

Rock & Gem

DECEMBER 2010

THE EARTH'S TREASURES • MINERALS AND JEWELRY



CHAROITE:
Royal Purple Rock/Mineral



MASTER QUARTZ CARVER

**HAROLD
VAN PELT**



The
ASPEN: Silver Years

**CHRYSANTHEMUM
STONES** Minerals in "BLOOM"

www.rockngem.com

\$4.99



12>

Rockhounding:
A Special Museum Exhibit

FACETING FOR THE BRIGHTEST AND THE BEST!



Digital **Angle Dial**



- V2D Digital Upgrade Kits now available
- ULTRA TEC V2R (Analog Version)



Visit Our Website at:
www.ultratec-facet.com



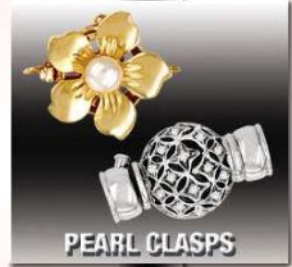
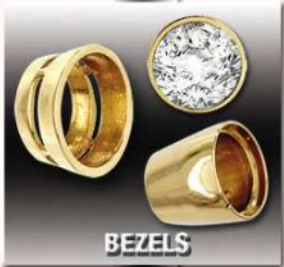
Ultra Tec
1025 E. Chestnut Ave.
Santa Ana, CA 92701

Phone: 714.542.0608
info@ultratec-facet.com



FABRICATORS AND SUPPLIERS

FINDINGS • MOUNTINGS



We stock the most comprehensive collection of precious metal findings and mountings with the most competitive pricing in the industry. Experience the variety and low prices of our superior products and service.

PLATINUM

10K • 14K • 18K

SILVER

GOLD-FILLED



SAME DAY SHIPPING



QUANTITY DISCOUNTS



FINISH & QUALITY



CATALOGS AVAILABLE

MEMBER



27 WEST 47TH STREET, NEW YORK, NY 10036
 (212)869-1407 • (800)654-7677 • Fax (212)768-3018
 www.rossmetals.com • sales@rossmetals.com

MEMBER IPM



Master carver Harold Van Pelt turns quartz crystals into works of art. See them on display for the first time at the Bowers Museum of Cultural Art in Santa Ana, California. (Photo courtesy Harold and Erica Van Pelt)

FEATURES

The Master Works of Harold Van Pelt.... 12
His expert quartz carvings are finally on display
by Bob Jones



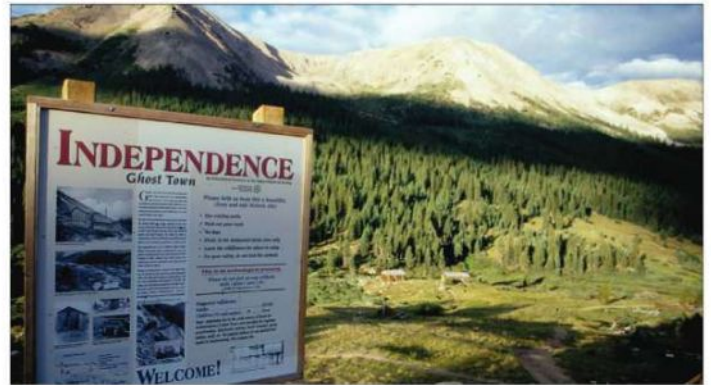
Chrysanthemum Stones..... 20
Mineral "flowers" bloom in these popular collectibles
by Tom Elias

The Many Facets of Rockhounding..... 30
A special exhibit at the California Oil Museum
by Jim Brace-Thompson

Charoite: Russia's Royal Gem..... 34
This pleasing purple material is both a rock *and* a mineral
by Bob Jones

Rock & Gem Kids..... 38
Kid-size articles, puzzles and prizes

Aspen's Silver Lining..... 46
This Colorado resort has its roots in mining
by Steve Voynick



REGULAR COLUMNS

All She Wrote..... 6	Picks & Pans..... 42
Craftsman of the Month..... 8	Off the Dop..... 60
Show Dates..... 10	Contest Rules..... 61
Shop Talk..... 18	On the Rocks..... 72
Rock Science..... 28	Field Notes..... 74

20



30



34



SUBSCRIPTION QUESTIONS? Call (760) 291-1549

Printed in U.S.A.

Notice: On rare occasions, typographical errors occur in prices listed in magazine advertisements. For this reason, advertisements appearing in *Rock & Gem* should be considered as requests to inquire, rather than as unconditional offers to sell. All prices are subject to change without notice.

