

THE MINERALOGICAL RECORD

MAY - JUNE 2008 • VOLUME 39 • NUMBER 3

\$15



American Mineral Treasures Issue!

KRISTALLE

Wayne & Dona Leicht, 875 North Pacific Coast Highway, Laguna Beach, CA 92651
(949) 494-7695 . . . 494-5155 . . . FAX (949) 494-0402
Open Thurs.-Sat. 10-5, Sunday 12-5. (Closed Mon.-Tues.-Wed. except by Appointment.)

Note: Please call ahead for our travel schedule, to be sure we'll be here when you plan your visit!
WEB: <http://www.kristalle.com> • E-mail: leicht@kristalle.com

Photo by Harold and Erica Van Pelt, Los Angeles



THREE EXCEPTIONAL GOLD MINERS IN CALIFORNIA...

by Wayne Leicht
Laguna Beach, California

"fever" struck me at a very early age. My parents packed me and my brother to visit the gold country every summer. We would go by bus from Los Angeles to Modesto where my father would pick us up in his model car and drive us to his "house" in La Grange, California. The bus got into La Grange before sunrise and on the way into the small communities, my grandfather would be the ignition off and on on his motor. It was causing it to backfire with a great port, much to the ire of the local residents. It seemed to take great delight in repeating his particular care in repeating his front of Mr. Macado's house. I was between my grandfather and my grandfather's on legendary proportion.

A note from Dona Leicht
Wayne...
I've read your report for "American Mineralogist" - made a few corrections - sounds great! I'll be sure to go down in history! I'm working on some new ideas for the next issue. Talk to you at home...
Dona Leicht

Publisher & Editor-in-Chief
Wendell E. Wilson

Editor
Thomas P. Moore

Circulation Manager
Mary Lynn Michela

Associate Editors
Bill Birch
Museum of Victoria
Melbourne, Australia
Michael P. Cooper
Nottingham, England
Anthony R. Kampf
L.A. County Mus. of Nat. Hist.
Los Angeles, CA
Steven R. Morehead
Green Valley, AZ
Donald R. Peacor
University of Michigan
Ann Arbor, MI
Andrew C. Roberts
Geol. Surv. of Canada
Ottawa
George W. Robinson
Seaman Mineral Museum, MTU
Houghton, Michigan

Correspondents
Dudley Blauwet
Louisville, Colorado
Miguel Calvo
Zaragoza, Spain
Renato Pagano
Milan, Italy
Joe Polityka
Staten Island, NY
Jeffrey A. Scovil
Phoenix, AZ
Pierre-Nicolas Schwab
Orléans, France

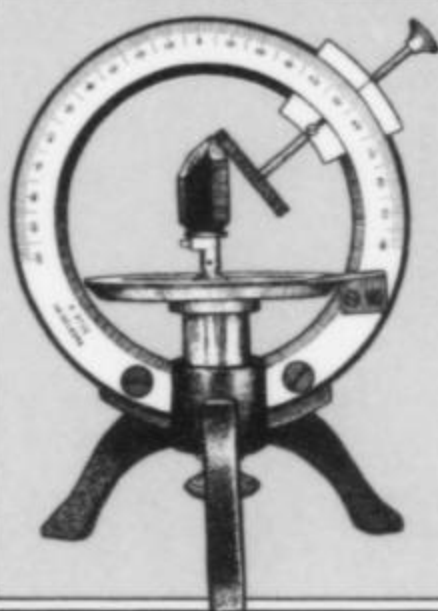
Associate Photographers
Nelly Bariand
Sorbonne
Paris, France
Dan Behnke
Northbrook, IL
Eric Offermann
Arlesheim, Switzerland
Jeffrey A. Scovil
Phoenix, AZ
Harold and Erica Van Pelt
Los Angeles, CA

Founder
John Sampson White

Editing, advertising
4631 Paseo Tubutama
Tucson, AZ 85750
520-299-5274
E-mail: minrec@earthlink.net
minrecord@comcast.net

Subscriptions
(Subscriptions, back issues,
reprints, book sales, shows)
P.O. Box 35565
Tucson, Arizona 85740
520-297-6709 • FAX: 520-544-0815
E-mail: minrec@aol.com

- **Individuals (U.S.):** \$58 for one year; \$106 for two years. (First-class mailing available; write to circulation manager for rates.)
- **Individuals (outside the U.S.):** \$65 for one year, \$120 for two years. (Airmail mailing available; write to circulation manager for rates.)
- **Libraries, Companies and Institutions (worldwide):** \$190 for one year.



THE MINERALOGICAL RECORD

May–June 2008 Volume Thirty-nine, Number Three

Tucson Show Issue 2008

“American Mineral Treasures”

The American Mineral Treasures Exhibition,
Tucson Gem & Mineral Show 2008 165
by W. E. Wilson

What's new in minerals
Tucson Show 2008..... 233
by T. P. Moore

THE MINERALOGICAL RECORD



American Mineral Treasures Issue!

COVER: COPPER, 8.3 cm, from the Central mine, Keweenaw County, Michigan—considered by some to be the world's finest copper specimen. It was part of the Donald C. Gabriel collection bequeathed to the Seaman Mineral Museum, and was on display as part of the American Mineral Treasures exhibition at the 2008 Tucson Gem and Mineral Show. Jeff Scovil photo.

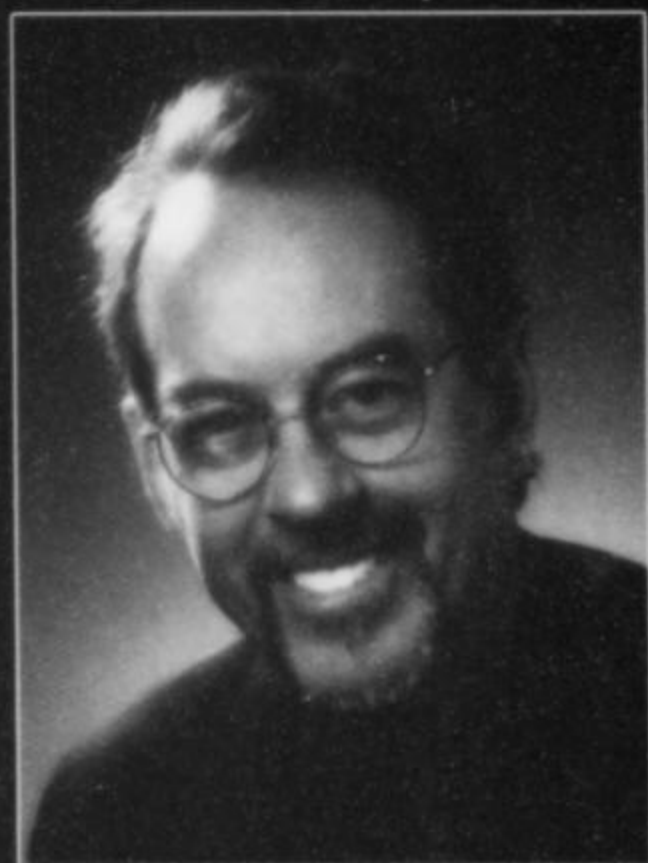
Visit our Website: www.MineralogicalRecord.com

The Mineralogical Record (ISSN 0026-4628) is published bi-monthly for \$58 per year (U.S.) by Mineralogical Record, Inc., a non-profit organization, 7413 N. Mowry Place, Tucson, AZ 85741. Periodical postage paid at Tucson, Arizona and additional mailing offices. POSTMASTER: Send address changes to: The Mineralogical Record, P.O. Box 35565, Tucson, AZ 85740.

Copyright 2008 © by the
Mineralogical Record Inc.
All rights reserved.
Printed in the U.S.A.

Carnegie Museum of Natural History
Congratulates the 2007 Carnegie
Mineralogical Award Winner:

Jeffrey A. Scovil



Carnegie
Museum
of Natural
History

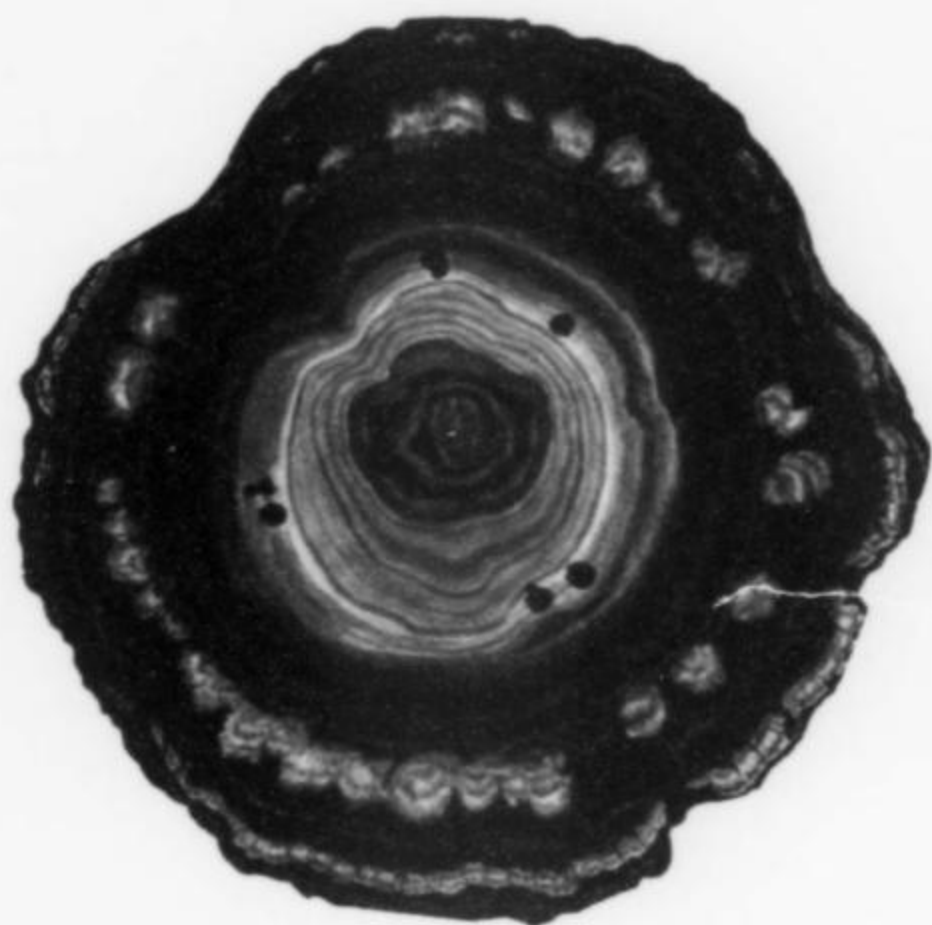
One of the four
Carnegie Museums
of Pittsburgh

The Carnegie Mineralogical Award honors outstanding contributions in mineralogical preservation, conservation and education that match the ideals advanced in the Carnegie Museum of Natural History's Hillman Hall of Minerals & Gems. Established in 1987 through the generosity of The Hillman Foundation, Inc., the award consists of a bronze medallion, a certificate of recognition and a \$2500 cash prize. It is presented each February during the Tucson Gem and Mineral Show.

Nominations are now being accepted for the 2008 award. Mineral enthusiasts and collectors, educators, curators, mineral clubs and societies, museums, universities, and publications are eligible. The deadline is Dec. 15.

For nomination form, contact:
Marc L. Wilson
Section of Minerals
Carnegie Museum of Natural History
4400 Forbes Avenue
Pittsburgh PA 15213-4080
TEL: (412) 622-3391
FAX: (412) 622-8837
www.carnegiemnh.org/minerals/hillman/Award.html

Photo by Harold and Erica Ann Pelt



Azurite-Malachite, Arizona Frederick C. Wilda © 2007

East Coast Gem, Mineral & Fossil Show

August 8-9-10, 2008

West Springfield, MA
Better Living Center -
Eastern States Exposition
1305 Memorial Ave.
(1 mi. West of I-91)

200 GREAT DEALERS with Minerals • Fossils • Gems • Beads • Lapidary
Meteorites • Jewelry • Gold • Diamonds!! Retail & Wholesale • Air-Conditioned Hall
Featuring the Collection of Herb & Monika Obodda
Show Hours: Fri. & Sat. 10 - 7, Sun. 10 - 5, Admission: \$6, Children <12 Free, Parking: \$5

Martin Zinn Expositions, L.L.C., P.O. Box 665, Bernalillo, NM 87004, Fax: (505) 867-0073, email: mz0955@aol.com, www.mzexpos.com

FREE PARKING FREE ADMISSION AIR-CONDITIONED

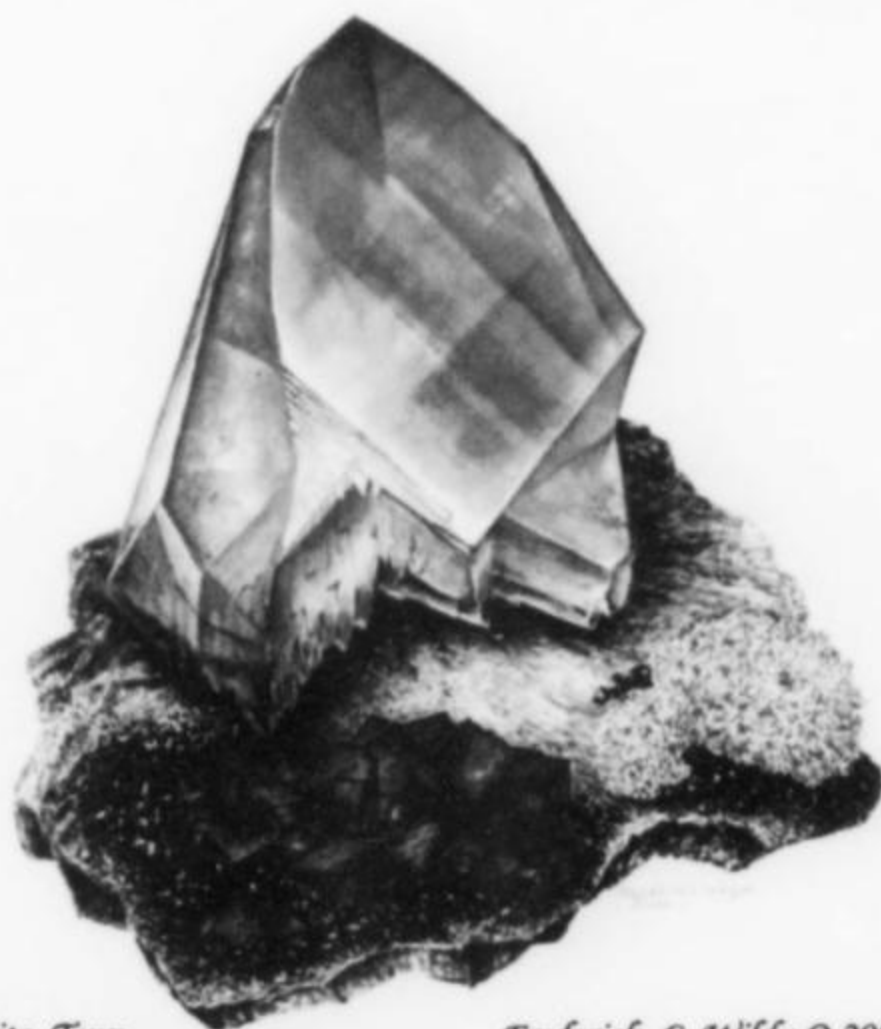
Minerals • Fossils • Meteorites • Gems • Jewelry
Conducted in cooperation with the Tellus Science Museum
For information contact: Laura Delano, lldandrfd@aol.com

A New Show for 2008!!

Southeast Gem & Mineral Show

Holiday Inn
Cartersville, Georgia
August 15-16-17, 2008

45 mi. North of Atlanta, I-75 at Exit 293
65 mi. South of Chattanooga
next to the new Tellus Science Museum
(formerly the Weinman Mineral Museum)



Calcite, Tenn.

Frederick C. Wilda © 2007

Photos Sent Upon Request.

We purchase important
Specimens and complete
Collections

See our online
Mineral Shop At:
www.wilenskyminerals.com

Contact us for our
latest catalog of
fine minerals on DVD

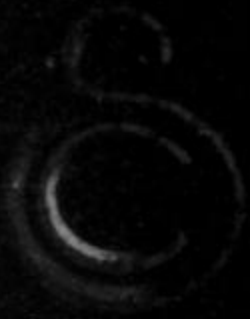
wilensky

Wilensky Fine Minerals
14 Longview Ln
Middletown, NY 10940
Tel. 845-695-1550
Fax 505-213-2430
E-Mail: stuwil@aol.com



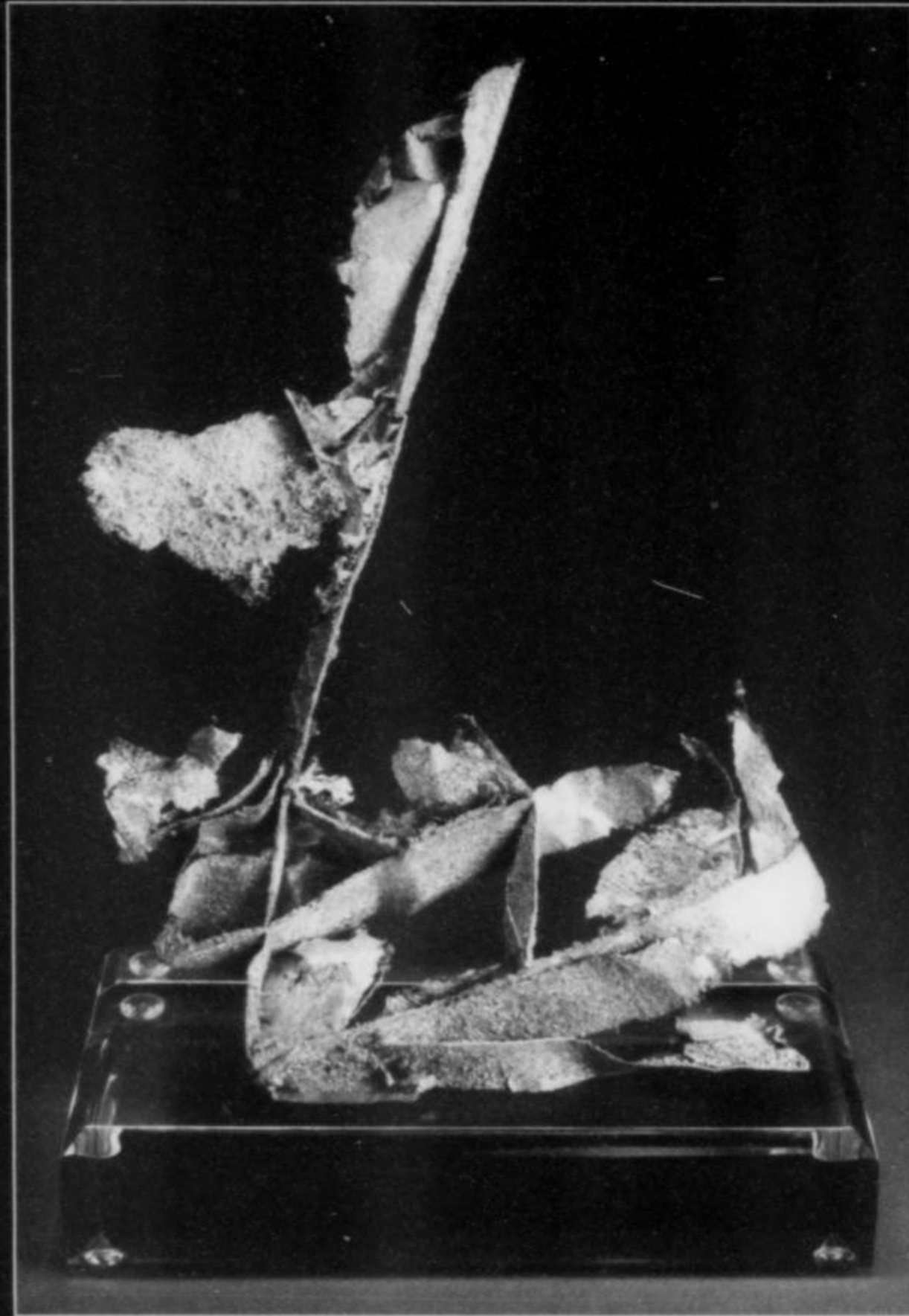
Fluorite, Huanzala mine, Dos de Mayo Province, Peru.

Wilensky photo



THE SUNNYWOOD COLLECTION, Inc.™

Specialists in Presentation of Natural Art



DENVER MUSEUM of NATURE and SCIENCE

GOLD

Breckenridge, Colorado

CUSTOM MOUNTING SPECIALISTS

Fine Minerals Mounted on Acrylic and Hardwoods

Showroom by Appointment

11821 E. 33rd Ave. Unit B

Aurora, Colorado 80010

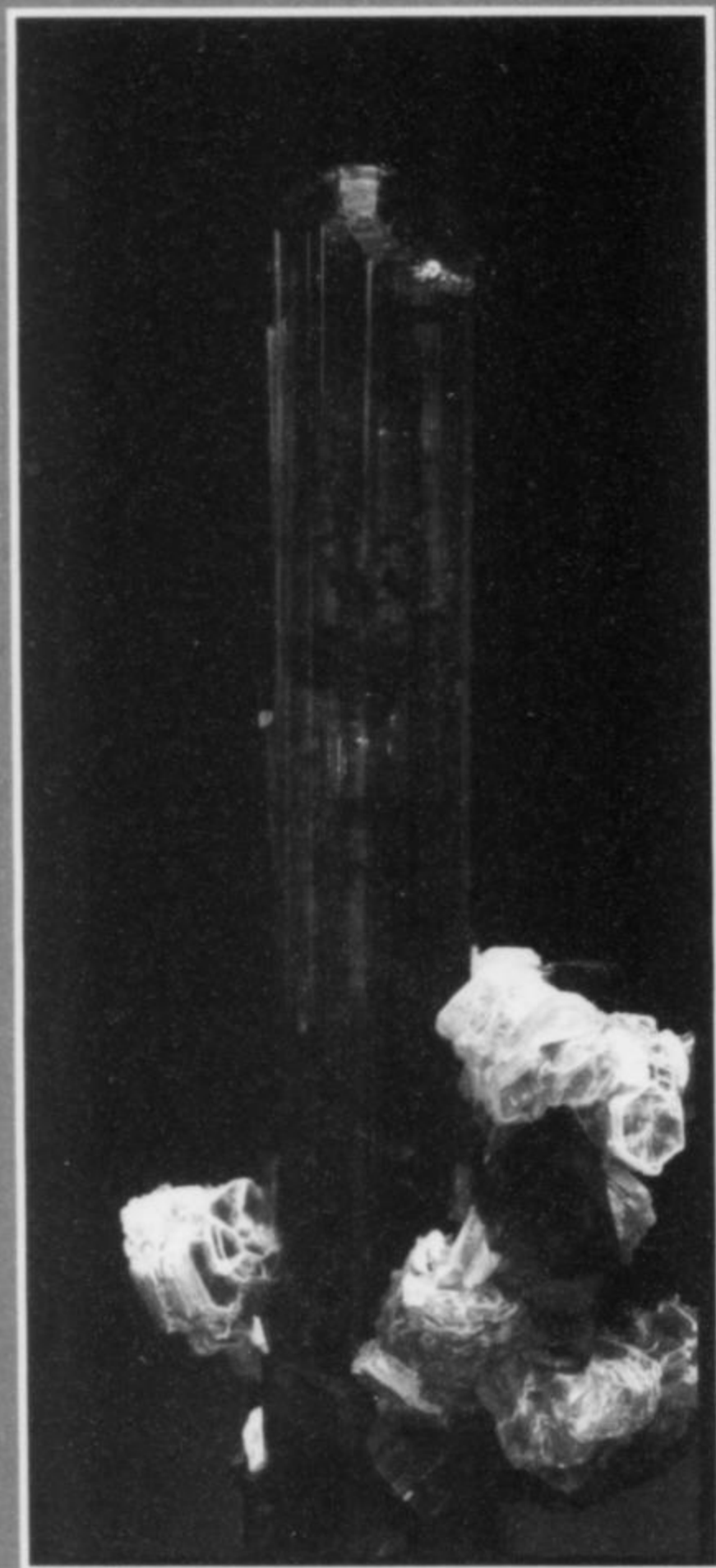
Phone 303-363-8588 Fax 303-363-8640

Adam@sunnywood.com Custom Mounting

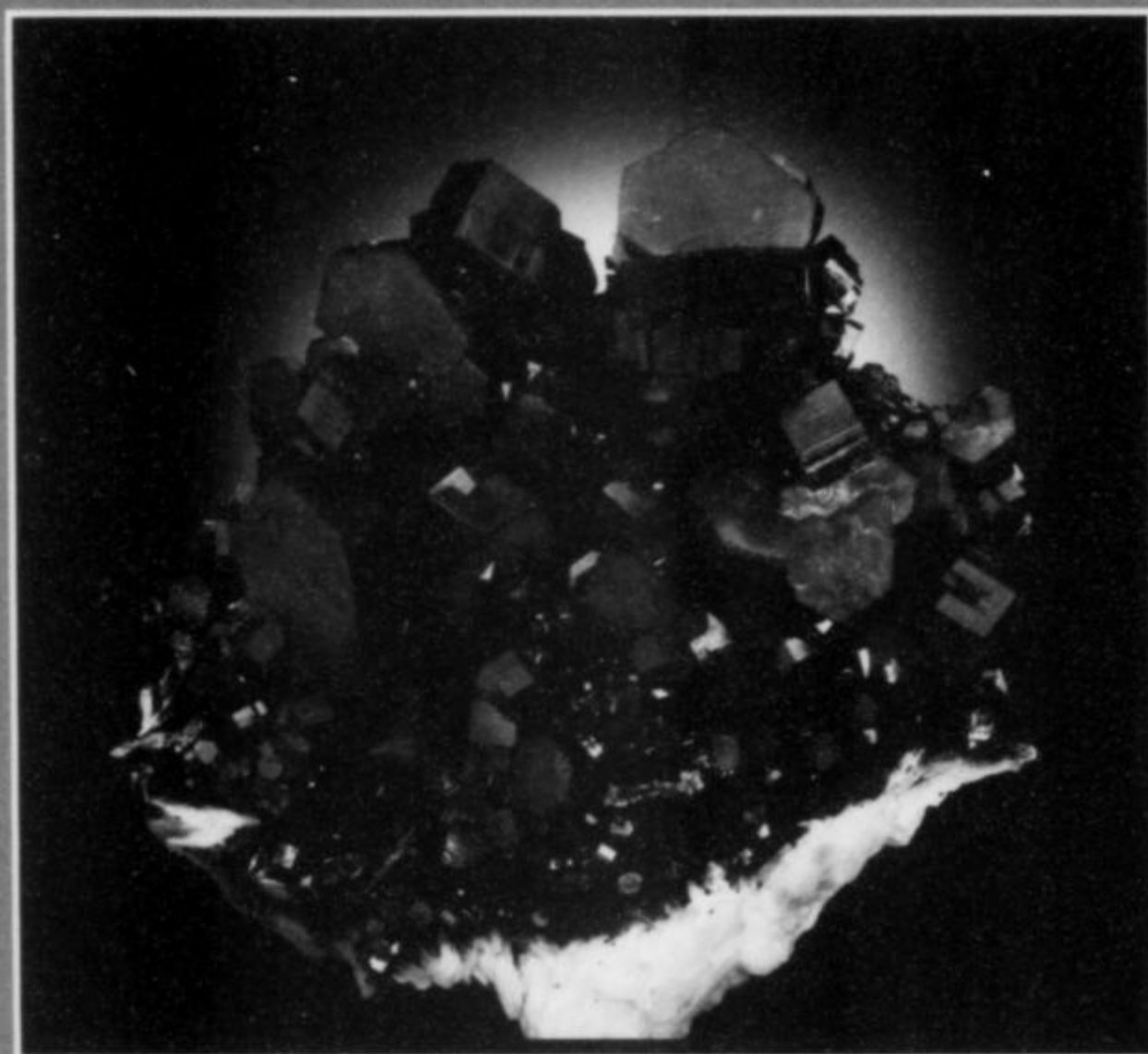
Bill@sunnywood.com Sales

www.sunnywood.com

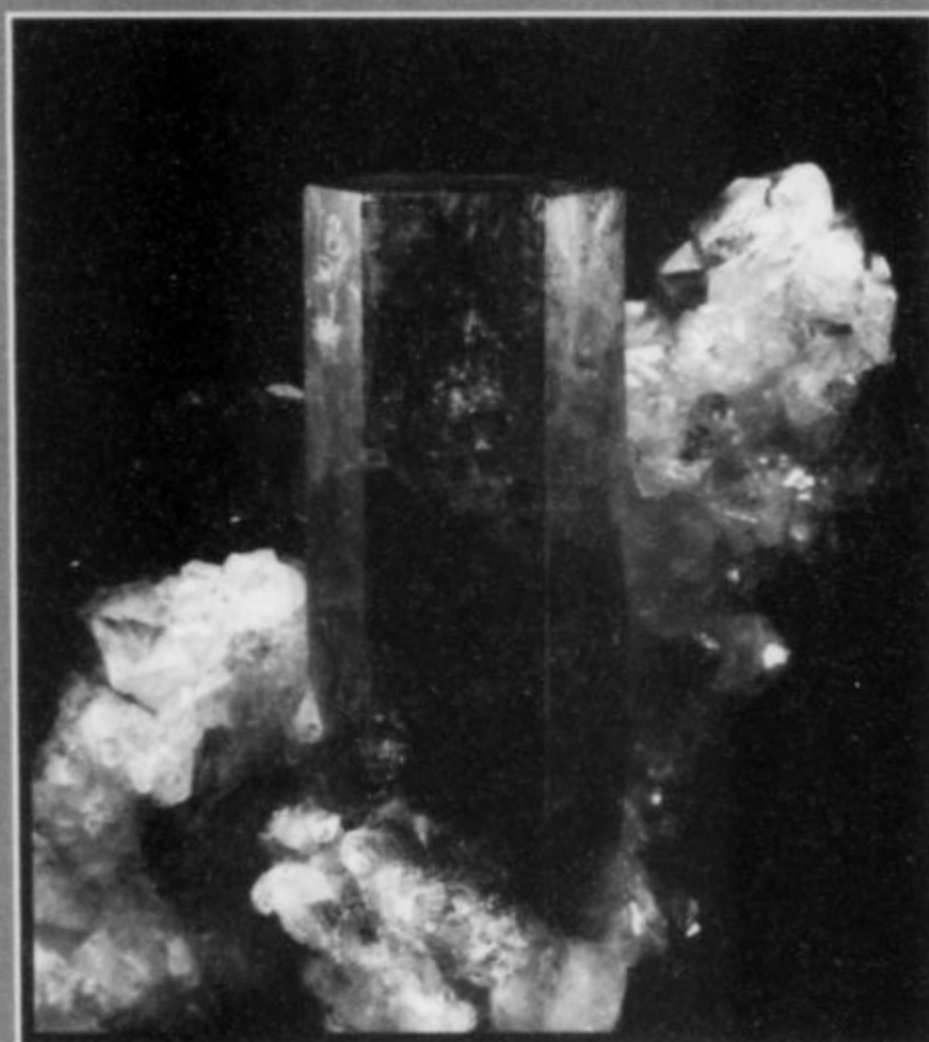
Fine Minerals International



ELBAITE, 9.1 cm, from the Jonas mine
Itatiaia, Minas Gerais, Brazil.
Marc P. Weill collection.
Jeff Scovil photo.



VANADINITE on
Barite, 9.6 cm, from
Mibladen, Morocco.
Marc P. Weill collection.
Jeff Scovil photo.



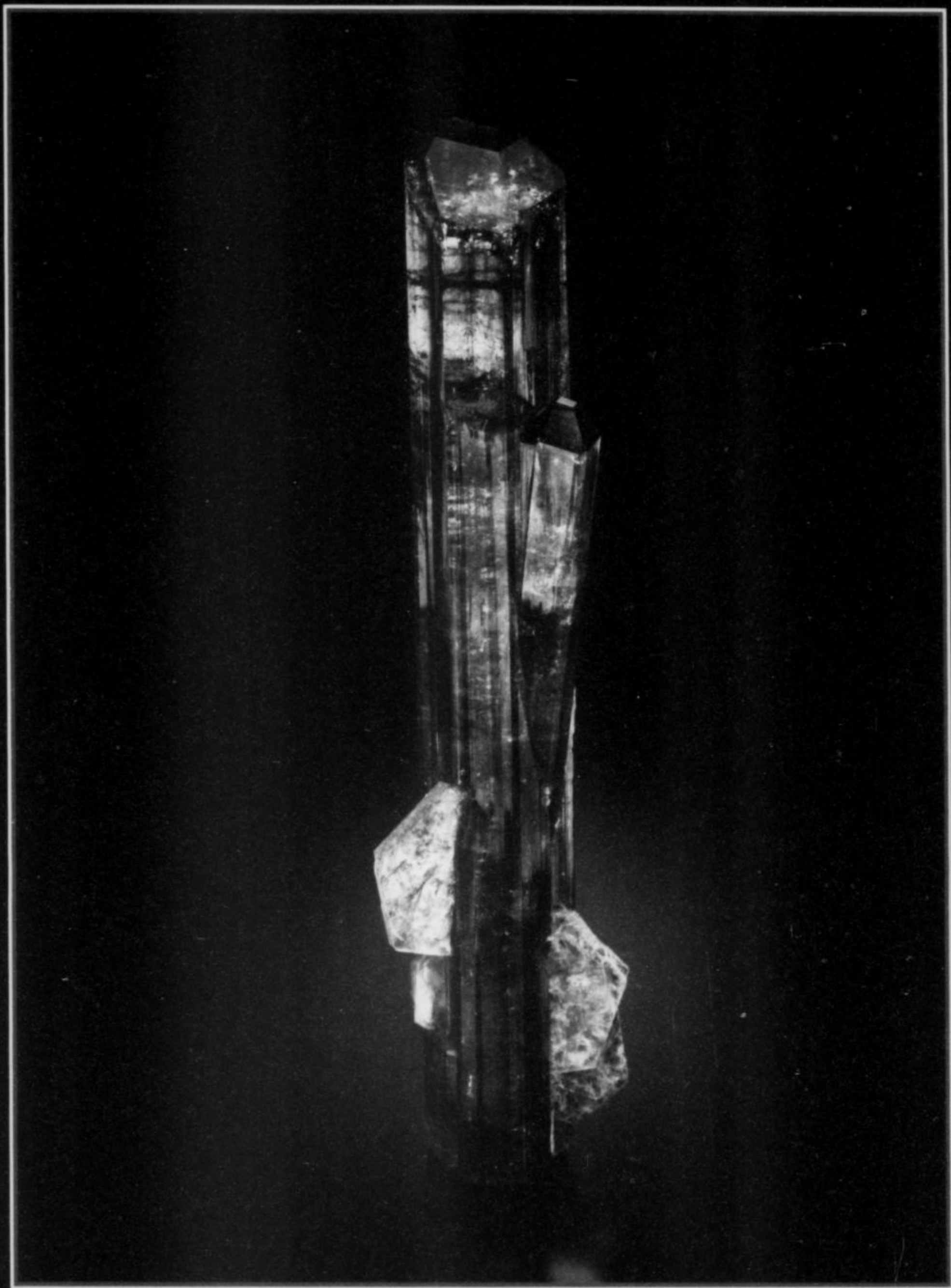
EMERALD Crystal,
5 cm, from the
Cosquez mine,
Muzo, Colombia.
Marc P. Weill collection.
Jeff Scovil photo.

Daniel Trinchillo

Mineral Masterpieces from Around the World

Tel.: 917-295-7141

email: DanielTr@FineMineral.com



TOURMALINE WITH LEPIDOLITE, 15 CM, BARRA DE SALINAS, MINAS GERAIS, BRAZIL.
OBTAINED FROM ROB LAVINSKY IN FEBRUARY 2006 (DANIEL TRINCHILLO TO ROB)

Clara & Steve Smale

COLLECTORS

*It's
finally
here!*

The book every mineral collector will want to have. The history, the stories, and the great mineral specimens of America's greatest mineral localities!

\$85

plus shipping

Special Premium!
Buy your copy from the *Mineralogical Record* and receive a numbered framing print of an underground mining scene by Wendell Wilson

AMERICAN MINERAL TREASURES



Edited by
Gloria A. Staebler and Wendell E. Wilson

with a Foreword by Harrison H. Schmitt
and an Afterword by Eugene S. Meieran

Order online at the Bookstore:

www.MineralogicalRecord.com

or by email at MinRec@aol.com

or by regular mail to

The Circulation Manager
Mineralogical Record, P.O. Box 35565
Tucson, AZ 85740



The
American Mineral Treasures
Exhibition



Wendell E. Wilson
The Mineralogical Record
4631 Paseo Tubutama
Tucson, Arizona 85750

The 2008 Tucson Show exhibits—what can we say? Close to 50 showcases featured the best specimens from the greatest localities in the U.S., borrowed from museums and private collections across the country. There was an electricity and a feeling of excitement in the air that we had never felt before at any mineral show in the last 40 or 50 years. Showgoers passing before case after case of treasures were speechless. They couldn't round up enough superlatives to express their awe and excitement at what they were seeing. It was a show for the ages, a once-in-a-lifetime experience that will surely never be repeated.

We in the mineral world have long come to expect that we will get our allotment of thrills each year looking at minerals at the Tucson Gem and Mineral Show. There really is no event worldwide that comes close to it, especially with regard to the exhibits by various museums, mineral dealers and private collectors. The showcases are almost always memorable, and the topics interesting, year after year, thanks to the remarkable efforts of the Tucson Gem and Mineral Society. In recognition of this fact, the Society received the very first Carnegie Mineralogical Award back in 1987, and continues to earn it all over again each year.

Since the Tucson Show is already well known as the Greatest Show on Earth, mineral-wise, we generally do not daydream about its getting even *better* in some major way. We pride ourselves that an extravaganza such as we have become happily accustomed to each year would have been an unthinkable fantasy for the collectors in the 19th and early 20th centuries. What more could we ask?

Three years ago, however, someone did have the audacity to dream of a much more spectacular show than anyone had ever seen.

Gene Meieran, an Intel Senior Fellow and a well-known Arizona mineral collector, envisioned a show featuring exhibits of the best specimens from the *entire* United States, primarily from localities that have been productive during the latter half of the 20th century, drawn from public and private collections everywhere.

Gene convened an impromptu meeting around a table in the concession area during the 2005 Tucson Show, to see how the idea would sound to a selection of people representing different facets of the mineral world in America. Carl Francis, curator of the Harvard Mineralogical Museum, was there, along with Bryan Lees of Collector's Edge Minerals, Wendell Wilson from the *Mineralogical Record*, Arizona collector and author Bob Jones, mineral photographer Jeff Scovil, Peter Megaw of the Tucson Gem and Mineral Society and mineral dealer Shields Flynn. We all listened to Gene's proposal and, though we were all a bit stunned by the magnitude of the concept, we all signed on as supporters.

At that point, once we had agreed to move forward with the idea, the truly daunting scale and complexity of the project began to dawn on us. I won't go into the gory details of all the stages that followed, but it began with the establishment of a consulting panel of nearly 150 prominent mineral people to vote on which localities should be included. Then plans were laid for a gloriously illustrated book celebrating the exhibits; authors were assigned to the various chapters, and arrangements were made for specimen photography (much of it by Jeff Scovil). People were assigned to organize each showcase (tracking down the best specimens in museums and private collections and arranging for their presence at the show). Ultimately it was decided that the book would be

published by Lithographie LLC and edited by Gloria Staebler and Wendell Wilson, with the help of Janet Clifford. Bryan Swoboda (Ed Swoboda's son), of Blue-Cap Productions, agreed to produce a DVD video review of the localities and showcases.

Then came the complex arrangements with Peter Megaw of the TGMS and Show Chairman Richard Trapp for logistics, insurance, legal paperwork, security, showcases, showcase risers, set-up procedures, tear-down procedures, time-tables, and badges for showcase organizers, their helpers, and the specimen owners. Gene Meieran and Wendell Wilson tackled the task of designing and producing over 1,100 matching specimen labels for the exhibits, plus another 1,100 fancy commemorative labels for the specimen owners to take home, over 100 showcase title placards and informative descriptive placards about the localities, and matching showcase cards to indicate who was responsible for organizing each showcase.

It must be mentioned that no part of this incredible exhibition would have been possible without the management skill, tireless labor and unwavering determination (not to mention countless lengthy email memos!) of one special person: Gene Meieran. Gene also arranged the necessary financial support from Bruce Oreck, Rob Lavinsky, John Marshall, Marc Weill, Bryan Lees, Bill Larson and Gene himself to cover the expenses involved in producing all the showcase risers, liners and placards, the meetings and other show-related expenses. Through all this Gene was supported by his wife Roz, who helped behind the scenes and encouraged him to keep the project going through even the most difficult times. Concomitantly, publisher Gloria Staebler successfully arranged financial backing from over 100 donors (listed in the book) to keep the price of the book low, wrangled the large team of authors into completing their chapters, assembled the illustrations, and got the book laid out, proofed, printed and bound in time for the show. The Geoliterary Society kindly gave up its usual meeting-room time during the show to make room for a massive book-signing with nearly all of the authors, editors, and photographers.

Special accolades must also be given to the collectors, the dealers and especially the museum curators who agreed to bring large numbers of their most precious specimens to the show and allow them to be exhibited. The packing, transportation, unpacking, setting up, tearing down, repacking and transport home of such fragile treasures carries inherent risks. On their way to Tucson, some of these priceless, irreplaceable specimens were even unpacked and examined by curious airport security officials! And yet these risks were accepted and endured in order to produce an unparalleled experience for Tucson Show attendees. The debt of thanks we owe the specimen owners can never be fully expressed.

Yes, it was quite a show . . . a great time to be a passionate lover of minerals, and a benchmark in the long history of mineral collecting. Everyone who attended will remember it for the rest of their lives.

THE SHOWCASE PHOTOS

Once the magnitude of the show exhibits was apparent, it was quickly decided that, for the sake of history, all cases should be professionally photographed. Wayne Thompson proposed the idea to Show Chairman Rick Trapp and to Pat McClain that Jeff Scovil be allowed onto the show floor overnight on Friday of the show to accomplish the huge task. It took fast work to arrange for a security guard, for two people to raise and lower the showcase glass for Jeff, and for a legal form to be written that each case organizer would need to sign to permit the cases to be opened in his absence. The legal document was completed less than an hour before the big book-signing event where, fortunately, most of the case organizers could be found.

All of these arrangements were expensive (the TGMS expenses, the guard, the helpers, Jeff's fee), and so a hyper-fast fund-raising effort was launched by Wayne Thompson, Bill Larson and others to gather the necessary financing. The following people contributed equally:

DONORS—Photo Expenses

Mike Bergmann	Alex Schauss
George Elling	The Seaman Mineral Museum
Jack and Judy Farnham	Max and Jon Sigerman
Fine Gems International	Wayne Sorensen
Richard Freeman	James and Gail Spann
Brice and Christophe Gobin	Marshall Sussman
Cal and Kerith Graeber	Dennis Tanjeloff
Richard Graeme	Wayne and Stevia Thompson
Bill Larson, Pala International	Daniel Trinchillo
Rob Lavinsky, the Arkenstone	Gerhard Wagner
John Lucking	Dave Waisman,
Wallace Mann	Westward Look Show
Mark Pospisil	Stuart Wilensky
Les & Paula Presmyk	Wendell Wilson

Contributions toward the *Mineralogical Record's* cost in publishing the pictures here were received from the following:

DONORS—Publication Expenses

Gus & Sue Eifler	Steve Neely
Sandor Fuss	Anne & Joe Ondraka
Houston Area Mineral Society	Bruce Oreck
Rudolph Kluiber	Daniel Trinchillo
Rob Lavinsky, the Arkenstone	Stuart Wilensky

And thus we are able to preserve in this issue a photographic record of the showcases and specimens that came together for this historic show. Specimens that were shown will carry a special provenance in future years, attested to by the presentation labels sponsored by Bryan Lees, designed by Wendell Wilson and produced by Gene Meieran that were given out. With the publication of these showcase photos, the possibility of accidental or falsified attributions, or counterfeited presentation labels is eliminated because specimens can always be checked and compared against the photos.

So, if you were unable to attend the 2008 Tucson Show, we invite you to sit back and partake of it vicariously through the photos and the report presented here. The text supplied with each showcase is taken from the showcase placards. And if you were fortunate enough to be there in person, you will surely enjoy this unprecedented memory aid. Never have so many people worked so hard for so long in so many ways to create such an extraordinary event for the mineral collector. We do indeed live in a Golden Age, which may just have reached its pinnacle in February of 2008.

NOTE on the Photos: All photos are by Jeff Scovil (except as noted). In order to represent the specimens at a recognizable size it was necessary to make the showcase photos more than one full page wide. However, to avoid having some specimens cut by the gutter, we have, in most cases, cut the photos and presented them on one page, with the left half of the case shown on top and the right half on the bottom (with varying degrees of overlap).



Epidote and Associated Minerals from Green Monster Mountain, Prince of Wales Island, Alaska

Chapter authors and showcase organizers:
Douglas C. Toland and Thomas R. Hanna

World-class epidote crystals were first found on Green Monster Mountain, Alaska, by hardy prospectors looking for copper in the early 1900s. The epidote specimens occur within a skarn complex on privately owned patented mining claims which cover the mountain's top, upper sides and ridges. The remote area has no road access, and swarms of biting insects are a major threat to sanity throughout the short collecting season. The steep alpine terrain and formidable weather conditions also contribute to making it one of the more challenging and difficult places at which to collect. The epidote crystals occur in many habits and sizes, and commonly are

associated with quartz, including distinctive and beautiful Japan-law quartz twins. Other crystals found include titanite, clintonite, magnetite as rosettes, and goethite pseudomorphs after pyrite. The exceptional epidote and quartz specimens produced over the past 100 years have rarely been recovered in significant quantities. It is thus easy to understand why Green Monster specimens are highly desired by collectors.

Specimen owners:

American Museum of Natural History	
Yale Peabody Museum of Natural History	
Rice Northwest Museum of Rocks and Minerals	
Collector's Edge Minerals, Inc.	
Jack Halpern	Tom Moore
Tom Hanna	Marlin Ridley
Marshall Koval	Ken Rippere
Rob Lavinsky	Doug Toland
Al and Sue Liebetrau	Wendell Wilson



**Dioptase, Cerussite
and Other Minerals from the
Mammoth-St. Anthony mine,
Tiger, Pinal County, Arizona**

Chapter authors:

Les Presmyk, Robert W. Jones and Tony Potucek

Showcase organizers:

Les Presmyk and Tony Potucek

The Mammoth-St. Anthony mine at Tiger has produced not only large amounts of gold, molybdenum and copper but also more than 90 different mineral species since Frank Schultz staked the first claims in 1879. The mine began as several separate workings that ultimately were consolidated, but to the collector the locality is known simply as "Tiger." Prior to its closure in 1953 the mine was an incredible producer of both ore and mineral specimens.

