels. An 8 pound or larger sledge is very useful in many collecting situations. They can break corners off boulders, split larger boulders either alone or by driving large chisels and break rocks off walls. In general, if you have to break large rock, use a large hammer. If you have to be subtle (fragile crystals), then you may need to stick with the 4 pounder or smaller. Remember one thing, these are suggestions and my opinions. Consider them, put them to use, and modify them to fit your needs and use or reject them and do it your way, whatever works for you.

# Editor's Note:

Next month, Lanny's article continues with "Pry Bars and Other Tools." MSSC is indebted to Lanny for permission to publish this article, originally published in the Rockhounds' e-mail list. Lanny is the Owner/Publisher of LR Ream Publishing, publisher of Mineral News--The Mineral Collector's Newsletter. He can be reached at Iream@comtch.iea.com or at his web site at http://www.iea.com/~Iream

#### **CALENDAR**

May 14: MSSC monthly meeting, 7:30 p.m., Geology Building, Pasadena City College.

NOTE: PERMANENT CHANGE OF DATE TO FRIDAY, AND LOCATION.

May 29-30: Petersen Mountain, NV field trip.

June 5: Display Case Repair and Potluck Day, 9 a.m. till we finish eating, home of Rock Currier.

June 6 (maybe): Still in planning, but possibly an open house with Jane and Casey Jones at Geoprime Minerals in Monrovia.

June 5-6: Rockatomics Gem & Mineral Club, Boeing Recreation Center, 8500 Fallbrook Ave, West Hills. Hours: 10 - 5 p.m.

June 11: MSSC monthly meeting, 7:30 p.m., Geology Building, Pasadena City College.

June 18-20: CFMS 60th Annual Show & Convention, Turlock.

July 9: MSSC monthly meeting, 7:30 p.m., Geology Building, Pasadena City College.

July 11: Board of Directors' meeting, 2 p.m. at Bill Besse's home.

### NOTES FROM THE EDITOR'S DESK

Thanks to Bill Besse, MSSC's Official Cartographer for the maps to our new home.

John, I looked up our first Bulletin, the first field trip was to Crestmore Quarry.

And John, thank you for your many contributions to the Bulletin....you are VERY MUCH appreciated.

And, thank you Bill Moller and Charlie Crutchfield (you have not seen Charlie's article yet), you folks are great, and hopefully, an inspiration to others to contribute.

And an add-on to Lanny's article: be diligent about grinding off the "mushrooms" on your chisels...don't use them when the hammer end begins to "mushroom" over. One strike can send a dangerous missile into your eye or toward the collector next to you. And they become VERY sharp, cutting children who pick them up, you, and the bags you carry them in.

-Ed