Rock & Gem (ISSN 0048-8453, USPS 486-290) is published monthly by JMiller Media (Miller Magazines, Inc.), 290 Maple Ct., Ste. 232, Ventura, California 93003-3517, telephone (805) 644-3824. Periodicals postage paid at Ventura, CA 93006, and additional mailing offices. Single-copy price \$4.99. Subscription in U.S.A. and possessions: 1 year (12 issues) for \$27.95; 2 years for \$49.95; 3 years for \$66.95. Add \$15.00 per year postage for Canada and all other foreign countries. Submission of articles and photos by our readers is welcome, but we can accept no responsibility for loss or damage to unsolicited editorial contributions. Copyright 2010 by JMiller Media (Miller Magazines, Inc.)

POSTMASTER: Send address changes to *Rock & Gem*, P.O. Box 469113, Escondido, CA 92046-9113 or RockAndGem@pcspublink.com



PRIME REFINERS OF PRECIOUS METALS

REFINING • SMELTING • ASSAYING

- UP TO 98.5%
- QUICK SERVICE
- ACCURATE SETTLEMENTS
- CASH • WIRE • CHECK
- STONE REMOVAL SERVICE
- FREE PICK UP / CONTAINERS



CASH PAYMENT



WIRE TRANSFER



CHECK PAYMENT



FREE PICK UP SERVICE



FREE CONTAINERS



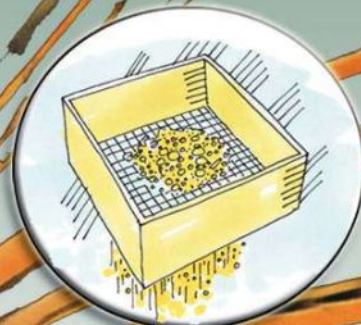
REFINING BROCHURE



SCRAP



POLISHING &
FLOOR SWEEPS



BENCH SWEEPS

ROSS METALS has been a leader in the precious metal industry, serving our customers with the most reliable and efficient refining facilities. "Eliminate the middle man". Call us for more details and information.

27 West 47th Street, New York, NY 10036

(212) 869-3993 • (800) 334-7191 • FAX: (212) 869-4807
www.rossmetals.com • refininginfo@rossmetals.com

The 40th Year in Review

They say time moves faster the older you get, and the maxim seems to hold true in magazine years. *Rock & Gem's* 40th year in publication has gone by in a pleasant blur. We've covered a number of historic events, like the discovery of gem emeralds in Zambia by The Collector's Edge and the first-ever tour of England based on historically important mineral-collecting sites, led by cultural tour operators Crizmac and our own Bob Jones.

We've also published our first Chinese-language issue of *Rock & Gem* and participated in an unprecedented three-day-long government-sponsored mineral symposium aimed at getting the Chinese public educated about and interested in mineral collecting as a hobby. Bob treated us to a look at the mineral bounty of that vast country in the March issue.



As is all too common these days, we've said goodbye to a number of rockhounding friends, including former *Rock & Gem* columnist June Culp Zeitner. We've also greeted newcomers to the hobby and new writers to the pages of the magazine. We've highlighted the importance of grandparents in getting the youngest generation interested in rockhounding with articles like "Tea's First Rockhounding Adventure" (March) and "Take the Grandkids Rockhounding" (November). And we've encouraged these pebble pups with the monthly feature *Rock & Gem Kids*.

The new year promises to bring even more firsts, like the publication of Volume 1 of Bob's opus magnum, *The Frugal Collector*. As our hobby grows and evolves, we look forward to bringing you even more exciting field trips, mineral news, and lapidary projects.

See you in 2011!



JMILLERMEDIA

EDITORIAL

BOB JONES

Senior Consulting Editor

LYNN VARON

Managing Editor

ROBERT BEARD

JIM BRACE-THOMPSON

WILLIAM A. KAPPELE

JIM PERKINS

DIANE PROKOP

KENNETH H. ROHN

STEVE VOYNICK

Contributing Editors

ART

MARY ROBERTSON

Art Director

JOE HOWARD

Graphic Artist

PRODUCTION

CELESTE WEINGARDT

Production and Marketing
Manager

ADVERTISING

BRIAN ROBERTS

Advertising Director

SOOK GUMPEL

Advertising Manager

EDITORIAL SUBMISSIONS:

Lynn Varon / *Rock & Gem*
290 Maple Ct., Suite 232,
Ventura, CA 93003
(805) 644-3824 ext. 29
e-mail: editor@rockngem.com

ADVERTISING INQUIRIES:

Brian Roberts / *Rock & Gem*
11288 S. Indian Wells Dr.,
Goodyear, AZ 85338
(623) 327-3525 phone
(623) 327-2188 fax
e-mail: broberts@jmillermmedia.com

THOMAS TRIMBACH

General Manager

JAMES L. MILLER

Founder



Kingsley North, Inc.