Famous for cave-ins, fires and other catastrophes, Tiger has never been a place where amateurs were able to collect freely. Mineral collectors thus owe a debt of gratitude to the miners who brought specimens home in their lunch pails, and to the various company officials who supported specimen recovery efforts. The locality is well-known for fine examples of common secondary minerals such as cerussite, dioptase and wulfenite, and also for rarer species such as diableite, caledonite, bideauxite and leadhillite which represent some of the finest known examples of their species.

Specimen owners:

Arizona Mineral and Mining Museum Foundation

Arizona-Sonora Desert Museum

University of Arizona Mineral Museum

Smithsonian Institution

Bob and Evan Jones

Rock Carrier

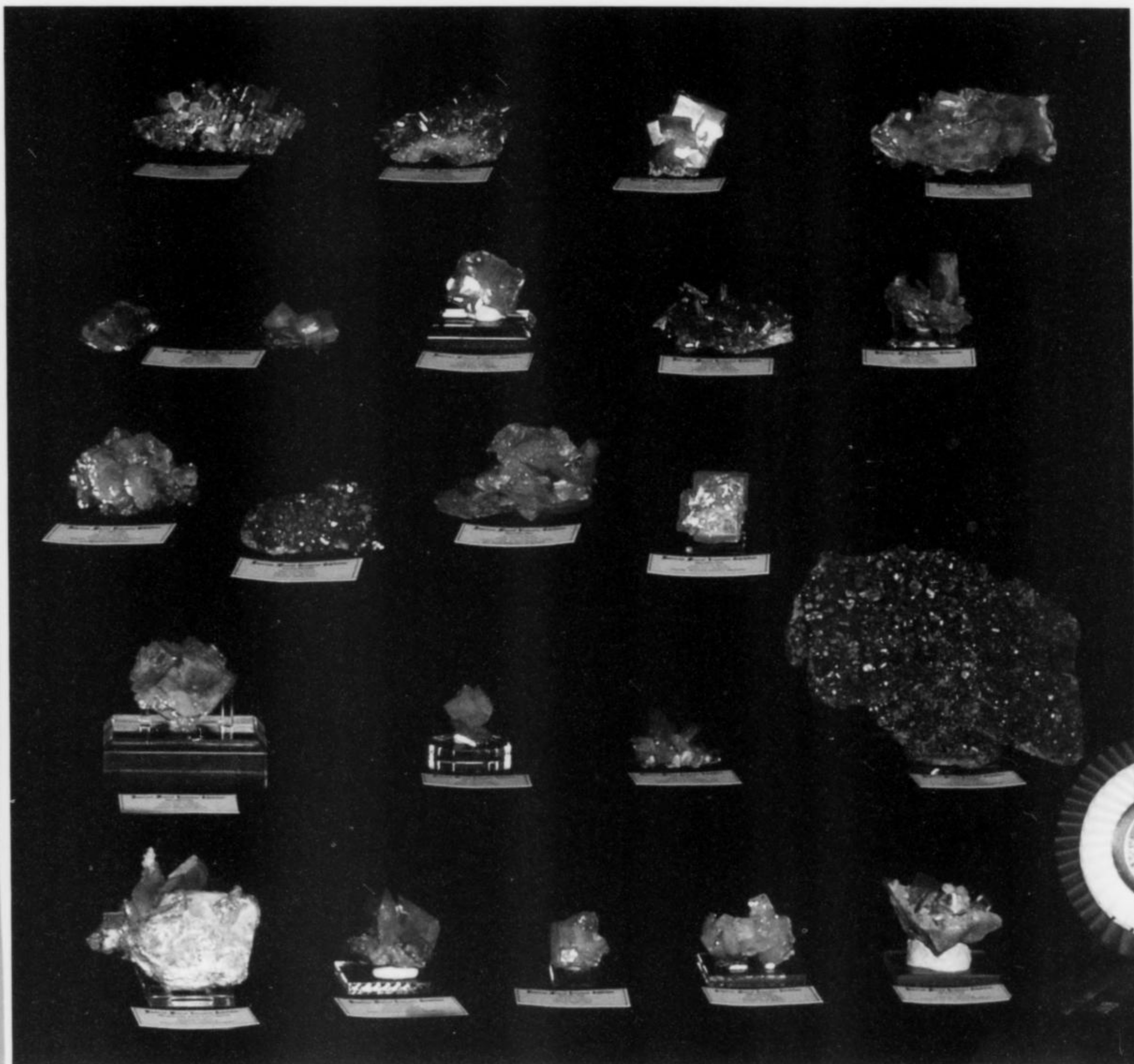
Dick Morris

Paul S. Harter

Tony Potucek

Mark Hay

Les and Paula Presmyk



**Wulfenite
and Associated Minerals from
the Old Yuma Mine, Pima County, Arizona**

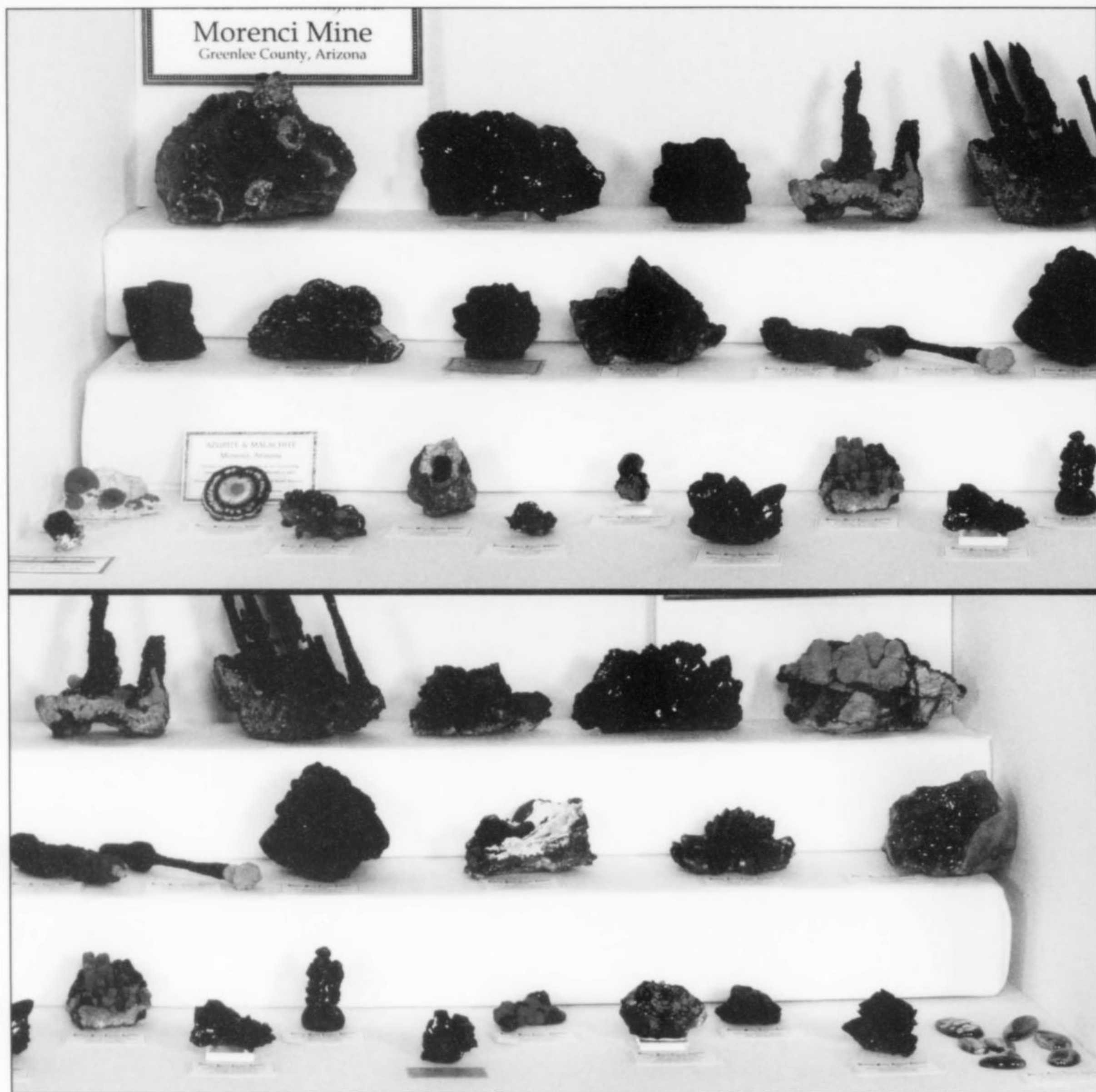
Chapter authors and showcase organizers:
Wendell E. Wilson and Gene Schlepp

The Old Yuma mine is located in the Tucson Mountains of Pima County, Arizona, about 14 kilometers by road northwest of the Tucson city limits. The mine has produced North America's best vanadinite specimens and is also well known for some of Arizona's largest and finest yellow wulfenite crystals. Sizeable pockets of these minerals have been found there intermittently since the 1880s, and during the 1930s so much wulfenite was encountered by miners that it was crushed and processed for its gold content.

Joe Brooks Davis (husband of the late, well-known mineral dealer Suzie Davis) of Tucson filed claims across the Old Yuma property in 1958 and 1959. Gene Schlepp and John Cesar discovered rich pockets of wulfenite crystals there, as have other collectors since then. The property was later claimed and worked by Dick Jones, who transferred his claim to Wayne Thompson. The mine was then acquired by Richard Bideaux, and has since been absorbed into the Saguaro National Monument. Collecting there is now permanently forbidden by law.

Specimen owners:

Arizona-Sonora Desert Museum	Wallace Mann
John and Karen Cesar	Bill and Robbie McCarty
Paul S. Harter	Dick Morris
Mark Hay	Tony Potucek
Wayne and Dona Leicht	Les and Paula Presmyk



**Azurite, Malachite
and Associated Minerals from the
Morenci Mine, Greenlee County, Arizona**

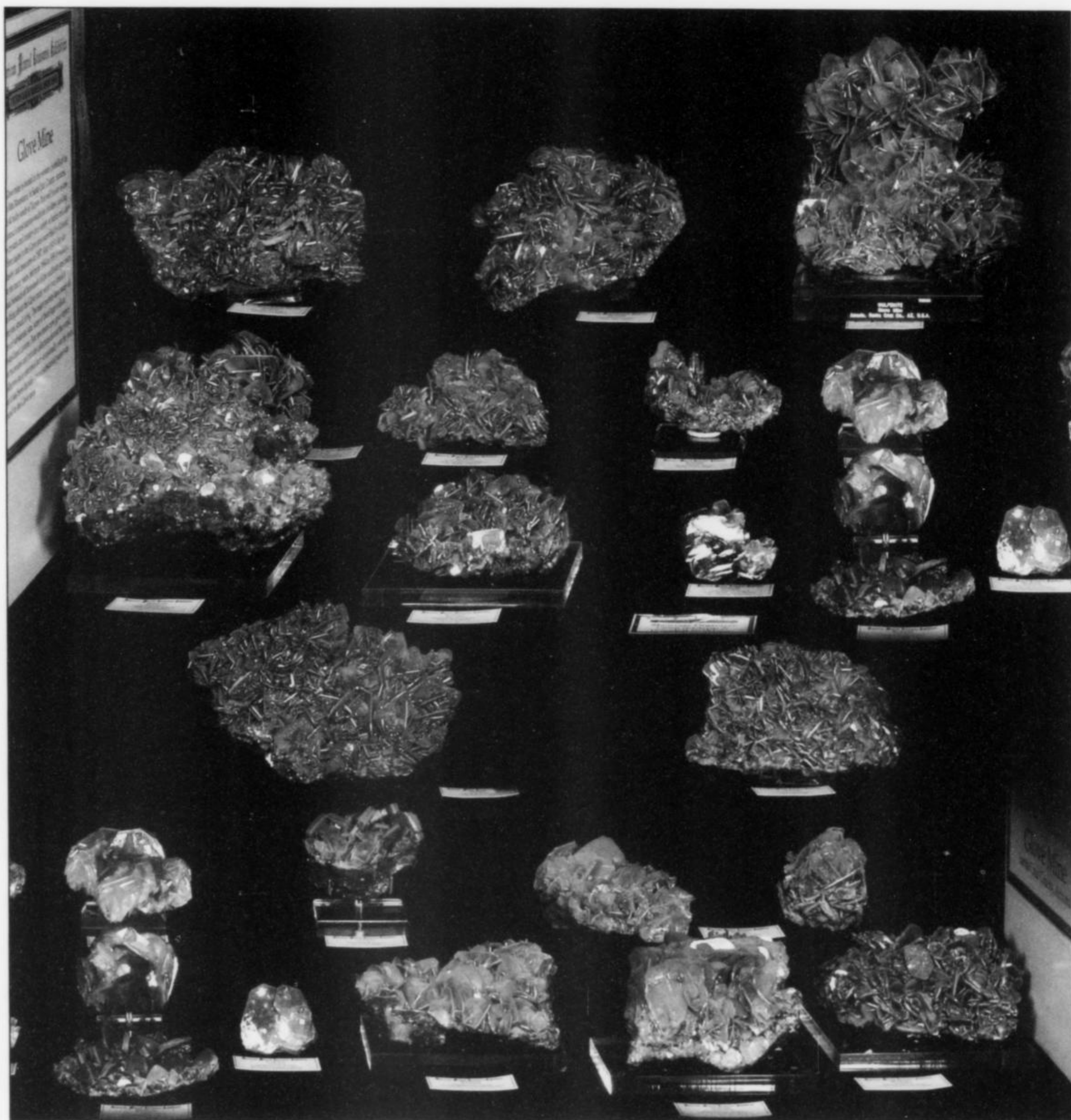
Chapter authors:
Stan Esbenshade and Wayne A. Thompson
Showcase organizers:
Stan Esbenshade and Tony Potucek

The Morenci Mine is located in east-central Arizona near the boundary with New Mexico. Copper deposits were discovered there in 1865 and the first claims were staked in 1872. Serious mining to exploit the rich near-surface copper carbonate veins began shortly thereafter. Morenci eventually evolved from a few underground workings to what it is today: the largest open-pit mine and the largest producer of copper in the United States. The early

days of Morenci did not see the recovery of many fine azurite and malachite specimens, though they were certainly encountered during mining. It wasn't until Phelps Dodge Corporation entered into a mineral recovery contract in 1974 that Morenci finally became a well-known producer of mineral specimens and lapidary material. Over the following 33 years Southwestern Mineral Associates has recovered most of the specimens that have reached the market—the vast majority of which would otherwise have been lost to the crusher or the leach dumps.

Specimen owners:

Arizona-Sonora Desert Museum	Bob and Evan Jones
Bruce Carter	John C. Lucking
Stan Esbenshade	Herb Obodda
Shirley Fisk	Tony Potucek
Mark Hay	Les and Paula Presmyk



**Wulfenite
and Associated Minerals from the
Glove Mine, Santa Cruz County, Arizona**

Showcase organizer: **Gene Schlepp**

The Glove mine is located in the western foothills of the Santa Rita Mountains, in Santa Cruz County, Arizona, about 40 miles south of Tucson. It is one of Arizona's most famous wulfenite localities, yielding large crystals and clusters in a variety of habits and colors. The first claims in the Glove area were filed by Edward T. Sheehy and associates in 1907. After 1918 it lay dormant for many years, but from 1954 to 1959 it yielded a virtual bonanza of thousands of fine wulfenite specimens. One thing about the Glove

mine: when you struck it there you struck it big. The major pockets have nearly all been of substantial size; some of them were large walk-in crystal-lined caverns. Fine specimens now grace important museums and private collections around the world. Collectors have returned there occasionally over the years, but it has been decades since a substantial pocket was found in the Glove mine.

Specimen owners:

- Arizona Mining and Mineral Museum
- Arizona-Sonora Desert Museum
- University of Arizona Mineral Museum
- Rock Currier
- Paul S. Harter
- Mark Hay
- Bob and Evan Jones
- Bill and Robbie McCarty
- Dick Morris
- Les and Paula Presmyk



Copper and Associated Minerals from the Ray Mine, Pinal County, Arizona

Chapter author:

Robert W. Jones

Showcase organizers:

Les Presmyk and Paul S. Harter

The Ray copper mine in Pinal County, Arizona exploits a low-grade copper porphyry deposit underlain in part by a thick zone of copper sulfides. The deposit was first worked by local Native Americans, then by United States Army personnel sent to subdue them. Once the domestic situation was settled, underground mining at Ray commenced in 1880. After World War II, it was decided that the mine could best be worked as an open pit property, but

before the pit could be created, it was necessary to move the town of Kelvin and eliminate the town of Ray entirely in 1963. During the initial excavation of what is now the Pearl Handle pit (started after 1955), a vast quantity of cuprite-coated arborescent copper was exposed and much was salvaged by miners. Since then Ray has been a prolific producer of native copper specimens, as well as exceptional crystals of cuprite and large chrysocolla pseudomorphs. The mine is currently being operated by American Smelting and Refining Company (ASARCO), and new mineralized areas could be encountered as mining progresses.

Specimen owners:

Arizona Mineral and Mining Museum

John and Karen Cesar

Paul S. Harter

Mark Hay

Bob and Evan Jones

Bill and Robbie McCarty

Dick Morris

Les and Paula Presmyk

Daniel Trinchillo



Azurite, Malachite and Associated Minerals from Bisbee, Cochise County, Arizona

Chapter author:

Richard Graeme

Showcase organizers:

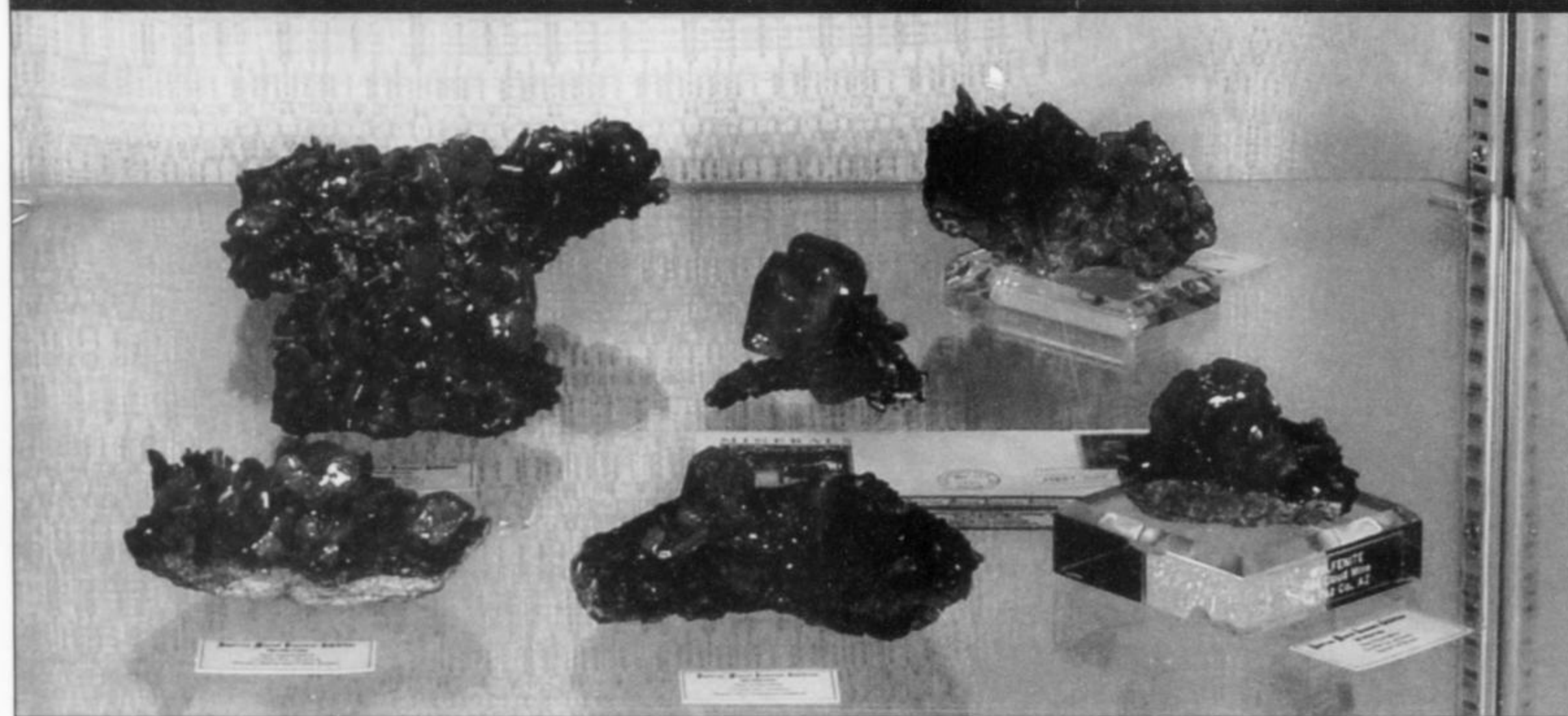
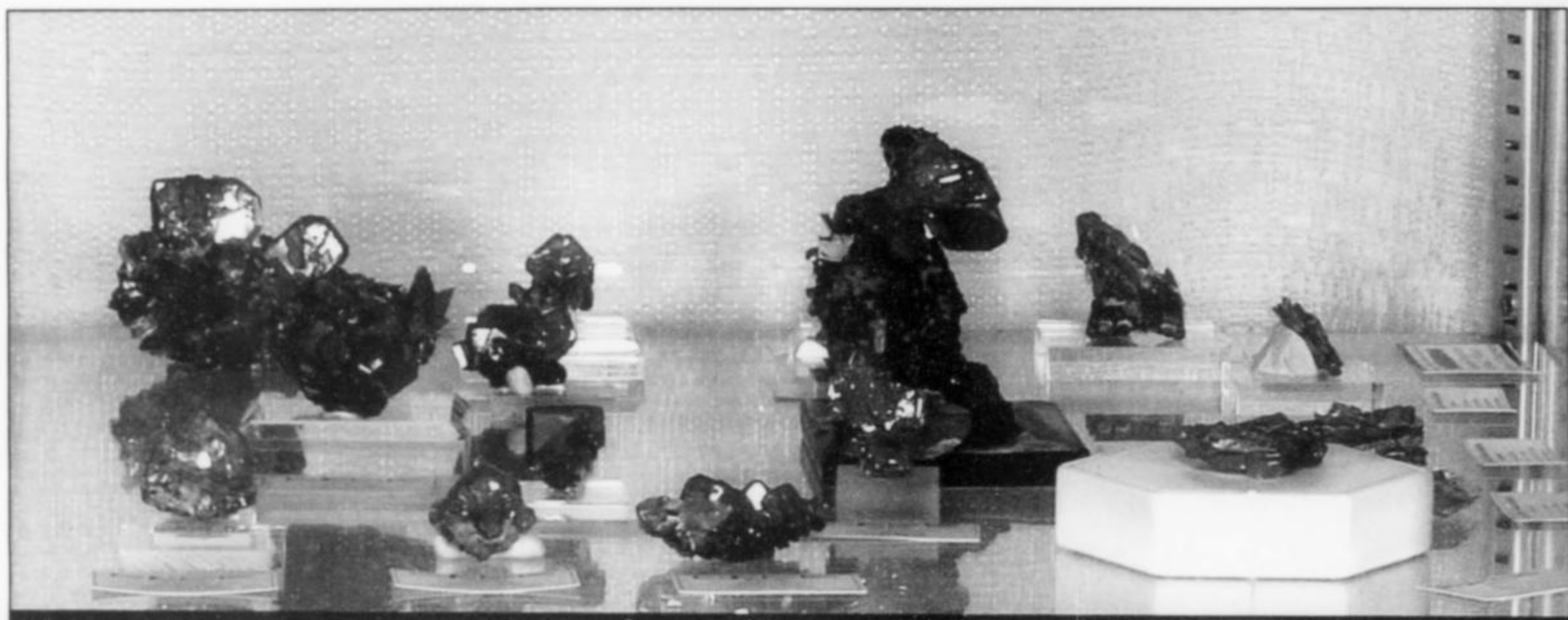
Richard Graeme and Les Presmyk

For the better part of a century, the ore deposits at Bisbee, Arizona, discovered by an Army scout in 1877, were world-class. They have produced millions of tons of copper, large tonnages of zinc, lead and manganese, and millions of ounces of gold and silver. Despite this immense wealth, it was the spectacular mineral specimens that made Bisbee famous long before the size or richness of the ore deposits were ever realized. From the very earliest times at Bisbee, the mine employees—miners, repairmen, ore handlers, foremen and engineers—all collected the minerals they found in the mines and took them home. This was a tradition at Bisbee, something many

considered almost a birthright. Thus a great number of spectacular specimens were saved over the years. Even now, over 30 years after mining ended there in 1975, it is the legacy of Bisbee's beautiful mineral specimens that ensures its continued fame. In addition, over 320 different mineral species have been found there, and more will likely be discovered with further investigation of the huge number of specimens that were saved during mining.

Specimen owners:

University of Arizona Mineral Museum	
Houston Museum of Natural Science	
Natural History Museum of Los Angeles County	
Rice Northwest Museum of Rocks and Minerals	
Smithsonian Institution	Lyda Hill
Rock Currier	Bob and Evan Jones
Douglas Graeme	William Larson
Richard Graeme III	Bill and Robbie McCarty
Richard Graeme IV	Dick Morris
Paul S. Harter	Tony Potucek
Mark Hay	Les and Paula Presmyk



Unlike the other showcases, the Red Cloud case was a four-sided column with specimens facing in three directions. It contained eight of the finest Ed Over crystals (collected in 1938): the six crystals in the foreground of the photo on the facing page, as well as the one in the upper center of that photo, and the "postage stamp wulfenite" shown in the center of the lower photo above. Also at the show, in the showcase of the Natural History Museum (London), were two more, shown at left. (Opposite page photo and lower photo this page by Wendell Wilson.)



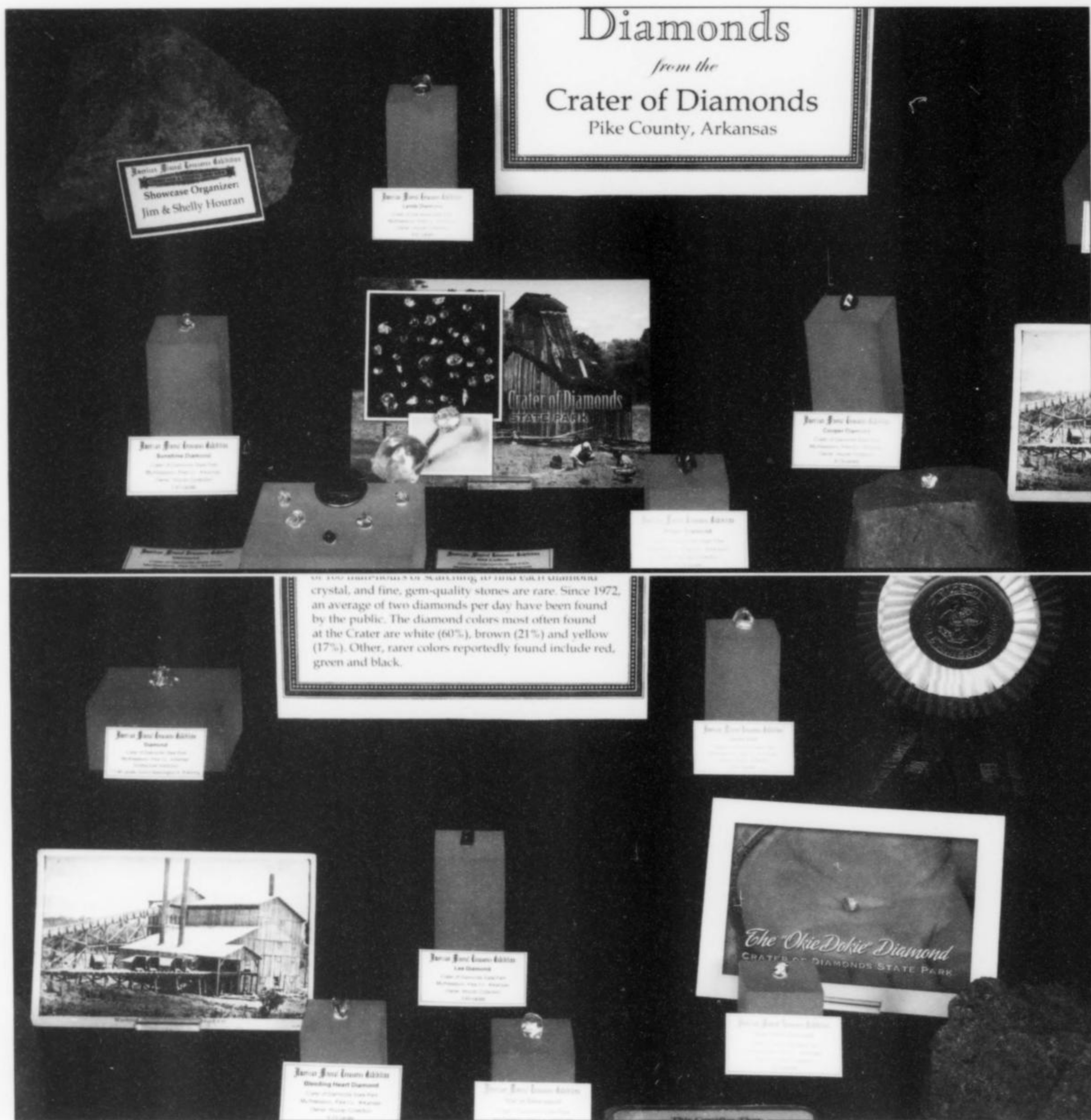
**Wulfenite
and Associated Minerals from
the Red Cloud Mine,
La Paz County, Arizona**

Chapter authors and showcase organizers:
Wendell E. Wilson and Wayne A. Thompson

Wulfenite specimens from the Red Cloud mine in the Silver District of La Paz County, Arizona are widely regarded as the world's most desirable examples of the species. Top-quality crystals over 5 centimeters in size are rare, but fine specimens have been reaching the market sporadically ever since Philadelphia mineral dealer A. E. Foote first visited the locality in the 1880s. For sheer size, beauty, and rose-red color, the specimens found by Ed Over in 1938 have never been surpassed. However, a major strike in 1996 by a group headed by Wayne Thompson produced fabulous crystal clusters which, in their own way, have also never been equaled. Thus, for well over a century, the Red Cloud mine has been giving up superb specimens and refuses to be considered "worked out." It is entirely possible that more bonanzas remain hidden in its depths, but access to the underground workings is now blocked off and it may be many years before collecting again takes place there.

Specimen owners:

Cranbrook Institute of Science
Harvard Mineralogical Museum
Natural History Museum of Los Angeles County
Smithsonian Institution
Scott Adams
Irv Brown
Paul S. Harter
Mark Hay
Bob and Evan Jones
Bill Larson
Wayne and Dona Leicht
John C. Lucking
Wallace Mann
Roz and Gene Meieran
Dick Morris
Les and Paula Presmyk
Steve and Clara Smale
Daniel Trinchillo
Wendell Wilson



Diamonds from the Crater of Diamonds, Pike County, Arkansas

Chapter authors:

J. Michael Howard and Jim Houran

Showcase organizers:

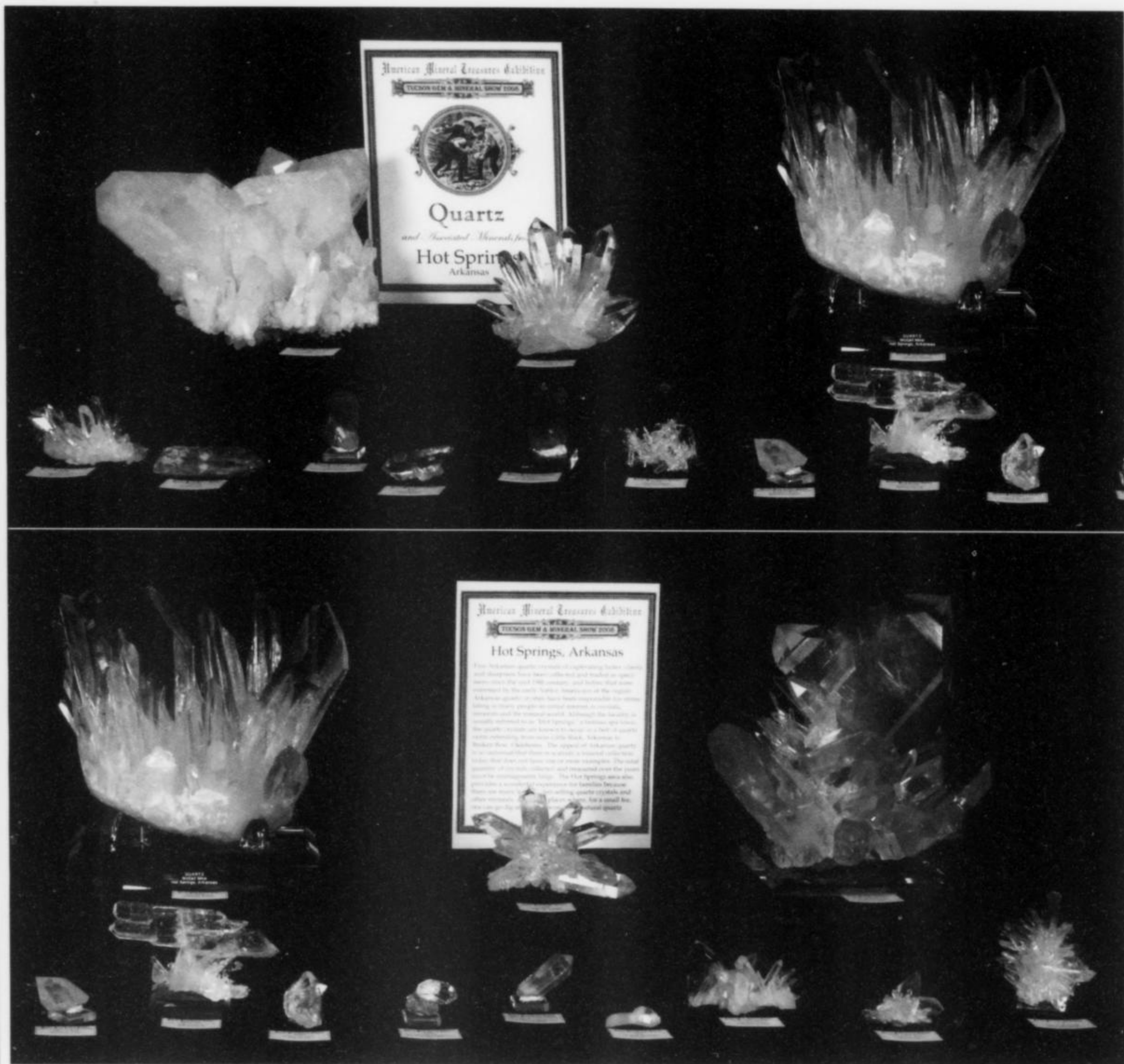
Jim and Shelly Houran

Crater of Diamonds, located southeast of Murfreesboro in Pike County, Arkansas, has a rich 100-year history of diamond mining. The early 1900s saw several attempts to mine the property commercially. From 1952 to 1971 the land was a privately held tourist attraction, but it has since become a State Park where paying

visitors may keep any diamonds and other minerals they find. In terms of surface area, the Crater of Diamonds kimberlite pipe is the eighth largest diamond-bearing deposit in the world. The average weight of Crater diamonds is only about 0.2-carats, and only 3% of all diamonds weigh one carat or more. It takes an average of 100 man-hours of searching to find each diamond crystal, and fine, gem-quality stones are rare. Since 1972, an average of two diamonds per day have been found by the public. The diamond colors most often found at the Crater are white (60%), brown (21%) and yellow (17%). Other, rarer colors reportedly found include red, green and black.

Specimen owners:

Smithsonian Institution
Jim and Shelly Houran



Quartz and Associated Minerals from Hot Springs, Arkansas

Chapter authors and showcase organizers:
Si Frazier and Ann Frazier

Fine Arkansas quartz crystals of captivating luster, clarity and sharpness have been collected and traded as specimens since the mid-19th century, and before that were esteemed by the early Native Americans of the region. Arkansas quartz crystals have been responsible for stimulating in many people an initial interest in crystals, minerals and the natural world. Although the locality is usually referred to as "Hot Springs," a famous spa town, the quartz crystals are known to occur in a belt of quartz veins extending

from near Little Rock, Arkansas to Broken Bow, Oklahoma. The appeal of Arkansas quartz is so universal that there is scarcely a mineral collection today that does not have one or more examples. The total quantity of crystals collected and treasured over the years must be unimaginably large. The Hot Springs area also provides a wonderful experience for families because there are many local dealers selling quartz crystals and other minerals, and many places where, for a small fee, one can go dig and collect wonderful natural quartz crystals.

Specimen owners:

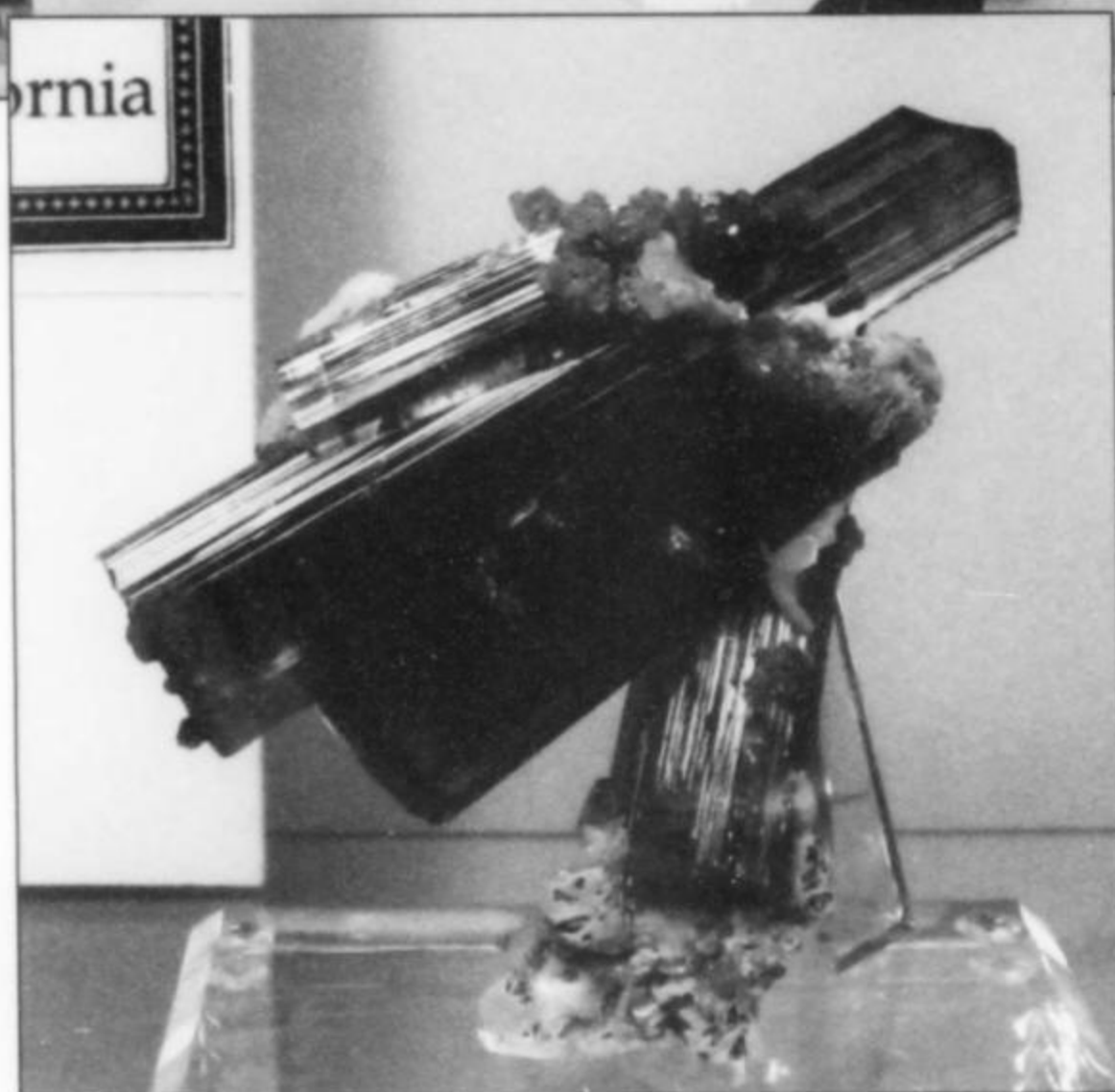
Harvard Mineralogical Museum	Bruce and Cody Oreck
Si and Ann Frazier	Mark Pospisil
Jack Halpern	Neil Prenn
Carolyn Manchester	Daniel Trinchillo
Thomas Nagin	Marc P. Weill



Tourmaline and Associated Minerals from the Himalaya Mine, Mesa Grande, San Diego County, California

Chapter author: **John McLean**
Showcase organizer: **Bill Larson**

The Himalaya dike system in the Mesa Grande district of San Diego County, California consists of several relatively thin and remarkably continuous pegmatites that crop out along the east and north flanks of Gem Hill. The Himalaya mine is the northernmost and historically the most productive of three mining properties that occupy the dike system, having yielded over 90 tons of tourmaline. The Himalaya dike system is highly enriched in boron, which undoubtedly contributed to its richness in tourmaline. Conversely, beryl is rather rare, though corroded masses of orange-pink morganite have occasionally been found in pockets. Spodumene is not known to occur there. The pegmatite is also known for its large and well-formed microcline crystals, commonly associated with lepidolite, smoky quartz, platy albite and tourmaline. Though rare, stibiotantalite crystals from the Himalaya are among the world's best for the species. After operating for almost two years without any significant new finds, the Himalaya mine closed in 1998.



Specimen owners:

American Museum of Natural History
Houston Museum of Natural Science
Jesse Fisher and Joan Kureczka
Carl J. Larson
William Larson

Will Larson
Rob Lavinsky
Roz and Gene Meieran
Dawn Minette (James and
Dawn Minette collection)



California Gold and Associated Minerals from the Colorado Quartz/Mockingbird, Red Ledge and Eagle's Nest Mines

Chapter author and showcase organizer:
Wayne C. Leicht

California's crystallized gold tends to come from small near-surface lode deposits referred to as "pocket mines." Oddly enough, most of these occurrences are not in the famous Mother Lode region, but rather are located in either the East Belt or in an area north of the Mother Lode that is generally referred to as the Northern Mines. Each mine generally produces its own unique flavor of crystallized gold. Of all the mines that have had a more or less continuous history of producing crystallized gold, three stand out: the Red Ledge mine (bright dendritic leaves), the Colorado Quartz/Mockingbird

mines (distinct hopped octahedrons and complex crystals), and the Eagle's Nest mine (crystalline masses with distinctly flattened octahedrons on the edges or nested in a crystalline gold mass). The Eagle's Nest has been by far the greatest producer of fine specimens, helping to make the last 30 years truly a "golden age" for collectors of gold specimens. These three mines have produced the finest gold specimens ever known.

Specimen owners:

Houston Museum of Natural Science
Smithsonian Institution
Anonymous
Irv Brown
Crystal Classics
Tana Daugharthy
Wayne and Dona Leicht
Bill and Carol Smith



**Benitoite, Neptunite
and Associated Minerals from
the Benitoite Gem Mine,
San Benito County, California**

Chapter author:

Michael Gray

Showcase organizers:

Michael Gray and Buzz Gray

The Benitoite Gem mine is located in the Coast Range Mountains in San Benito County, north of the town of Coalinga. The first specimens of benitoite and neptunite were found in 1907, and extensive tunneling took place for several years to extract benitoite gemstone rough. The mine, known in those days as the Dallas Gem mine, was worked sporadically from the early teens to the 1960s, when the tunnels were open-pitted. Extensive exploration and mining by Bill Forrest and Buzz Gray took place from 1967 to 2000,

and by Bryan Lees (Benitoite Mining Inc.) from 2001 to 2005. The benitoite crystal symmetry (ditrigonal dipyramidal) had been postulated to exist but was not known in nature until the discovery of the species. Benitoite is the California State Gemstone. The mine has been reclaimed, and is presently open as a fee-dig area.

Specimen owners:

Natural History Museum of Los Angeles County
Smithsonian Institution
Buzz Gray
William F. Larson
Wayne and Dona Leicht
Dawn Minette (James and Dawn Minette collection)
Bill and Elizabeth Moller
Michael M. Scott
Jim and Gail Spann
Doug Wallace
Marc P. Weill



**Tourmaline, Beryl
and Other Pegmatite Minerals from the
Peninsular Ranges, Southern California**

Chapter author and showcase organizer:
Jesse Fisher

The gem and rare-element-bearing pegmatites of southern California have been the most prolific source of elbaite, morganite beryl, kunzite spodumene, and other pegmatite minerals in North America since their discovery over 100 years ago. The province ranks among the major gem and specimen-producing pegmatite regions in the world. As a result, specimens from mines such as the Himalaya, Tourmaline Queen, Pala Chief, Stewart and Little Three are today found in collections the world over. The pegmatite mines of Southern California are noted mainly for producing magnificent specimens of colored tourmaline, but other species have also contributed to the region's fame. The first recognized occurrence of the lavender "kunzite" variety of spodumene was a mine in the Pala district, and

notable occurrences of pink beryl (morganite), blue-green beryl (aquamarine), topaz, spessartine, and many other pegmatite minerals are also found in numerous pegmatites throughout the province.

- Specimen owners:**
 Carnegie Museum of Natural History
 Harvard Mineralogical Museum
 Natural History Museum of Los Angeles County
 Bob Dawson
 Jesse Fisher and Joan Kureczka
 Cal Graeber
 Bryant Harris
 Chuck Houser
 William Larson
 Rob Lavinsky
 Roz and Gene Meieran
 Anne and Joe Ondraka
 Wayne Sorensen
 Jeff Swanger
 Byron Weege



Tourmaline and Associated Minerals from the Tourmaline Queen Mine, Pala, San Diego County, California

Chapter author and showcase organizer:
William Larson:

The Tourmaline Queen mine, located on the northeast slope of Queen Mountain in San Diego County, California, is among the most well-known tourmaline-producing pegmatites in the world. It was originally staked as a quartz claim by Frank Salmons and others in 1903, and within a few years had become one of the leading sources of tourmaline in California. Many large crystals were shipped to the Dowager Empress of China, T'zu Hsi, for carving purposes. However, when the Imperial Chinese aristocracy was overthrown in 1912, the

Chinese market for carving-grade tourmaline dried up, and the California mines were closed. Minor small-scale mining was carried out at the Tourmaline Queen mine in the 1940s and 1950s, but in 1971 a California Company, Pala Properties (owned by William Larson and Ed Swoboda), began full-time exploration and mining at the site. In January of 1972 an interconnected series of pockets was encountered which yielded the now-world-famous "blue cap" tourmalines. The specimens from this discovery are ranked as the finest tourmaline specimens ever found in North America. (See also p. 221.)

