

**THE 767th MEETING
OF
THE MINERALOGICAL SOCIETY
OF SOUTHERN CALIFORNIA**

**7:30 p.m., Friday December 14, 2001
Building E, Room 220
Pasadena City College
Pasadena, California**

**SPEAKER
DR. ANTHONY KAMPF
ON
PEGMATITES IN GENERAL**

IT'S SHOW TIME



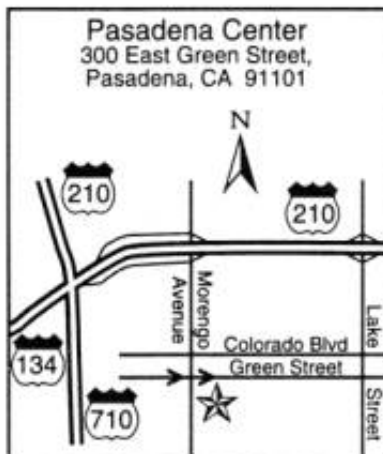

THE PASADENA SHOW
 MINERALOGICAL SOCIETY OF SOUTHERN CALIFORNIA
 SINCE 1931

Pasadena Center • Pasadena, California
Dec, 8 10 am - 6 pm; Dec 9, 10 am - 5 pm

Admission \$4.00
 Kids 12 and under free with accompanying adult
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 Over 50 Top Quality Exhibits

FEATURED SPEAKERS
CARNEGIE AWARD WINNERS

John Sinkankas & Robert W. Jones
 Author of *Gemstones* Senior Editor of
 of *North America* *Rock & Gem Magazine*



**Don't miss the show! Come early come often!
 Meet old friends, make new ones, and pay your dues!**

DECEMBER PROGRAM

The December program will initiate a series on pegmatites. The first speaker will be Dr. Anthony Kampf who will discuss pegmatites in general. Dr. Kampf is curator and

Department Head of Gems and Minerals at the Los Angeles County Museum of Natural History. He has been an Honorary Member of the MSSC since 1977. Dr. Kampf conducts research principally in the areas of descriptive mineralogy, crystal chemistry and structural crystallography focusing on the characterization of new or inadequately described minerals. He has had a long-standing research interest in phosphate minerals, particularly those occurring in pegmatite deposits. Besides conducting the classical mineralogical characterization of numerous individual phosphate species, he has sought to interpret their genetic relationships and mineralogical systematics based upon atomic structure and crystal chemistry. He has recently (2001) had a new mineral, Kampfite, from Rush Creek, Fresno County, California named for him.

Future lectures will include recent mining activity at the Tourmaline Queen Mine and Gem discoveries at the Cryogenie Mine.

ELECTION TIME

Every year at the December Meeting the membership elects the officers of the Society. This year's slate is shown below:

Officers 2002

President:	Dave Smith
Vice President:	Dan McHugh
Secretary:	Bob Housley
Treasurer:	Janet Gordon
CFMS Director:	Bob Housley

Directors 2002-2003

Larry Bruce
Bob Griffis
Charles Freed

ANNUAL INSTALLATION MEETING AND BANQUET

The annual installation meeting and banquet will be held on January 19, 2002 at the Oak Tree Room in Arcadia. There will be more information in the January Bulletin. Make your plans early.

REMEMBER TO RENEW FOR 2002

It's time to renew your MSSC membership for 2002! All memberships are on a calendar year basis, so it's time to get ready for the new year. Dues are \$15 for an individual, \$20 for a family, and \$5 for students under 21. Make your checks out to

MSSC or Mineralogical Society of Southern California and mail them to

Treasurer
MSSC
P.O. Box 41027
Pasadena, CA 91114-8027

Better yet, come to the December meeting and pay in person!

Looking forward to hearing from you,
Janet Gordon, Treasurer

COLLECTOR'S NOTES

The Custer Mine

by Walt Margerum

In September 2001, Bob Housley and I visited the Custer Mine located about one mile east of Darwin in Inyo County. The GPS coordinates are N 36° 16.378' ; W 117° 34.414'. The mine can be reached via a dirt road that leaves the Old Darwin road about one half mile east of town. The last half of the road is now a trail down a steep canyon, and is impassable to even the most rugged 4 wheel drive vehicle. Mining started in 1893 and continued intermittently until 1949. 16,615 ounces of silver, 141.71 ounces of gold, 96,614 pounds of lead, 6,622 pounds of copper, and 72 pounds of zinc are reported to have been taken from the mine.