ALL-YOU-NEED DIAMOND LAPIDARY MACHINE

4 step accessory kit makes it possible for you to grind, shape and polish gem material immediately. **All-You-Need is easy to use**, complete operating manual makes it easy for you to make beautiful gemstones. The 4-step process makes it easy work of finishing quartz, agate, jasper, tourmaline, corundum and opal, plus a wide variety of gem materials both natural and synthetic. **All-You-Need is quiet**. Use the machine in the house or in recreational vehicles. **All-You-Need is clean**. The specially designed water spray shield keeps water in the work area and not on you. Clean up is easy. You can grind flats, rework quartz crystals, or make a free form cabochons. **All-You-Need is portable**. Both units feature a 1/4 HP variable speed ball bearing DC with 115 VAC converter. Each machine includes #180 mesh metal bond diamond disc, #325, #600, #1200 mesh diamond smoothing disc, a tech 10 polish pad with 14,000 mesh diamond compound, 4 each disc backing plates and complete instructions. The unit measures 12" x 12" x 12". Made in USA. Shipping weight (6") 13 lbs.; (8") 17 lbs.



Stock No.	Description	Each
1-0339	6" ALL-YOU-NEED Complete <i>Free Shipping</i>	\$489.50
1-0354	8" ALL-YOU-NEED Complete <i>Free Shipping</i> <i>Free Ground Shipping</i>	589.50

SLANT CABBER

A complete diamond lapidary machine, that features angled grinding making it easier to see the workpiece from an overhead view. 4 step accessory kits make it possible for you to grind, shape and polish gem material immediately. Slant machine is quiet and portable, use in the house or in a recreational vehicle. Slant cabber is clean, special designed water spray shield keeps water in the work area and not on you. A variable speed ball bearing DC motor with 115/220 VAC converter and coolant reservoir with splash shield. Complete with 180 mesh metal bonded diamond disc, one each 325, 600, and 1200 mesh diamond smoothing discs, a polishing pad with 14,000 mesh diamond compound, 4 backing disc plates and complete instructions. The unit measures 12" x 12" x 12". Made in USA. Shipping weight 17 lbs.



Stock No.	Description	Each
1-0879	6" Slant Cabber Complete <i>Free Shipping</i>	\$499.50
1-0880	8" Slant Cabber Complete <i>Free Shipping</i>	599.50

5" LAPIDARY TRIM SAW

The perfect machine for trimming out cabochons pre-forms, also valuable faceting material, Rough Opal, etc. Has a large table 9" x 6-1/4" with no inhibiting lip, easy to work with. The blade cover can be raised if necessary to accommodate large pieces, and the front splash guard is removable. The saw housing is made form unbreakable cross-linked polyethylene and the housing is guaranteed for life. Features a 1/4 HP variable speed direct drive motor is fast enough to use the ultra thin diamond blades and powerful enough for sintered diamond blades. The removable top making clean-up quick and easy. Has a 5" x .012 x 5/8" diamond blade. Can also be used with a 4" blade. Made in USA. Ship weight 14 lbs.



Stock No.	Description	Each
1-0884	5" Trim saw <i>Free Ground Shipping</i>	\$365.00

6" LAPIDARY TRIM SAW

A great little saw, ideal for trimming facet rough, Opal, Turquoise, trimming out cabs and rough rock of all types. This unique 1/4 HP variable speed (400 to 3450 RPM) with sealed ball bearings saw allows for lower speeds with standard diamond blades and higher speeds for the thin kerf diamond blades. The saw table has a large working area measuring 15" x 9", with no inhibiting lips, easy to trim oversized material. The rust-free-housing made of unbreakable cross-linked polyethylene - guaranteed for life. 5/8" arbor shaft, made in U.S.A. Complete unit comes with 6" x .013 x 5/8" diamond blade. Made in USA. Shipping weight 22 lbs.



Stock No.	Description	Each
1-0881	6" Trim saw-basic unit, w/blade (no vise)	\$439.00
1-0890	6" Trim saw complete, w/ blade and vise	539.00
1-0888	6" Vise assembly (ship weight 6 lbs.)	108.00

FREE Catalogs

All Discounted Prices

Lapidary Catalog includes Tumblers & Accessories, Slab/Trim Saws, Grinders & Polishers, Sphere Machines, Diamond Blades, Wheels, Belts etc., Jewelry Findings, Beads, Cabochons and much more.