Specimen owners:

American Museum of Natural History	
Houston Museum of Natural Science	William Larson
Smithsonian Institution	Simon Lawrence
Irv Brown	Wallace Mann
Jesse Fisher and Joan Kureczka	Roz and Gene Meieran
Carl J. Larson	Jim and Gail Spann



Colorado Gold from the Dixie Mine, Ground Hog Mine and Farncomb Hill, Breckenridge

Chapter authors:
Ed Raines and Carl A. Francis
Showcase organizer:
Dave Bunk

A number of Colorado localities have produced exceptional crystallized gold specimens. Among the most notable are the Dixie mine on Ute Creek, in the Chicago Creek mining district of Clear Creek County (famous for leaf gold and wire gold); the Ground Hog mine in the Gilman mining district in Eagle County (famous for producing thick, striated gold wires that curl and spiral as if formed by extrusion); and Farncomb Hill in the Breckenridge min-

ing district in Summit County (famous for crystallized leaf gold and "bird's nest" masses of wire gold crystals). While most of Colorado's finest gold specimens were mined more than a century ago, 20th century operations at various mines have also produced fine specimens. Modern-day prospectors using metal detectors have had some success as well. Such specimens have generally been found on the dumps, enclosed in rock matrix, and must be carefully prepared in order to expose the gold crystals and leaves.

Specimen owners:

Carnegie Museum of Natural History
Harvard Mineralogical Museum
Natural History Museum of Los Angeles County
Dave Bunk
Collector's Edge Minerals, Inc.



Aquamarine and Associated Minerals from Mount Antero, Chaffee County, Colorado

Chapter authors and showcase organizers:
Mark Jacobson and Bryan K. Lees

At 14,269 feet, Mount Antero in Chaffee County, Colorado is the highest known mineral locality in the United States. Nelson ("Nels") Wanemaker and J. C. H. Grabill first found aquamarine crystals on Mount Antero in July of 1881. Ever since then, intrepid collectors have been finding attractive aquamarine specimens (many of gem quality), as well as the associated secondary beryllium minerals phenakite and bertrandite, at elevations above 12,000 feet on the steep, rocky slopes of the mountain. The legendary Ed Over (1905–1963) dominated Mount Antero collecting from 1928 to 1949. He found the largest aquamarines ever known from Mount Antero, as well as an abundance of attractive aquamarine and phenakite matrix specimens. Numerous discoveries of gem pockets were made across Mount Antero by many individuals from the 1970s through the 1990s. Since the mountain is within the San Isabel National Forest—on open public land—the locality is still popular today with mineral collectors.

Specimen owners:

Denver Museum of Nature and Science
Harvard Mineralogical Museum
Smithsonian Institution

Dave Bunk
Bill Chirnside
Collector's Edge Minerals

Tim Hillsten
Bruce and Cody Oreck
Jeff Self

ed to climbing all of Colorado's 14ers, and "four-wheeler" clubs excited by rough roads. The locality was discovered by Nelson Daniel Wanemaker circa 1881 and had become well known to the public by 1885. Collecting by active claim holders since 2000 has resulted in better specimens being recovered than ever before. In this case are specimens that cover the entire collecting life of this locality, from some of the first specimens found by Wanemaker, to the largest aquamarine collected by Ed Over, to a sampling of the post-World War II discoveries and the most recent discoveries by Steve Brancato after 2000.





Colorado Barite and Associated Minerals from Weld and Mesa Counties and Southeastern Colorado

Chapter author and showcase organizer:
Daniel Kile

Of the many localities for barite in Colorado, three have yielded specimens of world-class caliber. Perhaps the most famous occurrence, known since 1892, is at Stoneham, a small town in Weld County on the high plains of northeastern Colorado. The spectacular groups of blue crystals, often with contrasting calcite, occur in fractures within a compacted volcanic ash known as tuff. The

most famous occurrence, known since 1892, is at Stoneham, a small town in Weld County on the high plains of northeastern Colorado. The spectacular groups of blue crystals, often with contrasting calcite, occur in fractures within a compacted volcanic ash known as tuff. The barite occurrence from the Book Cliffs north of Grand Junction in Mesa County, western Colorado, has been known since the 1940s, and is noteworthy for water-clear crystals. These crystals occur in concretions that formed in an Upper Cretaceous shale. Barite from southeastern Colorado is not as well known as that from other Colorado localities, but concretions in the Upper Cretaceous shales in this region have occasionally provided exceptional specimens. The crystals are noteworthy because of their transparency, their pale lavender to gray tints, and their association with calcite.

barite occurrence from the Book Cliffs north of Grand Junction in Mesa County, western Colorado, has been known since the 1940s, and is noteworthy for water-clear crystals. These crystals occur in concretions that formed in an Upper Cretaceous shale. Barite from southeastern Colorado is not as well known as that from other Colorado localities, but concretions in the Upper Cretaceous shales in this region have occasionally provided exceptional specimens. The crystals are noteworthy because of their transparency, their pale lavender to gray tints, and their association with calcite.

Specimen owners:

Dave Bunk
Collector's Edge Minerals, Inc.
Dan and Dianne Kile
Bryan and Kathryn Lees



Rhodochrosite and Associated Minerals from the Sweet Home Mine, Alma, Colorado

Chapter authors and showcase organizers:
Bryan K. Lees and Paul S. Harter

Discovered in 1873 and developed for its silver ore, the Sweet Home mine near Alma, Colorado is today known for its strikingly beautiful red rhodochrosite crystals, acknowledged as the world's finest. For over 90 years, the mine was intermittently worked with moderate success as a silver mine, before closing in 1967. In 1991, it was reopened, not as a silver mine, but as a specimen mine, and proved to be incredibly prolific. Besides rhodochrosite, the most important collector species at the Sweet Home mine are fluorite, tetrahedrite/tennantite, pyrite, quartz, sphalerite, galena, hübnerite, bornite, fluorapatite and chalcopyrite. Many of the most outstanding specimens from the mine contain combinations of these minerals. Before closing in 2005 the mine produced hundreds of top-quality rhodochrosite specimens, many of which now grace the world's finest museums and private mineral collections. Of all the localities featured at this historic exhibition, the Sweet Home Mine was ranked the number one by the judges. (See also p. 210.)

Specimen owners:

Houston Museum of Natural Science
Rice Northwest Museum of Rocks and Minerals
Irv Brown
Jack Halpern

Paul S. Harter
Bryan and Kathryn Lees
John C. Lucking
Roz and Gene Meieran

Bruce and Cody Oreck
Sweet Home Rhodo, Inc.
Stuart and Donna Wilensky





Amazonite and Associated Minerals from the Pikes Peak Region, Park and Teller Counties, Colorado

Chapter author and showcase organizer:
Daniel Kile

Localities near the towns of Lake George and Florissant in Park and Teller counties, part of the Pikes Peak region in central Colorado, host the world's premier examples of crystallized green microcline ("amazonite"). Crystals are even more spectacular when associated with smoky quartz, platy albite, or other contrasting minerals. Pikes Peak, a 14,115-ft mountain, served as a beacon for miners and prospectors during the Colorado gold rush that started in 1858. The amazonite crystals occur within clay-filled miarolitic cavities in pegmatites in the Pikes Peak Granite. Crystallized specimens were first noted in the 1860s, and by the early 1900s commercial enterprises (most notably Albert Whitmore's Gem Mines) were providing gem

rough and crystal specimens to the public. Succeeding generations of collectors and prospectors, most using nothing more than a shovel and pick, have provided a steady supply of outstanding specimens from these deposits for more than 140 years.

Specimen owners:

Colorado School of Mines Geology Museum
Houston Museum of Natural Science
Natural History Museum of Los Angeles County
Smithsonian Institution
Irv Brown
Collector's Edge Minerals, Inc.
Dave Bunk
Dan and Dianne Kile
Joe Dorris
Barbara Muntyan
Bruce and Cody Oreck
Ed Raines
Dave Roter



Rutile, Lazulite and Associated Minerals from Graves Mountain, Lincoln County, Georgia

Chapter authors:

**Robert B. Cook, Julian C. Gray,
José E. Santamaria and Jennings B. Gordon**

Showcase organizers:

Julian C. Gray and José E. Santamaria

Graves Mountain in Lincoln County, Georgia, is certainly one of America's most prolific mineral localities, known around the world for its unsurpassed rutile specimens, an abundance of fine lazulite, and a host of other minerals. Sometime in the late 1850s Georgia's pioneering mineralogist Dr. M. F. Stephenson forwarded a selection of complexly twinned rutile crystals from Graves Mountain to Professor Charles Upham Shepard of Yale University for identification. The unique character of the rutile was immediately obvious and specimens were widely distributed by Shepard himself and by major scientific specimen houses such as Kranz and Ward's, resulting in detailed descriptive publications by important early mineralogists. Substantial numbers of fine specimens have periodically been collected since then. The mountain is still open to collectors and is producing specimens equal to the best ever found there, an unusual situation for any well-known mineral location and especially for one that has hosted generations of visitors.

Specimen owners:

Colorado School of Mines Geology Museum
Natural History Museum of Los Angeles County
Tellus Northwest Georgia Science Museum
Mike Galvin
Chester Karwoski





Amethyst and Associated Minerals from Jacksons Crossroads, Wilkes County, Georgia

Chapter authors:

Robert B. Cook, Terry Ledford and Julian C. Gray

Showcase organizer:

Terry Ledford

The spectacular amethyst specimens and gem rough being mined commercially from near Jacksons Crossroads in Wilkes County, east-central Georgia, may well be the finest ever produced in the United States. The occurrence is one of many amethyst deposits scattered through the crystalline rocks of the Appalachian Piedmont region. Good amethyst was apparently first discovered in the Jacksons Crossroads area by Tom Crawford of Wilkes County in the 1960s.

Word of potentially fine amethyst in the area was picked up by local collectors, culminating in a long and secretive collecting venture by a South Carolina mineral enthusiast who gathered a relatively large quantity of unusually fine amethyst. In 2000 work began at the site in earnest, and since then a large number of superb specimens have been found, including many aesthetic clusters showing exquisite "royal purple" color. Fine Jacksons Crossroads amethyst specimens have since found their way into many great public and private collections worldwide.

Specimen owners:

Kevin Brown
Jack and Judy Farnham
Paul Gefner
Hubert Goings
Travis Hartin
Terry Ledford

Roz and Gene Meieran
Steve Neely
Stuart Strife
Paul Tucker
Stuart and Donna Wilensky



Pyromorphite and Associated Minerals from the Bunker Hill Mine, Kellogg, Idaho

Chapter authors and showcase organizers:
Wayne Sorensen and Wayne A. Thompson

The Bunker Hill mine is in the Coeur d'Alene mining district, Shoshone County, Idaho, in the town of Kellogg. It operated as a lead mine from 1887 to 1981, producing nearly 4 million tonnes of lead and zinc, plus 154 million ounces of silver. It also produced the most significant find of pyromorphite specimens the world has ever seen. The excitement began in the summer of 1980 when miners Bill Penninger and Bob Stafford began to find pyromorphite off the main haulage level, in one of the back stopes of the Jersey vein. In July they broke into a major pocket, then another around the first of October—much bigger than the first, about 6 meters long. It was lined with bright orange botryoidal pyromorphite aggregates grading into green crystals of classic hexagonal, hopped

shape. In December, just before the mine closed, they hit the best pocket of all, containing hundreds of specimens of the finest green pyromorphite. Eleven years later Bob Hopper bought the mine, and has continued to find good pockets of pyromorphite crystals periodically since then.

Specimen owners:

Colorado School of Mines Geology Museum	
Houston Museum of Natural Science	
Natural History Museum of Los Angeles County	
Smithsonian Institution	
Anonymous	John C. Lucking
Mike Bergmann	Carolyn Manchester
Kevin Brown	Dawn Minette (James and Dawn Minette collection)
Lance Cook	Bruce and Cody Oreck
Edward E. David	Wayne Sorensen
Sean Finneson	Karl Warning
William Larson	Marc P. Weill
Rob Lavinsky	Stuart and Donna Wilensky
Wayne and Dona Leicht	



**Fluorite
and Associated Minerals from
the Illinois Fluorspar District,
Hardin and Pope Counties, Illinois**

Chapter authors:
Ross C. Lillie and Alan Goldstein
Showcase organizer:
Ross C. Lillie

The Illinois fluorspar district has been famous as a source of fluorite and galena since 1812, although in the early history of the district only galena was mined (for lead and silver). In the 1880s an improved method of smelting steel was developed which required

fluorite as a flux, rejuvenating mining in the area. Since that time over 200 mines have been opened, with mining activity centered for many years around the town of Rosiclare. The Cave-in-Rock area then took over as the center of production following World War I. The Illinois fluorspar district led the nation in the production of fluorite during the 1940s, and hundreds of thousands of fine specimens of blue, yellow and purple fluorite, many of them museum-size, have been recovered over the years. The district finally closed in 1995.

Specimen owners:

Carnegie Museum of Natural History	
Harvard Mineralogical Museum	Harris Precht
Joe and Susan Kielbaso	Rick and Deanna Russell
Ross C. Lillie	Jeff Whaley



**Galena, Sphalerite
and Associated Minerals from
the Tri-State District,
Kansas, Missouri and Oklahoma**

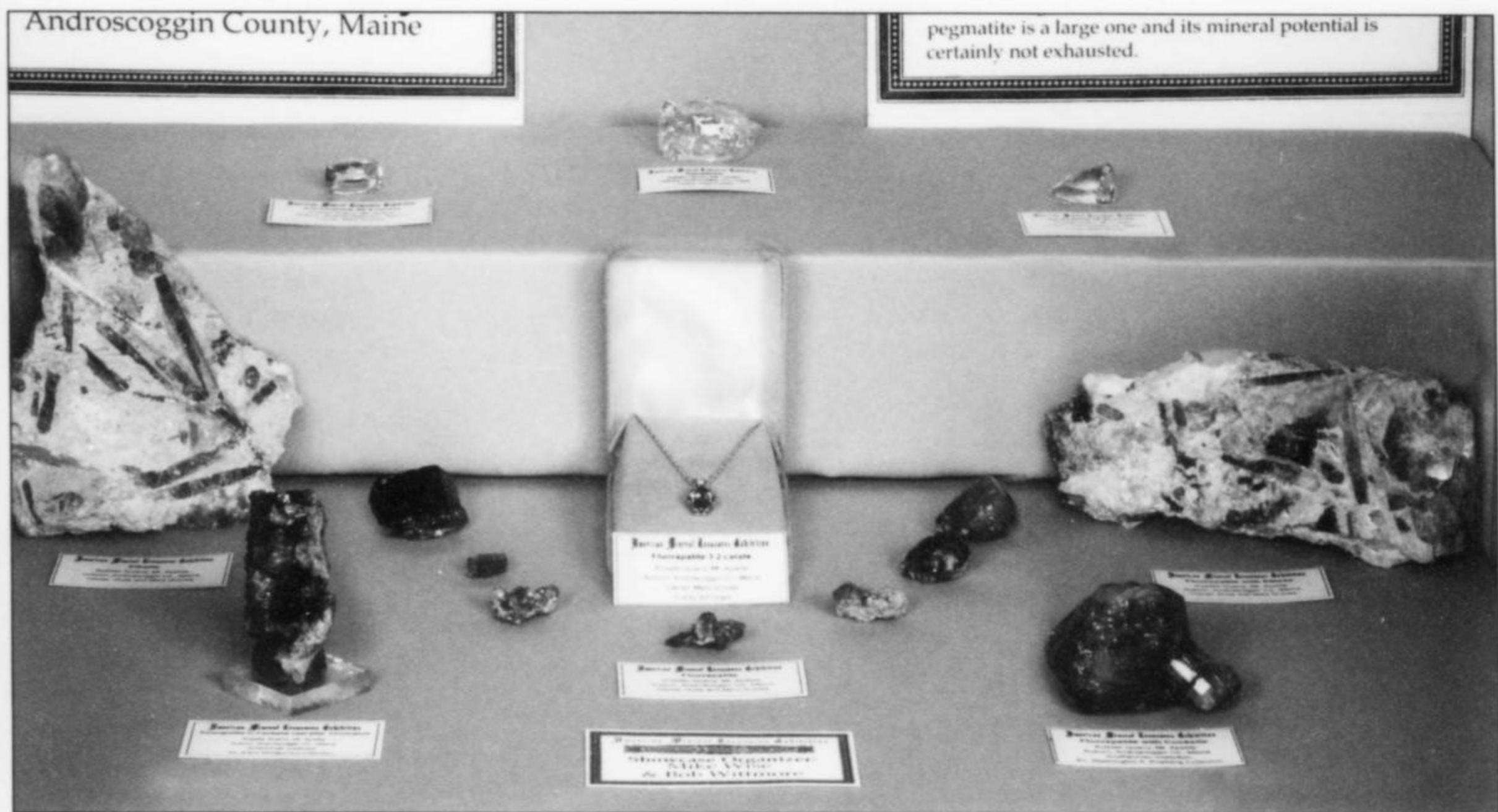
Chapter author and showcase organizer:
George Witters

In the 1850s lead and zinc were discovered in southwestern Missouri. Over the next 100 years the mining region expanded into neighboring Kansas and Oklahoma, eventually encompassing over 1,200 square miles and thousands of mines. It became known as the "Tri-State Mining District," with mines ranging from one-man prospects to large commercial operations employing hundreds of men. The mines were rarely deeper than 300 feet, and were interconnected underground, making it difficult to determine the mine of origin for specimens. The district became famous for spectacular examples of calcite (in crystals measuring up to 5 feet long), galena and sphalerite. More than 60 different minerals have

been found in the district. Cheap foreign sources of lead and zinc coupled with an end of government subsidies in the 1950s forced many companies to abandon their workings, and it became more difficult for the remaining operations to keep the interconnected mines pumped dry. By the 1960s all the mines had flooded and another mining era was history.

Specimen owners:

- American Museum of Natural History
- Smithsonian Institution
- Sterling Hill Mining Museum
- Anonymous
- Richard Brown
- Dan and Diana Weinrich
- George Witters



Fluorapatite and Associated Minerals from the Pulsifer Quarry, Androscoggin County, Maine

Chapter authors:
Vandall King and Terry Szenics
Showcase organizers:
Mike Wise and Robert Whitmore

The Pulsifer Quarry is in the western Mount Apatite District near Auburn, Androscoggin County, Maine. Purple fluorapatite was first collected in the district around 1881, as generally small crystals, usually of a pale purple or lilac color. Pitt Pulsifer was working a pegmatite on his property in the summer of 1900 when he found

the first so-called "royal purple" fluorapatites. Discoveries of purple fluorapatite continued to be made there until Pulsifer ceased mining in 1913. Decades later the quarry was worked in the 1960s, by Ken Grover and Irving ("Dudy") Groves, but most successfully by Terry "Skip" Szenics and Frank Perham in 1966 and 1967. Dudy Groves and Dick Dionne worked there in the 1990s. In addition to the finest "royal purple" fluorapatites in the world, the Pulsifer Quarry has produced world-class bertrandite, gahnite, and manganotantalite crystals. The pegmatite is a large one and its mineral potential is certainly not exhausted.

Specimen owners:
Smithsonian Institution
Dudy and Mary Groves



Mount Mica, North America's first gem tourmaline mine, is located about a mile east of the lovely village of Paris Hill in southwestern Maine. Elijah Hamlin and Ezekiel Holmes found the first tourmaline crystals there in 1821. Substantial discoveries in the following years prompted Elijah's son, Augustus Choate Hamlin, to organize the Mount Mica Tin and Mica Company in 1881; they found a total of 27 crystal pockets before transferring mining rights to Loren Merrill and L. Kimball Stone in 1890. Merrill continued working there every summer until 1913, opening dozens of pockets. Frank Perham leased the mine in 1964 and found a fabulous pocket of pink and green tourmaline. Dean McCrillis, John Marshall and Dale Sweatt (Plumbago Mining) purchased the mine in 1973 and found numerous pockets including one measuring 16 meters. In 2003, they sold the mine to Gary Freeman, who has found more pockets of the fine, gemmy green elbaite that has made Mount Mica famous. In 2006, Freeman discovered a pocket containing smoky quartz crystals adorned with the best crystals of rose quartz ever found in the United States; he has also found red and blue tourmaline of gem quality.

Tourmaline and Associated Minerals from Mount Mica, Oxford County, Maine

Chapter authors:

John H. Marshall, Jr., Carl A. Francis and Gary Freeman

Showcase organizer:

Gary Freeman

Mount Mica, North America's first gem tourmaline mine, is located about a mile east of the lovely village of Paris Hill in southwestern Maine. Elijah Hamlin and Ezekiel Holmes found the first tourmaline crystals there in 1821. Substantial discoveries in the following years prompted Elijah's son, Augustus Choate Hamlin, to organize the Mount Mica Tin and Mica Company in 1881; they found a total of 27 crystal pockets before transferring mining rights

to Loren Merrill and L. Kimball Stone in 1890. Merrill continued working there every summer until 1913, opening dozens of pockets. Frank Perham leased the mine in 1964 and found a fabulous pocket of pink and green tourmaline. Dean McCrillis, John Marshall and Dale Sweatt (Plumbago Mining) purchased the mine in 1973 and found numerous pockets including one measuring 16 meters. In 2003, they sold the mine to Gary Freeman, who has found more pockets of the fine, gemmy green elbaite that has made Mount Mica famous. In 2006 Freeman discovered a pocket containing smoky quartz crystals adorned with the best crystals of rose quartz ever found in the United States; he has also found red and blue tourmaline of gem quality.

Specimen owners:

Harvard Mineralogical Museum

Gary and Mary Freeman

John and Martha Marshall



Tourmaline and Associated Minerals from the Dunton Mine, Oxford County, Maine

Chapter authors:

John H. Marshall, Jr. and Carl A. Francis

Showcase organizers:

Shields Flynn and Carl A. Francis

The Dunton mine pegmatite on Plumbago Mountain near Newry, Maine was discovered by Henry Hall around 1898 and later worked by H. C. Dunton of Rumford Falls. Gem pockets are said to have been found in 1903 and 1904. In 1926 mineral dealer Wallace Nevel mined pollucite there and saved specimen material to sell. But little of interest was found until the summer of 1972, when James Young, Dale Sweatt and George Hartman, Jr. broke into a major pocket. They took on Dean McCrillis as a partner and mining consultant,

and after Young left, Hartman, Sweatt and McCrillis incorporated as Plumbago Mining Corporation. In October they hit the famous "Tuesday Pocket" which turned out to be immense—over 20 feet long, 6 feet wide, and 8 feet high. It yielded 1,700 pounds of pink and green tourmaline, much of it gem quality, and there were incredible specimens. The largest of the "watermelon" crystals, dubbed the "Jolly Green Giant," is nearly a foot tall and 5 inches in diameter. A few small pockets were found after that but Plumbago gave up its lease in 1974, and little has been found since.

Specimen owners:

Colorado School of Mines and Geology Museum
Harvard Mineralogical Museum
Smithsonian Institution
John and Martha Marshall
Pala Properties
Cleo Webster



**Copper, Silver
and Associated Minerals from
the Michigan Copper Country,
Keweenaw Peninsula, Michigan**

Chapter authors:

Marc L. Wilson and George W. Robinson

Showcase organizers:

George W. Robinson, Marc L. Wilson and Joseph Ondraka

Michigan's Keweenaw Peninsula on the southern shore of Lake Superior is host to the greatest deposit of native copper on earth. Mines large and small are scattered along a 130-kilometer trend from the base of the peninsula to its eastern tip. Their combined underground workings total more than 18,000 kilometers. The region's mining activity made and broke fortunes and affected

international politics for 150 years. Many of the advances in deep mine technology were developed here to extract the bonanza: over 7 million tonnes of copper and 1.6 million kilograms (52 million ounces) of silver. A second bonanza in the form of extraordinary mineral specimens was also recovered. Some of the finest crystallized copper specimens in existence, superb specimens of silver, incredible copper-included calcites, and a number of other world-class minerals have been preserved from the district.

Specimen owners:

Carnegie Museum of Natural History	Anne and Joe Ondraka
Cranbrook Institute of Science	Tiger Salotti
A. E. Seaman Mineral Museum	William Severance
Pam and Jerry Hall	Cedric Wilson
Al and Sue Liebetrau	Debra L. Wilson
Roz and Gene Meieran	



**Calcite, Galena
and Associated Minerals from
the Viburnum Trend,
Iron and Reynolds Counties, Missouri**

Chapter author and showcase organizer:
Dan Weinrich

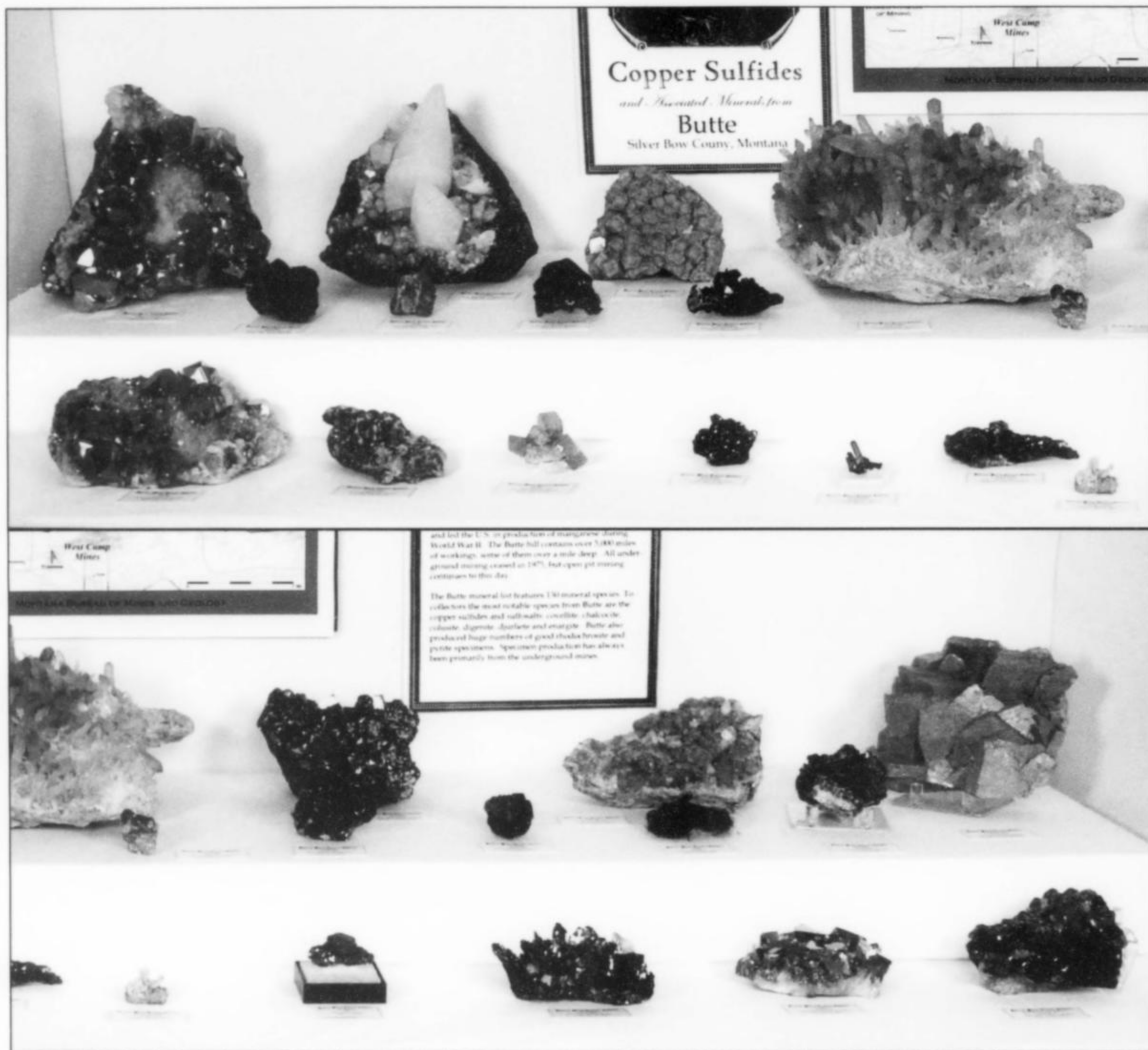
The Viburnum Trend—a Mississippi Valley-Type lead deposit forming a sub-district of the larger Southeast Missouri Lead belt—is located approximately 90 miles south-southwest of St. Louis along the western flank of the Ozark Dome. The sub-district forms a narrow north-south-trending band of ore deposits starting near the town of Viburnum in Iron County and running south-southeast to about 12 miles northwest of Ellington in Reynolds County. St. Joseph Lead Company (renamed the St. Joe Minerals Corporation

in 1970) discovered the first orebody there in 1955. In 1960, Bear Creek Mining Company (a division of Kennecott Copper) found ore 30 miles south of Viburnum. This new discovery became the site of what is most often referred to as the Sweetwater mine. In 1992, the various mines of the Viburnum Trend accounted for 75% of all U.S. lead production, and have been the source of countless fine specimens of calcite and galena. Currently there are six operating mines—the Sweetwater, Fletcher, West Fork, Brushy Creek, Buick and Casteel #35 mines.

Specimen owners:

Kevin and Ginny Conroy
Dave and Karen Debruin
Stan Esbenshade
Joe and Susan Kielbaso
Melissa Perucca
Mark and Diana Pospisil

Harris Precht
Rick and Deanna Russell
Bill and Carol Smith
Dan and Diana Weinrich
Glenn and Wilma Williams



Copper Sulfides and Associated Minerals from Butte, Silver Bow County, Montana

Chapter authors:
Robert E. Jenkins and H. Peter Knudsen
Showcase organizer:
H. Peter Knudsen

The Butte district in southwestern Montana was discovered in the summer of 1864 by G. O. Humphreys and William Allison. The original prospects were worked for fine-grained placer gold, on what would come to be known as Butte Hill. Silver was also discovered late in 1864, and Butte regenerated itself as one of the most important silver camps in the West. Ultimately, however, it was copper that secured the economic future of Butte, which became known as the "richest hill on earth." During World War I, when Butte's copper

production reached an early peak, the community's population exceeded 70,000, making it the largest "mining city" in the United States. About 17,000 men worked in the mines, concentrators, and smelters. Today the Butte mines are closed and flooded, but its mineralogical legacy of fine specimens remains—most notably the copper sulfide and sulfosalt minerals such as bornite, chalcocite, chalcopyrite, colusite, covellite, digenite, djurleite, and enargite, and other minerals such as barite, pyrite, quartz and silver.

Specimen owners:

Montana Tech Mineral Museum
Dave Bunk
Bryant Harris
Peter Knudsen
Alan Kohler
Alan Kuoppala
Joe Slouber



of Barrick Gold Corporation's Goldstrike property. It sits on the Carlin Trend, one of the world's major gold belts and currently the center of the gold mining industry in the United States. The gold ore deposit is hosted by a complex series of collapse, tectonic, and hydrothermal breccias which provided space, often in the form of room-sized vugs, for barite and calcite crystals to grow. In 1996 a 49-meter crystal-lined cavern (called the George Bush Vug) produced incredibly lustrous, gemmy yellow crystals of barite; specimens were collected by drillers and exploration miners, but many others were destroyed in the process of mining. In 1997 the mining company engaged contract miners Casey Jones and Jane Koepp Jones to recover additional specimens. In December of 2000 another large vug yielded about 700 specimens. In 2003 Casey discovered a vug containing the finest examples of millerite ever found in America.

Barite and Associated Minerals from the Meikle Mine, Elko County, Nevada

Chapter authors and showcase organizers:
Casey Jones and Jane Koepp Jones

The Meikle mine near Carlin, Elko County, Nevada is part of Barrick Gold Corporation's Goldstrike property. It sits on the Carlin Trend, one of the world's major gold belts and currently the center of the gold mining industry in the United States. The gold ore deposit is hosted by a complex series of collapse, tectonic, and hydrothermal breccias which provided space, often in the form of room-sized vugs, for barite and calcite crystals to grow. In 1996 a 49-meter crystal-lined cavern (called the George Bush Vug) produced incredibly lustrous, gemmy yellow crystals of barite;

specimens were collected by drillers and exploration miners, but many others were destroyed in the process of mining. In 1997 the mining company engaged contract miners Casey Jones and Jane Koepp Jones to recover additional specimens. In December of 2000 another large vug yielded about 700 specimens. In 2003 Casey discovered a vug containing the finest examples of millerite ever found in America.

Specimen owners:

Bob and Sarah Griffis
Mel Hindin
Casey and Jane Koepp Jones
John Lucking
Arline Nakanishi
Mike Mizutani
Stuart Wilensky



**Willemite, Rhodonite
and Associated Minerals from
Franklin and Sterling Hill,
Sussex County, New Jersey**

Chapter author:

Richard C. Bostwick

Showcase organizers:

Lee Lowell, Steven Phillips and Earl Verbeek

The two zinc orebodies at Franklin and Sterling Hill comprise one of the most complex and distinctive mineral localities on our planet. Together the two mines produced more than 33 million tons of ore over a period of more than 250 years. To mineral collectors the chief draw of these deposits lies in their large number of mineral

species: 359 at present. The Franklin-Sterling Hill district is the type locality for at least 60 of these and remains the only known locality for about half that many. Rare species abound. Moreover, 89 species from the local area fluoresce. Franklin and Sterling Hill have also produced some of the finest crystal specimens known of several mineral species, notably franklinite, zincite, willemite, and rhodonite. Excellent crystals of other minerals have also been found: uvite, pyrite, fluorapatite, andradite, spinel, augite, and hemimorphite, to name just a few. A small selection of "the best of Franklin" is presented in this case.

Specimen owners:

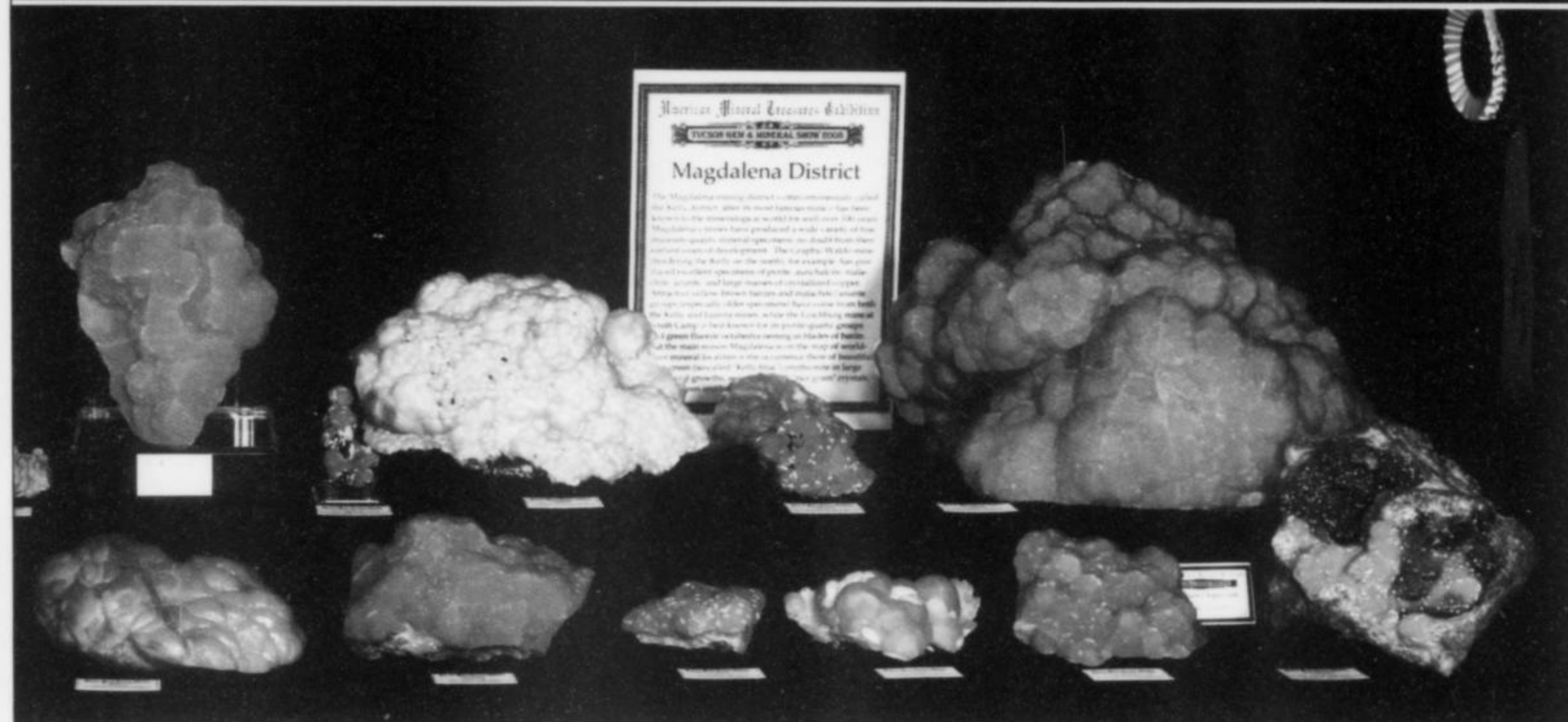
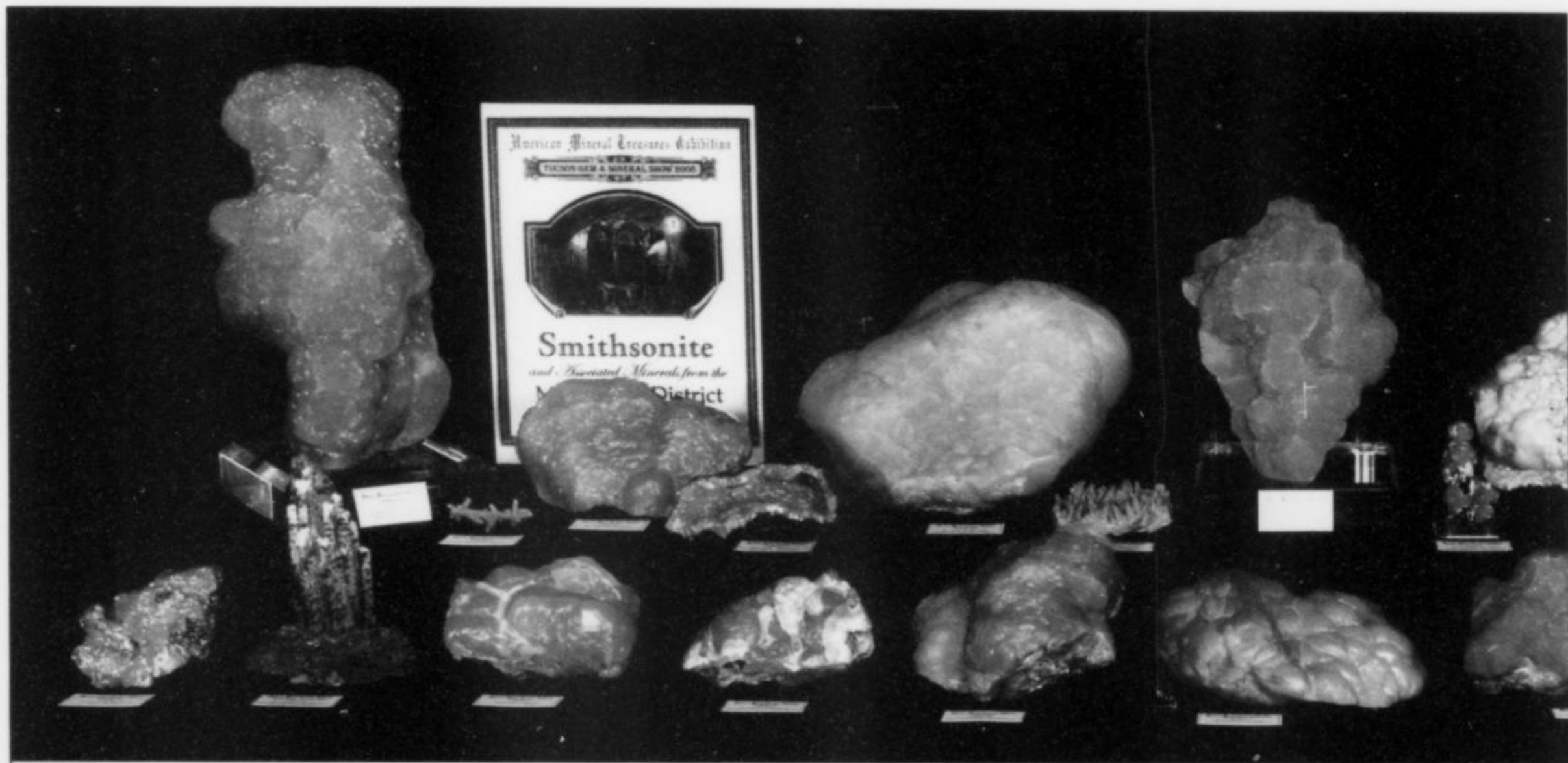
Franklin Mineral Museum

Harvard Mineralogical Museum

George Elling

Steven Phillips

Earl R. Verbeek



Smithsonite and Associated Minerals from the Magdalena District, Socorro County, New Mexico

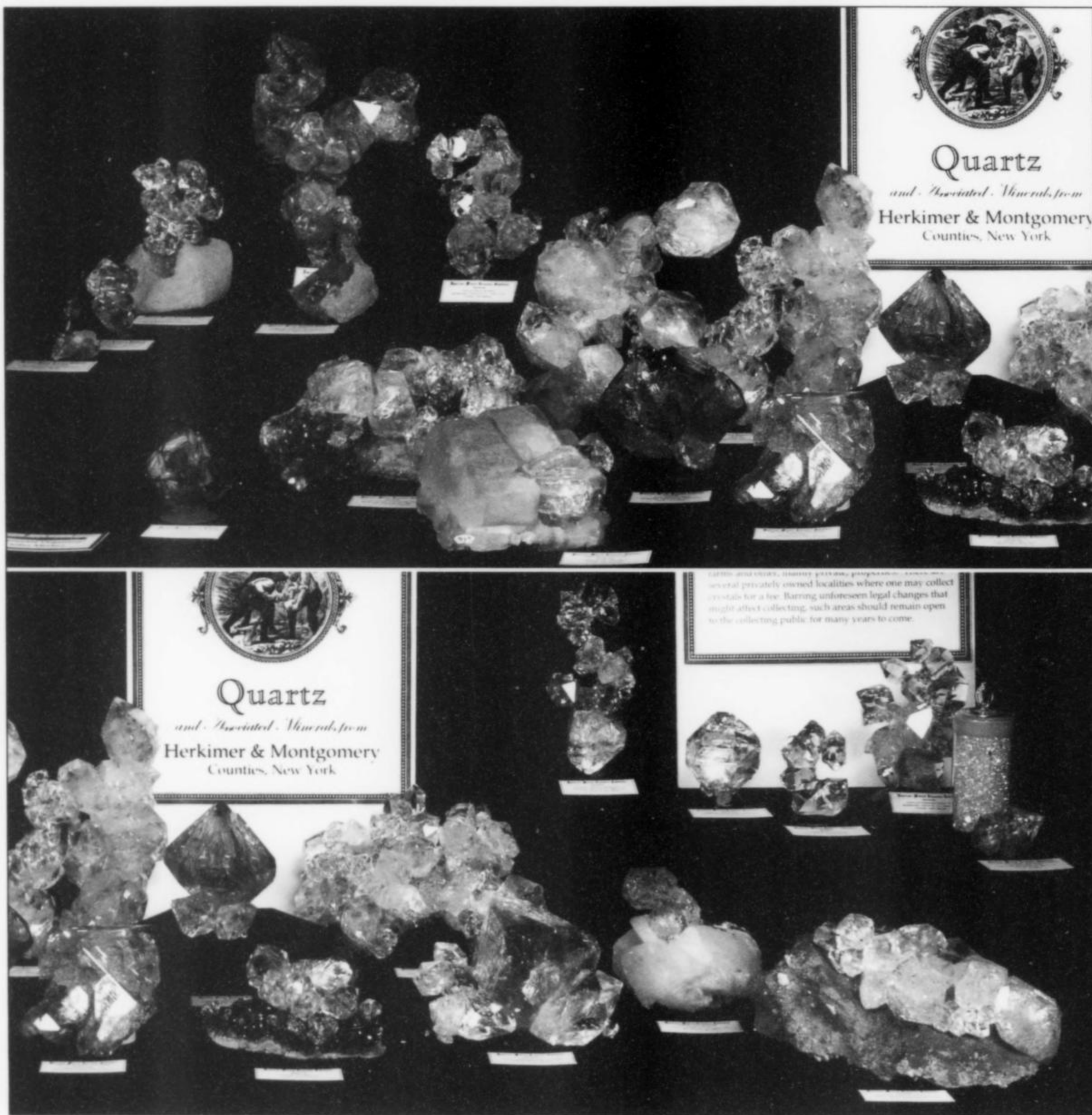
Chapter authors and showcase organizers:
Robert W. Eveleth and Virgil W. Lueth

The Magdalena mining district—often erroneously called the Kelly district, after its most famous mine—has been known to the mineralogical world for well over 100 years. Magdalena's mines have produced a wide variety of fine, museum-quality mineral specimens, no doubt from their earliest years of development. The Graphic-Waldo mine (bordering the Kelly on the north), for example, has produced excellent specimens of pyrite, aurichalcite, malachite, azurite, and large masses of crystallized copper. Attractive

yellow-brown barites and malachite/azurite groups (especially older specimens) have come from both the Kelly and Juanita mines, while the Linchburg mine at South Camp is best known for its pyrite-quartz groups and green fluorite octahedrons nesting in blades of barite. But the main reason Magdalena is on the map of world-class mineral localities is the occurrence there of beautiful blue-green (so-called "Kelly blue") smithsonite in large botryoidal growths, sometimes with "rice grain" crystals of blue-green smithsonite on top.

Specimen owners:

New Mexico Bureau of Geology and Mineral Resources
Rice Northwest Museum of Rocks and Minerals
Gary Fleck
Rob Lavinsky
Dawn Minette (James and Dawn Minette collection)
Bruce and Cody Oreck
J. Blue Sheppard



Quartz and Associated Minerals from Herkimer and Montgomery Counties, New York

Chapter authors and showcase organizers:
John C. Medici and Jay Medici

Since prehistoric times, high-quality quartz crystals have been found near the southern rim of the Adirondack Mountains in New York State. These crystals are commonly called "Herkimer diamonds" because so many have been found in Herkimer County, especially near the town of Middleville. Many surface exposures of crystal-bearing rock are known in this region, especially where erosional activity has cut through the limestone and dolostone rock

layers that contain these crystals. Quartz crystals are still being found at outcrops on farms and other, mainly private, properties. There are several privately owned localities where one may collect crystals for a fee. Barring unforeseen legal changes that might affect collecting, such areas should remain open to the collecting public for many years to come.