Adolph Knopf gives the following description of the Custer mine in USGS Bulletin 580-A "The Darwin Silver-Lead Mining District, California" published in 1914.

The Custer mine, which is a short distance east of Darwin, was being worked by a small crew of men during 1913. It is equipped with a 10-horsepower gasoline hoist and is opened by an incline to a vertical depth of 240 feet. Below the lowest level, called the 300, a winze was being sunk at the time of visit.

The property has recently changed hands. The production under the former owners is said to have been \$200,000, and under the new management \$30,000 was taken out.

The country rock in the vicinity of the mine consists of highly garnetized sedimentary beds, which still preserve their sedimentary banding and stratification. A specimen taken from near the outcrop of the ore body is a remarkably heavy and dense rock of almost chertlike texture; rarely it shows short, narrow calcitic laminae enclosing small well-crystallized garnets. Such rock proves under the microscope to consist essentially of a dense aggregate of garnet, which has been determined to be the iron-bearing variety andradite. A small intrusion of fine-grained quartz monzonite appears in the tunnel.

Behind the engine house the strata strike N. 25° W. and dip 55° W., but a short distance to the east, near the blacksmith shop, they dip 45° E. The rocks have thus been folded into a sharp anticline, and the arch of this anticline has been broken and the strata brecciated. The breaking of the arch probably took place prior to the garnetization, inasmuch as the breccia is recemented by coarse spar intergrown with garnet.

The ore-bearing zone extends along the broken arch of the anticline. The surface showings give a very inadequate idea of the geologic features of the ore deposit, and especially of the immense spar bodies revealed by the underground exploration. The outcrop appears to represent the apex of a great body of white calc-spar, whose distinguishing characteristic is its- extraordinary coarsely crystalline development. cleavage masses of calcite 6 inches in diameter are abundant, and individuals ranging from 12 to 18 inches are not uncommon. The white spar is more or less studded with crystals of pyrite; on oxidation these cause a darkening of their enclosing matrix. Blocks of lime-silicate rock are present as sporadic inclusions. The shape of the spar mass has been imperfectly determined by mining operations, but locally, as below the 300-foot level, an unbroken stratum of the garnet rock on the west flank of the anticline forms a hanging wall, dipping 60° W.

The ore is found in bunches or pockets distributed irregularly through this great body of spar. Although occurring thus erratically the different pockets are said to be connected as a rule by indications of ore sufficient to serve as guides in the search for undiscovered bodies. The metalliferous minerals are principally lead carbonate and galena. Fluorite occurs invariably in association with the lead ore or in the vicinity of the ore pockets; its presence may therefore be useful as an indication in the exploration for ore. Several hundred tons of coarsely crystalline purple and rose-colored fluorite have accumulated on the dumps.

The ore recently shipped averages 130 ounces to the ton in silver, 10 per cent of lead, and \$4 to the ton in gold; it is therefore much more highly argentiferous than the average ore of the Darwin district.

The minerals listed as coming from the mine are galena, cerussite, andradite, large calcite rhombs, pyrite, fluorite, jarosite, malachite, aurichalcite, scheelite, and siderite. In addition to the minerals underlined above we also collected brochantite, hemimorphite, sphalerite, tremolite after diopside (?) and goethite pseudomorphs of pyrite. The cerussite, aurichalcite, hemimorphite, tremolite, and brochantite occur as small (micro's) crystals, while the galena, fluorite, and calcite are massive. Most of the garnets are a mass of small interlocking, greenish to brownish crystals, but an occasional piece can be found where the crystals are small but showy. The goethite pseudomorphs of pyrite are mostly 2 to 5 mm cubes, but an occasional pyritohedron or larger cube can be found. One interesting specimen has micro tremolite after possibly diopside on a garnet that appears greenish in reflected light and brownish in transmitted light. This is an interesting location, and with a little diligent looking can give rewarding results. I am looking forward to another visit in the near future.