Tools, Supplies and Equipment for Jewelry Manufacturing Catalog includes Beading supplies, buffs & polishing, mandrels, magnifiers, pliers & cutters, ring tools - jump ringer, scales, setting tools, soldering tools, tweezers and much more!



On-Line ordering:

www.kingsleynorth.com

E-mail: sales@kingsleynorth.com

Call, E-mail, or Mail in for our Free Catalogs

Name _____
 Address _____
 City _____
 State _____ Zip _____



Kingsley North, Inc.

P.O. Box 216: Dept 3
 910 Brown Street
 Norway, MI 49870-0216

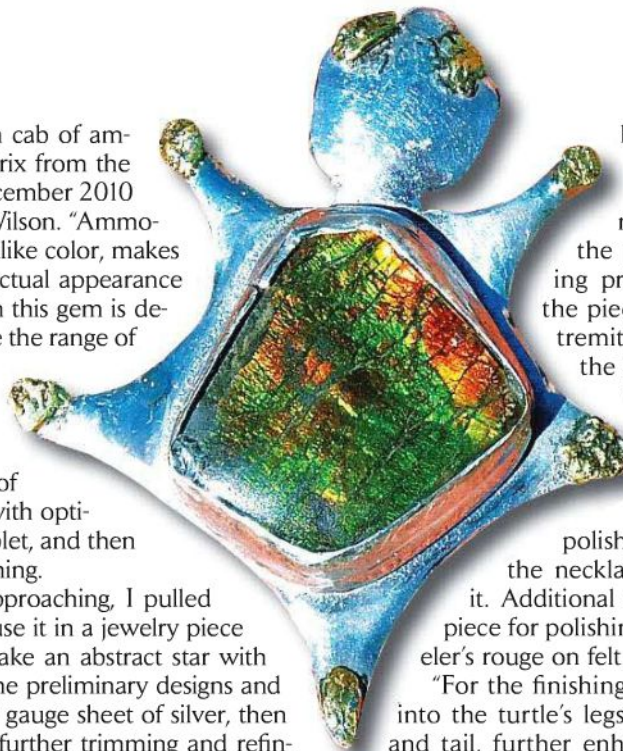
Secure on-line ordering: www.kingsleynorth.com
 Toll Free: 1-800-338-9280 • Fax: 1-906-563-7143
 email: sales@kingsleynorth.com

CRAFTSMAN OF THE MONTH

A few years ago, I cut a freeform cab of ammolite, trimming away the matrix from the area of the play of color," writes December 2010 Craftsman of the Month Stephen Wilson. "Ammolite, with its beautiful display of opallike color, makes me wonder whether this was the actual appearance of the living ammonites from which this gem is derived or a unique trick of nature, like the range of new colors she gives to wood during petrification. The shape of the cabochon was determined by the colored areas, which allowed me to catch the greens, golds and reds of the piece. I covered the ammolite with optical quartz to form a protective doublet, and then gave it the final trimming and polishing.

"With my daughter's birthday approaching, I pulled out the cab trying to think how to use it in a jewelry piece for her. My original idea was to make an abstract star with the cab in the center, so I drew some preliminary designs and chose one that I transferred to a 22 gauge sheet of silver, then cut out with a jeweler's saw. After further trimming and refining, I realized that the shape more closely resembled a turtle than a star, so I continued to let the design follow that path. I made a slight dome to what would become the head and cut a 2-millimeter strip of the silver for the bail, which I hard soldered behind the head. Next, I formed the bezel and medium soldered it to the piece.

"My wife, Dee, and I are recreational gold prospectors, so it seemed only natural to add some native gold to the project as



highlights. I chose some small 'pickers' to use as the turtle's eyes and some others to add to his feet and tail. Again using medium solder, I added these pieces to the project using normal pickling and fluxing procedures. Next, I sanded the edges of the piece, paying particular attention to the extremities to give a dimensional appearance to the piece and eliminate the flat sheet look of these areas.

"I then concentrated on the back of the piece, smoothing and polishing any rough spots where the small gold flakes met the extremities. I sanded and polished the edges and surfaces of the bail so the necklace chain would glide smoothly through it. Additional sanding through 1200 grit prepared the piece for polishing, which was accomplished with red jeweler's rouge on felt.