Specimen owners:

Smithsonian Institution
Dave Daniel
Tom Dillon
Jeff Fast
Rob Lavinsky
Jerry Marchand
Brett Medici

Eric Medici
Jay Medici
John Medici
Wolfgang and Diana Mueller
Marvin Rausch
JRRBLL



Emerald, Hiddenite and Associated Minerals from Alexander County, North Carolina

Chapter authors:
Richard Freeman and Ed Speer
Showcase organizers:
Richard Freeman

In 1879, Thomas Alva Edison asked William Earl Hidden of Newark, New Jersey to go to North Carolina and search for platinum, which had been rumored to occur in some of the placer gold deposits in the area. Edison hoped the platinum could be used for filaments in his newly invented light bulbs. The search proved futile, but while in the area, Hidden met with J. Adali D. Stephenson, a wealthy merchant and mineral collector from Statesville, North

Carolina, who showed him a parcel of green crystals, kicking off North Carolina's unusual gem history. Some of the "green bolts," as the crystals were referred to by the local farmers, were immediately recognized as emeralds, but others were something new—a gem variety of the mineral spodumene that would later become known as "hiddenite." Since those first discoveries, the Hiddenite district of Alexander County, North Carolina is estimated to have produced more than 50,000 carats of emerald and 5,000 carats of hiddenite.

Specimen owners:

Houston Museum of Natural Science
Smithsonian Institution
Yale Peabody Museum of Natural History
Hill Collection
Terry Ledford
North American Emerald Mines



Orpiment and Associated Minerals from the Twin Creeks Mine, Humboldt County, Nevada

Chapter author and showcase organizer:
Scott Kleine

The Twin Creeks gold mine complex is located in Humboldt county, Nevada, within the northern edge of the Potosi mining district. In 1998, during large-scale open pit gold mining at Twin Creeks, Newmont Gold Corporation geologists began seeing wonderful pockets of gemmy, bright orange orpiment crystals exposed in a portion of the "South Mega Pit" called "Cut 62." Collector's Edge Minerals, Inc. was called in to recover and preserve these world-class specimens, before the orpiment-rich portions of the deposit were mined. From 1999 until 2001, they extracted thousands of superb crystal specimens, some exceeding 20 cm across, with mirror-bright crystals to over 5 cm (2 inches) in length. Twin Creeks orpiment is clearly comparable in quality to the best found in China and Peru, but Twin Creeks stands out as the world's most prolific producer by far of fine, undamaged orpiment specimens. The possibility remains that more world-class specimens will be encountered there.

Specimen owners:

Collector's Edge Minerals, Inc.
Scott Kleine



The "Alma Rose" rhodochrosite from the Sweet Home mine, Alma, Colorado (see also p. 192). Rice Northwest Museum of Rocks and Minerals collection; Wendell Wilson photo.

as the Findlay Arch. Across its crest, extensive deposits of celestine (strontium sulfate) occur in carbonate rocks.

Large and abundant crystals were described from here as early as 1820, and world-class celestine, fluorite and associated minerals continue to be found wherever cave-like openings are encountered during quarry operations.

This showcase highlights celestine and associated minerals from six of the best localities in the Findlay Arch District. Although specimens have been recovered for more than 180 years, these were collected between the 1940s and 2006. Prospects are favorable for further discoveries of beautiful celestine and fluorite specimens.



Celestine and Associated Minerals from the Findlay Arch, Ohio and Michigan

Chapter authors:

Terry E. Huizing and **John C. Medici**

Showcase organizer:

Terry C. Huizing

Curving across the northwestern corner of Ohio into southeastern Michigan is a broad geologic feature known as the Findlay Arch. Across its crest, extensive deposits of celestine (strontium sulfate) occur in carbonate rocks. Large and abundant crystals were described from here as early as 1820, and world-class celestine,

fluorite and associated minerals continue to be found wherever cave-like openings are encountered during quarry operations. This showcase highlights celestine and associated minerals from six of the best localities in the Findlay Arch District. Although specimens have been recovered for more than 180 years, these were collected between the 1940s and 2006. Prospects are favorable for further discoveries of beautiful celestine and fluorite specimens.

Specimen owners:

Cincinnati Museum Center
Harvard Mineralogical Museum
A. E. Seaman Mineral Museum
Joe and Susan Kielbaso
Terry Huizing

Rob Lavinsky
David Lowrie
John Medici
David Pachan
Harris Precht



Golden Barite and Associated Minerals from Elk Creek, Meade County, South Dakota

Chapter author:
Janet H. Clifford
Showcase organizer:
Rob Lavinsky

Beautiful golden barite occurs along the eastern flank of the Black Hills in South Dakota. By far, the most productive area has been in Meade County along a major stretch of Elk Creek, starting where it joins the Cheyenne River and continuing westward for roughly 30 kilometers. The barite forms in the sometimes hollow centers of calcareous concretions found throughout the lower horizons of the Pierre Shale. Very few of the concretions contain good crystals, and getting them out is a difficult and back-breaking task. Each undamaged crystal extracted while still attached to matrix represents a minor miracle. Superb specimens from this locality are surpris-

ingly scarce, and production has been at best intermittent since the 1890s, peaking only a few times with the collecting efforts of Willard Roberts prior to 1950 and of Ken Roberts in the 1980s. South Dakota barite crystals are immediately recognizable, and top specimens hold their own with those from other world-class barite localities. Little has been found since around 2000, though future finds are possible given the wide expanse of the deposits.

Specimen owners:

University of Arizona Mineral Museum	
Houston Museum of Natural Science	
Natural History Museum of Los Angeles County	
Richardson Beard	Chris Korpi
Keith and Diane Brownlee	Rob Lavinsky
Edward E. David	Simon Lawrence
Jack and Judy Farnham	John Medici
Tom Hall	Steve and Clara Smale
Jack Halpern	Dave Stoudt
Dan and Dianne Kile	Stuart Wilensky



Grossular and Associated Minerals from the Eden Mills Quarries, Vermont

Chapter authors:
Sue Hadden, Ken Carlsen and Arlene Bentley
 Showcase organizer:
Ken Carlsen

The mine known as Eden Mills is located on Belvidere Mountain in the towns of Lowell and Eden in northern Vermont. It began as an asbestos quarry in 1892 in the town of Eden, and later expanded to include the Lowell Quarry in the town of Lowell and then the C-area, T-C-area, and T-area before closing in 1975.

Beginning in the 1950s the famed grossulars and vesuvianites were found in the Lowell Quarry by miners. Some of these can be found in this case. The large C-area Quarry was the most recently mined. In 2000 the large epidotes in the center of this case were found in one cavity of the C-area. These are considered to be the largest ever found in North America. During this same period the brucite and the titanite specimens were found in the T-area.

Specimen owners:

Ken Carlsen	Gordon Jackson	Rob Lawrence
Stu Fenton	Roger Jones, Jr.	Rod Pingree
Shields Flynn	Martin Kippley	Richard Ransom
Sue Hadden	Matt Lambert	Robert W. Whitmore



Calcite, Fluorite and Associated Minerals from the Elmwood Mine, Smith County, Tennessee

Chapter authors and showcase organizers:
**Lance E. Kearns, Steve Neely,
 Joseph Kielbaso and Walter Gaylord**

The Elmwood-Gordonsville lead-zinc deposit in north-central Tennessee is a classic, Mississippi Valley-type, low-temperature, hydrothermal emplacement. The ore-bodies formed within breccias and solution cavities in Ordovician-age limestones and dolomites belonging to the upper Knox Group in the Mascot and Kingsport formations. The minerals are deposited on the walls, floor and ceiling of an ancient cavern system. Development of the deposits for mining began in the 1960s with exploratory drilling. Production began in the 1970s and the mines flourished throughout the 1980s

and 1990s. However, falling metal prices resulted in closure of the mines in 2003. During the 25 years of mining, tens of thousands of wonderful specimens of calcite, fluorite, sphalerite, barite and galena found their way to the mineral market. The minerals have been found in many combinations and in all sizes, from thumbnails to boulders too large to remove intact. The mines are currently being prepared for reopening.

Specimen owners:

Houston Museum of Natural Science	
Bryon Brookmyer	Steve Neely
Kevin Brown	Keith and Mauna Proctor
Ralph Finley	Bill Severence
Mark Kielbaso	Jeff Starr
Susan and Joe Kielbaso	Bill and Elsie Stone
Rob Lavinsky	Stuart and Barbara Strife
Wallace Mann	Stuart and Donna Wilensky
Betty Lou Neely	



Red Beryl and Topaz and Associated Minerals from the Wah Wah and Thomas Mountains, Utah

Chapter authors:

Janet H. Clifford and Jim Ferguson

Showcase organizers:

Gene Meieran, Rob Lavinsky and Marshall Sussman

The Topaz Mountain topaz locality in the Thomas Range, Juab County, Utah and the Wah Wah Mountains red beryl locality in Beaver County are 83 miles apart but are geologically similar. The mineral suites are found in pale gray to maroon rhyolite flows of late Tertiary to Quaternary age, the result of volcanic outpourings along large faults developed on a regional scale. The beautiful brown topaz crystals at Topaz Mountain are mainly found in remnant cavities (lithophysae) in the rhyolite created by gas escaping from the cooling lava. In the Wah Wah Mountains, red beryl is found concentrated instead in fractures that opened up as the lava

flows cooled. In the early 1890s Maynard Bixby (1853–1935), an amateur naturalist and mineral dealer out of Salt Lake City, began collecting at Topaz Mountain. Larry Walker is credited with discovering red beryl in the Wah Wah Mountains in 1958. Since that time both areas have yielded an ongoing bonanza of beautiful crystals of topaz and beryl as well as other minerals including bixbyite and rare species such as durangite.

Specimen owners:

Houston Museum of Natural Science

Anonymous

Irv Brown

Kevin and Gail Brown

Keith and Diane Brownlee

Rick Dalrymple

Jack Halpern

Rex Harris

John Holfert

Charles Key

Rob Lavinsky

Carolyn Manchester

Roz and Gene Meieran

Herb Obodda

Keith and Mauna Proctor

Frank Recknagel

David Schorsch

Jon and Max Sigerman

Jim and Gail Spann



Pyrite and Associated Minerals from Spruce Ridge, King County, Washington

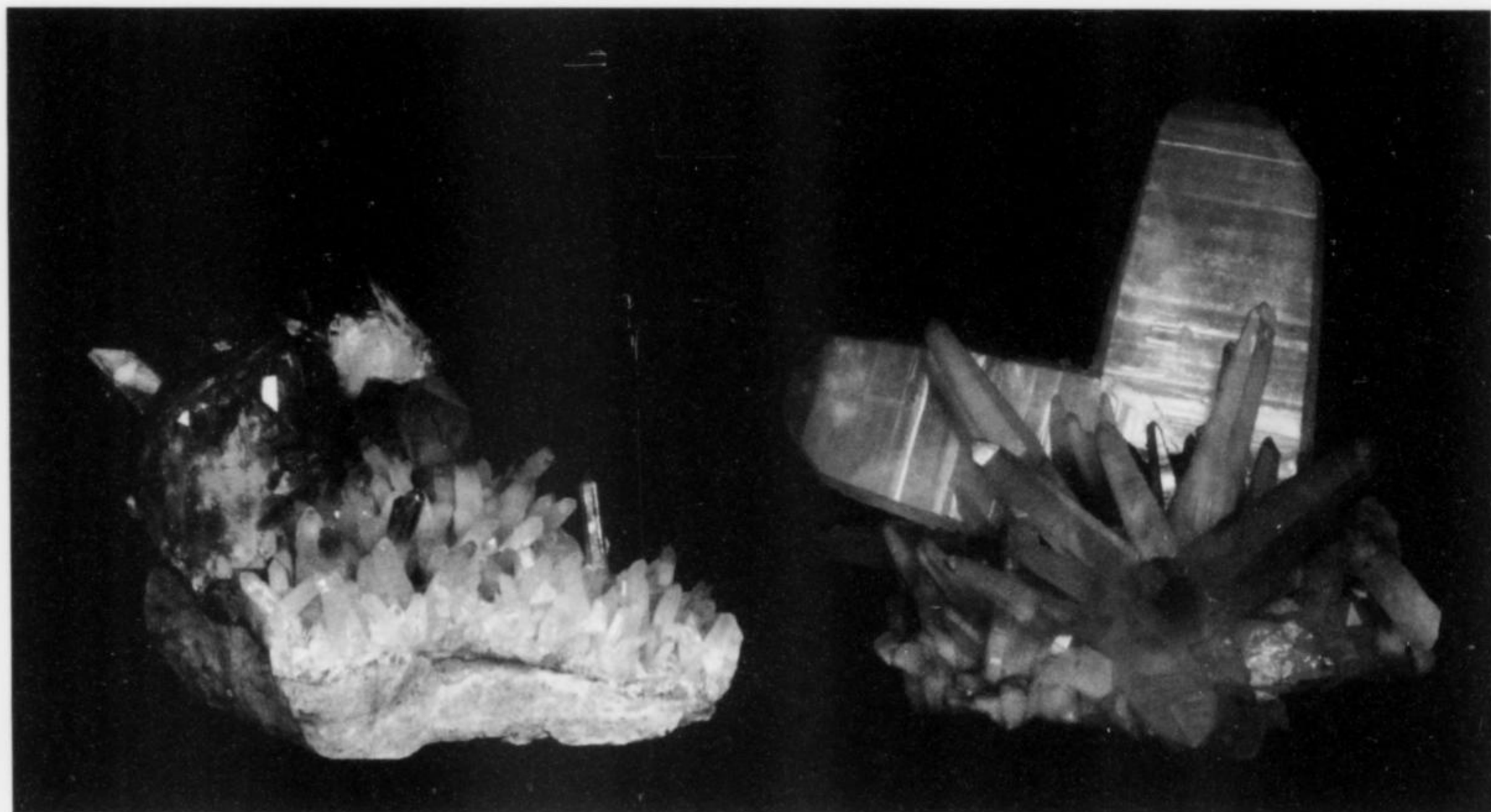
Chapter author and showcase organizer:
Bob Jackson

The Spruce Ridge pyrite and quartz deposit, located near the crest of Washington's Cascade Range, was first explored in the 1950s by Bear Creek Mining. The deposit consists of several outgassing breccia pipes, related to a deep-seated copper/gold porphyry hosted by the Snoqualmie Batholith. Despite several years of intense exploration, the deposit never produced a nickel's worth of metals, but hundreds of museum-quality mineral specimens like those in this case have been recovered there by commercial collectors and hobbyists. The breccia pipes are exposed along steep-sided fault scarps and canyons which initially required collectors to hang from ropes in order to collect. The locality has been worked as a small

quarry since 1977, and continues to produce fine specimens every year. Spruce Ridge quartz is commonly sceptered, and in some cases is amethystine or Japan-law twinned. Spruce Ridge pyrite crystallizes in cubes, pyritohedrons, and combinations thereof. Associated minerals include ankerite, calcite and barite.

Specimen owners:

Rick Dillhoff
Stan Esbenschade
Carole Goodsett
Bob Jackson
Rob Lavinsky
Al and Sue Liebetrau
John Medici
Anne and Joe Ondraka
Bruce and Cody Oreck
Tony Potucek
Ken Roberts
Wayne Sorensen



**Amethyst
and Associated Minerals from
Denny Mountain, King County, Washington**

Chapter author:

Bob Jackson

Showcase organizer (case 1):

Bob Jackson

Showcase organizer (case 2, Northwest Mineral Museum):

Lew Landers

The Denny Mountain mineral deposit may have been discovered by local Native Americans. The earliest written records indicate that the Denny iron claim was first staked as a purported deposit of iron ore around 1889, when Washington gained statehood. One of the claimants, A.O. Denny, became the mountain's namesake. The nearby city of Kirkland is said to have been founded as a mill site to process the Denny Mountain ore. The surface workings (there are no underground workings) are situated at an altitude of around 4,000

feet, on the southwest side of the peak, in a steep and dangerous canyon. The mineralized zone has produced extraordinary examples of quartz, including fine Japan-law twins, some measuring over 2 feet in length. The quartz scepters from Denny Mountain are among the world's finest, and the beautiful "Raspberry quartz" scepters (colored by sparkling red inclusions), some of them amethystine as well, are unique. Associated minerals include hematite, pyrite, grossular, epidote, calcite and typical skarn minerals.

Specimen owners:

Natural History Museum of Los Angeles County
Northwest Mineral Museum (shown above)
Pacific Museum of the Earth
Rice Northwest Museum of Rocks and Minerals
Randy Becker
Rick Dillhoff
Stan Esbenshade
Bob Jackson
William Larson



Chalcocite and Associated Minerals from the Flambeau Mine, Ladysmith, Wisconsin

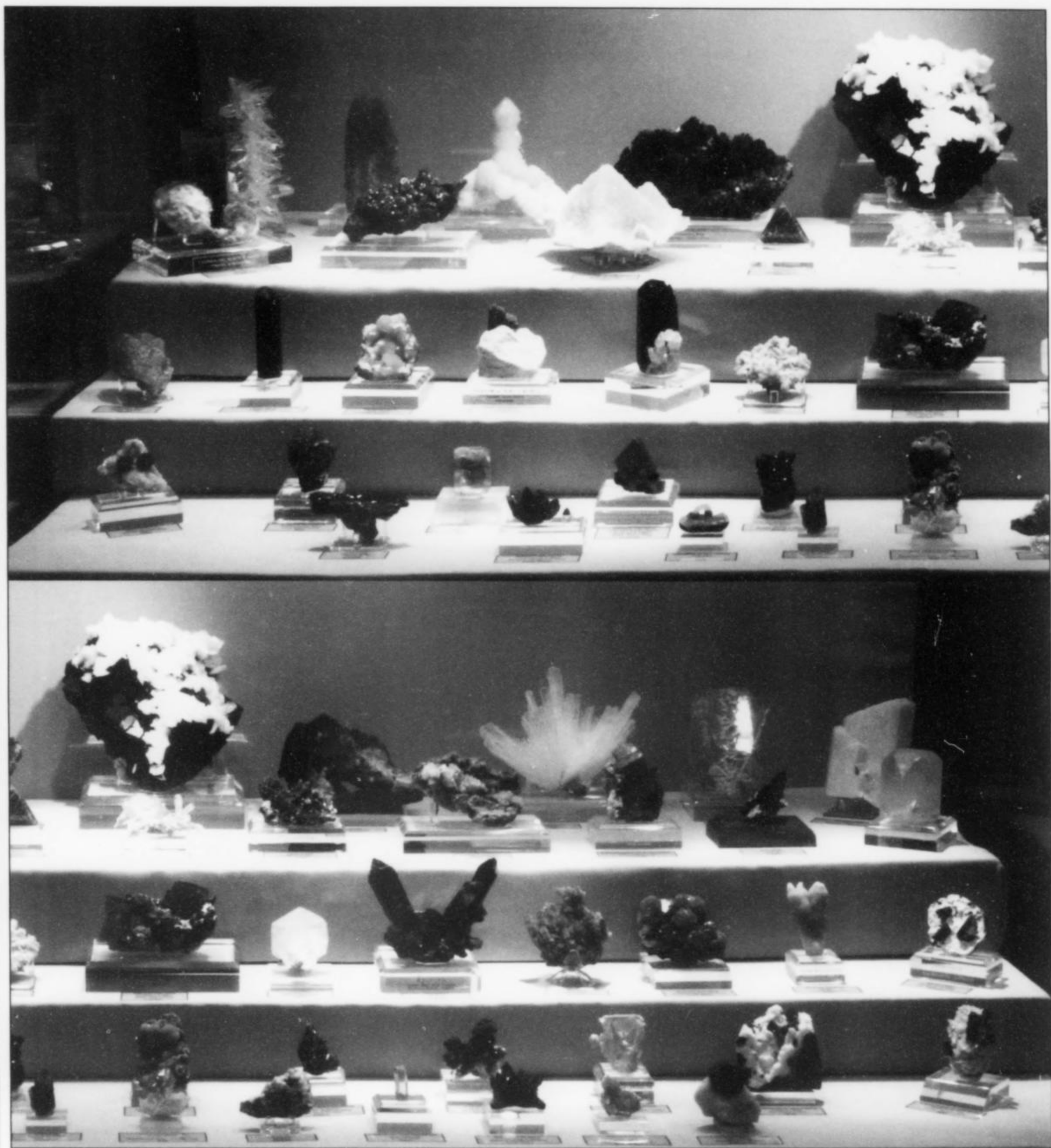
Chapter authors and showcase organizers:
Casey Jones and Jane Koepp Jones

When the Flambeau copper mine opened near Ladysmith, Wisconsin in 1993 no one would have guessed that it was destined to become a world-class mineral locality. The orebody was similar in origin to other volcanogenic sulfide deposits in the Canadian Shield; however, its content of high-grade chalcocite distinguished it—not only by making it economically feasible to mine but also by providing the source elements needed to form spectacular crystals. Fortunately, groundwater flow created open pockets in which the chalcocite crystals had room to grow. Surprisingly, the first speci-

mens found were blue, purple, and gold—not steel-gray, like the classic English and Bristol, Connecticut, pieces. It turned out that a micropatina of bornite coating the crystals was the source of the unique coloration. From 1994 to 1997 many large and extraordinary crystals of chalcocite were recovered by commercial contract collectors Casey Jones and Jane Koepp Jones. The mine closed in 1997 and the land has been reclaimed; the locality is now officially extinct.

Specimen owners:

- A. E. Seaman Mineral Museum
- Bob and Sarah Griffis
- Casey and Jane Koepp Jones
- William Larson
- Mike Mizutani
- Arline Nakanishi



Showcase presented by the MAD (Mineralogical Association of Dallas) group, with a unique approach to the American theme, consisting exclusively of red, white and blue minerals from worldwide localities.



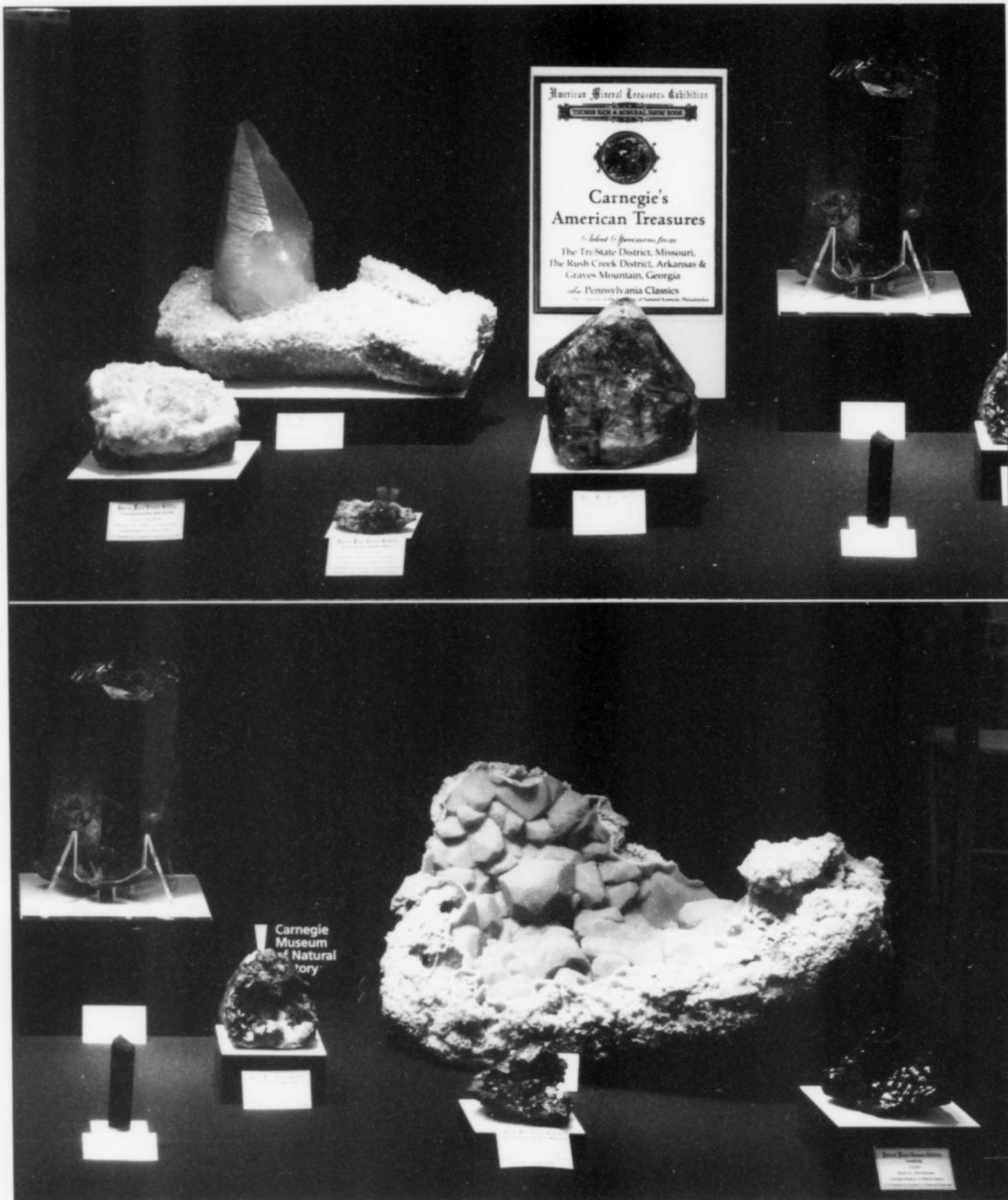
Steve and Clara Smale showcase of specimens from the localities represented in the American Mineral Treasures showcases.



The "Candelabra" blue-cap elbaite from the Tourmaline Queen mine, exhibited in a special case with its own security guard, by the Smithsonian Institution. (See also p. 188.)



Mineral Trust collection showcase featuring minerals from localities represented in the American Mineral Treasures exhibits (top and bottom right).



Showcase of the Carnegie Mineralogical Museum in Pittsburgh, featuring specimens from the Tri-State (Kansas-Nebraska-Oklahoma) district, the Rush Creek district in Arkansas, the Graves Mountain locality in Georgia, and classic localities in Pennsylvania (the latter acquired recently from the Philadelphia Academy of Natural Science collection).

INTERNET DIRECTORY

AA Mineral Specimens

Minerals, crystals, fossils, gems & sets
www.aamineralspecimens.com
e-mail: info@aamineralspecimens.com

AARockshop

Cool rocks at affordable prices!
www.aarockshop.com
e-mail: andrei@aarockshop.com

The Adams Collection

Fine Minerals from Carolina to Worldwide
www.theadamscollection.com
e-mail: laurieadams@windstream.net

Alpine Mineral Company

Fine Alpine and Gem Pegmatite Minerals
www.alpineminerals.com
e-mail: kevin@alpineminerals.com

Apalachee Minerals

Worldwide and Southeastern U.S. Minerals
www.apalachee-minerals.com
e-mail: order@apalachee-minerals.com

The Arkenstone

Fine minerals online since 1996
www.irocks.com
e-mail: rob@irocks.com

Russ Behnke

Exemplary Minerals & Gem Crystals
website: www.russbehnke.com
e-mail: russbehnke@yahoo.com

British Lapidary & Mineral

Dealers Association

Member Directory, UK Mineral Fair Dates
www.blmda.com
e-mail: mansemins@btopenworld.com

Cascade Scepters

Fine Rare Quartz & Worldwide Minerals
www.cascadescepters.com
e-mail: sceptorguy@cascadescepters.com

CK Minerals

Fine Australian and worldwide minerals
www.ckminerals.com.au
e-mail: info@ckminerals.com.au

The Collector Showcase

Modular storage and display cabinetry
www.thecollectorshowcase.com
e-mail: countrycustom@hotmail.com

Collector's Edge Minerals, Inc.

Fine minerals and worldwide mining
www.collectorsedge.com
e-mail: Richard@collectorsedge.com

Colorado Gem & Mineral Co.

Fine Minerals, Gems, & Collectibles
www.ColoradoGem.com
e-mail: cgnaz@Cox.net

ColoradoMinerals.com

Your #1 Source for Colorado Minerals
www.coloradominerals.com
e-mail: robert@coloradominerals.com

ConnRox Minerals

Beginner & Intermediate Grade Specimens
www.ConnRoxMinerals.com
e-mail: larryrush@att.net

Crystal Classics

Fine Minerals for every Collection
www.crystalclassics.co.uk
e-mail: orders@crystalclassics.co.uk

CyberRocks

Worldwide Minerals, Fossils, Fluorescents
www.cyberrocks.com
e-mail: steven@cyberrocks.com

Dakota Matrix Minerals

Cab. To MM, Rare, Fine, Weekly Specials
www.dakotamatrix.com
e-mail: dakotamatrix@msn.com

Demineralia

High-quality & rare Madagascar specimens
www.demineralia.com
e-mail: info@demineralia.com

Diederik Visser Minerals

Worldwide Minerals & Mining Memorabilia
www.dvminerals.com
e-mail: diderik.visser@dvminerals.com

Douglass Minerals

Quality Worldwide Affordable Minerals
www.douglassminerals.com
e-mail: douglassminerals@aol.com

Dragon Minerals

Affordable Minerals; VISA, MC, Paypal OK
www.dragon-minerals.com
e-mail: steve@dragon-minerals.com

Edelweiss Minerals

Fine affordable worldwide minerals
www.edelweissminerals.com
e-mail: felix@edelweissminerals.com

Fabre Minerals

High-Quality Worldwide Minerals
www.fabreminerals.com
e-mail: mineral@fabreminerals.com

Frank Daniels Minerals

Museum quality worldwide specimens
www.FrankDanielsMinerals.com
e-mail: minerals@FrankDanielsMinerals.com

Joseph A. Freilich Bookseller

Rare Books: Mineralogy-Mining-Bibliography
www.JosephAFreilichBookseller.com
e-mail: info@JosephAFreilichBookseller.com

The Freilich Mineral Gallery

Fine Worldwide Minerals & Crystals
www.FreilichMinerals.com
e-mail: info@FreilichMinerals.com

TheGeoZone

Free data on Lost Mines of the Southwest
www.theGeoZone.com
e-mail: contact@theGeoZone.com

Brice & Christophe Gobin

Fine Minerals from Africa & Worldwide
www.mineralsweb.com
e-mail: gobin@club-internet.fr

H&P Minerals and Gems

Thumbnail and Miniature-size Minerals
www.hpminerals.com
e-mail: halprior@louisacom.net

Hummingbird Minerals

Fine Mineral Specimens for Collectors
www.hummingbirdminerals.com
e-mail: hummingbirdminerals@hotmail.com

Ibermineral

Fine minerals from Spain and Portugal
www.ibermineral.com
e-mail: ibermineral@ibermineral.com

IC Minerals

Fine Minerals—Est. 1989—online since 1998
www.icminerals.com
e-mail: icminerals@earthlink.net

ItalianMinerals.com

Quality Minerals from Italy
& Worldwide
www.ItalianMinerals.com
e-mail: italianminerals@libero.it

Jewel Tunnel Imports

Indian & Worldwide Minerals Wholesale
www.jeweltunnel.com
e-mail: jeweltunnel@hotmail.com

Key's Mineral Collection

Kiyoshi Kikuni
www.keysminerals.com
e-mail: keysminerals@keysminerals.com

Lawrence H. Conklin

Over 50 years selling fine minerals
www.LHConklin.com
e-mail: LHC@LHConklin.com

Majestic Minerals

Fine worldwide specimens
www.majesticminerals.com
e-mail: scott@majesticminerals.com

Marcus Grossmann Minerals

Top specimens worldwide
www.THE-MINERAL-WEB.com
e-mail: info@THE-MINERAL-WEB.com

The Mineral and Gemstone Kingdom

Reference guide to minerals & gemstones
www.minerals.net
e-mail: hershel@minerals.net

The Mineral Cabinet

Select Mineral Specimens, Min Records
www.mineralcabinet.com
e-mail: themineralcabinet@comcast.net

Mineralium.com

Fine Mineral Specimens Worldwide
www.mineralium.com
e-mail: info@mineralium.com

Mineralogy Database

On-line User-Friendly, Up-to-date Mineral Data
http://webmineral.com

Minerals Unlimited

Rare Species to Common Minerals
www.mineralsunlimited.com
e-mail: wendi@mineralsunlimited.com

Minernet.it

Fine Specimens and a Great Sales Policy
www.minernet.it
e-mail: info@minernet.it

Minservice

Worldwide Classic & Rarities
www.minservice.com
e-mail: info@mail.minservice.com

Museum Style Bases

Conservative Fine Mineral Display
www.museumstylebases.com
e-mail: terry@museumstylebases.com

OBG International Gems & Minerals

World-class minerals for
World-class collectors
www.obgrocks.com

Pala International

Best in Worldwide Gems & Collector Minerals
www.palagems.com
e-mail: john@palagems.com

Pauli Minerals

High quality worldwide mineral specimens
www.mineralspauli.com
e-mail: pauli@mineralspauli.com

Penn Minerals

Classic Pennsylvania Minerals our Specialty
www.pennminerals.com
e-mail: SCarter@pennminerals.com

SIBER+SIBER Ltd.

High-quality minerals since 1964
www.siber-siber.ch
e-mail: siber-siber@bluewin.ch

Simkev Minerals

Quality, Service, Price
www.simkevmicromounts.com
www.thefinemineralcompany.com

Spanish Minerals

Specializing in Classic Spanish Minerals
www.spanishminerals.com
e-mail: juan@spanishminerals.com

Spectrum Minerals

Colorful quality minerals. Cabinet size.
www.spectrumminerals.com
e-mail: wslogan@carolina.rr.com

Stuart's Minerals

Quality minerals from Canada & New York
www.StuartsMinerals.com
e-mail: stuartp@gisco.net

The Sunnywood Collection

Bill and Elsie Stone
www.sunnywood.com
e-mail: minerals@sunnywood.com

Top Shelf Minerals

Quality minerals for advanced collectors
www.topshelfminerals.com
e-mail: greg@topshelfminerals.com

Trafford-Flynn Minerals

Affordable Worldwide Quality Minerals
www.trafford-flynn.com
e-mail: info@trafford-flynn.com

The Vug

A very extensive mineral link portal
www.the-vug.com
e-mail: steve@the-vug.com

The Webmineralshop

Specializing in Fine Italian Minerals
www.webmineralshop.com
e-mail: webminerals@libero.it

Wright's Rock Shop

Fine Worldwide Minerals
www.wrightsrockshop.com
e-mail: wrightsr@ipa.net



The Friends of Mineralogy, Inc.

President: Virgil W. Lueth, Ph.D., New Mexico Bureau of Geology & Mineral Resources, New Mexico Institute of Mining Technology, 801 Leroy Place, Socorro, New Mexico 87801, Email: vwlueth@nmt.edu

Visit the National Friends of Mineralogy website:
www.friendsofmineralogy.org

GOALS OF THE ORGANIZATION

- To preserve and protect mineral specimens for education and research
- To promote the preservation of valuable specimen localities and mining deposits.
- To encourage the collection of minerals for their research and educational value.
- To advance programs of mineral study and the educational activities of amateur groups.
- To promote the dissemination of information about minerals, mineral localities, collections and mineral studies.

FRIENDS OF MINERALOGY 2007 AWARDS

Best Article 2007, *The Mineralogical Record*, "Famous Mineral Localities: Bou Azzer, Morocco," v.38, n. 5 p. 338; G. Favreau, J.E. Dietrich, N. Meisser, J. Brugger, L. Ait Haddouch and L. Maacha.

Best Article 2007, *Rocks & Minerals*, "Greenockite and Associated Uranium-Vanadium Minerals from the Huron River Uranium Prospect, Baraga County, Michigan," v. 82, n. 4, p. 298; S.M. Carlson, G.W. Robinson, M.J. Elder, J.A. Jaszczak, and T.J. Bornhorst. (This was a tough call because there were so many fine articles to choose from.)

Best Article 2007, *extraLapis English*, (No. 10 – Opal, p. 14)—WERNER LIEBER AWARD, "Rainbows, Harlequins and Pins Afire: Play of Color in Opal"; M. Weibel.

Best Educational Case, TGMS, 2008—Individual, Dr. Georg Gebhard, "Silver"—A very clever and artistic presentation of silver oxidation (the moon waning) and chemical combinations.

Best Educational Case, TGMS, 2008—Institutional, Gemological Institute of America (GIA) and Geo-Literary Society—"George F. Kunz and his contribution to the gem and mineral literature of North America"

In conjunction with the Best Article awards, FM presented a check for \$200 to each of the magazines, *The Mineralogical Record*, *Rocks & Minerals*, and *extraLapis English*.

FM REGIONAL CHAPTERS

Colorado: Larry Havens, President;
Email: Lghavens@aol.com

Midwest: Dave Straw, President;
Email: strawdl@aol.com; Website:
[Http://www.indiana.edu/~minerals](http://www.indiana.edu/~minerals)

Mississippi Valley: Larry Nuelle, President;
Email: lmnhbn@fidnet.com

Pacific Northwest: Wes Gannaway, President;
Email: debwes@comcast.net;
Website: <http://www.pnwfm.org>

Pennsylvania: Doug Rambo, President;
Email: drambo417@comcast.net;

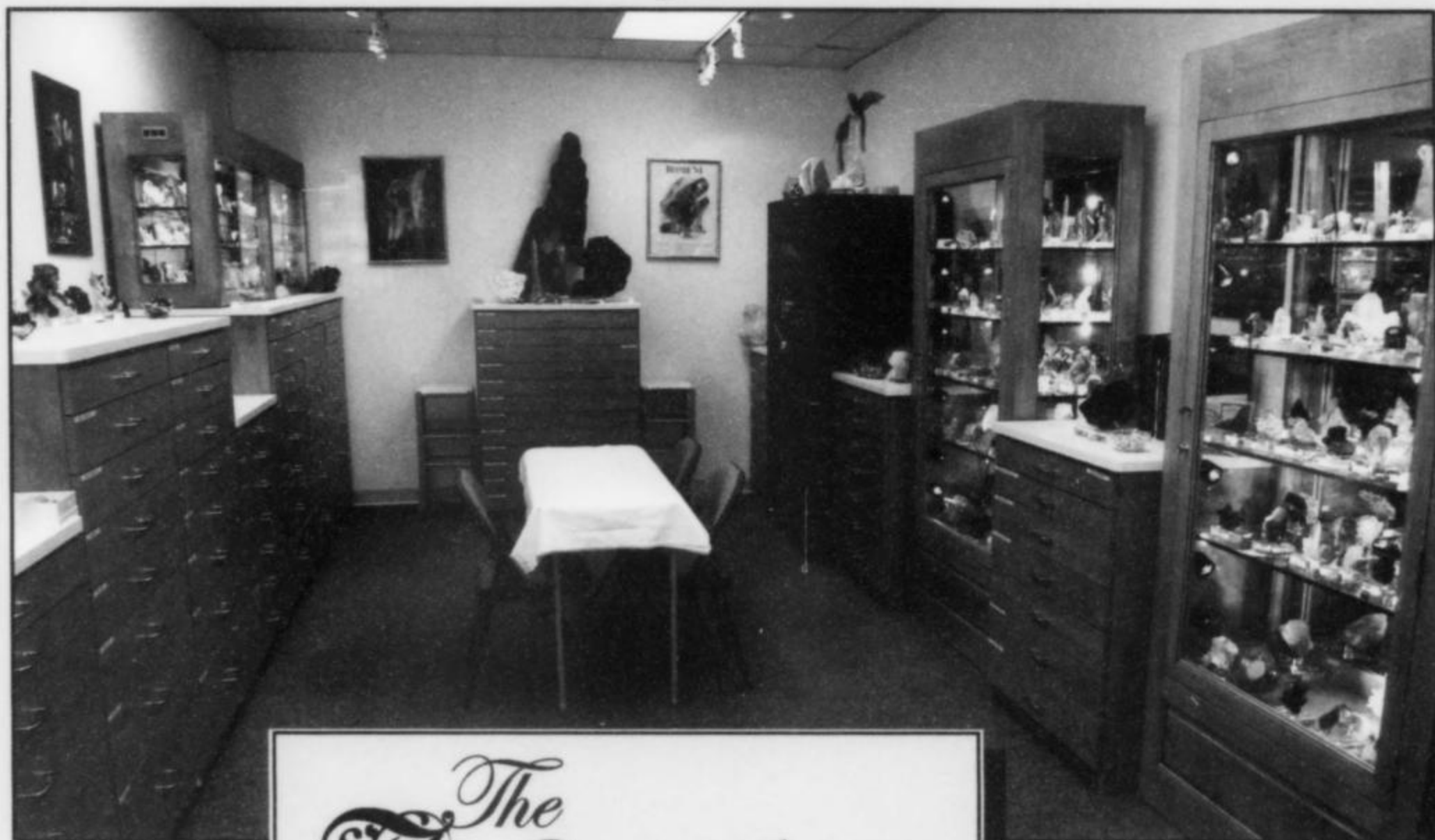
Website:
<http://www.geocities.com/sajas.geo/FM/index.htm>

Southeast: Anita Westlake, President;
Email: libawc@emory.edu

Southern California: Bob Reynolds, President;
Email: jreynold@empirenet.com;
Website: <http://www.mineralsocal.org/scfm>

Visit Our New Gallery!