MINUTES OF THE NOVEMBER MEETING

The meeting was called to order at 7:35 pm by Secretary, Bob Housley, in the absence of the president and the vice president. The first item of business was the nomination of officers for next. As Chair of the nominating committee Bob said that all current officers had agreed to serve their customary second year. Of the three Board members whose terms expired Charlie Freed agreed to be renominated and Bob Griffis and Larry Bruce were nominated for the remaining two positions. After ascertaining that no nominations would be forthcoming from the floor it moved, seconded, and passed unanimously that nominations be closed.

Jim Schlegel announced that everything is on target for a great Pasadena Show and encouraged us all to remember to pass out fliers and pass the word in other ways.

Pat Stevens then presented the CFMS "Minerals of California" program and we discussed it afterward. While we thought it was valuable to have such programs available to clubs we also thought that the program itself could be considerably improved with more modern pictures of top quality specimens and an expanded text. Nobody volunteered to take on the job however. Pat said the next several programs would be a series of top speakers on pegmatite minerals.

We concluded with a discussion of venues for next years Show. Several good ideas were mentioned. We felt that it would be important to try and make a decision in time that it can be announced at this years Show. With that in mind Janet Gordon volunteered to head an ad hoc venue committee.

Respectfully Submitted by Bob Housley, Secretary

CALENDAR OF EVENTS

DECEMBER

1-2 San Bernardino, CA . Orange Belt Mineralogical Society
Corner of E Street and 31st Street
Hours: Sat 10-6 Sun 10-5
Tony Gilham (909) 820-2122

FEBRUARY 2002

1, 2, 3 Redlands, CA . Southern California Micro-Mineralogists
37th Annual Pacific Micromount Conf.
San Bernardino County Museum, 2024 Orange Tree Lane
Beverly Moreau (714) 577-8038; E-mail: bcmoreau@4dnet.com
Web Site: <http://www.mineralsocal.org/micro/>

MARCH 2002

15-24 Indio, CA. San Geronio Mineral & Gem Society
Riverside County Fair & National Date Festival;
Gem & Mineral Bldg (on the Fairgrounds)
46-350 Arabia Street

Hours: 10-10 Don Grisham (909) 795-7289

1-10 El Centro, CA Imperial Valley Gem & Mineral Society
Imperial Valley Expo & Fair

Hours: Mon. through Thurs. 4-10; Fri. through Sun. 10-10

2-3 Arcadia, CA Monrovia Rockhounds, Inc.

The Arboretum of Los Angeles County, Ayres Hall

301 N. Baldwin Ave., Arcadia, CA 91007

Hours: 9-4:30 both days

Show Chairman: Jo Anna Ritchey (636) 359-1624 / j.ritchey@verizon.net

Publicity Chairman: Kris MacFarland

2-3 Ventura, CA Ventura Gem and Mineral Society

Seaside Park (Ventura Co. Fairgrounds)

10 West Harbor Blvd.

Hours: Sat 9-5 Sun 9-4

Jim Brace-Thompson (805) 659-3577 / jbraceth@juno.com

Web Site: <http://www.vgms.org/>



HEY!
Are YOU ready
for our
BIG SHOW?

VOLUNTEERS NEEDED

Maybe you are ready
for the show but the show will not
go on without your help.

Volunteers are needed.
This show is run by the MSSC,
for the MSSC.

Volunteers are needed for setup on Thursday (Dec 6)
and Friday (Dec 7), during the show (Dec 8 & 9),
as well as during teardown Sunday night.

Contact:
Dave Smith, 818-908-3071, dave_topaz@yahoo.com
Jim Schlegel, 626-449-9197, jeschlegel@earthlink.net

Original "Hey!" artwork for 1966 show by Bob Brewer

<p>P</p> <p><small>PEDERSEN</small></p> <p>R.E. PEDERSEN 3901 N. Calle Entrada Tucson, AZ 85749 (520) 760-0333</p>	<p>M M</p> <p><small>MINE MINE</small></p> <p>UNDERGROUND EQUIPMENT Wheat mine lights, chargers, batteries, parts MSA mine lights, chargers, batteries, parts Hard hats, belts, knee pads, etc.</p>
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