"For the finishing touches, I bent small downward curves into the turtle's legs and slight upward curves into its head and tail, further enhancing the appearance of depth. Keeping the bail for the necklace chain hidden behind the head prevented the poor turtle from forever having to go through life with a ring in his nose.

"So the ammolite cab finally found a home—not as a star, as originally conceived, but as the colorful back of a whimsical turtle. And considering the number of years that passed between the cutting of the cab and the completion of the project, perhaps the caricature of a turtle is justified." ♦



Would you like to be named Craftsman of the Month?

To enter the contest:

- Write a 500-word step-by-step description of how you crafted your lapidary project from start to finish. Submit an electronic copy of the story, along with your printed manuscript, if you are able.
- Take at least one sharp, close-up, color photo of the finished project. Submit a photographic print or a high-resolution (300 dpi at 4 inches by 5 inches) digital photo as a .tif or .jpg file on a CD. (Contact the editor with questions.)
- Send your materials, along with your name and street address

(required for delivery), to Craftsman of the Month, *Rock & Gem* magazine, 290 Maple Ct., Ste. 232, Ventura, CA 93003. Submissions will not be returned, so do not send originals. Only winners will be notified.

Craftsman of the Month winners receive a two-speed Dremel Model 200 N/40 MultiPro kit and a wall plaque in recognition of their creativity and craftsmanship. Winning projects are also posted on our Web site, www.rockngem.com.



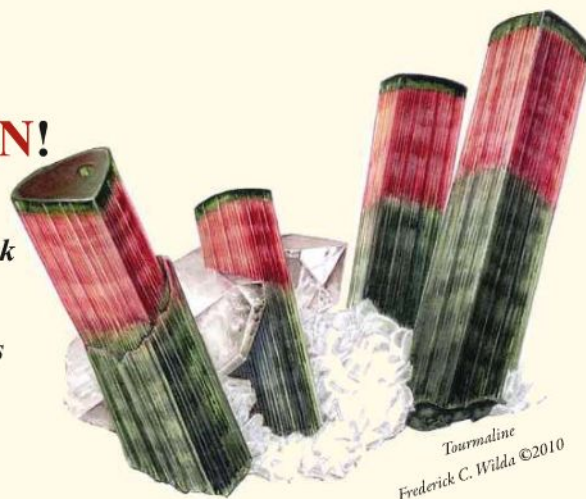
2011 ARIZONA MINERAL & FOSSIL SHOW™

JAN. 29 - FEB. 12

daily 10 -6

4 Easy to Find Locations in TUCSON!

- **Quality Inn - Benson Hwy.**
I-10, Exit 262, Northeast corner of Benson Hwy at Park
- **Hotel Tucson City Center**
(formerly InnSuites) 475 N. Granada Ave., at St. Marys
- **Ramada Ltd. - Downtown**
665 N. Freeway, at St Marys
- **Mineral & Fossil Marketplace**
1333 N. Oracle, at Drachman



*Tourmaline
Frederick C. Wilda ©2010*

450 Outstanding dealers from around the world with the best minerals & fossils in TUCSON!

Free Admission • Free Parking • Wholesale • Retail • Free Shuttle Bus to all 4 Locations

***Make your first stop at the Quality Inn - Benson Hwy.
for exceptional buys from great dealers!!***

QUALITY INN DEALERS INCLUDE:

- | | | |
|---|---|--|
| Alaska Garnet Mines | Farid Gems & Minerals | Pawar Exports |
| Axinite PM - Russia | GemRocks International Inc. | Poona Minerals |
| Changshashi HongChun Gem & Minerals | Gillani Enterprises | Primme Minerals India |
| Chen Xiao Jun China Minerals | Great Wall Mineral Museum | Quality Minerals |
| Chinar Agro Traders | Guilin Jumbo Mineral Shop | Ramos Minerals S.R.L. |
| Chunual Nathalal & Sons | HongLin Museum-Fine Chinese Minerals | Riveria Gems & Minerals |
| Club "Mineral" Russia | Huan Qiu Crystal Mineral Museum | Sakura Gems Trading Co. |
| CT Minerals | Hunan Sinophile Mineral Museum | Savoie, Pierre |
| Dai's Rock Shop | Hunan Vital Mineral Museum | Shicheng Mineral & Jewelry Exhibition Hall |
| Dashu Rare Stone | Jay Gems and Minerals | Starlight Mines |
| Dazhong Crystal Mineral Museum | Jinan Chinese Mineral Trading Co., Ltd. | Stoneworld Ltd. |
| Deccan Minerals Inc. | Madagascar Specimens | Tan Li Mineral Firm |
| Earth-Love | Marble Arts | Vinogradov, Aleksey |
| Earth-Love Minerals | Mineral Decor | XiaoXiang Crystal Mineral Museum |
| Efimenko, Alexandr/Tolchinsky, Grigoriy | Mineral Kingdom Ltd., The | Yaying Mineral Showing & Sales Museum |
| Ethiopian Opal | Moldavite/T.W. Designs | Yi Ja Yi Mineral Precious Stone Shop |
| Exotic Minerals of Russia | National Minerals | |

Plenty of parking at Quality Inn - Benson Hwy.!