Located Centrally in the Dallas Area

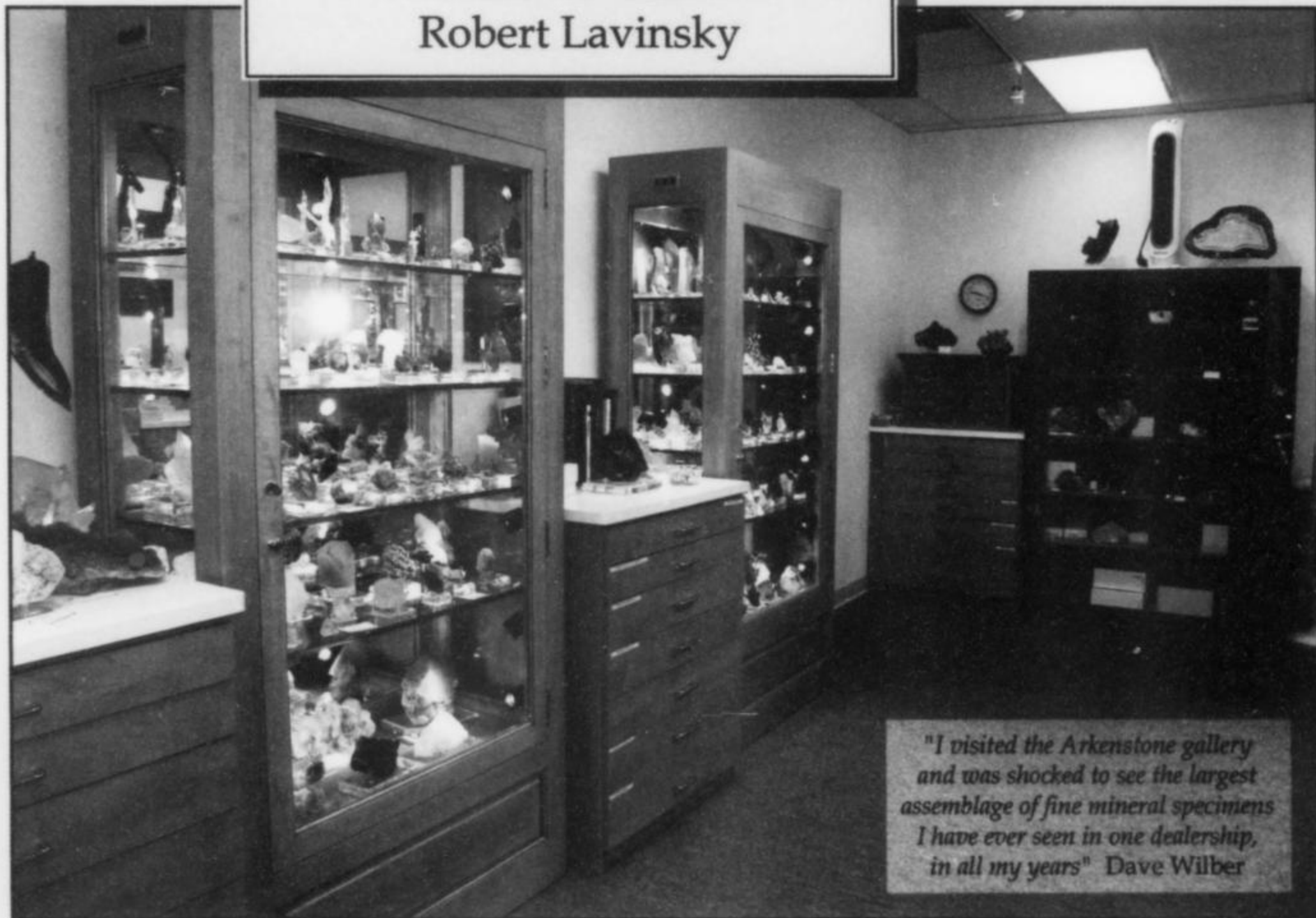


Visit our
Website at
www.iRocks.com

The **Arkenstone**

Robert Lavinsky

*Fine Mineral Specimens from
contemporary localities & classic
collections worldwide*



*"I visited the Arkenstone gallery
and was shocked to see the largest
assemblage of fine mineral specimens
I have ever seen in one dealership,
in all my years" Dave Wilber*

Please call or Email • Open by Appointment Only
Kevin Brown at americanminerals@yahoo.com • Tel: 972-437-2492 (normal hours CST)
Rob Lavinsky at Rob@irocks.com

www.iRocks.com

STONETRUST

WWW.STONETRUST.COM
860-748-1661
STEPHANIE@STONETRUST.COM

PLEASE VISIT US AT THESE
REGIONAL SHOWS:

AUGUST 8-10, 2008
EAST COAST MINERAL
AND FOSSIL SHOW
BETTER LIVING CENTER
EASTERN STATES EXPOSITION
WEST SPRINGFIELD, MA
SPACE 71

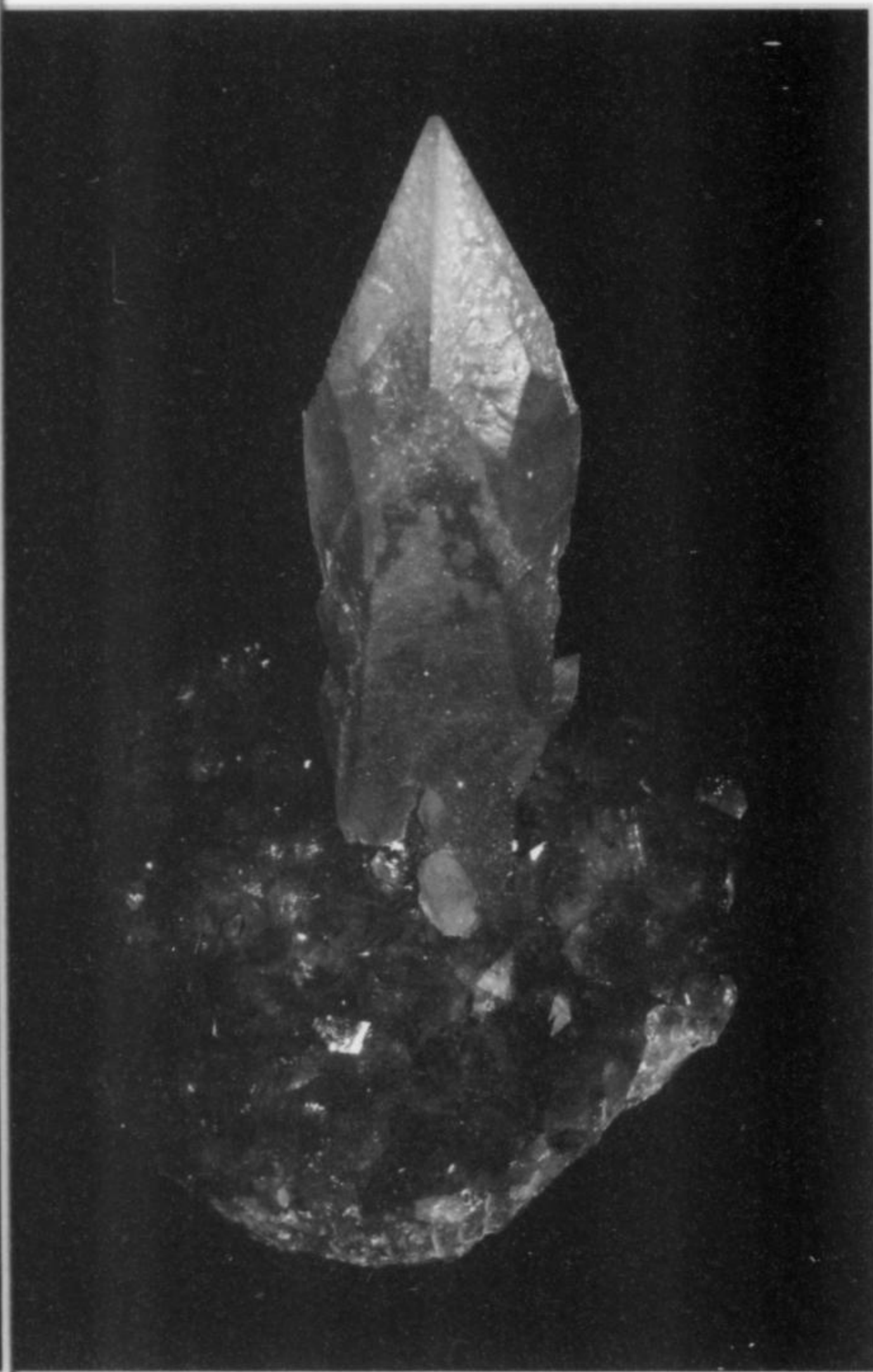
AUGUST 15-17, 2008
SOUTHEAST GEM AND
MINERAL SHOW
HOLIDAY INN
CARTERSVILLE, GA
BALLROOM SPACE 4

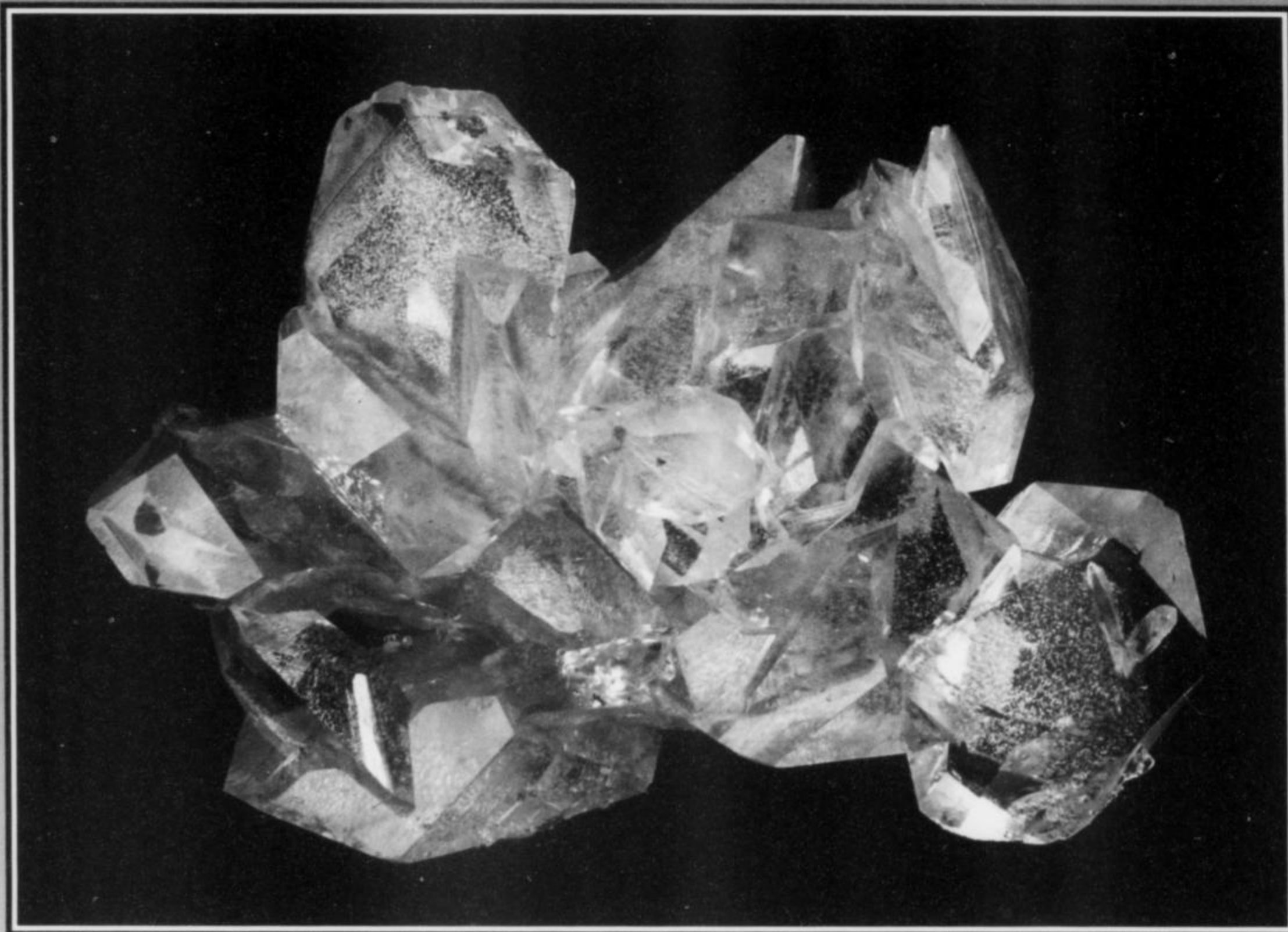
SEE OUR COMPLETE
SHOW SCHEDULE AT:
WWW.STONETRUST.COM

CALCITE AND QUARTZ
ON AMETHYST

GARIMPO DU OZILDO
AMATISTA DO SUL
RS, BRAZIL
20.3 X 14 X 12.7 CM
CRYSTAL 12.7 X 4.7 CM

MOONTINA PHOTO





Datolite, 6.5 cm, September mine, Dalnegorsk, Russia.

Heliodor
BRAD AND STAR VAN SCRIVER

P. O. BOX 10, 199 00 PRAGUE 9, CZECH REPUBLIC
TEL/FAX: (420/2) 839 30 279
MOBILE PHONE (IN THE U.S.): (520) 991-8157, IN PRAGUE: (0602) 169152

VISIT our WEBSITE at www.Heliodor1.com

Jeff Scovil photo.

Have Computer Designed, Custom Made Bases Without Us Ever Having to See or Handle Your Specimen!



Museum quality custom display bases for your minerals, fossils and collectables.

Incredible turn around time! You can have your custom base in about 2 weeks.

Your specimen never leaves your possession! Using our foam kits, we can create your base without ever having to handle your piece.

The angle and display view of your specimen is completely up to you!

No Shipping, No Insurance, No Risk! Our process eliminates any possible damage to your specimen from transporting and handling.

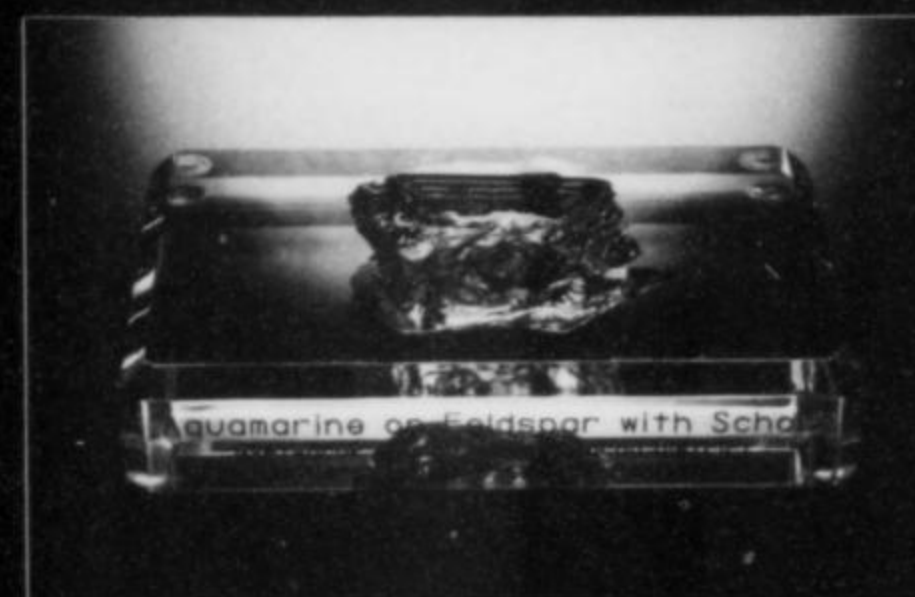
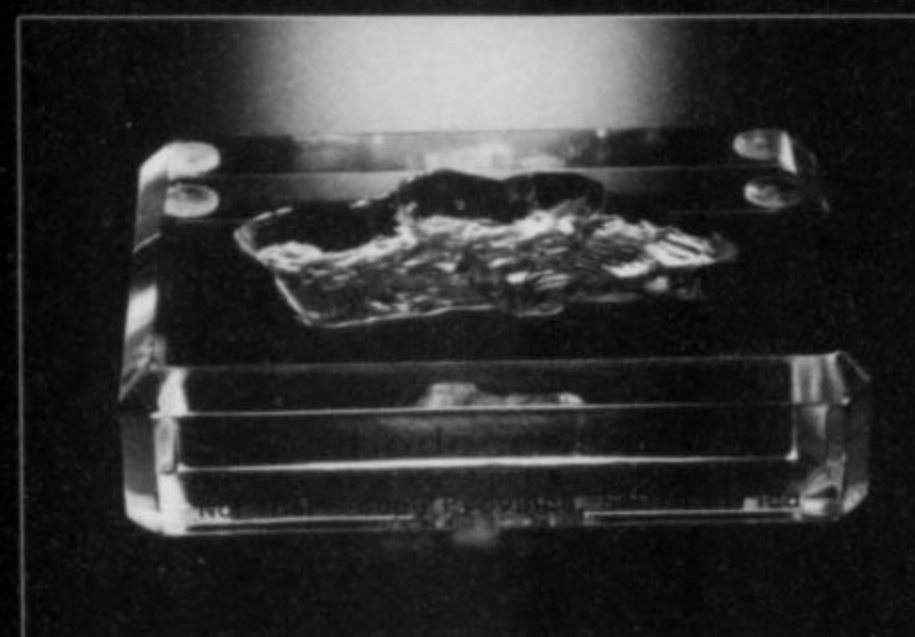
Engraving is available to label your specimen. The engraving is cut into the base itself and is available in a variety of different colors!

Custom support props are also available if needed. No more messy or unsightly glues! Specimens can be easily removed from the base for viewing or shipping.

Legacy Data - Because we store your base electronically, we can replace lost or damaged bases with just a phone call!

Affordable prices. Have your own custom made base made for as little as \$99.99!

Friendly customer service is readily available.



Satisfaction Guarantee:
If you are unhappy in anyway with your base we will re-cut your base at our expense until you are satisfied. Or offer a full refund within 30 days.

Fine Mineral Bases
2045 Route 35 South, Suite #106
South Amboy, NJ 08879
Phone: 732-525-0999
email: finemineralbases@aol.com

For More Information visit us at
www.FineMineralBases.com

Western Minerals

ESTABLISHED 1962 GENE & JACKIE SCHLEPP

Explore our New Website!

www.WMTucson.com

Make our new website your choice for a variety of always different, never ordinary, unique minerals at impressive prices!

- IMMEDIATE PAYMENT for mineral collections or individual specimens.
- APPRAISAL SERVICES available for review and evaluation.
- COLLECTIONS RESTORED, cataloged and classified.

Celebrating
45 YEARS of Experience & Professional Excellence

P.O Box 43603, Tucson, Arizona 85733

Call Collect: 520-325-4534

Fax: 520-318-0573

Email: Schlepp@WMTucson.com



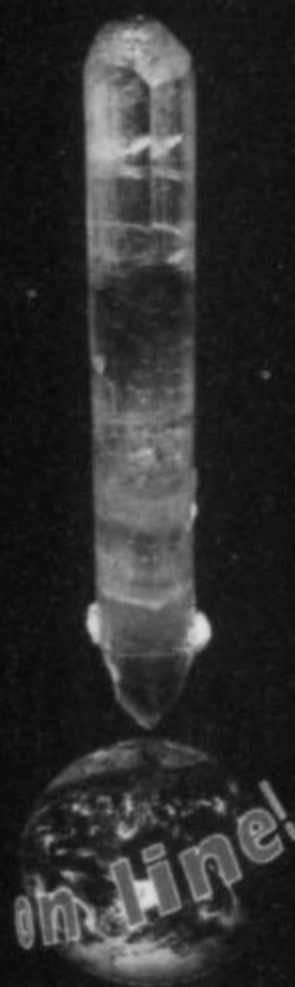
RED CLOUD WULFENITE

WENDELL E. WILSON

Very Aesthetic!
Very Rare!

FABRE MINERALS

www.fabreminerals.com



Michigan

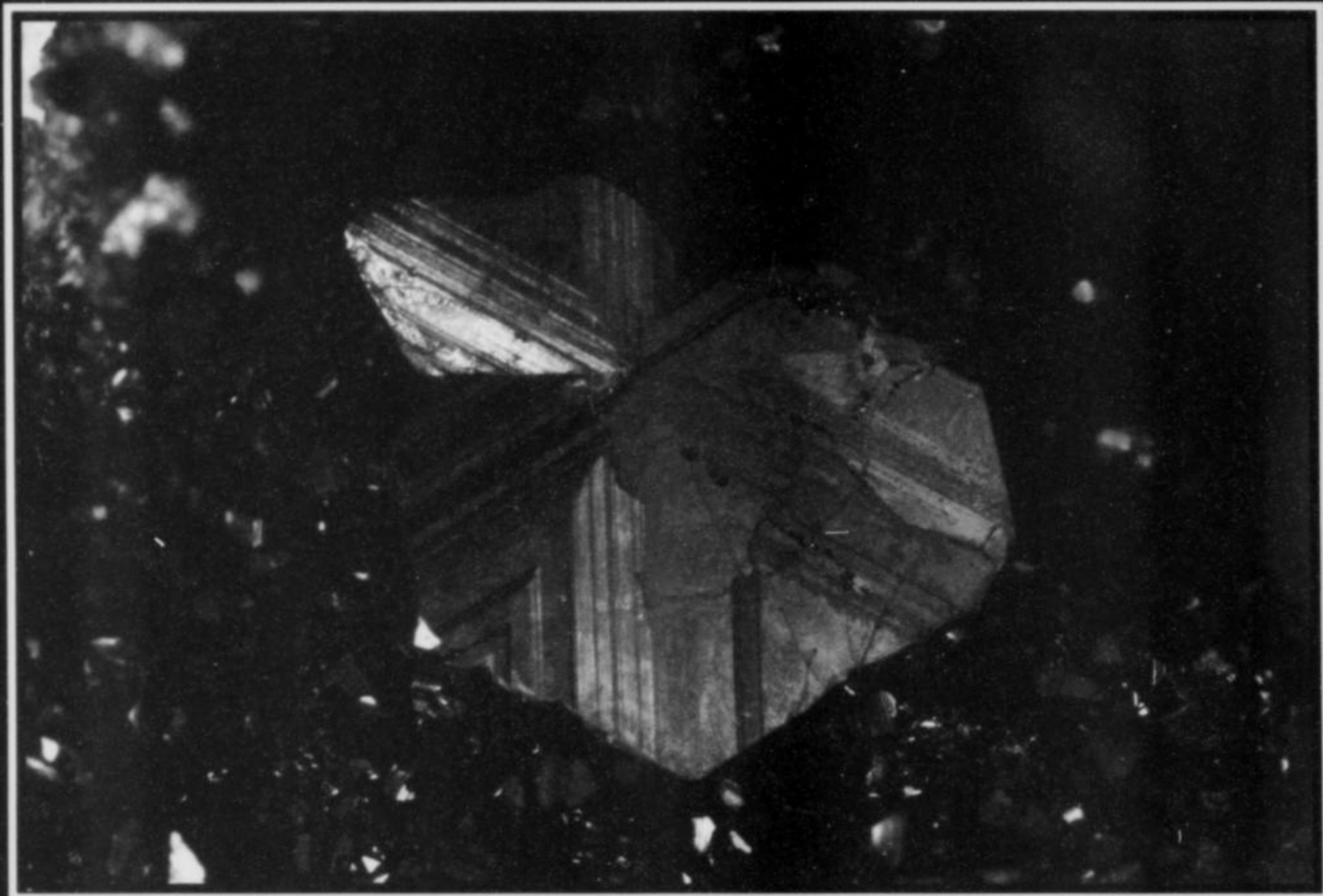


PHOTO BY DR. JOHN A. JASZCZAK

CUBANITE crystals, 0.3 cm, on sphalerite matrix, from Marquette County, Michigan. Collected from a surface outcrop of silicified ultramafic rock in 2007 by Shawn M. Carlson and Mark J. Elder.

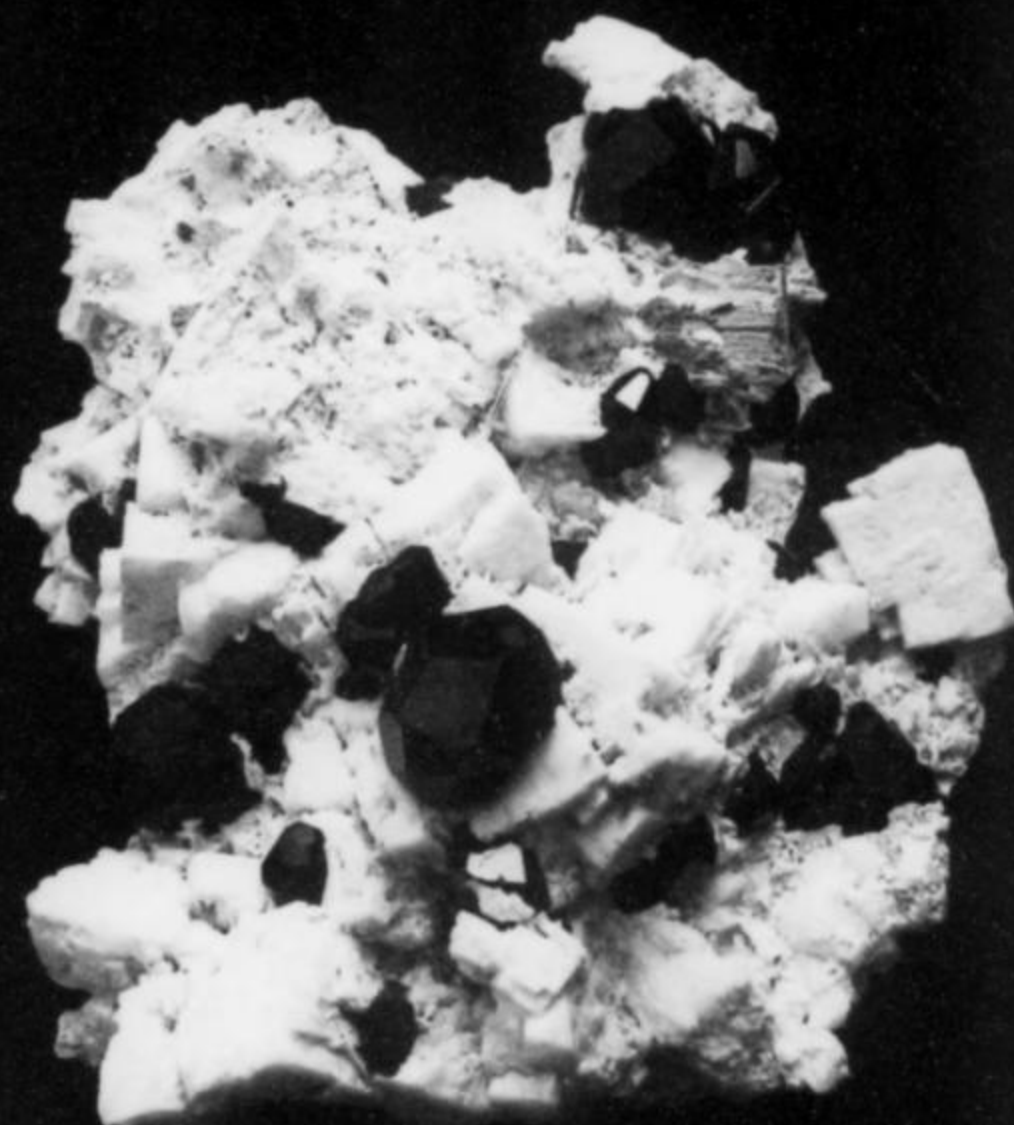
Michigan is currently experiencing a renaissance of mineral exploration activity, with several companies exploring for Ni/Cu/PGE deposits in Michigan's Upper Peninsula. A new nickel/copper mine is anticipated to begin construction in Marquette County, Michigan in 2008. Once completed, the mine will become the only primary nickel producer in the United States.

From the Shawn M. Carlson Collection

Astro Gallery of Gems
World Largest Gallery of Gems and Minerals



Pink Kyanite and Quartz on Albite from Kunar Valley, Nuristan Province, Afghanistan
9 X 6 inches



Garnet on Albite from Gilgit, Gilgit District, Northern Areas, Pakistan
7 X 5.5 inches



Bi-Color Tourmaline and Quartz on Albite from Papatok, Kunar Valley, Nuristan Province, Afghanistan
9 X 5.5 inches

Visit our brand new website
www.AstroGallery.com

Established in 1961

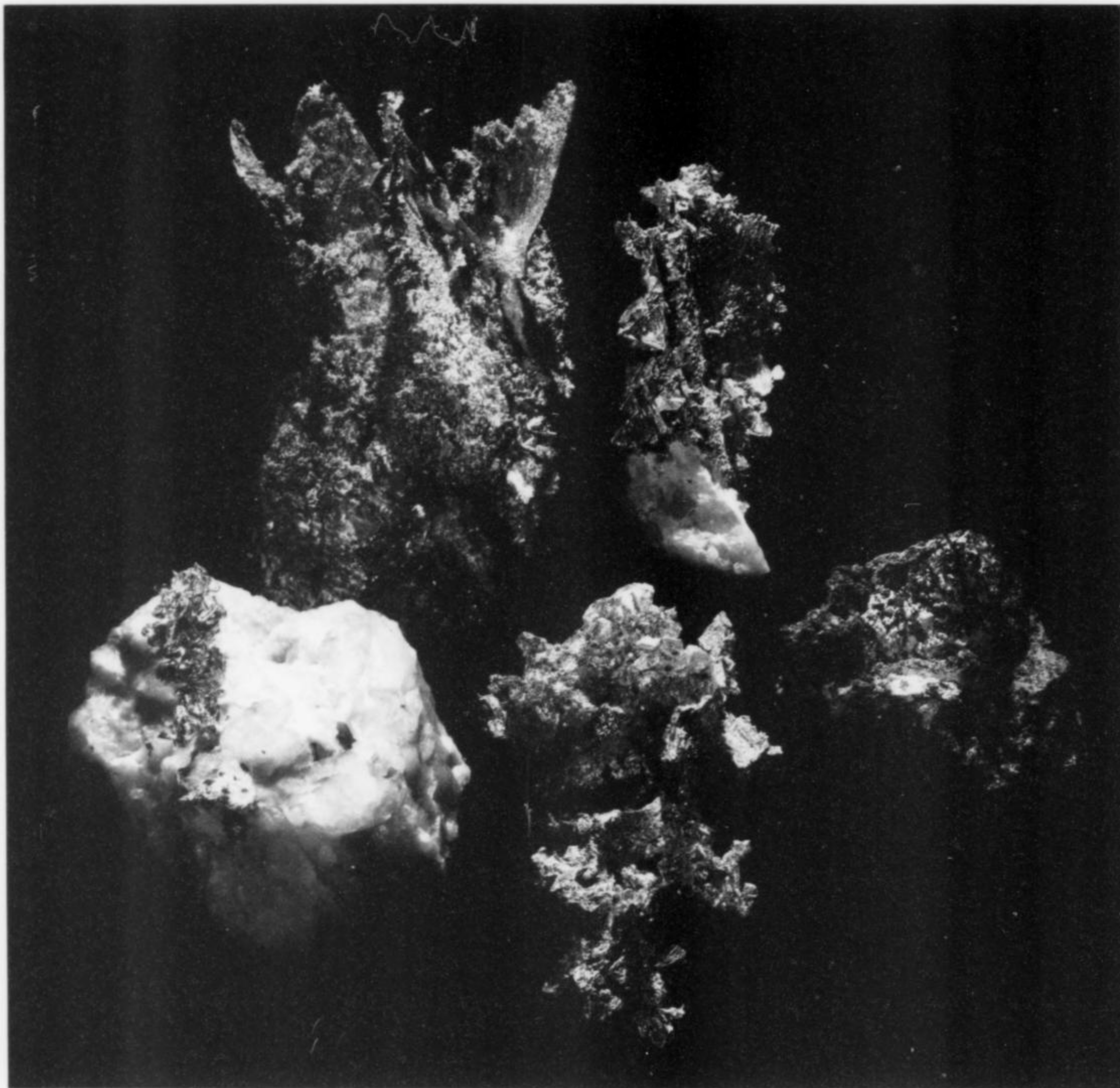
185 Madison Avenue, NY, NY 10016
Call: 212-889-9000
Fax: 212-689-4016
www.AstroGallery.com

eBay

Visit Our Daily Auctions
User id: MMineral

Photo and Design by
Dmitry Sokolov

GOLD: from top left clockwise: (1) Round Mtn. mine, Nevada,
(2) Eagle's Nest mine, California, (3) Mashamba West mine, Zaire,
(4) Eagle's Nest mine, California, (5) Whispering Wind mine, California. Earl Lewis Photo.



FROM THE PRIVATE COLLECTION OF KEITH & MAUNA

PROCTOR

WE PURCHASE MAJOR SPECIMENS AND COLLECTIONS
88 RAVEN HILLS COURT, COLORADO SPRINGS, CO 80919
TEL.: 719-598-1233 EMAIL: MAUNAPROCTOR@AOL.COM
OUR WEBSITE: KEITHPROCTORCOLLECTION.COM

What's New



in Minerals

Tucson Show 2008 by Thomas Moore

[February 2 – February 17]

In every previous year of writing the "Tucson report" I have waited until the end to effuse and enthuse about the special theme and its related displays at the "Main Show" (the event mounted by the Tucson Gem & Mineral Society at the Tucson Convention Center), but in 2008 the special displays proved to be so very exceptionally *special* that I am moved this time to do the effusing first.

The "American Mineral Treasures" project began with a brainstorm by Gene Meieran, quickly seized on by others, at the 2005 Tucson Show, and after three years of hard work by hundreds of people there came this year the triumphant result: 44 displays of minerals from major localities in the United States, and perhaps the most dazzling, valuable, stupendous (the usual workhorse superlatives seem overworn) group of mineral specimens ever assembled temporarily under one roof. Some of the U.S. localities were represented by single small cases where, nevertheless, exceptional specimens reposed; other localities were spoken for by brilliant, bounteous spreads of spectacular pieces. Around the hall there was so much rapt staring in downward directions that many showgoers (including me) didn't notice for days the gigantic U.S. flag which hung from the ceiling, announcing this *American-minerals* theme. There were 18,000 show visitors over the four-day weekend, and many old hands among these were of the opinion that, thanks largely to "American Treasures," this Main Show was the most exciting, adrenaline-charged one in many years.

Of course, enormous credit and thanks for this result are due to hundreds of people. At the Show the most salient hard workers included TGMS exhibits chairman Peter Megaw; Show Chairman Rick Trapp and his partner Alice Pennington; all of the TGMS volunteers; the dozens of museum curators and private collectors who lent specimens for the cases; and even many uniformed members of the Tucson Police Department. These latter personnel prowled the hall in force to provide more than the usual security, and most of them seemed to be having a good time despite the tremendous responsibility of their assignment. To judge from their overheard

discourses, some of the officers, several of whom have worked the show in previous years as well, are becoming interested in and well-informed about minerals.

There was evidence, too, that the general public were more than usually excited. We took orders for a record number of new subscriptions to our magazine, and all copies of the new book *American Mineral Treasures* with which the *Mineralogical Record* table had been initially stocked sold out within hours of the Show's opening on Thursday morning. Do not despair, though: more copies have arrived in Tucson since then, and you may place an order through the *Mineralogical Record* website (cost: \$85 plus shipping) for this beautiful, 9.5 × 13-inch, hardbound volume, edited by Gloria Staebler and by Wendell Wilson. After a Foreword by Apollo 17 astronaut Harrison H. Schmitt and a learned introductory essay by Wendell Wilson sketching the history of mineral collecting in the U.S., the book offers 44 chapters, written by about 60 authoritative people, describing the great localities, with emphasis on collecting histories. It concludes with an Afterword by Gene Meieran giving a more detailed account of how the whole project came together. Naturally the book is loaded with superb photographs of superb specimens, and (to put it mildly) will not disappoint.

This seems a good place to mention as well that the newly printed, 2008 edition of *Fleischer's Glossary of Mineral Species*, by Malcolm E. Back and (the late) Joseph A. Mandarino, was also a very big seller in Tucson this year: for a bargain-basement \$26 you get an up-to-the-minute listing of all known mineral species, and (unlike in the previous edition) you get a long appendix showing all mineral groups and their members. Another hit with showgoers was our latest photo portfolio supplement on a great private collection—that of Marc P. Weill—in both softcover and hardcover versions. *Mineralogical Record* subscribers have already gotten their softcover versions free, with the January–February 2008 issue.



Figure 1. Paramelaconite, about 5 cm, from the Copper Queen mine, Bisbee, Arizona. Smithsonian Institution collection; Wendell Wilson photo. This is just one of more than 1,100 rare and superb specimens that were displayed in the *American Mineral Treasures* exhibits at the Tucson Show.

This was, then, an absolutely electric Main Show. Later I will say more about the fabulous contents of the "American Mineral Treasures" cases, but suffice it to say now that the event felt like a harbinger of a general increase of interest in serious mineral collecting and in the appreciation of beautiful minerals. Even aside from the big exhibits, the overall quality of the dealer stocks was astoundingly high. John White made the observation that if the contents of several of the more prominent dealer booths were to be turned over to some small museum, it would immediately rank as a world-class museum. And he made another interesting observation: It used to be that the finest specimens for sale at the show never saw the light of day; they were all sold under the table to preferred customers. But this has changed. Today there is such a wealth of top material available that it can't all be dispersed in that way, and consequently large numbers of superior pieces are out there on the dealer shelves for all to see.

I can only gesture vaguely to the 50-odd *other* shows which spring

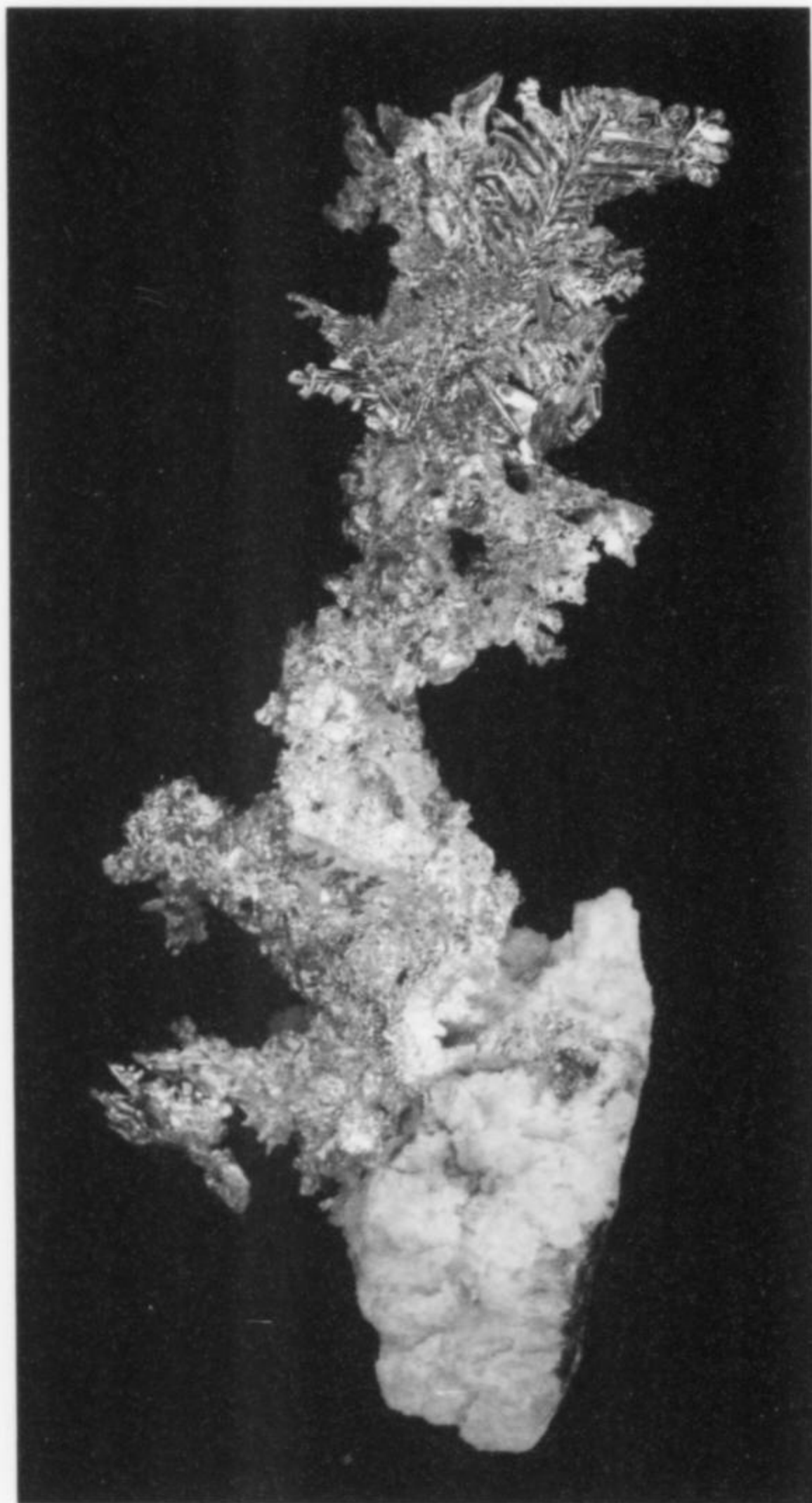


Figure 2. Gold specimen (nicknamed "The Cobra"), 15 cm, from the Mockingbird mine, Mariposa County, California. Collector's Edge Minerals specimen; Jeff Scovil photo.

up all over this city each February. Devotees of gems, lapidary arts, beads, fossils, mystical-crystal accessories, etc., had plenty of destinations to fight traffic for. For mineral minions, Dave Waisman's *Westward Look Show*, on the north side of town, displayed the wares of about 25 high-end dealers; the mineral show at the Executive Inn was busy as always; and proceedings were likewise brisk at the four separate venues of Marty Zinn's *Arizona Mineral & Fossil Show*. This year the Zinn dealers in good mineral specimens were most concentrated at the InnSuites hotel, with its great ballroom (containing the *Mineralogical Record's* table), luxurious lobby, and laid-back courtyard with volleyball net and serene orange trees. The big white house owned by Daniel Trinchillo, accessed from a rear gate off the InnSuites parking lot, was open, as usual, to those who wanted to shop for high-end specimens, and bargains again were offered in the big white tent behind the building.

A notable new mineral dealership which kicked off in February 2008 is that of Marcus Origlieri, who calls his business *Mineral Zone* (marcus@mineralzone.com). Marcus, a recent University of Arizona Ph.D. in mineralogy, has leased an old warehouse building at 1027 North Main Street—very near the Executive Inn—and during the show he hung a banner outside and began filling his display cases with what may be called "enlightened" specimen stock, some examples of which will be mentioned later in this report. A dastardly burglary of the building one night during the show deprived Marcus of his computer and some of his specimens, but by no means was the loss fatal: within 24 hours Marcus was his ebullient self again, bouncing around and doing deals at the Main Show.

Now, however, I must get on with *my* main deal, which is to conduct the "what's new in minerals" tour, Tucson 2008 edition.

During the past several years quite a lot of good **gold** has come from a small handful of places in the American West, and expert hands have guided the specimens onto the collector market. As earlier reports have mentioned, 2006 was a banner year for crystallized gold at the Round Mountain gold mine, Nye County, Nevada, and in the InnSuites this year Scott Kleine of *Great Basin Minerals* (scottkleine@greatbasinminerals.com) had about 75 brilliant thumbnail-size clusters of gold leaves and crystallized plates from the Round Mountain mine, the very best of the flattish groups being studded with very sharp dodecahedral gold crystals to 2 mm. These specimens are a leftover lot from the 2006 bonanza, no comparable pieces having been found in 2007.

The **gold** news from the famous Mockingbird mine, Mariposa County, California, is more current. Both the 2006 Denver Show (see November–December 2006) and last year's Tucson Show (May–June 2007) saw generous numbers of world-class gold specimens lately won from the Mockingbird mine, the biggest and finest of these with *Collector's Edge* and many more with Doug Wallace of *Mineral Search* (www.goldminerals.com). Work proceeds at the Mockingbird mine as we speak, of which fact the evidence at the Main Show was a handful of fabulous pieces on view with *Collector's Edge*. The best of these, called "The Cobra," quite holds its own with the greatest of known California gold specimens (many of which were only a few yards away, in their "American Mineral Treasures" case). "The Cobra" is a sinuous crystal aggregate, with, sure enough, a hoodlike swelling on top, snaking to a height of 15 cm above a matrix of milky quartz; the formation consists entirely of brilliantly lustrous, edge-rounded, intergrown gold octahedrons to 1 cm. Huzzahs and encouragements to mine owner John Emmett and his crew of specimen miners, still digging at the Mockingbird.

At the Westward Look show, Bill Larson, eminent raconteur of *Pala International*, had some nice new **aquamarine and morganite beryl** specimens from a new find in one of the pegmatites of San Diego County, California. The Ocean View gem mine, Bill says, is on

the same claim as the well-known Elizabeth R mine, and the Ocean View's new owner presided over collecting of the beryl specimens (Bill himself dug a few) in November–December 2007. About 50 miniature and cabinet-size pieces emerged: they are gleaming white masses of intergrown albite crystals with beryl crystals perching lightly on their surfaces. Pale blue, gemmy, short-prismatic to blocky aquamarine crystals to 5 cm and pale pink morganite crystals of like habit and size are available; some of the crystals, of both hues, have sparse inclusions of acicular green elbaite.

Jim and Yolanda McEwen of *Lehigh Minerals* (www.lehighminerals.com) filled their room in the InnSuites with **halite** and **gypsum**—nice-looking specimens across a full range of sizes, all dug quite recently from places along the shore of Great Salt Lake, Tooele County, Utah. The specimens are cheap to buy but are very aesthetic, not lightly to be dismissed even by those whose tastes run more to proustite and phosphophyllite. The halite crystal groups, to 40 cm across, are delicate interattachments of lustrous, transparent, palest peach-pink to colorless, hopped cubic crystals to 3 cm on edge. The **gypsum** forms great gray-white rounded stalks which bristle all over with terminations of 1-cm crystals, and these pieces are called (of course) “cactus gypsum.” Some of the cacti are lightly sprinkled with sharp cubic crystals of halite, and all cacti are fluorescent and phosphorescent bright white.

One of the biggest and brightest of the “American Mineral Treasures” cases at the Main Show held **pyromorphite** (and a single incredible cerussite) from the Bunker Hill mine, Shoshone County, Idaho. And even as Wayne Sorenson and Wayne Thompson were working on organizing this case during the months before the show, John Cornish (cornish@tfn.com) was shaping a deal to buy from Bob Hopper an extraordinary collection of about 450 top-quality Bunker Hill pyromorphite specimens, nearly all of which could be seen in John's room in the InnSuites this year. Arguably the world's best locality for pyromorphite, the Bunker Hill mine first made headlines in 1982 when huge numbers of specimens collected from a pocket system on the 9 level of the Deadwood-Jersey vein area reached the market (see the article by Crowley and Radford in the September–October 1982 issue, and see several rapturous show reports from around that time). In 1992, Bob Hopper, who'd heard that more crystallized pockets lurked in the depths, bought the Bunker Hill mine, then spent the next several years collecting the specimens which John Cornish is now marketing. Like the earlier ones they come from the 9 level of the Jersey vein, between levels 17 and 23, to be exact. Their variety in color and form is enormous, their beauty a satisfying constant. Lustrous, bulging, to varying degrees hopped, yellow-green to bright orange pyromorphite crystals reach individual sizes as great as 4 cm; some of the most impressive groups are apparent floater clusters to cabinet size. Some specimens show very bright orange (“wet”) botryoidal growths of arsenic-rich pyromorphite; others are a brilliant yellow-green, with parallel aggregates of arched, curving crystals; still others have large orange crystals resting on yellow-green druses. Sizewise the specimens range from a few thumbnails (for up to \$300) to large-cabinet pieces priced in the mid-four figures. Except, of course, for that “Treasure” case at the Main Show, this was the best gathering of beautiful pyromorphite that, I think, I've ever seen anywhere.

In the 2006 Denver report (November–December 2006) I remarked on recent, fairly abundant harvests of fine **topaz** crystals from the Tarryall Mountains, Park County, Colorado. Stephen D. Renner was then, and still is, one of the chief harvesters, but another is Jeff Self, who bought a small pegmatite field in the Tarryalls in 2002, named it the Colorado Eagle claim, and has been digging there intermittently ever since. At the InnSuites Jeff had about 12 thumbnail-size loose topaz crystals and two superb miniatures, one

of the latter with single 5 × 5-cm topaz crystals that are totally gemmy and palest blue to colorless. The smaller, loose crystals are cleaved in the middle, but delicate patterns of very light etching on their wedge terminations enhance aesthetics and interest; Jeff was asking around \$50 for the best of these. Anyway, here's a man named Self who self-collects his material and operates under the business name *Self-a-Ware Minerals* (P.O. Box 473, Indian Hills, CO 80454), and who can argue with that?

Just two days before the Main Show closed, Les Presmyk of *De Natura* (www.denatura.net) latched onto eight flats of interesting specimens of **pyrolusite** from an unspecified, long-inactive mine near Las Cruces, New Mexico, and promptly split the lot 50-50 with Rob Lavinsky of *Arkenstone*. The pyrolusite had been collected just three weeks before the show by Roy Jones, son of the late, legendary field collector Dick Jones. All of the specimens are flattish sections of pure pyrolusite which once lined thin seams in massive black (Mn oxide-infused) calcite. For a manganese oxide mineral they are not at all bad-looking, consisting as they do of intergrown, horsetail-shaped aggregates of finely fibrous black crystals which show a kind of chatoyancy as individual horsetails catch ambient light. The specimens range in size from thumbnail through medium-cabinet.

The final American locale reported here is the Millington basalt quarry, Basking Ridge, Somerset County, New Jersey. An article in the September–October 2000 *Mineralogical Record* and an update in May–June 2007 made clear that the Millington is, as regards specimens, the newest of the many “traprock” quarries of northern New Jersey, and that its beautiful natrolite, pectolite, datolite and apophyllite specimens rank among this famous area's best. In the InnSuites ballroom, Rocko and Mandy Rosenblatt of *Rocko Minerals & Jewelry* (rocko@catskill.net) had seven flats of Millington quarry specimens which, Rocko says, represent the locality's last hurrah: the specimens came out during 2007 and the quarry now is abandoned, flooded and partially filled in. But this is one excellent lot, with miniature to small cabinet-size basalt matrix pieces whose open cavities harbor smooth white, pinkish and greenish **pectolite** botryoids averaging 1 cm in diameter; **natrolite** as jumbled groups of white, terminated crystals to 2 cm, these sparkling all over with apophyllite microcrystals and looking (my daughter says) “Christmassy”; lustrous, colorless, transparent, blocky crystals of **apophyllite** to 1.5 cm; and lustrous, pale lime-green crystals of **datolite** to 1 cm.

Only one Canadian item makes the news this time out. During the past six months, Don Doell Jr. has collected a few specimens of well crystallized **graphite**—of all things—at a place called Mont Saint-Sauveur, Quebec. Now in the keeping of Rob Lavinsky of *Arkenstone*, who had them at Westward Look, these specimens are miniature-size lumps of bluish white massive calcite from which rise sharp, lustrous, thin-tabular graphite crystals exceptionally to 1 cm but mostly around 5 mm. No, they are not pretty, but certainly they are noteworthy, as macrocrystals of graphite from any occurrence must necessarily be.