Martin Zinn Expositions, L.L.C., P.O. Box 665, Bernalillo, NM 87004

Fax: (303) 223-3478, mzexpos@aol.com, www.mzexpos.com



"Business to Business"
Gem, Jewelry &
Lapidary Trade Shows

2010

Las Vegas, NV.....June 4-5-6
Detroit, MI.....July 9-10-11
Franklin, NC.....July 22-23-24-25
Spruce Pine, NC.....July 29-30-31-Aug. 1
Tucson, AZ.....September 9-10-11-12
Minneapolis, MN.....September 26-27
Detroit, MI.....October 1-2-3
West Springfield, MA.....October 8-9
Asheville, NC.....October 26-27
Orlando, FL.....October 29-30-31

2011

Asheville, NC.....January 4-5
Orlando, FL.....January 7-8-9
Tucson, AZ...January 29-February 11

TUCSON

Gem Mall
January 29- February 11

Holiday Inn-Palo Verde/Holidome
February 3 - February 11

Grant Inn on Grant Road
January 29 - February 11

Minneapolis, MN.....April 3-4
Detroit, MI.....April 8-9-10
West Springfield, MA.....April 15-16
Orlando, FL.....April 29-30-May 1
Franklin, NC.....May 6-7-8
Las Vegas, NV.....June 3-4-5

DATES SUBJECT TO CHANGE

Gem & Lapidary Wholesalers, Inc.
859 Petrified Forest Rd.
P.O. Box 98 Flora, MS 39071-0098
Ph 601.879.8832 • Fax 601.879.3282
E-mail info@glwshows.com
Website glwshows.com

• WHOLESALE ONLY •

Registration and Proof
of Business Required

SHOW DATES

Mark Your Calendar!

Send show information at least four months in advance to *Rock & Gem Show Dates*, 290 Maple Ct., Suite 232, Ventura, CA 93003-3517; e-mail: editor@rockngem.com; or use the electronic form at www.rockngem.com/showdates.asp.

DECEMBER 2010

3-5—EL PASO, TEXAS: El Paso Mineral & Gem Society; El Maida Auditorium, 6331 Alabama; Fri. 10-6, Sat. 10-6, Sun. 10-5; adults \$3, seniors \$2, under 12 free; gems, minerals, fossils, beads, jewelry, tools, books, equipment, geode cutting, silent auction, demonstrations; contact Jeannette Carrillo, 4100 Alameda Ave., El Paso, TX 79905, (877) 533-7153; e-mail: gemcenter@aol.com

3-5—HUACHUCA CITY, ARIZONA: 2nd annual show, "Miner's Mania Gem Show"; Tombstone Gem Show; Tombstone Territories RV Resort, 2111 E. Hwy. 82; Fri. 10-6, Sat. 10-6, Sun. 10-4; free admission; Arizona lapidary artists, miners and collectors, many local minerals, Arizona mining history displays, prizes, special raffle; contact Betty Krug, P.O. Box 414, Tombstone, AZ 85638, (520) 457-9505; e-mail: rockwranglers@gmail.com; Web site: www.tombstonegemshow.info

3-5—INDIANAPOLIS, INDIANA: Show and sale; GemStreet USA; The Indiana State Fairgrounds, The Pioneer, Our Land Bldg., 1202 E. 38th St.; Fri. 10-6, Sat. 10-6, Sun. 11-5; fine gems, jewelry, beads, fossils, minerals; contact Jane Strieter Smith, (216) 521-4367; Web site: www.gemstreetusa.com

3-5—SANTA BARBARA, CALIFORNIA: Show, "Gem Faire"; Earl Warren Showgrounds/Exhibit Hall, 3400 Calle Real; Fri. 12-7, Sat. 10-6, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com

3-5—SARASOTA, FLORIDA: Show; Frank Cox Productions; Municipal Auditorium, 801 N. Tamiami Trail (Hwy. 41); Fri. 10-5, Sat. 10-5, Sun. 10-5; gems, jewelry, beads; contact Frank Cox Productions, 755 S. Palm Ave. #203, Sarasota, FL 34236, (941) 954-0202; e-mail: frankcox@comcast.net; Web site: www.frankcoxproductions.com

3-5—SPRING HILL, FLORIDA: 36th annual show; Withlacoochee Rockhounds; Slovane American Club, 13383 County Line Rd.; Fri. 9-5, Sat. 9-5, Sun. 9-5; adults \$3, students \$1, children 12 and under free; minerals, gemstones, fossils demonstrations, handcrafted jewelry, lapidary equipment, gem and mineral auction, Aaron's Breastplate and Famous Diamonds of the World replicas; contact Ralph Barber, (352) 200-6852; e-mail: barbersbloomers@hotmail.com

10-12—COSTA MESA, CALIFORNIA: Show, "Gem Faire"; Gem Faire Inc.; OC Fair & Event Center/Bldg. 10, 88 Fair Dr.; Fri. 12-7, Sat. 10-6, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com

10-12—NORCROSS, GEORGIA: Show, "North Atlanta Gem Mineral, Fossil & Jewelry Show"; Mammoth Rock Shows LLC; North Atlanta Trade Center, 1700 Jeurgens Ct.; Fri. 10-6, Sat. 10-6, Sun. 10-5; adults \$4, under 16 free; gemstones, minerals, rough rock, lapidary supplies, beads, wire wrap, jewelry, museum-quality collectibles, hourly gift certificate drawing, grand door prize; contact Richard or Janice Hightower, 7334 Quail Run Rd., Lizella, GA 31052, (478) 935-9345; e-mail: staff@mammothrock.com; Web site: www.mammothrock.com

10-12—ORLANDO, FLORIDA: Show, "The Holiday Mineral & Gem Show and Florida Jewelry Artist Festival"; Central Florida Mineral & Gem Society; Central Florida Fair Grounds, 4803 W. Colonial Dr.; Fri. 1-6, Sat. 10-6, Sun. 10-5; adults \$5, students \$2; beads, minerals, custom jewelry, fossils, lapidary rocks and supplies, door prizes, silent auction, children's areas and activities, demonstrations; contact Mark Robinson, 2721 Forsyth Rd., Winter Park, FL 32792, (407) 538-7343; e-mail: mark.robinson5@att.net; Web site: www.cfmgs.org

10-12—SHARONVILLE, OHIO: Show and sale; GemStreet USA; The Sharonville Convention Center, 11355 Chester Rd.; Fri. 10-6, Sat. 10-6, Sun. 11-5; fine gems, jewelry, beads, fos-

sils, minerals; contact Jane Strieter Smith, (216) 521-4367; Web site: www.gemstreetusa.com

11-12—NASHVILLE, TENNESSEE: Show, "Earth Treasures"; Mid-Tennessee Gem & Mineral Society; Tennessee State Fairgrounds, Creative Arts Bldg., Nolensville Rd. and Smith Ave. (less than 1 mile off I-65 exit 81); Sat. 9-6, Sun. 10-5; adults \$3, students \$1, children free; demonstrations, exhibits, silent auction, door prizes, grand prize, more than 30 dealers, beads, crystals, geodes, rough, cabochons, gemstones, jewelry, tools, supplies, minerals, fossils, stone carvings; contact John Stanley, 2828 Donna Hill Dr., Nashville, TN 37214, (615) 885-5704; e-mail: jstanley@picagroup.com; Web site: www.MTGMS.org

17-19—SAN DIEGO, CALIFORNIA: Show, "Gem Faire"; Gem Faire Inc.; Scottish Rite Event Center, 1895 Camino del Rio S.; Fri. 12-7, Sat. 10-6, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com

JANUARY 2011

1-31—QUARTZSITE, ARIZONA: Show, "Desert Gardens International Gem & Mineral Show"; Desert Gardens RV Park; 1064 Kuehn St. (I-10 Exit 17, south side); 9-6 daily; free admission; crystals, minerals, rough, polished, jewelry, lapidary equipment; contact Sharon or Sandy, 1064 Kuehn St., Quartzsite, AZ 85346, (928) 927-6361; e-mail: info@desertgardensrvpark.net; Web site: www.desertgardensrvpark.net

14-16—GLOBE, ARIZONA: 54th annual show; Gila Co. Gem & Mineral Society; Gila County Fair Grounds, 3 mi. north of US 60-70 Junction; Fri. 9-5, Sat. 9-5, Sun. 9-4; live demonstrations, door prizes, displays, minerals, jewelry; contact Val Latham, (602) 466-3060; e-mail: val65@cox.net