For Tucson 2008, Mexico provided important mineralogical stories from two localities, one very old and one very new. First, the Ojuela mine, Mapimí, Durango—for a general history and complete mineralogy see our Mexico II issue (September–October 2003)—has now outdone itself in two secondary lead species, wulfenite and cerussite. This immense polymetallic mine, begun by the Spaniards in 1598, seems to boast no surviving specimens from earlier than the mid-1940's (thinking too much about that fact and its implications is an exercise in masochism), and since about 2000 the mine has yielded little of note. But last year the Ojuela surprised us with some impressive new specimens of botryoidal,

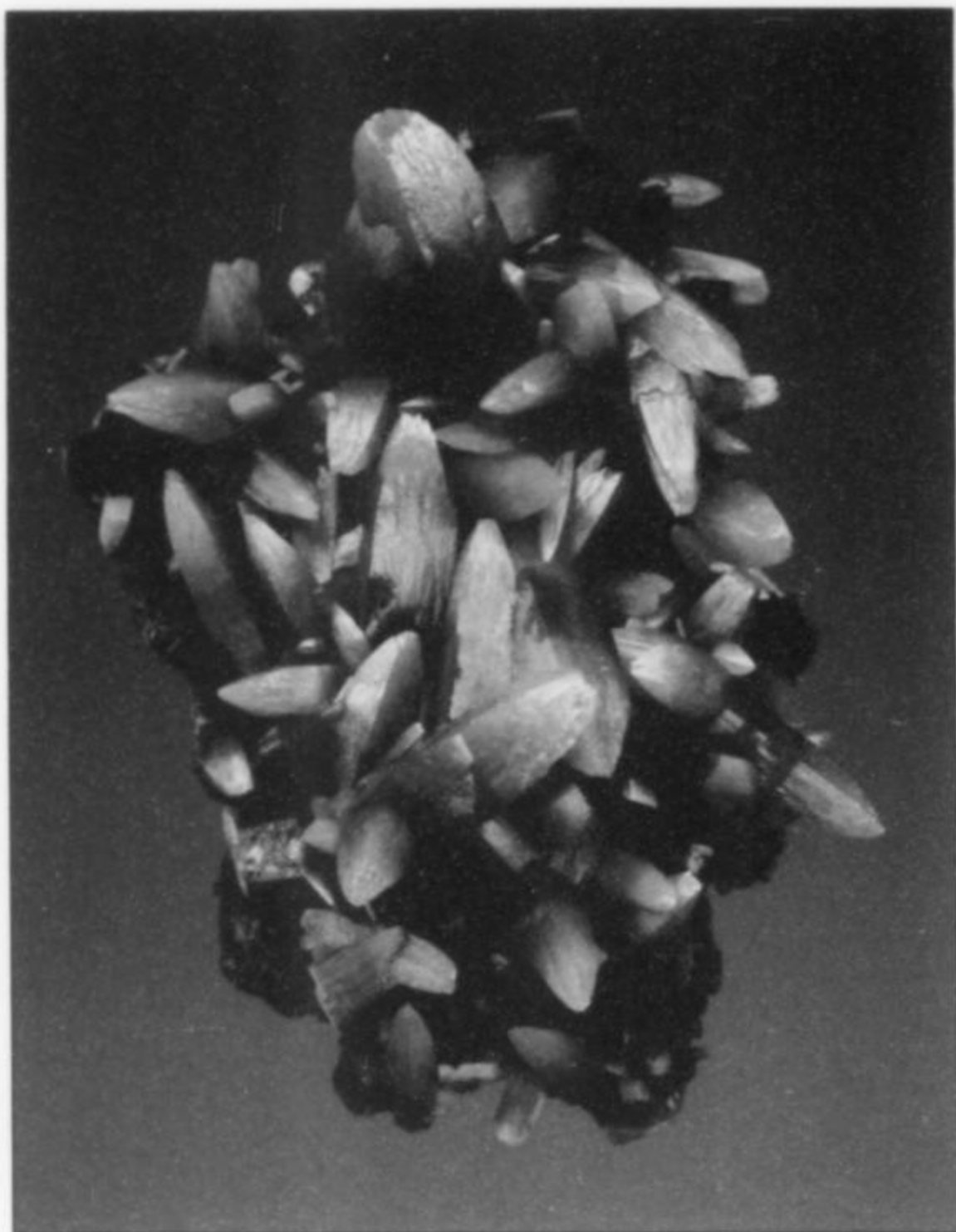


Figure 3. Wulfenite on dark green mimetite, 6.7 cm, from the Ojuela mine, Mapimi, Durango, Mexico. Peter Megaw collection; Jeff Scovil photo.

mustard-yellow mimetite, and a comparable surprise came this year in the form of some very fine and unusual (for Ojuela) **wulfenite**. In several hundred miniature and cabinet-size pieces, sharp, lustrous, orange-brown bipyramidal crystals of wulfenite to 2 cm long and 1 cm thick are littered all over earthy dark brown gossan matrix; in a few special pieces the cavities in the gossan are lined by shining dark green botryoidal mimetite on which the bipyramidal wulfenites perch. The find occurred in mid-December on level 6 of the San Juan Poniente *lugar* (collecting area) of the Ojuela mine, and the specimens were first brought out by Mike New and his son Jason. The very finest dozen or so ended up with Rob Lavinsky, who had them at the Main Show, and about 20 flats went to Doug Wallace, who had them in the InnSuites ballroom. Doug's flats included a boulder-size matrix thickly littered with wulfenite crystals, as well as some smaller matrix pieces nearly as superb as Rob's.

The other Ojuela item new at the show was far less abundant, and unlike the wulfenite it got no on-scene buzz: only *Peter Megaw Minerals* (pmegaw@imdex.com) had the **cerussite** specimens in question. A small handful of thumbnails of the material appeared fleetingly in Peter's room at the InnSuites several days into the "hotel" show, and that was it—but after the whole foofaraw had ended I visited Peter, learning that the cerussite pocket had been discovered around the turn of 2007–2008 in the Campanas *lugar* of the Ojuela mine. The pocket gave up about 50 thumbnails and miniatures, including ten "top" pieces, representing what's easily the best of the species ever found in the mine. The transparent, colorless crystals reach 2.5 cm and are very lustrous and sharp; they are mostly short-prismatic, untwinned singles (two or three sixling twins also were found) which grew on the walls of a vug in altered galena. Matrix specimens show a crumbly mixture of galena,

granular anglesite and "limonite," and in some cases these substances form inclusions in the cerussite crystals, making them look darker than they should. However, inclusion-free crystals are wonderfully glassy and gemmy, reminiscent of a good day at Tsumeb.

The other, *new* Mexican locality of prominent note is the Milpillas copper mine, Cananea mining district, Sonora: a roaring underground operation in a huge copper porphyry deposit with significant blankets of supergene (chiefly chalcocite) ore, where mining began in 2005 and is rapidly expanding in scale. I do not want to say more about the locality now, inasmuch as an article on it is in preparation. But of course you've already heard that the mine produces superb **azurite** and **malachite pseudomorphous after azurite** specimens, first seen in Denver last fall (Rob Lavinsky handling the azurites, Evan Jones the malachite pseudomorphs). Since Denver, a good many other dealers have procured supplies of Milpillas specimens: those who had them in Tucson in 2008 included, naturally, Rob and Evan again, but excellent pieces also were to be found at the booth of Gene Schlepp's Western Minerals and with Wayne Thompson (P.O. Box 32704, Phoenix, AZ 85064), while rather more modest selections were with Dennis Beals (dbxtal@aol.com), *Heliodor* (bradv@volny.cz), Peter Megaw, Les Presmyk and—truly—too many others to mention. The prize for sheer numbers is hereby awarded to Evan Jones (evjonesusa@netscape.net), who had about 500 Milpillas specimens at the Main Show, in a wide range of sizes and qualities, including a small handful which show sky-blue sprays of acicular **plancheite** crystals with "velvet" malachite on massive

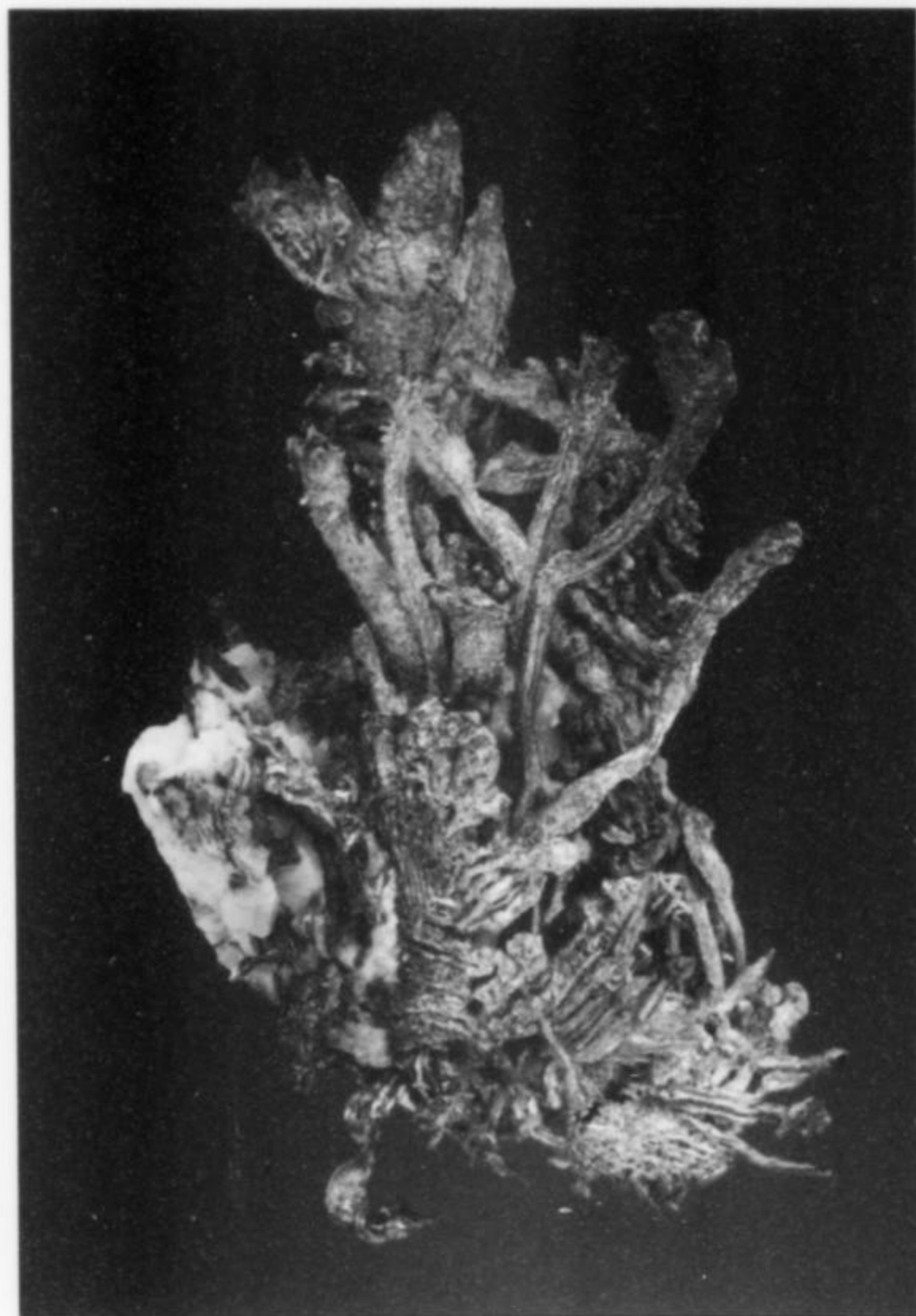


Figure 4. Silver, 8.5 cm, an old specimen from Batopilas, Chihuahua, Mexico. Peter Megaw collection, obtained from the sale of the Philadelphia Academy of Natural Science collection; Jeff Scovil photo.

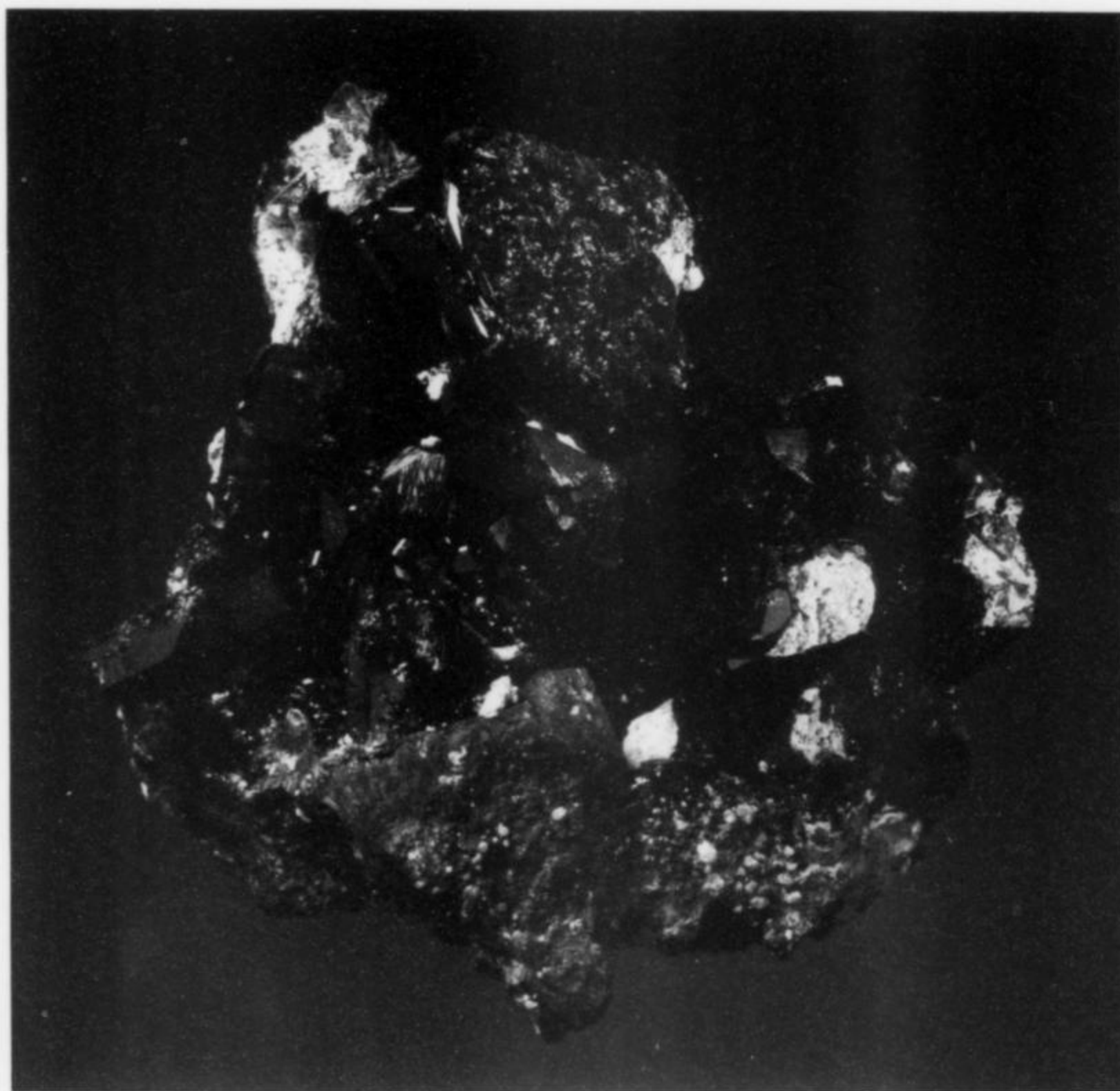


Figure 5. Azurite and malachite, 7 cm, from the Milpillas mine, Cananea district, Sonora, Mexico. Arkenstone specimen; Jeff Scovil photo.

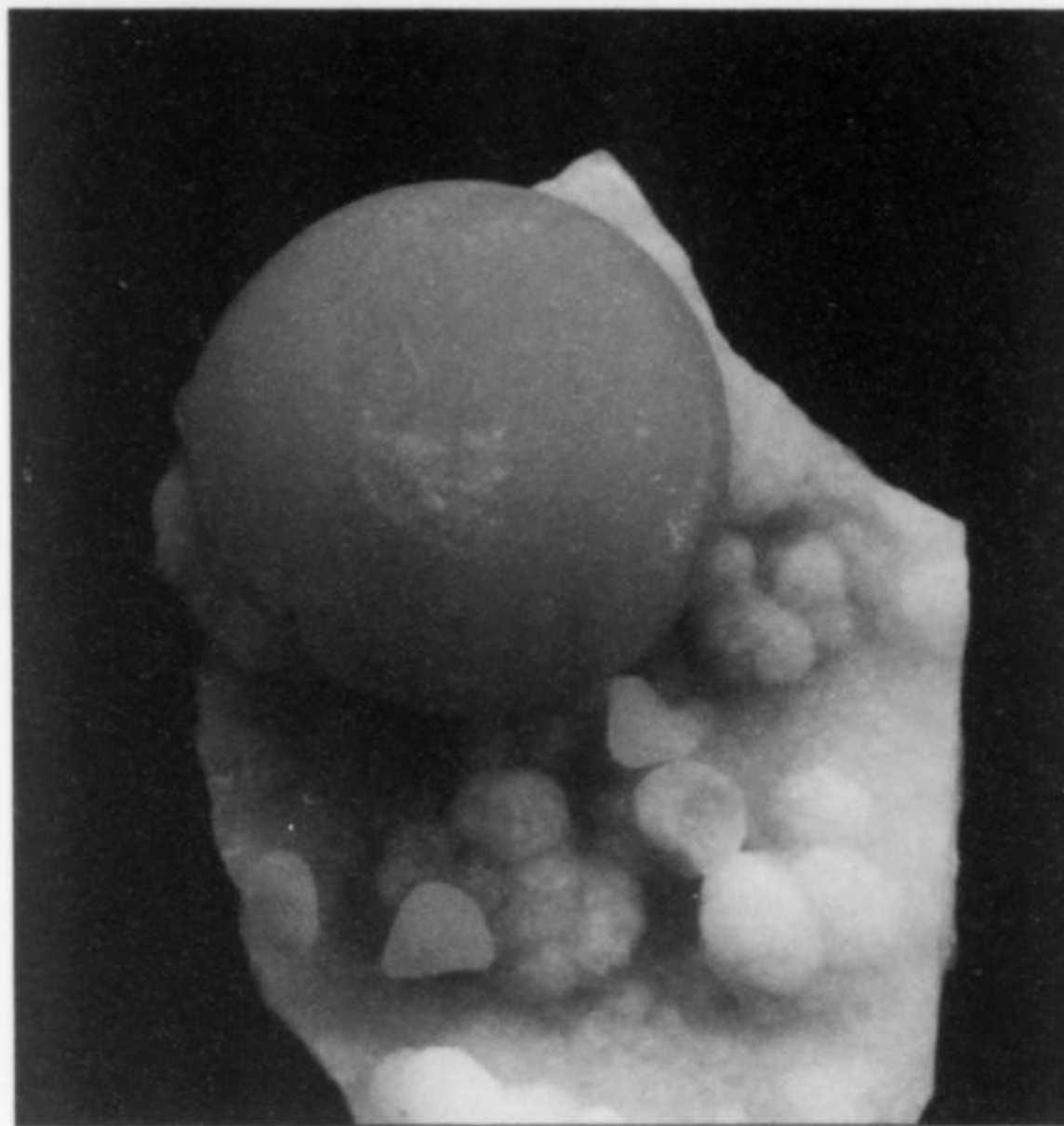
cuprite. The prize for bad luck goes to Gene Schlepp, who had a \$12,000 Milpillas azurite specimen stolen from his booth during the show.

In fact, it was a busy year for thieves. In addition to those who burgled Marcus Origlieri's shop and Gene Schlepp's booth, an organized ring of thieves was caught and arrested at the InnSuites show, and another thief was apprehended after stealing several specimens from Dudley Blauwet's booth at the Main Show. Bravo to the security personnel who made these busts!

A few more descriptive remarks about the Milpillas mine specimens are in order (after all, many people are not yet accustomed to seeing specimens from this great-locality-in-the-making). In general, Milpillas malachite pseudomorphs may preserve the forms either of simple bladed azurite crystals, Bisbee-style, or of more complex crystal aggregates of roughly tabular habit but showing sawtooth edges on both ends, the pseudocrystals of both types reaching 5 cm. Milpillas azurite comes as mirror-faced and highly lustrous, very dark blue, blocky to bladed crystals to 5 cm lining cavities; all of the azurite crystals are actually complete malachite pseudomorphs which have been overgrown by second-generation azurite, but look no less beautifully blue for that. Price structuring for this material is still "fluid" . . . but Evan Jones will sell you an excellent malachite pseudomorph thumbnail or small miniature, one which sports razor-sharp form and luscious velvety green surface color, for between \$50 and \$250, and in Rob Lavinsky's room at the Westward Look one could see a selection of very good azurite thumbnails priced at \$100 each.

Luis Burillo (lmburillo@tiscali.es) had some beautiful **barite** specimens from a new strike at Huarihuayin (often rendered as "Warihuyn"), near Miraflores, Huanuco Department, Peru. Barite from this locality has remained plentiful since it first reached the international market in 2005, and arguably the prettiest specimens

Figure 6. Rhodochrosite sphere on chalcidony, 3.5 cm across, from Conselheiro Lafaite, Minas Gerais, Brazil. Juergen Tron specimen; Jeff Scovil Photo.



are those with very thin, very lustrous, transparent pale blue crystals. But Luis' new pieces feature unusually thick, transparent yellow-brown tabular barite crystals to 5 cm in offset-parallel aggregates, these sticking straight out from their attachments to pale brown sandstone matrix.

The new Peruvian **pearceite** specimens which Luis Burillo, Jaroslav Hyršl, and one or two Peruvian dealers had are quite exciting, being some of the best specimens of the rare silver sulfosalt ever found. The locality is the Uchucchacua mine, Oyon Province, Lima

Department, already famous for its acanthite, silver, proustite and "arsenopolybasite" specimens. I've quoted the last term because—as you can learn from your new 2008 *Fleischer's Glossary*—"arsenopolybasite" has been discredited as a species; examples of "arsenopolybasite" may be either one of two pearceite polytypes, called pearceite-M2a2b2c and pearceite-T2ac. It is the latter polytype of the As-dominant species pearceite which forms a series with the much commoner Sb-dominant polybasite . . . any questions?? Well, when this new pocket was found in the Uchucchacua mine in December 2007, Jaroslav Hyršl had questions, and so he ran analytical tests which verified that the new crystals are pearceite (at least of *some* type), not polybasite or "arsenopolybasite," as a few other dealers around the show were calling them. The specimens, anyway, are beautiful: brilliant metallic black, platy crystals, to 1 cm, piled up in stacks or forming rosette-shaped aggregates, in some cases accompanied by dull red, slightly rough-surfaced proustite crystals to 3 cm. In there as well may be tiny white calcite crystals, microcrystals of chalcopyrite, and microcrystals of several rare species including xanthoconite. In the InnSuites, Luis Burillo had some fine thumbnails (though his labels said "arsenopolybasite"), and Jaroslav Hyršl (hyrsl@kuryr.cz) had about a dozen superb small miniatures. Oh yes, Jaroslav also offered thumbnails showing blocky, bright red **realgar** crystals to 1.5 cm, as well as thumbnails showing sharp cuboctahedral **galena** crystals to 1.5 cm speckled with microcrystals of seligmannite, both of these from the Palomo mine, Huachocolpa district, Huancavelica Department, Peru: the subject of Jaroslav's article in the March–April 2008 issue.

In their room at the Westward Look show, Brian and Brett Kosnar of *Mineral Classics* (www.minclassics.com) showed a couple of recent revisitations of famous Bolivian mineral finds. First came three stunning new **bournonite** miniatures found in September 2007 at the renowned locality called Machacamarcá: clean, lustrous, satiny gray "cogwheels," each about 5 cm across, are attached at high angles to form clusters devoid of matrix or associated species. Then came the Kosnars' new **vauxite** specimens, about 15 fine thumbnails and miniatures found in October 2007 in the Siglo XX mine, Llallagua, Bolivia. Medium-lustrous blue microcrystals of vauxite form drusy crusts and arcing, hemispherical crests on fragile matrix composed of thin white casts after vanished spheres of—probably—wavellite; in another specimen style from the same find, vibrantly bright blue vauxite druses cover clayey matrix pieces made mostly of allophane. A top-of-the-line vauxite thumbnail could be had here for around \$200.

Brazil was atypically quiet this year—given that it is in general such a treasure-choked country. In the InnSuites room of *Fabre Minerals* (mineral@fabreminerals.com), Jordi Fabre had 15 intriguing **olivenite** specimens which were found in 2006 at the Núbia mine, Ibitiara, Bahia, and are now being marketed for the first time. Acicular crystals of olivenite to 7 mm are strewn all over spongy dark brown "limonite" matrix pieces to 12 cm across. The crystals are laid out delicately, individually, on the matrix, and in most cases their true olive-green color is camouflaged by pale green coatings of malachite.

Luis Menezes (lmenezesminerals@uol.com.br) had a 40-cm-wide feldspar matrix plate from the Sapo mine on which rest many huge (to 8 cm across), lustrous, hexagonal prismatic-tabular crystals of bottle-green to dark green **fluorapatite**—now to be called **apatite-(CaF)**—and *Collector's Edge* had a similarly enormous matrix piece whereon the piled-up apatite-(CaF) crystals form a great curving stalk about 10 cm tall. Additional examples of the curved stalks of piled-up crystals were on exhibit at the Main Show, in a case devoted to the Sapo mine. How the stalks formed is something of a mystery: some appear to have a hollow core running their whole



Figure 7. Apatite-(CaF) crystals to about 2 cm in peculiar stacked columns on albite, from the Sapo mine, Minas Gerais, Brazil. Collector's Edge Minerals specimen; Jeff Scovil photo.

length, as if the apatite-(CaF) had grown around a long thin crystal of something which later dissolved away.

At the Westward Look show Rob Lavinsky concluded a deal to acquire Eduardo Jawerbaum's flat of loose, pretty crystals of **aquamarine beryl**, gathered during the last year or two at the La Esperanza quarry, Los Gigantes area, Córdoba, Argentina. The pale greenish blue, gemmy crystals range between 1 and 12 cm long; they are slightly etched, with irregularly scalloped faces, and tend to bulge in their middles, and some come almost to points. Of course they do not compete with aquamarines from Pakistan or Brazil, but gem-quality beryl from a pegmatite in Argentina is surely of interest. Besides, Eduardo told me that this is an actively working quarry, with crystals still being found.

For one of the only two what's-new items from Europe this time, we return to Jordi Fabre, who is quite pleased with his new specimens of **celestine** from an outcrop of Oligocene-age limestone near the town of Torá, Lleida Province, Catalonia, Spain, about 80 km from Barcelona. Discovered 10 years ago, the occurrence offers specimens showing cavities to 20 cm across in the buff-colored limestone; the cavities are crisscrossed by pale blue, transparent, thin-prismatic celestine crystals to 4 cm long, with sharp wedge-shaped terminations. A year ago Joan Vinyoles and Josep Carreras took out about 150 nice cabinet-size pieces, and about ten of the best were on hand with Jordi.

The other European occurrence is a venerable classic now fleetingly come to life again. Who has not admired the majestic,

sometimes enormous, clusters of shining black **manganite** crystals from the old mines near Ilfeld in the Harz Mountains of central Germany? In Marty Zinn's new venue at the Quality Inn (on Benson Highway, about 4 miles south of the InnSuites), German "species" dealer Gunnar Färber (mineralien@online.de) had about 30 matrix pieces, from 4 to 10 cm across, with open seams lined by lustrous black, inward-pointing manganite crystals which individually reach 5 cm long, though most are around 1 cm. The matrix is massive black manganite with subhedral white barite crystals. Also, according to Gunnar, free-standing, 2-cm black crystals of the rare species **groutite** have been spotted on a few specimens from the find. These pieces emerged from some barely accessible underground mine workings. After a storm in January 2006 had blown down most of the evergreen trees which had covered the site, the cleanup crew discovered the old mine entrances. Although not equaling the great oldtime Ilfeld manganites, these new specimens are very bright, and in their way are distinguished-looking. Gunnar says that about 300 in all were recovered, and no more are likely to be, as further collecting at the place has already, with a certain firmness, been ruled *ganz verboten*.

Chris Wright of *Wright's Rock Shop* (wrightsr@ipa.net) offered about 15 nice new miniature to cabinet-size **barite** specimens in his InnSuites room; they hail from the Mefis orefield near Taouz, Tafilalt district, Erfoud, Morocco. Argentiferous galena has been mined from near-surface vein exposures in the Tafilalt district for centuries, but now the emphasis is on specimens, and these typically hefty barite crystal groups are being taken out by a local specimen-mining cooperative. The fat orthorhombic prisms with wedge-shaped terminations on both ends are colorless, transparent, and reach 9 cm; they rest on matrix of massive barite and mixed sulfides.

The Kosnars of *Mineral Classics* had about 15 specimens of seriously flashy **diopside** from a find made early last December in the Kimbedi mine, Republic of the Congo (ROC)—also called Congo-Brazzaville. The ROC is a former French colony situated just northwest of the Democratic Republic of the Congo (DRC), which was once known as the Belgian Congo, then later as Zaire. The diopside crystal clusters, with sharp individual crystals to 3 cm, reach 12 cm across, and there are also winning specimens showing isolated diopside crystals resting on a matrix of brown silicified iron oxides. From the DRC, Brice and Christophe Gobin of *Gobin Mineraux* (gobin@club-internet.fr) brought some gorgeous, large plates of **malachite** to 30 cm across, each piece a mass of intergrown fans of varying sizes and of the richest chatoyant green. The locality is the Kasompi mine, Katanga Province. And the Gobins' countryman, François Lietard (François.Lietard@wanadoo.fr), had about 50 glittering, very bright purplish pink thumbnails and miniatures showing druses of **cobalt-rich dolomite** crystals in seams in massive white dolomite, collected last autumn in the Kakanda mine, Katanga.

Of the brand-new mineral finds which reached collectors' awareness at Tucson this year, the one with perhaps the most charismatic specimens is the three-month-old **spessartine** digging at Loliondo, about 500 km from Arusha in northeastern Tanzania. Loliondo is close to Serengeti National Park and 7 km from the Kenyan border, west-northwest of the north end of Lake Natron. I got the story of the occurrence from Dylan and Nick Stolowitz of *Green Mountain Minerals* (greenmtngems@yahoo.com), who have been in Tanzania monitoring the situation. According to Dylan and Nick the spessartine crystals are found as floaters in loose soil to a depth of 2 or 3 meters. They have weathered out of a contorted contact zone between a quartz vein, a hematite vein, and country-rock schist, so that at least 95% of the crystals which have emerged are floater singles, the other 5% of the specimens showing the garnets resting



Figure 8. Spessartine crystal, 3.6 cm, from Loliondo, Mpwapwa district, Dodoma region, Tanzania. Seibel/Rosenthal specimen; Jeff Scovil photo.

on pale gray schist matrix. Specimens came onto the gem market through Maasai tribesmen who started bringing them into Nairobi, which attracted attention from the gem rough buyers. Most of the crystals are smashed for gem stock on the spot. Well of course they are: all of the crystals are gemmy all the way through (though most are spotted by dark inclusions of hematite and muscovite), and all are a bright, striking tangerine-orange. Crystal diameters range between about 1.5 cm and an impressive 5 cm, and these are textbook-perfect, undistorted trapezohedral forms we're talking about (a few showing tiny dodecahedral faces). Even though the faces are striated rather than mirror-smooth the crystals do make a stunning impression by virtue of their excellent form, gemminess and (most of all) gorgeous orange color. Dylan and Nick say that there is a fairly high probability that this find will turn out to be short-lived, as the topsoil layer in which the gem spessartine crystals float is limited in its extent. According to gem dealer John Saul, the Maasai still have most of the material and old stashes from December and January finds are trickling out through them; apparently not much new of quality is being found. Meanwhile there were just two dealers offering the material in Tucson: *Green Mountain Minerals* and Rob Lavinsky's *Arkenstone* (www.irocks.com). Rob, especially, is very well stocked, and although his Tanzanian spessartine crystals are forthrightly pricey (a typical 2.5-cm crystal runs into the low four figures), he kept busy, both at Westward Look and the Main Show, replacing crystals sold out of the neat rows in his showcases with new examples from his reserves. In short, these gem garnets from Tanzania are sensational, and they made for one of the biggest what's-new hits of this show.

And now for a quick survey of sundry observations from southern Africa. In the historical department, Rob Sielecki of *Ausrox* (Rob@crystaluniverse.com.au) devoted the better part of a big showcase at Westward Look to six great clusters of **azurite** crystals, collected underground at Tsumeb, Namibia in 1929 by none other than Samuel Gordon of Philadelphia (for the full story see our *Tsumeb!* special issue of May–June 1977). These "museum"-type specimens feature lustrous, deep blue, blocky azurite crystals to 15 cm, some with

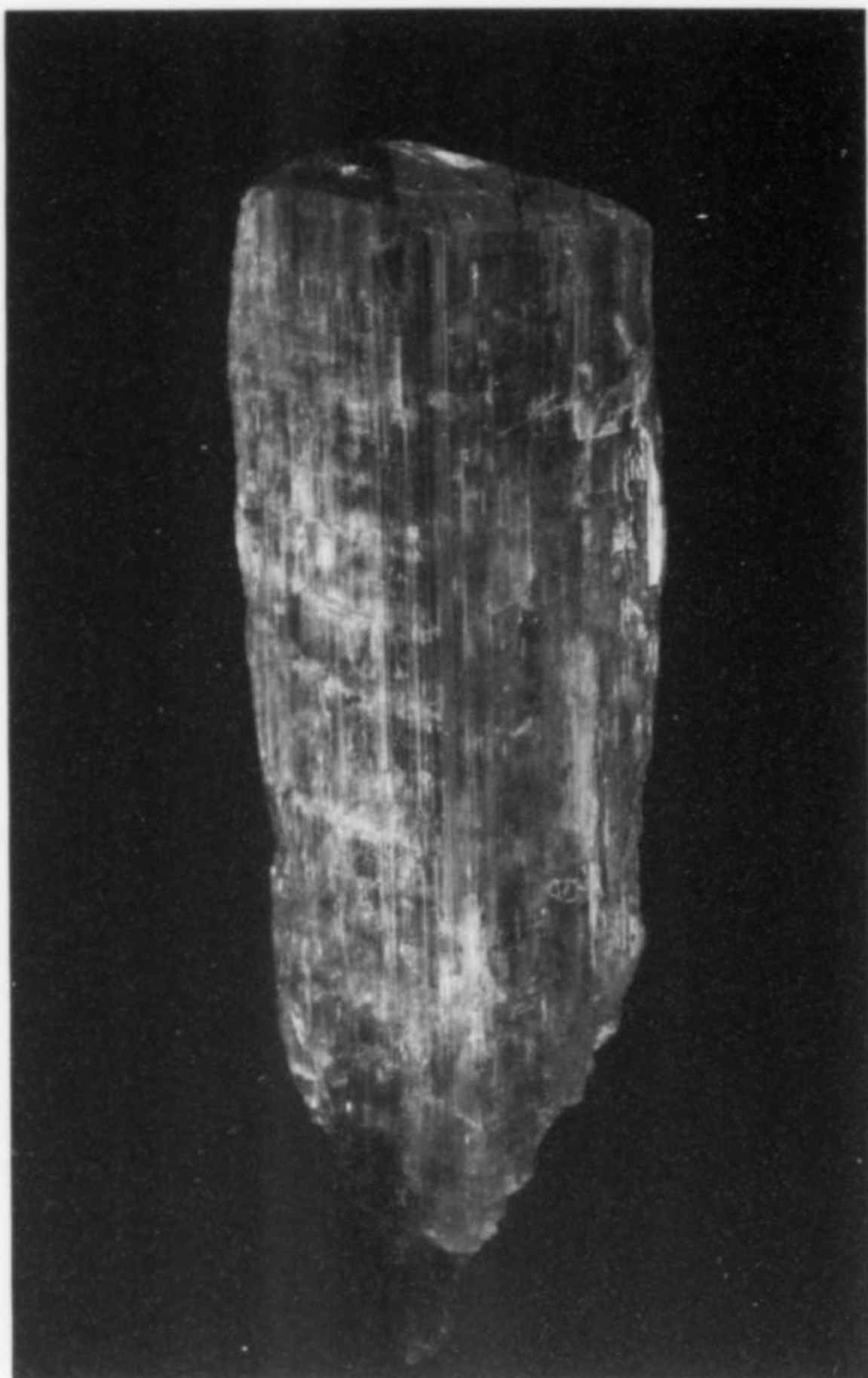


Figure 9. Cr-rich tremolite crystal, 7.1 cm, from the Merelani Hills, Tanzania. Green Mountain Minerals specimen.

understated malachite staining. Next, from the famous Goboboseb Mountains occurrence (more familiarly if less accurately known as "Brandberg"), Namibia, hundreds of beautiful specimens of **sceptered amethyst**, late of the Charles Key collection, were being offered at the InnSuites by Rusty James and Nicole Bassett of *Throwin' Stones* (omrhythm@hotmail.com).

Also at the InnSuites, Don and Gloria Olson (donaldkolson@netscape.net) had about a dozen new specimens of the newly described species **skorpionite**, from the Skorpion mine, Lüderitz district, Namibia. The matrix pieces, from 5 to 18 cm across, show open cavities lined by crude pale green crystals of tarbuttite covered by carpets of white, acicular, glistening microcrystals of skorpionite, with white crusty areas of hydrozincite and sparse microcrystals of scholzite. I mentioned having seen a few specimens of this material in Munich last fall. Perhaps there will be more specimens showing good, transparent pale green crystal sheaves of tarbuttite, as pictured on p. 789 of the magisterial new book *Namibia: Minerals and Localities*, edited by Ludi von Bezing *et al.*

The Orapa diamond mine in Botswana has recently yielded a remarkable specimen best described as an apparent hopped tetrahedron of yellow **diamond**. This lustrous (although not entirely gemmy) crystal, measuring 1.25 cm and weighing 11.65 carats, was brought to the InnSuites by Ross Lillie of *North Star Minerals*. Other such hopped yellow diamonds have been found

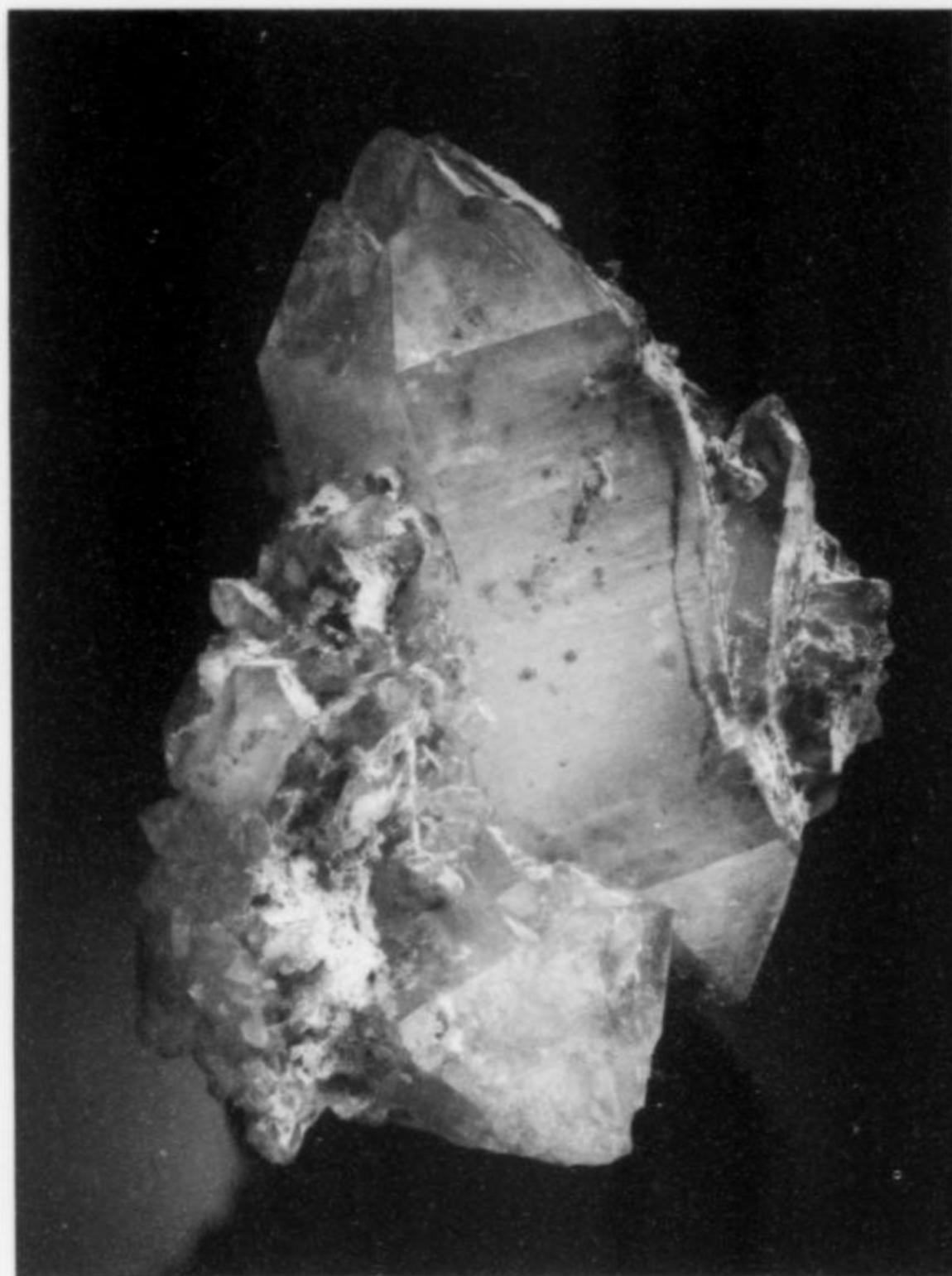


Figure 10. Ajoite in quartz crystals to 6 cm, from the Messina mine, Northern Cape Province, South Africa. Jeremy Smith collection; Jeff Scovil photo.

at the Orapa mine at least since the early 1970s, but this is by far the largest example we have seen.

Summer 2007 saw the discovery of some very nice pale blue, pale green and colorless, part-gemmy **topaz** crystals at the Naipa mine, Alto Ligonha, Mozambique, and about 15 of these were on view in the InnSuites room of the Portuguese dealership *Geofil* (geofil@geofil.com). The topaz crystals reach 10 × 10 × 15 cm and recall in form the old classics from Murzinka, Russia, although not as lustrous as the best of these; some of the Alto Ligonha crystals have pale purple, subhedral hydroxyl-herderite crystals clinging to their sides.

And then there was the very pleasant surprise of seeing large, beautiful, newly collected quartz crystal clusters containing baby-blue clouds and puffballs of **ajosite** under the terminal rhombohedron faces, these having been found 3 meters or so below the surface in one of the mines of the famous Messina district, Limpopo (formerly Transvaal), South Africa. Individual quartz crystals reach 30 cm long, and the ajoite inclusions are quite generous. This is, of course, a revival: major lots of ajoite and papagoite-included quartz specimens from Messina appeared in 1985 and 1991, but no further strikes occurred until this one, in August 2007. Scattered specimens were seen at several dealerships around the Tucson Show, but the main hoards were in the InnSuites rooms of *Throwin' Stones* and Brad and Star Van Scriver's *Heliodor*.

Laurent Thomas (polychromfrance@aol.com) of *Polychrom Minerals* has been keeping up his good work in Madagascar. Around the turn of the year, in a prospect he calls the Ankadilava mine, in the Sahatany Valley, he took from a pocket about 50 first-rate crystals of **liddicoatite** which measure between 2 and 10 cm long.

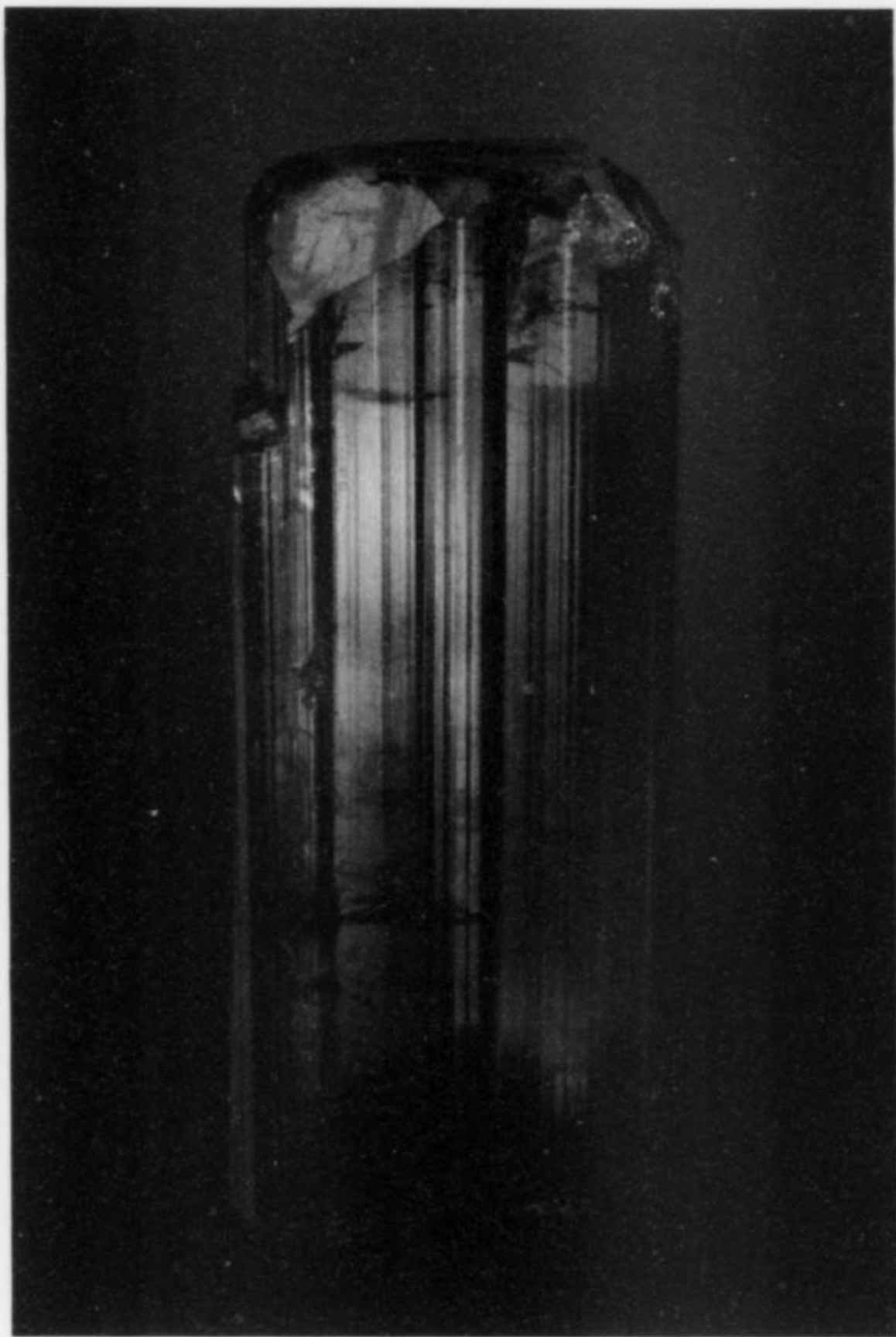


Figure 11. Liddicoatite crystal, 4.2 cm, from Ankadilava, Sahatany Valley, Madagascar. Polychrome Minerals specimen; Jeff Scovil photo.

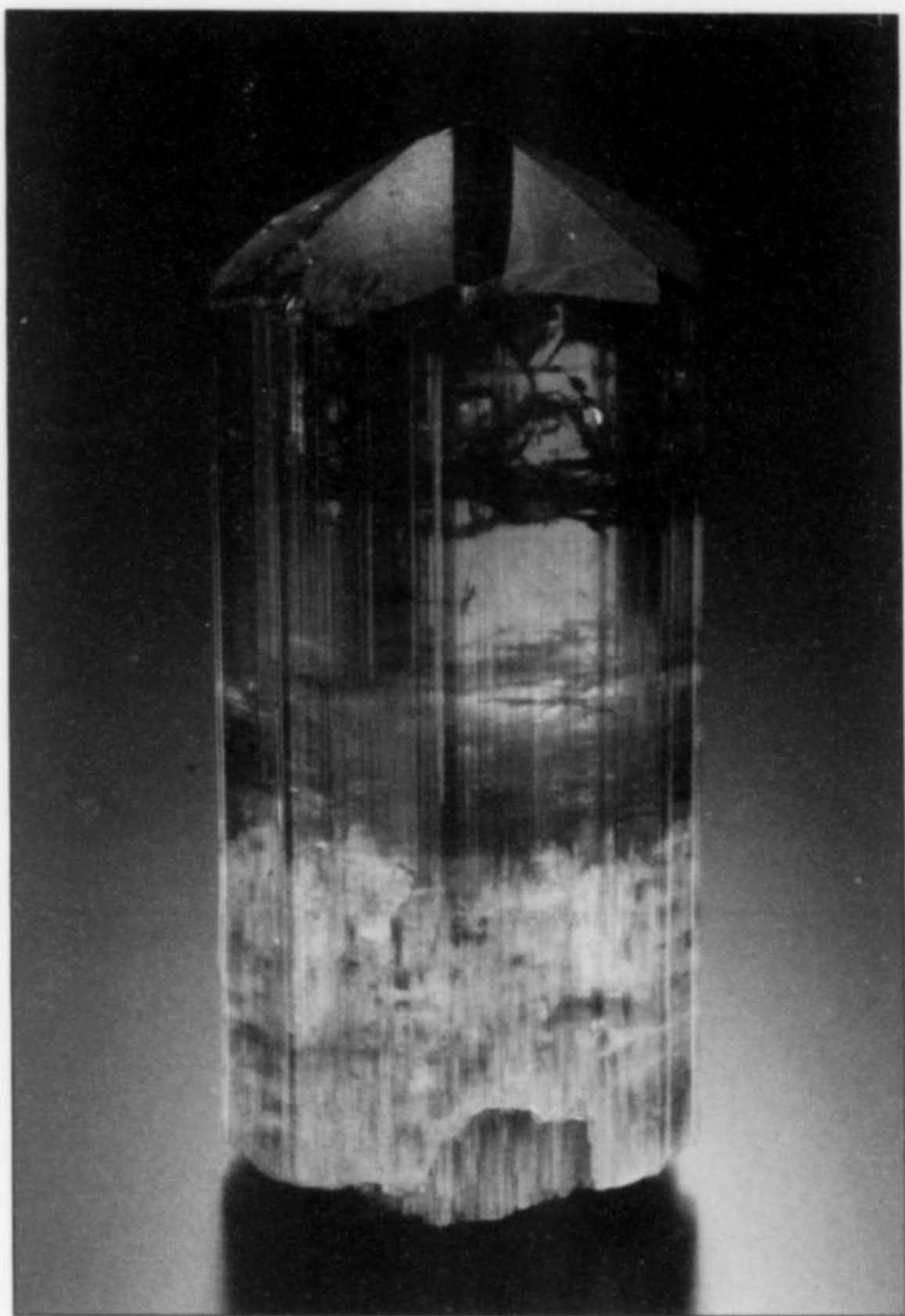


Figure 12. Liddicoatite crystal, 6.2 cm, from Bevaondrano, Ikalamavony, Fianarantsoa province, Madagascar. Polychrome Minerals specimen; photo by Jeff Scovil.

The crystals are lustrous, gemmy, and sharply terminated, and have an unusual and delicious-looking purplish red color, with green zones and phantoms. Yet even these crystals were upstaged by something more surprising from Madagascar in Laurent's room in the InnSuites. Last December an Alpine-type cleft occurrence at Ikalamavony, Fianarantsoa Province, gave up about 10 floater crystals of **brookite** from 2 to 4.5 cm long. Typically for the species, the crystals are very thin, with outlines ranging from diamond-shaped to nearly rectangular, and they are translucent and rootbeer-brown with small areas of reddish brown transparency (no "hourglass" inclusion patterns, though, as commonly seen in brookites from Switzerland and Pakistan). Probably the brookite crystals were lightly attached to mica, hence they look like floaters, and Laurent says that a few black, bipyramidal, 8-mm crystals of anatase, likewise apparently floaters, came from the cleft as well. Anyway, the brookite thumbnails and "toenails" that Laurent brought to Tucson are excellent specimens, and given his industriousness they may prove to be just a first wave.

Two significant what's-news from Kazakhstan were to be seen in Tucson. Konstantin Buslovich (phantom1405@yahoo.com) had in his InnSuites room a single flat of small but thoroughly snazzy **hematite** specimens from a find made last summer at a remote place which I noted once before for its quartz specimens (see the Denver 2006 report in November–December 2006): it's an unnamed outcrop about 12 km from the abandoned Aktas quartz mine, near the great copper mines of Dzhezkazgan. The hematite crystals and

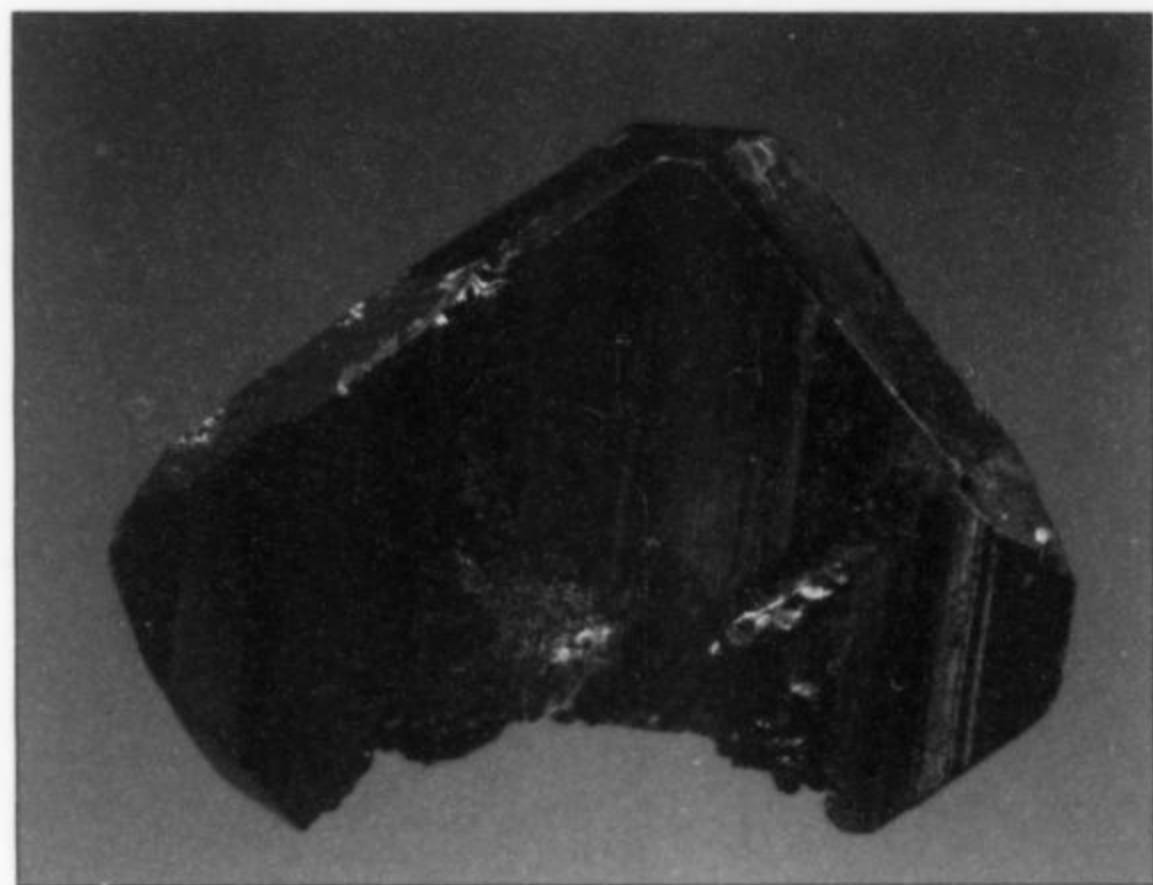


Figure 13. Brookite crystal, 2.7 cm, from Ikalamavony, Fianarantsoa province, Madagascar. Polychrome Minerals specimen; Jeff Scovil photo.

crystal groups were found loose in a clay seam and are complete all around, mirror-faced, jet-black, and possessed of a brilliant metallic luster. Some specimens are blocky single crystals to 5 cm; others are thumbnails and small miniatures with thick, gleaming hematite

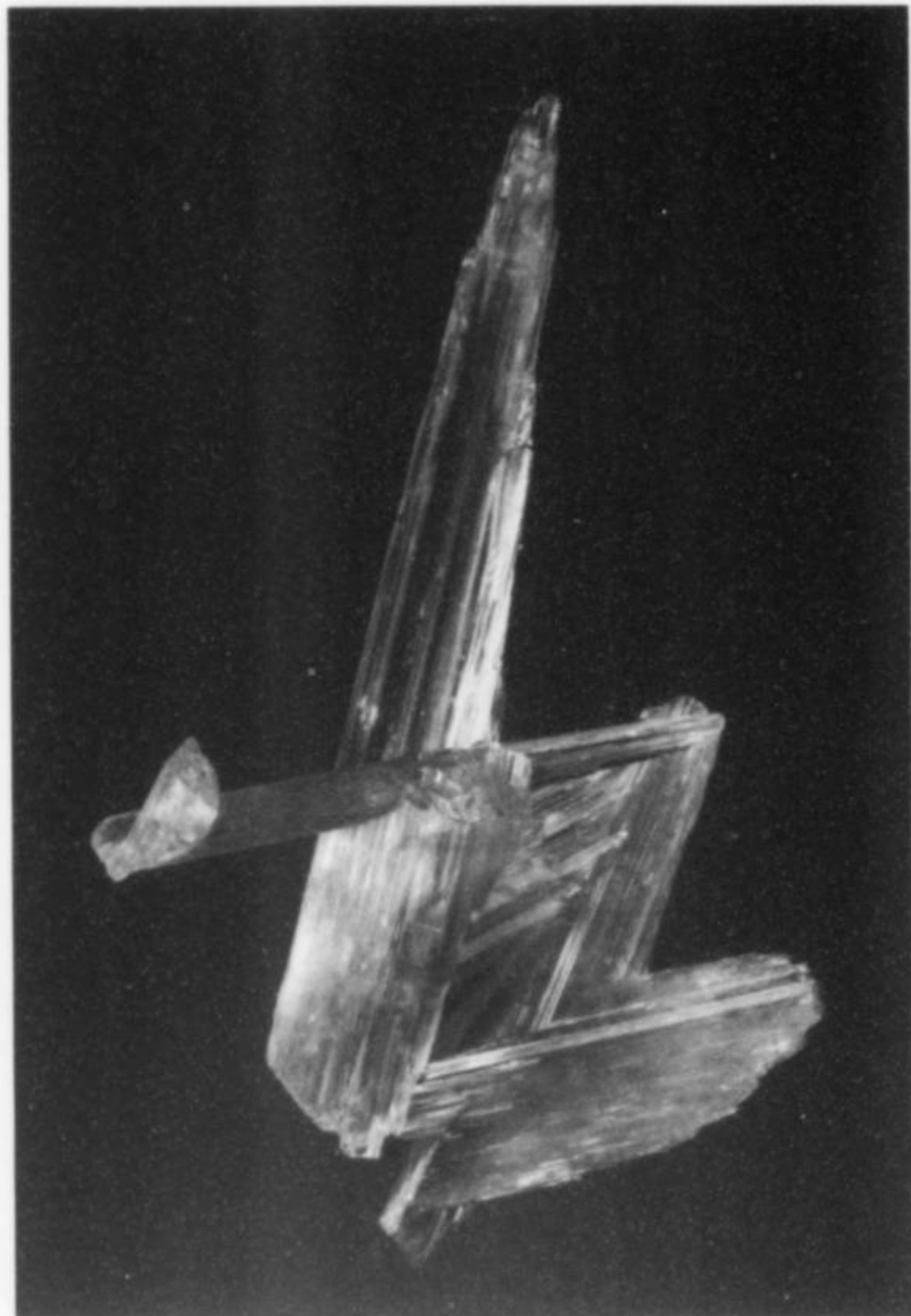


Figure 14. Diaspore crystals, 9 cm, from the Amatolia Mountains, Mugla province, Turkey. Leonard Himes specimen; Jeff Scovil photo.

plates lying against each other in parallel. In his showcase Konstantin also had two cabinet specimens showing hematite clusters to 8 cm partly embedded in smoky quartz crystals. A superb large thumbnail of this material ran you about \$75.

Then, at the Westward Look show, there was Mike Bergmann (mike@mikebergmannminerals.com), who has been known in the past to offer superb native copper specimens from the Itauz mine at Dzhezkazgan. This time he had about 60 pieces from a single pocket in that mine which, late in 2007, produced **copper pseudomorphs after cuprite**, with sharp octahedral pseudocrystals to almost 3 cm, joined in clusters of thumbnail to medium-miniature size. The octahedrons have slightly rough surfaces and spotty malachite staining, but in the best of the specimens the pseudocrystals stand up smartly and look very pert.

Mother Russia herself seemed to have little new to offer this year, but the former Soviet Republic now called Tajikistan has lately come up with attractive specimens showing gemmy, lustrous, purplish pink **spinel** crystals, both simple octahedrons and spinel-law twins to 1 cm, half-embedded in pieces of lustrous, bronze-colored pyrrhotite. A few of these specimens, from the Kukhi-Lal deposit near Khorog, Pyandzheh River Valley, western Pamir Mountains, Tajikistan, were in Rob Lavinsky's "back room" at the Westward Look.

Afghanistan has come through again with an interesting mineral miscellany, the items mentioned below hailing from unnamed digging sites penetrating the white marble of the Kokcha Valley, Badakhshan (yes, the lazurite place). At his sprawling stand at the Main Show, Dudley Blauwet of *Mountain Minerals International*

(mtnmin@attglobal.net) showed off some discoveries made in the Kokcha Valley during the three months preceding "Tucson." These include matrix specimens up to cabinet size showing partially embedded, deep blue, slightly flattened, partially gemmy **corundum** crystals to 6 cm long. He also had loose, compound, trigonally terminated crystals of translucent to gemmy **elbaite**, zoned in pink and green, and reaching 17 cm long. Specimens showing sharp, opaque, pale lilac **spinel** octahedrons to 2 cm are accompanied by massive powder-blue sodalite. Brilliant, well-terminated, totally gemmy, pale orange **danburite** prisms to 2.5 cm were an unexpected find. And Dudley had **lazurite** pseudomorphs after odd things, such as a sharp, bright blue, 2-cm book-shaped pseudocrystal of lazurite replacing a mica species, embedded in white marble matrix.

Meanwhile, in his *Mineral Zone* warehouse on North Main Street (mentioned earlier), Marcus Origlieri offered about 20 loose, fat, medium-purple, partially gemmy crystals of **meionite** (the most common of the three members of the scapolite group), from Badakhshan. These nearly complete floater crystals, 2 to 4 cm across, are excellent examples of their species, and were priced in the mid to high three figures.

At both the InnSuites and the Main Show, François Lietard had a handful of very nice thumbnail-size **hambergite** specimens, found just this past January somewhere near Shengus, Skardu district, Northern Areas, Pakistan. The bladed, milky white to colorless hambergite crystals are sharp, doubly terminated in most cases, and reach 2 cm; in François' specimens they form flattish clusters on little bits of pegmatite matrix (average price: around \$300). More pretty new pieces from Pakistan were to be seen in the Westward Look room where Alain Martaud (alain.martaud@wanadoo.fr) had a few examples of a brand-new gemmy **orthoclase** found at (or near) the hamlet of Apo Ali Gun on the Braldu River, Skardu district. The blocky orthoclase crystals are 5 to 10 cm across, with surfaces that are lightly etched and not very lustrous but with interiors that are satisfyingly transparent, in pale yellow-orange. Some of Alain's specimens are loose singles, while in others the orthoclase crystals rest on, or have grown out of, matrix lumps of pegmatite.

Barite from the basalts of India is not something you see every day. But summer of 2007 saw a discovery in a quarry near the town of Jalna (southeast of Jalgaon) which produced flat matrix plates 4 to 15 cm across with very thin, colorless, transparent, tabular crystals of barite, uniformly around 1.5 cm, rising at varying angles from drusy colorless apophyllite: Dr. Hemant Merchant of *Mineral Décor* (mindec10@hotmail.com) had a shelf-full of these specimens at the InnSuites. Dr. Merchant was also one of two major Indian dealers with new specimens of **mesolite on fluorapophyllite**—excuse me; **apophyllite-(KF)**—from the Lonavala quarry near Pune (Poona), where the huge pocket in question was cleaned out in November–December 2007. Of course the specimen style is familiar: colorless, glistening, mesolite "needle" crystals in hemispherical sprays which seem to explode from layers of stilbite and green apophyllite-(KF) crystals. But these new pieces are more than usually beautiful, partly because of their excellent condition: they are reproachlessly clean and bright, and I saw very very few stumps of broken-off crystals. Dr. Merchant's 20 or so mesolite/apophyllite-(KF) specimens are mostly of miniature and small-cabinet size, but in the larger stash which K. C. Pandey of *Superb Minerals* had on hand in another room at the InnSuites, the average radius of the mesolite sprays is 10 cm, and the biggest specimen shows eight such sprays on a bed of creamy white stilbite and pale green apophyllite-(KF) crystals on a matrix plate of basalt measuring 40 cm across. K. C. Pandey told me that the November–December find had yielded nine "world-class" mesolite specimens, two of which are now on display in his Gargoti Museum in Nasik. K.C.'s brother had been first on

the scene to see the nine major pieces, and just as fast as he could he traded his car for them, even though that meant that he had to call K.C. for a ride home.

Yet even these great mesolite specimens are exceeded in size by several of the 100 **scolecite** specimens taken in January 2008 from a quarry near Junnar village. Bursts of bladed, compound, milky white scolecite crystals form interconnected groups to 50 cm across, with individual scolecite blades to 12 cm; some of the groups of sprays are without matrix but in most cases there is a substrate of pale orange stilbite crystals. M. F. Makki of *Matrix India* (matrix-indiaminerals@yahoo.com) brought about a dozen of the monster scolecites to the Granada Avenue Show—a block-long expanse of tables under a canvas-and-glass enclosure, adjacent to the InnSuites and to Daniel Trinchillo's house. Just outside the enclosure there rested a big wooden crate which one of Mr. Makki's sons pried open to reveal the single specimen therein, which measures exactly $54 \times 60 \times 75$ cm. The specimen shows many scolecite sprays, average radius perhaps 20 cm, on a mass of pink stilbite crystals on basalt. Although it "presents" only in a muted, milky white, this specimen nevertheless is breathtaking.

The only new thing from Myanmar (Burma) is the very rare Ca-Al borate **johachidolite**, recently found in some quantity in the Mogok gem district, its second worldwide occurrence (the type locality is in North Korea). Johachidolite occurs with pink sodalite in a nepheline-rich rock; it is lustrous and has a pretty orange color and in rare cases is gemmy, though euhedral crystals of any size have so far not appeared. Marcus Origlieri had about 100 small pieces of johachidolite in his *Mineral Zone* building, and François Lietard had one or two more in the InnSuites.

Coming at last to China, we begin with **calcite** mysteries. While all of the new kinds of Chinese calcite which appeared in Tucson are very pretty, and were seen fairly widely around the show, the hard fact is that we cannot be certain as yet where the specimens come from—not an unheard-of state of affairs for new Chinese mineral occurrences. From one of the new finds, calcite comes as pristinely colorless and transparent, lustrous, lightly striated crystals to about 3 cm, either simple hexagonal prisms with flat-topped terminations or sharp V-twins with shallow re-entrant angles (the latter typically costing twice as much as the former). Thumbnails and miniatures of this material could be seen with several Western dealers, but the best and lowest priced selection was found in the Quality Inn room of *China Southern Jewelry & Mineral Shop* (fineminerals@gmail.com), where a nice loose V-twin of thumbnail size could be picked up for \$60. Mr. Hong Zhao of the Chinese dealership said that these calcites come from the Wuzhou mine, Guangxi Zhuang Autonomous Region; some others said that they come from Fujian Province; other sources named still other places.

The second Chinese **calcite** mystery was encountered as gorgeous specimens of cabinet size. The manganese-tinted calcite in these pieces forms highly lustrous, translucent to transparent, very pale pinkish purple, twinned scalenohedrons reaching 25 cm long. One of the best and the brightest is a mostly gemmy loose twin, 15×20 cm, in the keeping of the brothers Gobin (gobin@club-internet.fr), and another stunner was to be seen in the award-winning display case of James and Gail Spann. The Gobin brothers said that their champion specimen came from a big pocket found in November in the Tonglushan mine, Daye district, Hubei Province, whereas the Spann specimen was labeled as coming from the Fengjiashan mine, also in the Daye district.

Other calcites, which may or may not be from the same occurrence, show blocky, translucent, pale lavender calcite crystals of complex form which have satiny-lustered surfaces and are at best translucent but reach 25 cm across. Dr. Guanghua Liu of *AAA Min-*

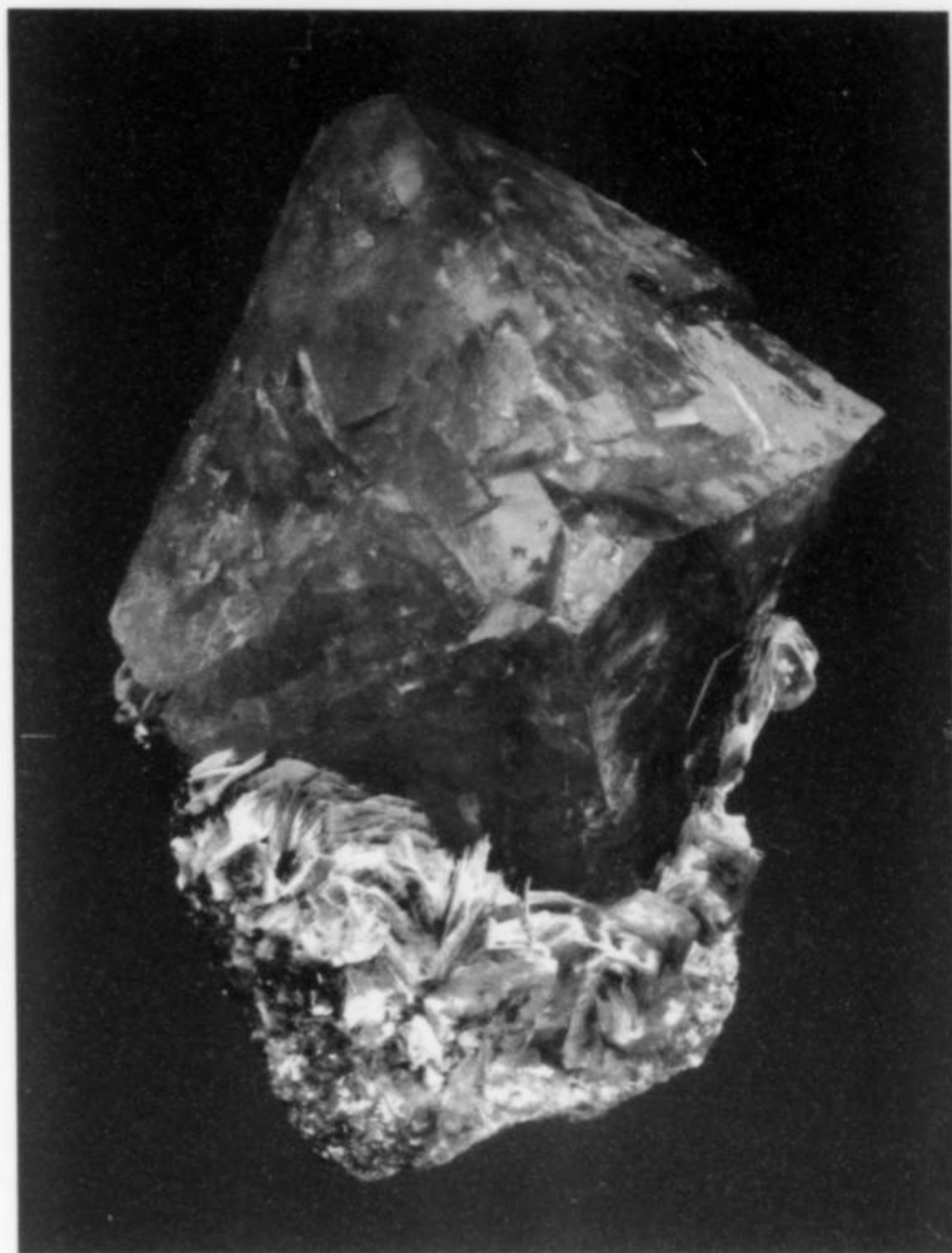


Figure 15. Scheelite crystal, 8 cm, from Mt. Xuebaoding, Pingwu County, Sichuan province, China. Collector's Edge Minerals specimen; Jeff Scovil photo.

erals (ghliu@aaamineral.com) had a few specimens and, according to him, they hail from near the town of He Kou, Yunnan Province; other specimens of closely similar appearance were with *Collector's Edge*, and were labeled as having come from the Fozichong mine, Guangxi Zhuang Autonomous Region. Eventually these various calcite occurrences will be properly sorted out—about their distinctions only time, and somebody's good legwork in China, will tell.

The big, lush *Collector's Edge* booth at the Main Show boasted, besides the lavender calcites, two more new and exceptional Chinese items. We have known for a fairly long time of the sharp, lustrous, gemmy orange pseudo-octahedral crystals of **scheelite** which perch on beds of muscovite crystals, with tabular aquamarine crystals, from Xuebaoding Mountain, Pingwu County, Sichuan Province—see Berthold Ottens' article in January–February 2005—but around the turn of 2007–2008 a small number of new specimens were found which break all previous records. The scheelite crystals are deep orange, brilliantly lustrous, and at least one-third gemmy throughout their volumes. And what volumes!—the crystals reach $12 \times 12 \times 12$ cm. When I checked in with Tom Gressman and Steve Behling on the last day of the Main Show, *Collector's Edge* had already sold all but one or two of these fabulous scheelites. Traffic had been likewise brisk in the new specimens of **amethystine Japan-law twinned quartz** out of the Tonglushan mine, Daye district, Hubei, which *Collector's Edge* had procured. The transparent, medium-lustrous, Japan-law twins reach 12 cm across the wingtips; they are purplish towards their terminations, grading to colorless further down, and they have partial coatings of tiny, spiky, white calcite scalenohedrons. Richly purple, "normal" prismatic crystals of amethyst accompany the Japan-law twins in some of these beautiful cabinet-size pieces.



Figure 16. Searlesite crystal on trona, about 5 cm, from the Westvaco (FMC) mine, Sweetwater County, Wyoming. This specimen, owned by Bill Wray, won the competition for best U.S. specimen in the small cabinet category.

For the very last item on the what's-new tour we stay with *Collector's Edge*. Sometime in the latter half of 2007 the Malbunka copper mine, Northern Territory, Australia yielded a goodly number of specimens showing flattened circular **azurite** discs or "suns" to 15 cm across lying flat on pieces of pale gray kaolinite matrix. Such specimens have been seen since the Munich Show, but *Collector's Edge* picked up about a hundred of them to offer, first at the InnSuites, then at the Main Show in Tucson. Opaque and very bright blue, the azurite "suns" have rough, dull-lustered surfaces composed of ridges of microcrystals. Some pieces consist of large-cabinet-size plates of matrix with several "suns" of varying widths disposed on their surfaces.

As I said at the start, the 44 fabulous "American Mineral Treasures" cases made for a Main Show this year that may have been the best, most exciting, ever. Each case organizer(s) put in many of the very best extant specimens known from a given locality, or in some cases locality group (e.g. "Colorado Barite," "Gem Pegmatites of Southern California") for showgoers to marvel at. Among the many extraordinary individual specimens were the amazing 19.5-cm emerald crystal on matrix with shiny dolomite crystals from Hiddenite, North Carolina, found in 2003; the world's finest Bisbee spangolite specimen, with gleaming 1.5-cm crystals lying along an open seam; the Wisconsin chalcocite shown on the cover of our March–April 1999 issue; the benitoite "wreath" shown on the cover of January–February 2008; the biggest and most richly colored microcline ("amazonite"), with smoky quartz, from the "Tree Root Pocket" of 1997, Pikes Peak; groups of gemmy yellow willemite crystals to 5 cm, from Franklin; a 28-cm epidote crystal plate from Prince of Wales Island; an enormous and mirror-faced Japan-law twin of quartz atop a 26.7 cm-wide cluster of quartz crystals from the Collier Creek mine, Arkansas; the finest known Red Cloud mine wulfenite specimens, collected in 1938 by Ed Over; the most beautiful Elmwood calcites and fluorites, Michigan coppers and coppers-in-calcite, Missouri

galenas, and Butte covellites you can imagine; and more, and more. Some of the specimens shown are great and famous enough to have names of their own. Among these celebs were the "Dragon" gold from the Colorado Quartz mine, California; the "Alma Rose" and "Alma Queen" (aka "Bancroft") rhodochrosites from the Sweet Home mine, Colorado; the "Rabbit Ears" matrix aquamarine from Mount Antero, Colorado; the "Candelabra" specimen of blue-tipped elbaite from the Tourmaline Queen mine (pocket of 1971), California; the "Okey Dokey" diamond from Crater of Diamonds Park, Arkansas; the great "Roebling" purple gem fluorapatite [oops: apatite-(CaF)] from the Pulsifer quarry, Maine; the "Yorktown" rose quartz from Mt. Mica, Maine; and more, and more.

When one could detach one's self from the American Mineral Treasures exhibits there was also the sale, by Dan Weinrich and Dave Bunk, of wonderful things from the former Jim and Dawn Minette collection. This eagerly awaited sale was another source of major excitement this year, and hopeful buyers were lined up at both dealers' booths on opening day. There were also, as usual, plenty of superb displays beyond the ones connected directly with the show's theme. For example, there were Allan Young's case of small but exceptional specimens from Idaho; the Carnegie Museum's case of old Pennsylvania classics taken in recently from the Academy of Natural Sciences, Philadelphia (say, why wasn't Phoenixville, Pennsylvania one of those "Treasure" localities, huh?);



Figure 17. Enargite crystal, about 3.5 cm, from the Leonard mine, Butte, Montana. This specimen, owned by Paula Presmyk, won the competition for best U.S. specimen in the toenail size category.



Figure 18. The showcase of James and Gail Spann, winners of the 2008 Desautels Award.

a lovely historical case on the New Almaden mine, California, by the California State Mining and Mineral Museum; Dennis Beals' fine case of Guanajuato, Mexico minerals; Harold Urish's case of minerals of the American southwest; Jim Robison's rainbow-array of smithsonite specimens from Tsumeb; an impressive donation case by the Mineral Collectors of Utah; the Cincinnati Museum Center's case of Indiana mineral specimens; the London Natural History Museum's case of American classics (including two Ed Over Red Cloud wulfenite crystals acquired in 1938); the Royal Ontario Museum's case of American classics; a case of highly sophisticated thumbnails acquired at the Tucson Show during the past 40 years by Alexander Schauss; and, by the Peter Megaw family in co-operation with *Collector's Edge*, a big historical case showing minerals from the collection of the American Philosophical Society (1780–1860), with a sample of "rock salt" that may have been gathered during the Lewis and Clark Expedition of 1804.

Two gentle valedictory cases honored the memories respectively of Curtis Schuh and Gene Wright. And two mineral artists displayed their works: Susan Robinson, who does terrific acrylic paintings of specimens, and Gamini Ratnavira, a wildlife painter who has found a subvocation in mineral art (no wonder: he lives in Fallbrook, California, with big-league mineral dealers for neighbors). And the reliable MADmen and women of the Mineralogical Association of Dallas put in their usual dramatic case of specimens from the members' collections, and for this "American Mineral Treasure" year they chose "Red, White and Blue" minerals for a theme. I didn't know which to salute most passionately: the cabinet-size, brilliant red proustite cluster from Chile, the giant white Pakistani microcline, or the 10-cm, gemmy blue tanzanite crystal from Tanzania.

Winners of major awards as announced at the Saturday night ceremony were as follows. Jeff ("Stretch") and Lynn Young won both the Master and Master Educational awards; Charles Bales won the Junior award for a case of minerals, and Lauren Megaw, despite her age (13), competed as an adult and won the Advanced award. Recognition for having the best U.S. specimen entered in competition in thumbnail, toenail, miniature, small cabinet and cabinet sizes went respectively to Claudia Watson, Paula Presmyk, Irv Brown, Bill Wray and Sue Liebetrau. The Bideaux award for best Arizona specimen went to Les Presmyk. The Romero award for best Mexican specimen went to Peter, Allison and Lauren Megaw. The Lidstrom award for best single specimen in the show went to Tim Sherburn. The Desautels award for the best case of specimens went to MAD stalwarts Jim and Gail Spann. And finally, the most prestigious prize of all, the Carnegie Award, went to our long-time photographic contributor, master photographer Jeff Scovil who, despite having had something like four hours of sleep in the previous three days and nights, put on a real suit and made a real speech, and a very urbane, gentlemanly and gracious speech it was too.

The theme of next year's TGMS Show at the Convention Center will be "Mineral Oddities": think about *that* for a while. Potentially featurable mineral "oddities" that come to mind would include peculiar growth features or patterns, such as fadens, twins, moveable bubbles, scepters, gwindels, hopper-growth, pseudomorphs, phantoms, epitactic overgrowths, giant crystals, cave formations, reversibly photosensitive crystals, wire growths, dendritic growths, cylindrical growths, etc. Could be interesting—and quirky—and maybe even educational. Now, feeling after writing all this like a bit of a mineral oddity myself, I'll stop effusing and say so long.



www.MineralogicalRecord.com

Buy Back Issues Online



Crystal Clear

The Meiji EM Series of Modular Stereo Microscopes

If you are looking for precision, durability, quality and value in a Stereo Microscope, we invite you to take a closer look at Meiji's EM Series of Stereo Microscopes.

The modular design (A wide variety of bodies, single magnification or zoom - rotatable 360°, auxiliary lenses, eyepieces, stands, holders, etc.) gives you the freedom to create the ideal instrument for your specific need or application, and Meiji stands behind every instrument with its "Limited Lifetime Warranty."

For more information on these economically priced Stereo Microscopes, please call, FAX, write us or log on to our website today.

MEIJI TECHNO AMERICA

3010 Olcott Street, Santa Clara, CA 95054-3207

Tel: 408.970.4799, FAX: 408.970.5054

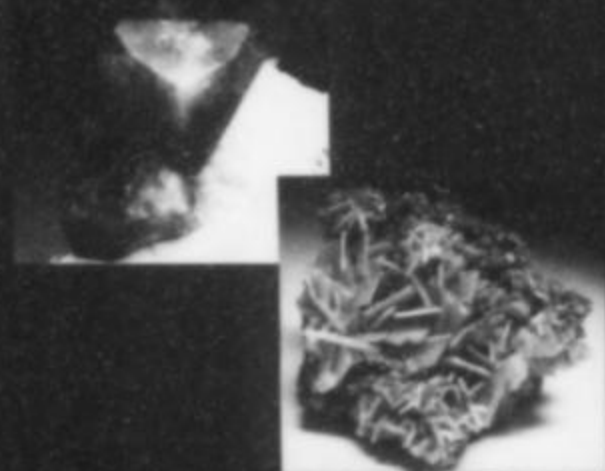
Toll Free Telephone: 800.832.0060 or visit our website at www.meijitechno.com



Trinity Minerals

TRINITYMINERALS.COM

Benitoite - California



Wulfenite - Arizona

Visit these other websites for fine Minerals

TSUMEB.COM

BENITOITE.COM

RARETERRA.COM

MINERALBOOKS.COM

MINERALSHOWS.COM

MINERAL-AUCTIONS.COM

Rare Minerals since 1974!

Old classics, rare species, micro-probed samples, meteorites and thin sections, plus a full line of microscopes, geiger counters, our comprehensive photo CD, UV lamps and old & new books. Request a specific catalog or view our well illustrated website at www.excaliburmineral.com. Analytical services offered.

Excalibur Mineral Corporation

1000 N. Division St. • Peekskill, NY 10566

Tel: (914) 739-1134 • Fax: (914) 739-1257

email: info@excaliburmineral.com

Exceptional Museum Quality
Gem Crystals
Mineral Specimens
Rare Cut Stones

H. OBODDA

Post Office Box 51
Short Hills, NJ 07078-0051

Telephone: 1.973.467.0212

E-mail: minerals@obodda.com

www.obodda.com

Constantly receiving new material





Special exhibit:
AUSTRALIA

MINERALIENTAGE MÜNCHEN 2008

Minerals · Fossils · Gems · Jewelry · Healing Stones · Accessories · Gifts

Top Minerals, Broken Hill
Gold Crystals, Gold Nuggets
Opal, Opal Fossils
Gems, Red Diamonds
Agates, Pearls
„Crocoite Dundee“



MUNICH

Don't miss exhibitor
registration deadline
April 30th, 2008

October 31,
November 1-2

GEOFA Professional Day,
Friday October 31st

Pre-registration requested,
use the visitor registration
form on our website.

Visitor-Service:
info@mineralientage.de

www.mineralientage.com

Douglass Minerals

www.douglassminerals.com

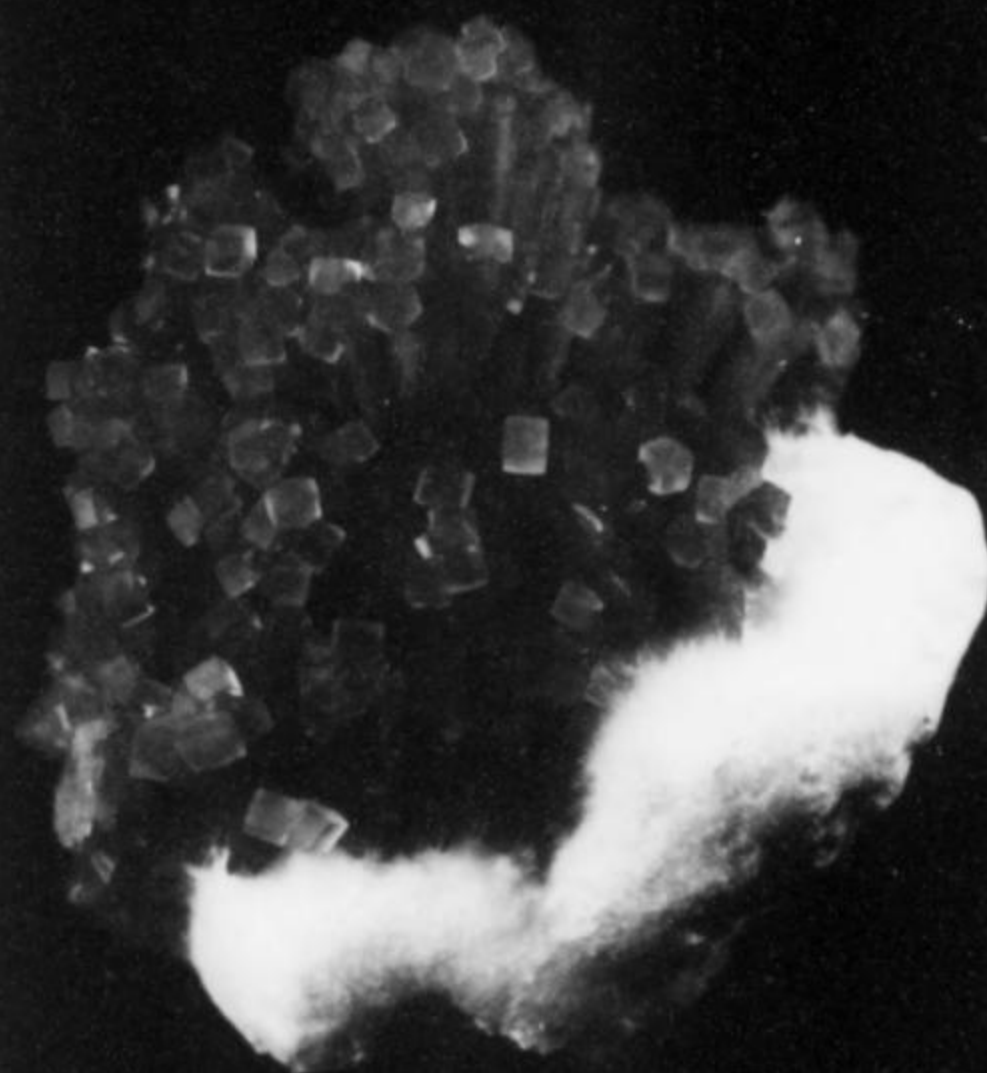


Quality, affordable, world-wide minerals
Miniature to large cabinet size

P.O. Box 69550
Tucson, AZ 85737

(520) 742-0294
douglassminerals@aol.com

www.johnbetts-fineminerals.com



John H. Betts - Mineral Dealer
www.johnbetts-fineminerals.com

Cash paid for mineral collections!

The Lost Arts of Mineralogy

Mineral Identification



A Practical Guide for the Amateur Mineralogist
by Donald B. Peck

\$35 plus shipping from the BOOKSTORE
at www.MineralogicalRecord.com

HAWTHORNEDEN

We have downsized!

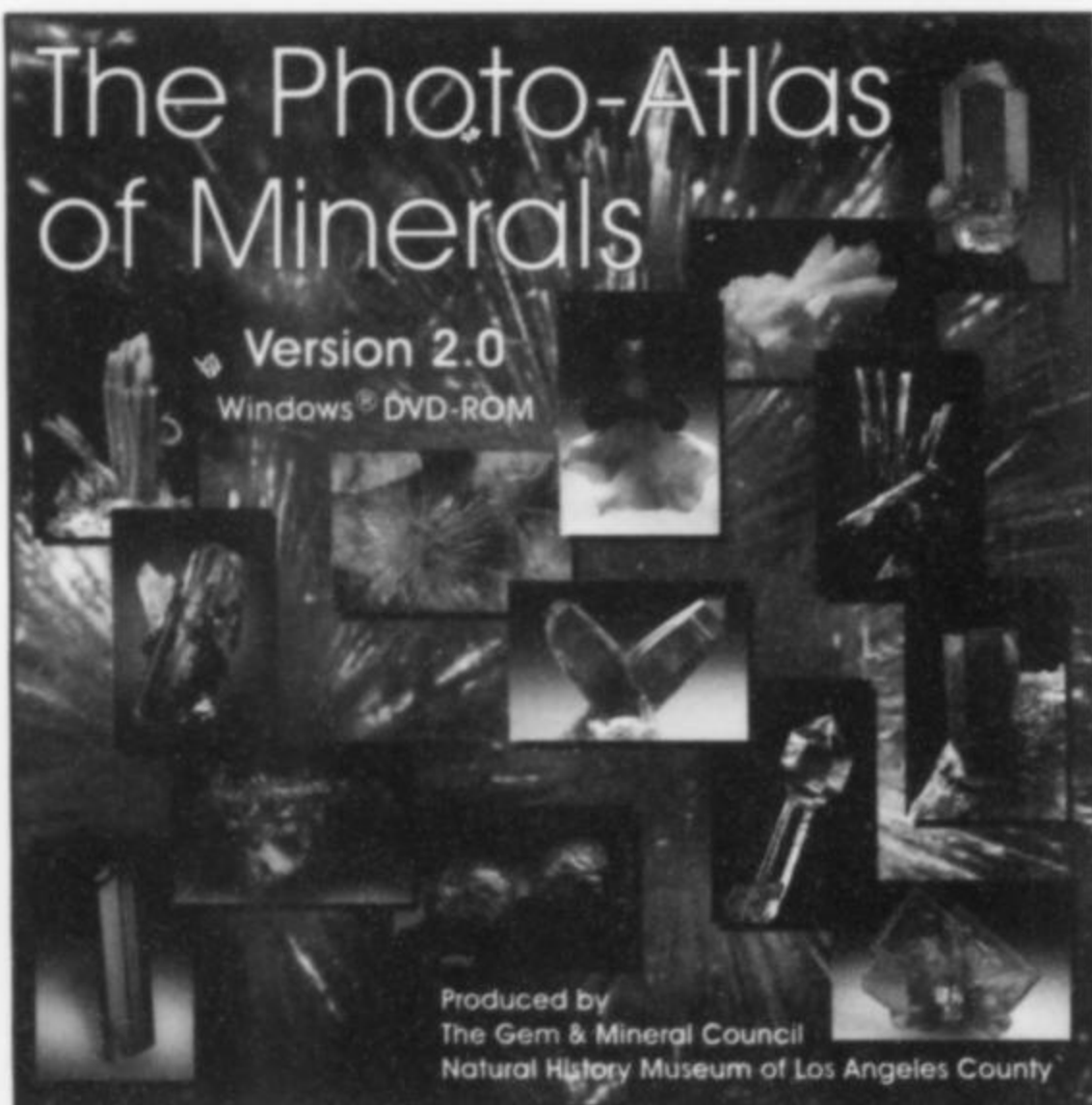
We will continue to do the Tucson (TGMS) Show and the Rochester Mineralogical Symposium. Our thumbnail collection of approximately 10,000 specimens, accumulated over more than 40 years, is now for sale. The collection will be sold only as a complete unit. We welcome inquiries.



Wendy & Frank
Melanson
L'Amable, Ontario
K0L 2L0
Tel: (613) 332-1032
Fax: (613) 332-0585

The Photo-Atlas of Minerals

Version 2.0
Windows DVD-ROM



Produced by
The Gem & Mineral Council
Natural History Museum of Los Angeles County

A Treasury of Mineral Photos on your own Computer!

Now at a New Low Price!

\$19⁹⁵ plus shipping
and handling **YOU CAN
ORDER
ONLINE!**

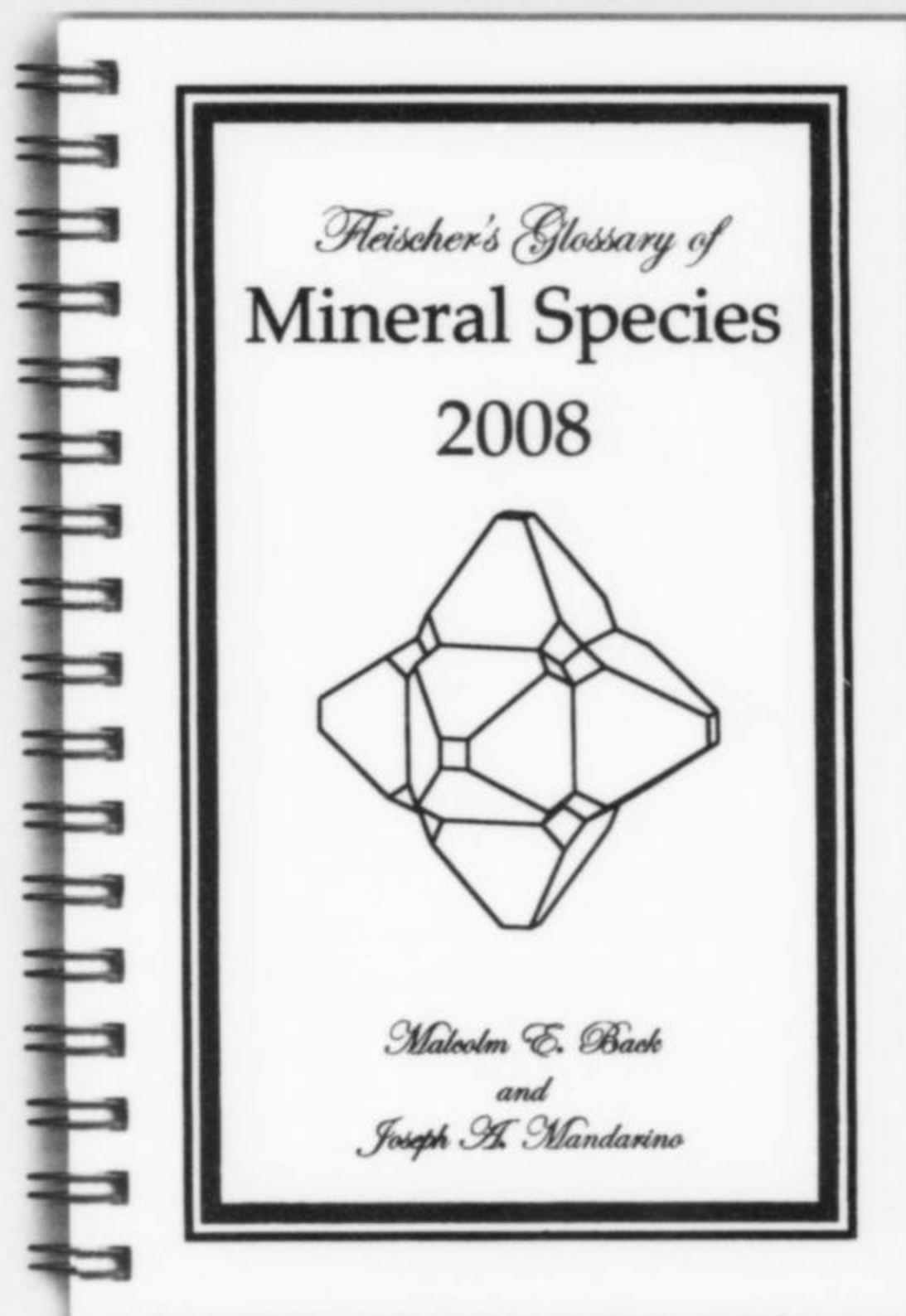
Nearly 16,000 high-resolution images!

The Gem & Mineral Council

Natural History Museum of Los Angeles County, 900 Exposition Blvd., Los Angeles, CA 90007
Tel.: (213) 763-3326 Fax: (213) 749-4107 Email: jbrandt@nhm.org Website: www.nhm.org/pam
U.S. orders add \$5; non-U.S. orders add \$15. California orders add 8.25% sales tax.

It's Here!
the new
Fleischer's
Glossary of
Mineral Species
2008

Enlarged 6 x 9-inch format
346 pages
4,233 valid species
Type localities
80 pages of Mineral Groups
Improved reference citations



\$26
plus shipping

Order from the Bookstore at
www.MineralogicalRecord.com
or by email to minrec@aol.com
P.O. Box 35565, Tucson, AZ 85740

Argentum Auctioneers

Appraisers, Inc.

P.O. Box 365602, HYDE PARK, MA 02136 (617)-361-8323

WWW.ARGENTUMAUCIONEERS.COM

SPECIALIZING IN MINERALS, GEMSTONES, HISTORICAL PAPER, MINING MEMORABILIA
PROFESSIONAL AND CONFIDENTIAL VALUATION SERVICE NON-PROFIT DE-ACCESSIONS

VISIT OUR WEBSITE TO VIEW CONSIGNMENTS!

Quality & Experience since 1986

Roger's Minerals

*Worldwide
Rare Minerals*

3171 Romeo St. Val Caron
Ontario, Canada, P3N 1G5
1-(705)-897-6216

[HTTP://WWW.ROGERSMINERALS.COM](http://WWW.ROGERSMINERALS.COM)
email: rmineral@isys.ca



www.MineralogicalRecord.com

Check out Tom Moore's Online Column for More News!



Stack's is Pleased to Announce a New Department in
MINERAL AUCTIONS AND RETAIL SALES

Visit our website to
view our inventory
www.stacks.com

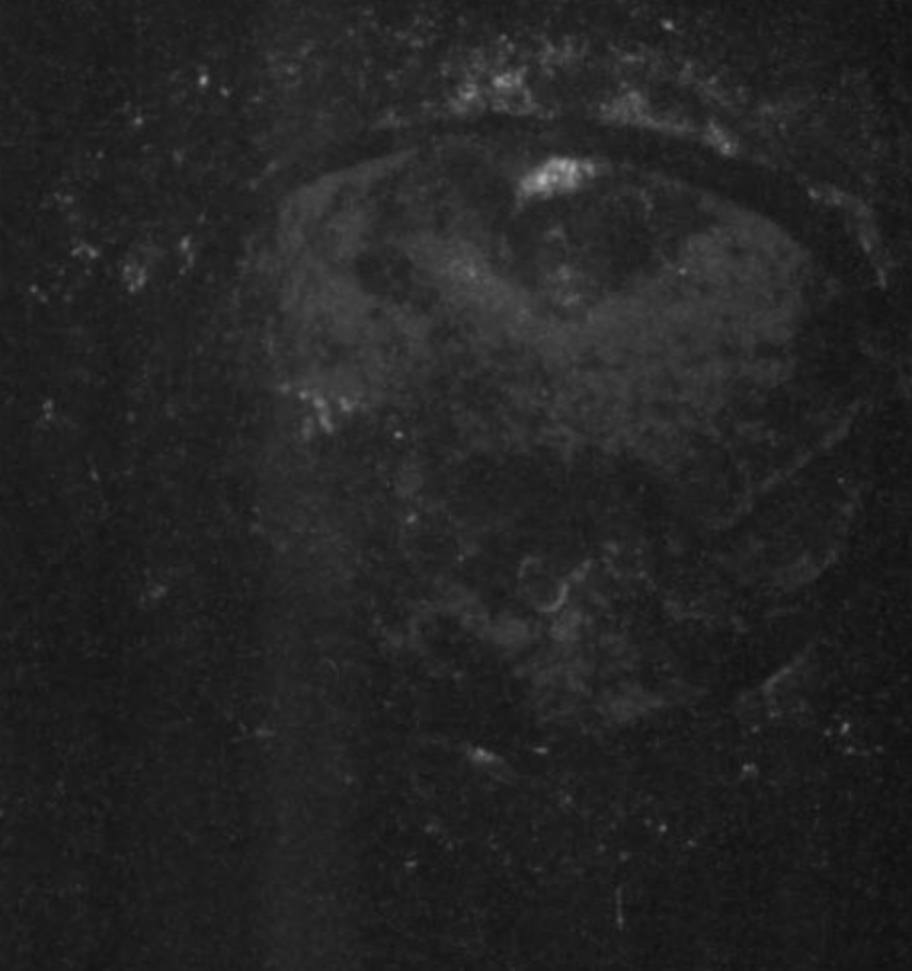


To consign to an
upcoming auction,
contact
Bill Metropolis at
866-811-1804.

Stack's

123 West 57th Street • New York, NY 10019 • 800-566-2580 • 212/582-2580
P.O. Box 1804 • Wolfeboro, NH 03894 • 866-811-1804 • 603-569-0823 • auction@stacks.com

¹⁷⁹³
Bonhams
& BUTTERFIELDS
AUCTIONEERS & APPRAISERS



'The Flame Queen', a semi-black opal, Lightning Ridge, Australia,
exhibited at the coronation of George IV in 1937. 263.18.cts
Estimate: \$150,000 - 250,000

Sunday June 22, 11am
San Francisco & Los Angeles

An auction of fine fossils,
meteorites, minerals, amber,
lapidary works of art,
gemstones and jewelry

Preview

June 13-15, Los Angeles
June 20-22, San Francisco

Consignments Now Invited

Inquiries

Thomas Lindgren
Claudia Floran, G.J.G.
+1 323 436 5437
naturalhistory.us@bonhams.com

Illustrated Catalog:
\$35 plus S&H

For further information,
complimentary auction estimate
or to view and order catalogs,
visit www.bonhams.com/us
or call +1 800 223 2854

Bonhams & Butterfields

220 San Bruno Avenue
San Francisco
California 94103
7601 Sunset Boulevard
Los Angeles
California 90046

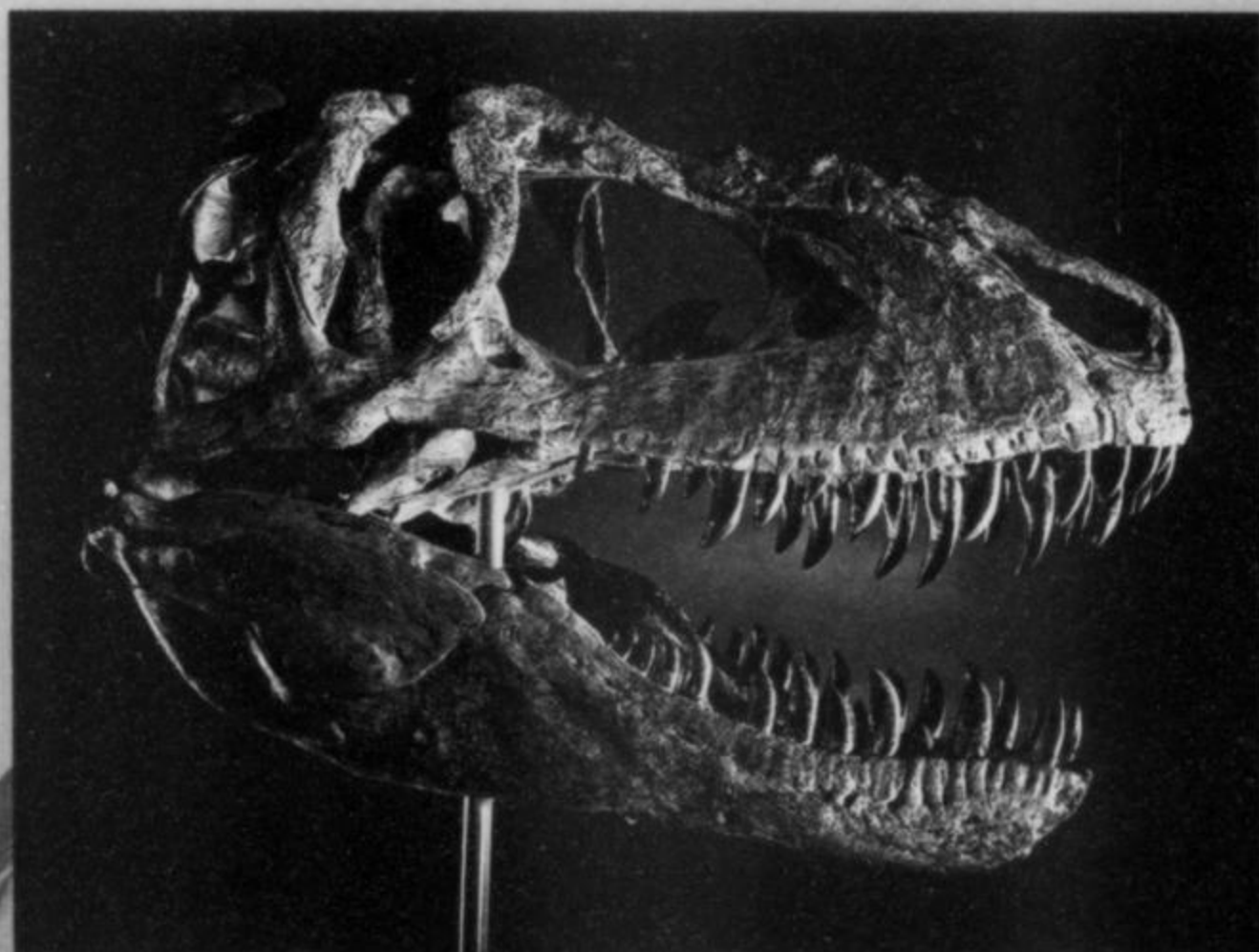
www.bonhams.com/us

© 2008, Bonhams & Butterfields Auctioneers, Corp.
All rights reserved. Bond No. 5708693248

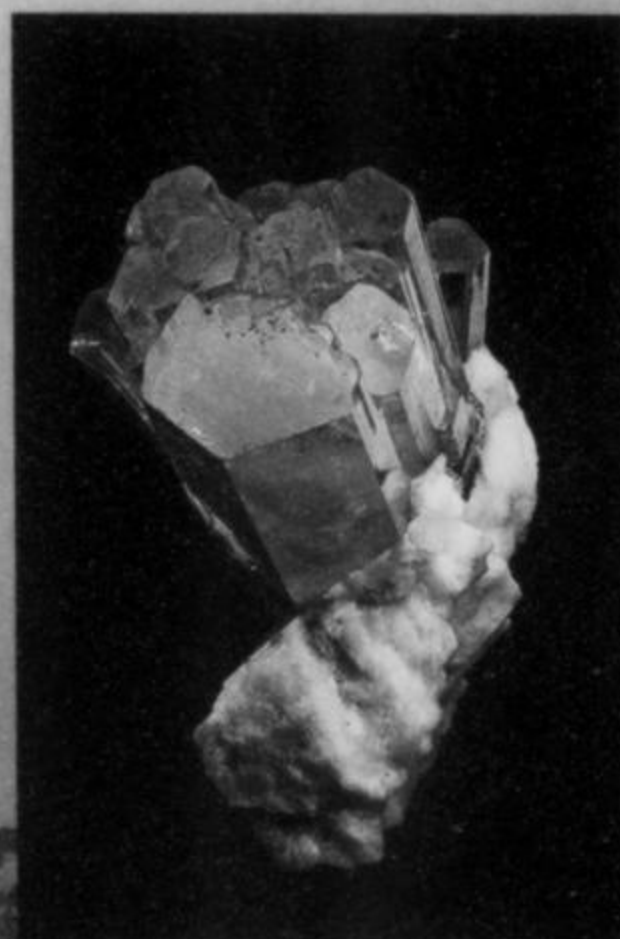
HERITAGE

NATURAL HISTORY AUCTION

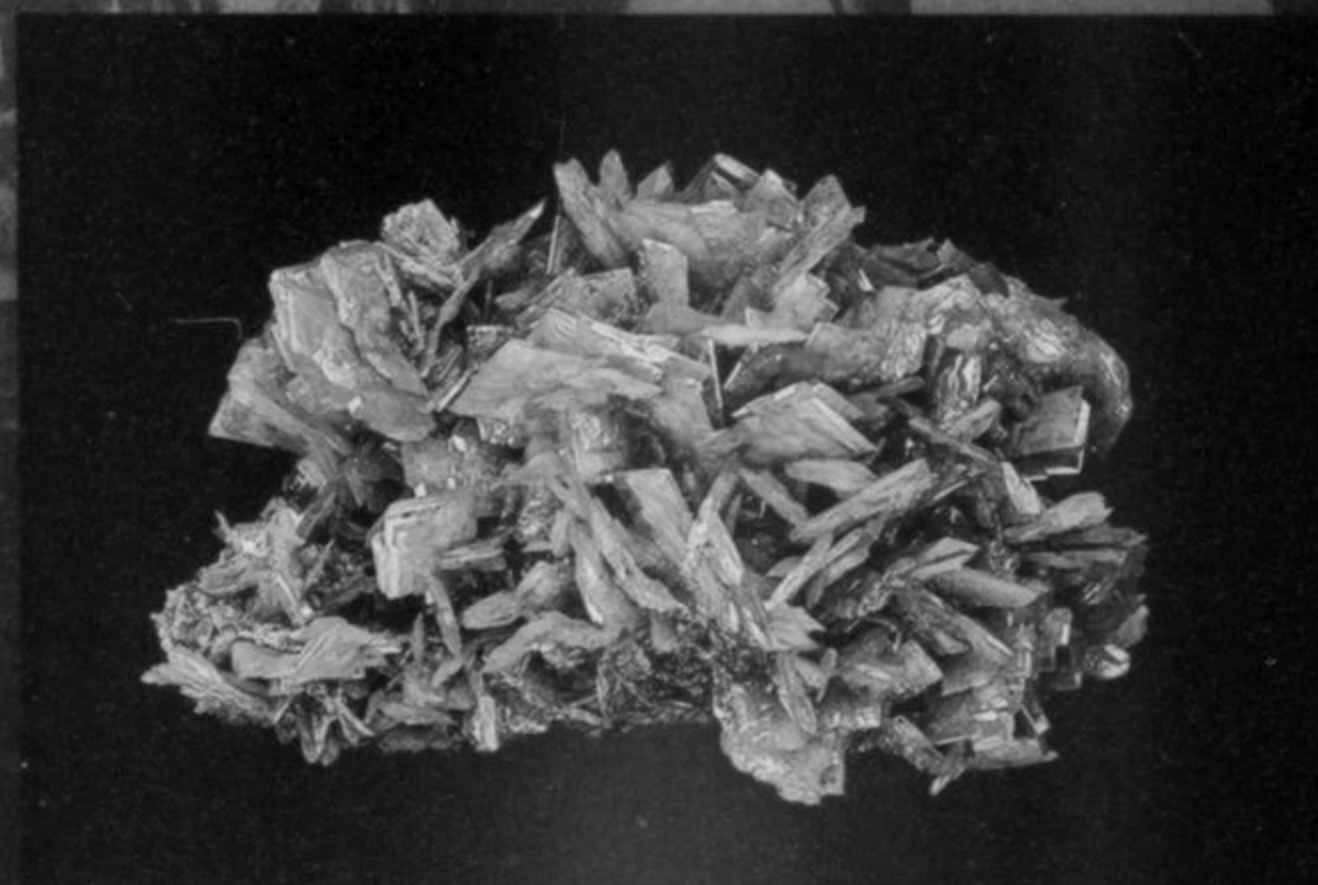
JUNE 8, 2008 • DALLAS, TEXAS • LIVE & ONLINE



An extremely rare Tyrannosaurid skull over 67 million years old.



Aquamarine on Feldspar
Northern Areas, Pakistan



Wulfenite, San Francisco Mine, Mexico



Spessartine
Navegadora Mine, Brazil

An important collection of Natural History including a large selection of fine mineral specimens will be auctioned on June 8th at Heritage Auction Galleries in Dallas, Texas. The extensive selection of minerals being auctioned include: old classics, exotic species and exquisite specimens from renowned collections.



3500 Maple Avenue • 17th Floor
Dallas, Texas 75219-3941
214-528-3500/800-872-6467
NaturalHistory@HA.com

HA.com

TX Auctioneer licenses: Samuel Foose 11727; Robert Korver 13754; Scott Peterson 13256; Bob Merrill 13408; John Petty 13740; Mike Sadler 16129; Ed Griffith 16343; Andrea Voss 16406; Jacob Walker 16413; Charlie Mead 16418; Eric Thomas 16421. • This auction is subject to a 19.5% Buyer's Premium.

To receive a complimentary copy
of this catalog, register
online at HA.com/MR14864 or call
866-835-3243 and mention
reference #MR14864

David Herskowitz
Director of
Natural History
214-409-1610
800-872-6467 ext. 1610
DavidH@HA.com



HERITAGE HA.com
Auction Galleries

The World's Largest Collectibles Auctioneer

Annual Sales Exceeding \$600 Million
350,000+ Registered Online Bidder-Members

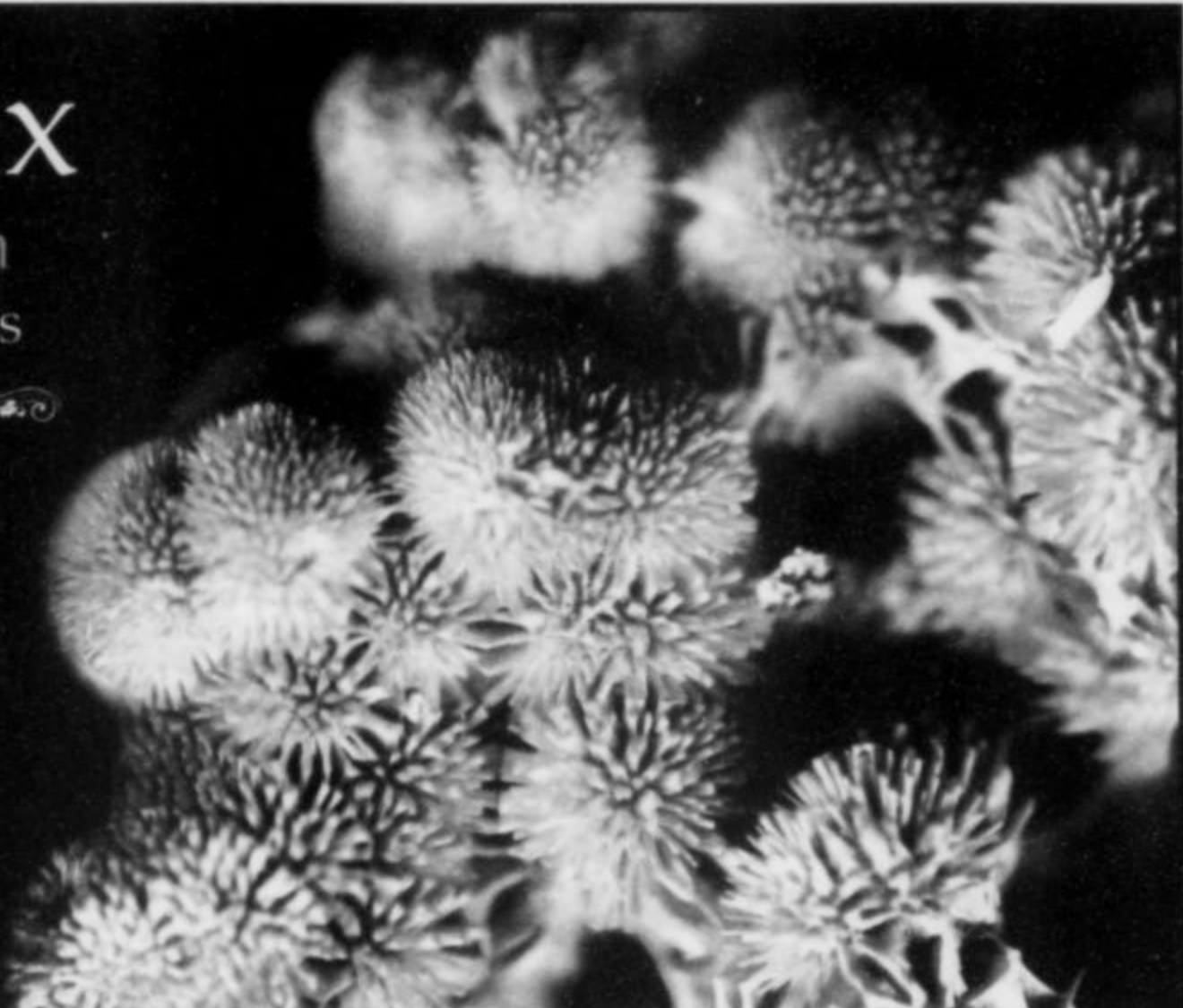
14864

Dakota Matrix

www.DakotaMatrix.com
Rare Minerals • Weekly Updates



Contact:
Thomas A. Loomis
DakotaMatrix@msn.com
Tel.: 605-718-9130



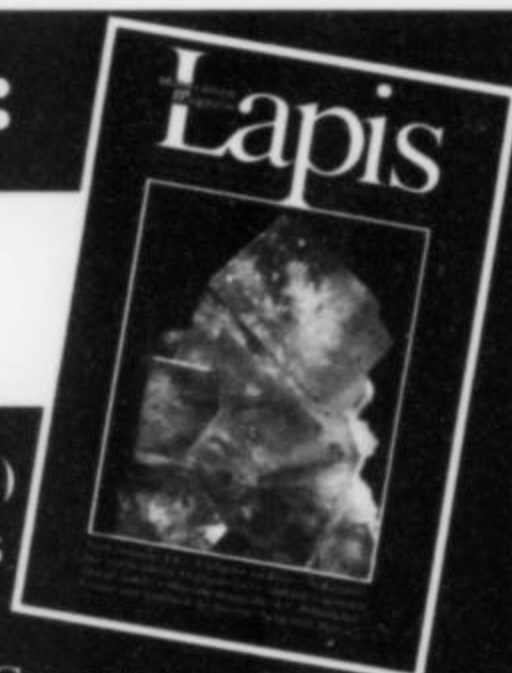
MINERALIZED SPERM FROM THE TEBEKOV QUARRY, BOHEMIA, CZECH REPUBLIC



Your best connection to Europe:

www.lapis.de

European Show Calendar • Online Bookshop (German)
What's New In Minerals • Classified Ads • Back Issues



Christian Weise Verlag • Orleansstrasse 69 • D-81667 Munich • Germany
☎ +49-89-480 2933 • Fax +49-89-688 6160 • e-Mail: lapis@lapis.de • www.lapis.de



THE 55th ANNUAL TUCSON GEM & MINERAL *Show*

FEBRUARY 12-15, 2009

TUCSON CONVENTION CENTER

Contact: The Tucson Gem & Mineral Society Show Committee
P.O. Box 42543 Tucson, AZ 85733 (520) 322-5773 Fax: (520) 322-6031

Joseph A. Freilich, LLC
PRESENTS

The Freilich Mineral Gallery



"Offering top-quality specimens, from localities worldwide"

WWW.FREILICHMINERALS.COM

JOSEPH A. FREILICH, LLC, 20 PERRY AVENUE, BAYVILLE, NY 11709 TEL: (516) 209-8659

*If you collect rare books on Mineralogy, Mining and
Bibliography be sure to visit
www.JosephAFreilichBookseller.com*

PHOTOS COURTESY OF CLAUDE PELLISON, WWW.MINERAPOLE.COM

THE MUSEUM DIRECTORY

Colburn Earth Science Museum

Curator: Phillip M. Potter
Tel: (828) 254-7162
Fax: (828) 257-4505
Website: www.colburnmuseum.org
Pack Place Education,
Arts & Science Center
2 South Pack Square
Asheville, NC 28801
Hours: 10-5 Tues.-Sat.
1-5 Sun. Closed Mondays
and holidays
Specialties: North Carolina and worldwide
minerals and gems
Accessible to persons with disabilities

Montana Tech Mineral Museum

Curator: Dr. Richard Berg
Tel: 406-496-4172
Fax: 406-496-4451
E-mail: dberg@mtech.edu
Program Director: Ginette Abdo
Tel: 406-496-4414
E-mail: gabdo@mtech.edu
Website: www.mbm.mtech.edu/museumm.htm
Montana Bureau of Mines & Geology
Montana Tech of UM,
1300 W. Park Street
Butte, Montana 59701
Hours: Mem/Day to Labor Day
9-6 daily; Rest of year M-F 9-4; Open
Sat & Sun May, Sept &
Oct 1-5 pm
Specialties: Butte and Montana minerals,
worldwide classics

The Gillespie Museum of Minerals, Stetson University

Bruce Bradford
Tel: (904) 822-7331
E-mail: bbradfor@stetson.edu
Assistant Director: Holli M. Vanater
Tel: (904) 822-7330
E-mail: hvanater@stetson.edu
Fax: (904) 822-7328
234 E. Michigan Avenue
[mailing: 421 N. Woodland Blvd.
Unit 8403]
DeLand, FL 32720-3757
Hours: 9-noon, 1-4 M-F; closed during
univ. holidays, breaks, summer
Specialties: Worldwide comprehensive
collection of rocks & minerals; Florida
rocks, minerals & fossils; large historic
fluorescent collection

Colorado School of Mines

Museum Director: Bruce Geller
Tel: (303) 273-3823
E-mail: bgeller@mines.edu
Website: www.mines.edu/academic/geology/museum
Golden, Colorado 80401
Hours: 9-4 M-Sat., 1-4 Sun.
(closed on school holidays &
Sundays in the summer)
Specialties: Worldwide minerals;
Colorado mining & minerals

A. E. Seaman Mineral Museum

Website: www.museum.mtu.edu
Curator & Professor of Mineralogy:
Dr. George W. Robinson
E-mail: robinson@mtu.edu
Tel: 906-487-2572; Fax: 906-487-3027
Electrical Energy Resources Center
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931-1295
Summer Hrs (July-Sept.): M-F: 9-4:30,
S-S: 12-5
Winter Hrs (Oct-June): M-F: 9-4:30
Specialty: Michigan minerals, Lake Superior
region & Midwest U.S. minerals

Houston Museum of Natural Science

Curator (mineralogy): Joel Bartsch
Tel: (713) 639-4673
Fax: (713) 523-4125
1 Herman Circle Drive
Houston, Texas 77030
Hours: 9-6 M-Sat., 12-6 Sun.
Specialty: Finest or near-finest
known specimens

Natural History Museum of Los Angeles County

Fax: (213) 749-4107
Website: <http://nhm.org/minsci>
Curator (Mineral Sciences):
Dr. Anthony R. Kampf
Tel: (213) 763-3328
E-mail: akampf@nhm.org
Collections Manager:
Alyssa R. Morgan
Tel: (213) 763-3327
E-mail: amorgan@nhm.org
900 Exposition Blvd.
Los Angeles, CA 90007
Hours: 9:30-5:00 Daily
Specialties: Calif. & worldwide minerals,
gold, gem crystals, colored gemstones,
micromounts
Support organization:
The Gem and Mineral Council

University of Delaware Mineralogical Museum

Curator: Dr. Sharon Fitzgerald
Penny Hall
Newark, DE 19716
Tel: (302)-831-8037
E-mail: universitymuseums@udel.edu
For information: www.udel.edu/museums
Specialty: Worldwide Classics & New
Minerals



THE MUSEUM DIRECTORY

Matilda and Karl Pfeiffer Museum and Study Center

Executive Director: Teresa Taylor
Tel: (870) 598-3228
E-mail: pfeifferfnd@centurytel.net
P.O. Box 66
1071 Heritage Park Drive
Piggott, AR 72454
Hours: 9-4 Tues.-Fri.,
11-4 Sat. (Daylight Savings Time)
Specialties: Fine collection of geodes from Keokuk, Iowa, area; worldwide collection of minerals

Carnegie Museum of Natural History

Head: Section of Minerals: Marc L. Wilson
Tel: (412) 622-3391
4400 Forbes Avenue
Pittsburgh, PA 15213
Hours: 10-5 Tues.-Sat., 10-9 F,
1-5 Sun., closed Mon. & holidays
Specialty: Worldwide minerals & gems

W. M. Keck Earth Science & Engineering Museum

Administrator: Rachel A. Dolbier
Tel: 775-784-4528, Fax: 775-784-1766
E-mail: rdolbier@unr.edu
Website: <http://mines.unr.edu/museum>
Mackay School of Earth Science & Engineering
University of Nevada, Reno, NV 89557
Hours: 9-4 Mon.-Fri. (closed university holidays) and by appointment
Specialty: Comstock ores, worldwide minerals, mining artifacts, Mackay silver

New Mexico Bureau of Mines & Mineral Resources—Mineral Museum

Director: Dr. Virgil W. Lueth
Tel: (505) 835-5140
E-mail: vwlueth@nmt.edu
Fax: (505) 835-6333
Associate Curator: Robert Eveleth
Tel: (505) 835-5325
E-mail: beveleth@gis.nmt.edu
New Mexico Tech,
801 Leroy Place
Socorro, NM 87801
Hours: 8-5 M-F, 10-3
Sat., Sun
Specialties: New Mexico minerals, mining artifacts, worldwide minerals

Arizona-Sonora Desert Museum

Fax: (520) 883-2500
Website: <http://www.desertmuseum.org>
Curator, Mineralogy: Anna M. Domitrovic
Tel: (520) 883-3033
E-mail: adomitrovic@desertmuseum.org
2021 N. Kinney Road
Tucson, AZ 85743-8918
Hours: 8:30-5 Daily (Oct.-Feb.)
7:30-5 Daily (Mar.-Sept.)
Specialty: Arizona minerals

U.S. National Museum of Natural History (Smithsonian Institution)

Curator: Dr. Jeffrey E. Post
E-mail: minerals@nmnh.si.edu
Collection Managers: Paul Pohwat and Russell Feather
(Dept. of Mineral Sciences)
Washington, DC 20560-0119
Hours: 10 am-5:30 pm daily
Specialties: Worldwide minerals, gems, research specimens

Tellus: Northwest Georgia Science Museum

Website: www.tellusmuseum.org
Tel. (770) 386-0576
Executive Director: Jose Santamaria x401
E-mail: joses@tellusmuseum.org
Curator: Julian Gray x415
E-mail: juliang@tellusmuseum.org
100 Tellus Dr.
White, GA 30184

Museo Civico di Storia Naturale

Curator: Dr. Federico Pezzotta
Tel: +39 02 8846 3326
Fax: +39 02 8846 3281
E-Mail: Federico.Pezzotta@comune.milano.it
Department of Mineralogy and Petrography
Corso Venezia, 55
I-20121 Milano, Italy
Hours: 9 am-6 pm daily, closed Mondays
Specialties: Italian minerals, pegmatite minerals

Gargoti Mineral Museum

Director: K. C. Pandey
Tel: ++91 2551 230528
Fax: ++91 2551 230866
D-59 MIDC, Malegaon, Sinnar, Nashik
422 103 India
Specialty: Minerals of India

Additional listings welcome!

Send vital information, as shown, to the editor. There is a modest annual fee (lower than our regular advertising rates).



SUPERB MINERALS INDIA PVT. LTD.

Superb



"Visit one of the largest collections of zeolites and worldwide minerals while visiting India."

"We conduct exclusive group tours for quarries and mines in Maharashtra and India.
We even provide tours for a single tourist (conditions and tariffs apply)."

For the next Tucson Show, Superb Minerals India Pvt. Ltd. will consolidate our former three satellite show locations to two adjacent places: the "Indian Pavilion" at 1243 N. Main Ave., Tucson, Arizona 85705 (across the street from the Executive Inn Show), and Room no. 123 at the Executive Inn. We will also have our 20-foot booth at Tucson Gem and Mineral Show at the Convention Center, as usual.

SUPERB MINERALS INDIA PVT. LTD.
SHYAM CASTLE, BRAHMGIRI SOCIETY, NASHIK ROAD,
NASHIK - 422 101, INDIA.
PHONE: ++91 253 2415237 / 2416227 / 2412343 / 2412346
FAX: ++91 253 2414598

garbaji

THE MINERAL MUSEUM

D-59, MIDC, MALEGAON, SINNAR, NASHIK-422103, INDIA
PHONE: ++91+2551-230865, 230528 TELEFAX: ++91+2551-230866
WEBSITE : www.superbminerals.com
E.MAIL : info@superbminerals.com



WRIGHT'S ROCK SHOP

Fine Mineral Specimens! We Buy Collections!

—SHOW SCHEDULE 2008—

Feb 2-16 Tucson, Arizona (InnSuites, Room 128)
 Apr 4 Raleigh, N. Carolina (Kerr Scott Building, State Fairgrounds)
 May 2-4 Dallas, Texas (Dallas Fine Mineral Show, Embassy Suites near the Galleria, Room 201)
 Aug 8-10 Springfield, MA (Eastern States Exposition Center)
 Sept 10-14 Denver, Colorado (Holiday Inn North, Room 115)
 Sept 19-21 Houston, Texas (Humble Civic Center)
 Oct 10-12 Detroit, Michigan (South Macomb Community College Expo Center, Warren, Michigan)

New find of Green Fluorite, Naica, Mexico; mimetite, Mexico; and cobaltoan calcite, Morocco.

Visit our Website:
wrightsrockshop.com
 e-mail: wrightsr@ipa.net

3612 ALBERT PIKE,
 HOT SPRINGS, AR 71913
 Tel: (501) 767-4800

MOUNTAIN MINERALS INTERNATIONAL

Dudley has been traveling across Asia, searching the sources for fine minerals. We specialize in gem crystals, alpine cleft and pegmatite minerals; including rare phosphates and rare-earth pegmatite minerals. You can read about Dudley's adventures in recent Mineralogical Record articles and in Axis.

Mountain Minerals International

P.O. Box 302 • Louisville, Colorado 80027-0302
 Tel: (303) 665-0672 • FAX: (303) 664-1009
 E-mail: mtnmin@attglobal.net



Canadian Minerals, Rare Minerals International Sulfides, Sulfosalts, Elements

Visit our website for beautiful, rare & high-quality specimens different from most dealers

David K. Joyce

www.davidkjoyceminerals.com
 Box 95551, Newmarket, Ontario
 Canada L3Y 8J8
 Email: dkjoyce@bellnet.ca
 Tel: 905-836-9073
 Fax: 905-836-5283



Always Something New!

Specializing in the minerals of Eastern Europe and Southern Illinois
 See us at Tucson, Cincinnati, Springfield, Denver, Detroit, Carnegie

Visit our website: www.northstarminerals.com

NORTH STAR MINERALS

Ross C. Lillie

7249 Woodlore Drive
 West Bloomfield, MI 48323
 Tel/Fax: (248) 926-9929
 Email:
northstarminerals@comcast.net

"This is one of the most important developments in the hobby, one that can help rejuvenate and expand it for all..."

-Rob Lavinsky, The Arkenstone

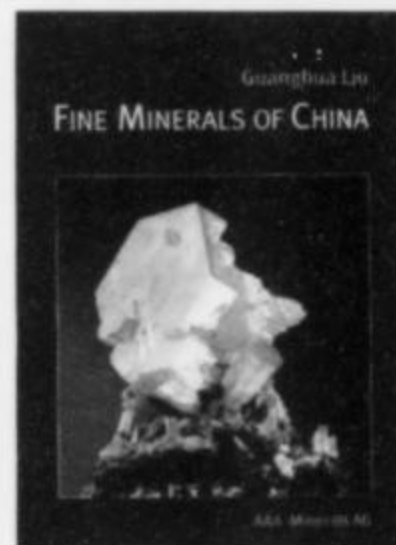
"No one could do this like Dave Wilber... this is the most complete video of the biggest mineral show in the world..."

-Bill Larson, Pala International

Listen to what the biggest names in the hobby are saying about *What's Hot In Tucson*.

The verdict is in and the feedback is unanimous. *What's Hot In Tucson*, the new DVD program hosted by David Wilber, is the best complete video coverage of the entire Tucson show. With Wilber's extensive knowledge of the mineral world and exclusive, behind-the-scenes access to the finest mineral specimens available, this is one not-to-be-missed program.

Order online now at: www.MineralogicalRecord.com



\$148
 plus postage
 from our
 Bookstore

Guanghua Liu's
Fine Minerals of China!
 Over 500 color specimen photos!
www.MineralogicalRecord.com



Mineralogical Record

Mineralogical Record Inc. Board of Directors

Ralph D. Clark
7308 S. Steele Circle
Centennial, CO 80122
E-mail: ralphdclark@msn.com

Thomas M. Gressman (pres., treas.)
7753 Emerald Peak
Littleton, CO 80127
tgressman@aol.com

Robert W. Jones (sec.)
5911 E. Peak View Rd.
Cave Creek, AZ 85331
E-mail: suesjones@wans.net

Anthony R. Kampf
Mineral. Section,
Natural History Museum
900 Exposition Blvd.
Los Angeles, CA 90007
akampf@nhm.org

Mary Lynn Michela
7413 N. Mowry Place
Tucson, AZ 85741
minrec@aol.com

George W. Robinson
Seaman Mineral Museum, MTU
1400 Townsend Drive
Houghton, MI 49931-1295
robinson@mtu.edu

Art Soregaroli
1376 W. 26th Ave.
Vancouver, BC V6H 2B1
arockdoc@telus.net

Marshall Sussman (vice pres.)
14421 Quiet Rain Dr.
Oro Valley, AZ 85755
tsumebrmine@aol.com

Wendell E. Wilson
4631 Paseo Tubutama
Tucson, AZ 85750
minrec@earthlink.net

Design
Wendell E. Wilson

Graphic Production
Capitol Communications
Crofton, MD

Advertising Information
SEE OUR WEBSITE for
advertising rates and deadlines:
www.MineralogicalRecord.com.
All advertising in the Mineralogical
Record must be paid in advance of
the closing date. Telephone orders
not accepted. E-mail orders okay.

Closing dates:

Jan.-Feb. issue	Oct. 15
March-April issue	Dec. 15
May-June issue	Feb. 15
July-Aug. issue	April 15
Sept.-Oct. issue	June 15
Nov.-Dec. issue	Aug. 15

An additional 20 days past the
closing date are allowed in which
advertisers may make changes
(excluding size changes) in ads
already paid for.

Circulation
P.O. Box 35565
Tucson, AZ 85740
520-297-6709
minrec@aol.com

Editing, advertising
4631 Paseo Tubutama
Tucson, AZ 85750
520-299-5274
minrec@earthlink.net

Printing
Allen Press, Incorporated
Lawrence, KS

ADVERTISERS

Argentum Auctioneers	249	Hawthorneden	248	Pala International	C4
Arkenstone	225	Heliodor	227	Photo-Atlas of Minerals	248
Astro Gallery of Gems	231	Heritage Auctions	251	Proctor, Keith	232
Betts, John	247	Internet Directory	223	Roger's Minerals	249
Bonhams & Butterfields	250	Joyce, David K	257	Smale, Steve & Clara	169
Carlson, Shawn M	230	Kristalle	C2	Stack's	250
Carnegie Mineralogical Award	164	Lapis Magazine	252	Stonetrust	226
Collector's Edge Minerals	C3	Meiji Techno	246	Sunnywood Collection	167
Dakota Matrix Minerals	252	Mineralogical Record		Superb Minerals India	256
Douglass Minerals	247	Advertising Information	258	Trinity Minerals	246
Excalibur	246	Books for Collectors ... 170, 248, 249, 257		Tucson Gem & Mineral Show	252
Fabre Minerals	229	Subscription Information	163, 258	Western Minerals	229
Fine Mineral Bases	228	Mountain Minerals International	257	<i>What's Hot in Tucson</i> Video	257
Fine Minerals International	168	Munich Show	247	Wilensky, Stuart & Donna	166
Freilich, Joseph A	253	Museum Directory	254-255	Wright's Rock Shop	257
Friends of Mineralogy	224	North Star Minerals	257	Zinn Expositions	165
		Obodda, Herbert	246		



SCHBULTZ ON MUSCOVITE, MT. XUEBAODING, PINGWU COUNTY, SICHUAN PROVINCE, CHINA. RICHARD JACKSON PHOTO

The Collector's Edge

— MINERALS, INC. —

P.O. Box 1169, Golden, Colorado 80402 U.S.A.

Tel.: (303) 278-9724 Fax: (303) 278-9763

Bryan Lees, President

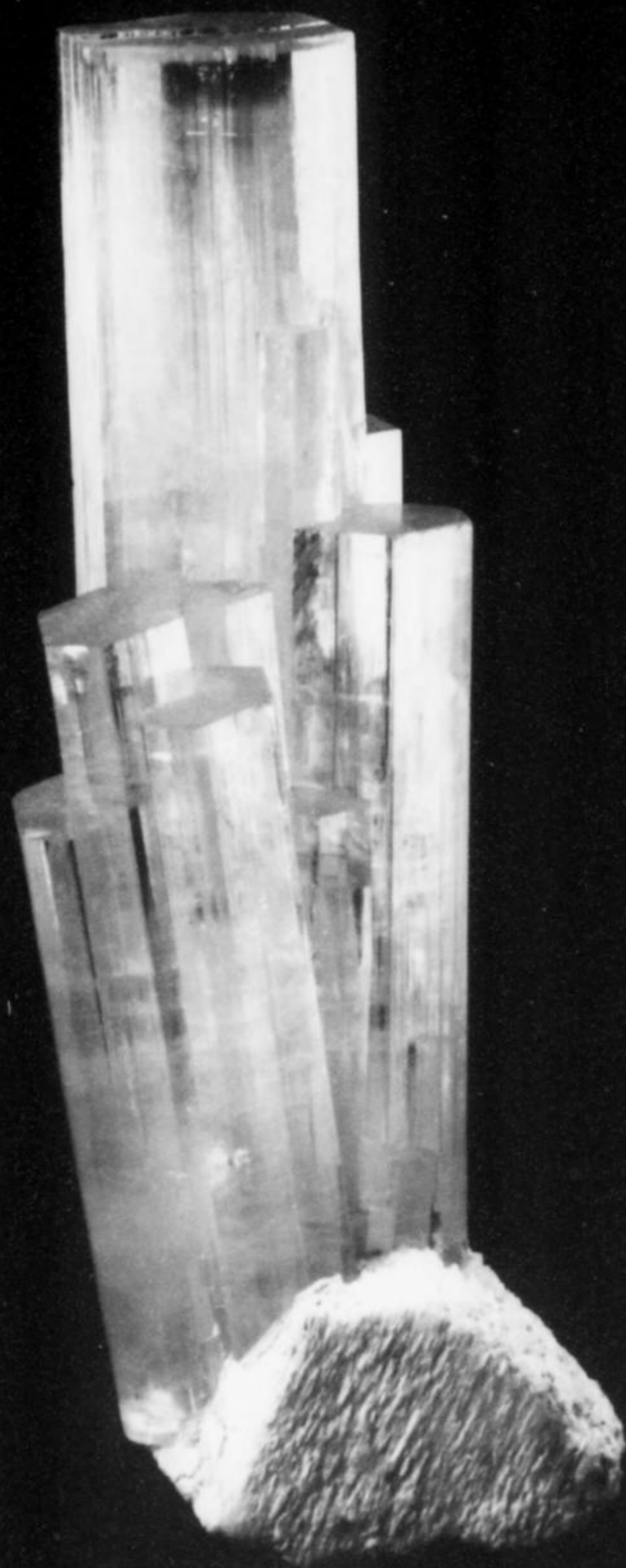
Sales Inquiries: Steve Behling, steve@collectorsedge.com

China Minerals: Graham Sutton, Graham@collectorsedge.com

WWW.COLLECTORSEDGE.COM

*The wearer was
rendered unconquerable
and at the same time
amiable, while his
intellect was quickened
and he was cured of
laziness.*

*– Arnoldus Saxo, 1220
on the power of beryl*



— Pala International —

Palagems.com / CollectorFineJewelry.com

800-854-1598 / 760-728-9121