14-16—LARGO, FLORIDA: 35th annual show and sale; Pinellas Geological Society; Largo Cultural Center, Parkside Room, 105 Central Park Dr., one block east of Seminole Blvd.; Fri. 10-6, Sat. 10-6, Sun. 12-5; free admission; club displays and sales, cut gems, silver and gold jewelry, wire wrapping, beading, cabochons, mineral eggs, rocks, minerals; contact Hugh Sheffield, (727) 894-2440

15-16—DELAND, FLORIDA: 40th annual show and sale; Tomoka Gem & Mineral Society; Volusia County Fairgrounds, Tommy Lawrence Bldg., Rte. 44; Sat. 10-6, Sun. 10-5; adults \$4, children 12 and under free; lapidary, jewelry, demonstrations, supplies, fine jewelry, gems, minerals, fossils, drawings; contact Florence Nordquist, (386) 788-5702; e-mail: fndesign@aol.com

15-16—FREDERICKSBURG, TEXAS: 42nd annual show, "Hill Country Gem & Mineral Show"; Fredericksburg Rockhounds; Pioneer Pavilion, Lady Bird Johnson Municipal Park; Sat. 9-6, Sun. 10-5; free admission; contact Jeff Smith, 208 Castle Pines Dr., Kerrville, TX 78028, (830) 895-9630; e-mail: jeffbrenda@windstreram.net; Web site: www.fredericksburgrockhounds.org

28-30—REDLANDS, CALIFORNIA: Annual symposium; Mineralogical Society of Southern California Micromounters; San Bernardino County Museum, 2024 Orange Tree; give-away tables, mineral sales, silent and live auctions, speakers, field trip; contact Eugene Reynolds, (714) 697-4435, or Dr. Robert Housley; e-mail: rhousley@its.caltech.edu; or Gene Reynolds; e-mail: garquartzman@hotmail.com

29-30—PANAMA CITY, FLORIDA: 20th annual show, "Panama City Gem, Mineral & Fossil Show"; Panama City Gem & Mineral Society; Bay County Fairgrounds, American Legion Bldg., US Hwy. 98 (15th St.) and Sherman Ave.; Sat. 9-5, Sun. 9-4; free admission; door prizes, gems, minerals, fossils, beads, jewelry, lapidary arts, wire wrapping, exhibits; contact Joseph Schings, 224 Collinurst Square, Panama City, FL 32404, (850) 871-1846; e-mail: mojo3002@comcast.net

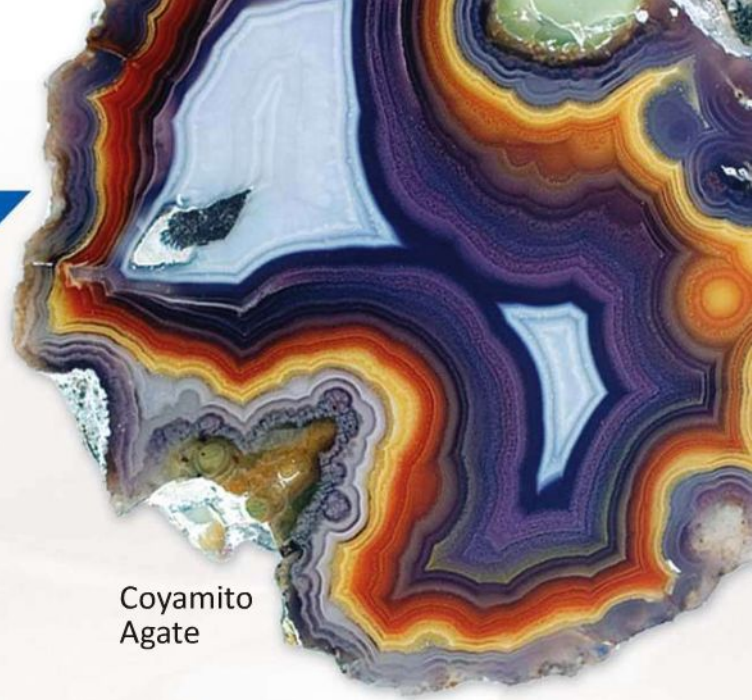
continued on page 44

GEM Center U.S.A. Inc.

4100 Alameda Ave., El Paso, TX 79905
Toll-Free 1-877-533-7153
P. (915) 533-7153 F. (915) 532-0244

TUCSON SHOW

**NEW STOCK
BRAVO GEODES**
CALL FOR SPECIAL PRICING



Coyamito
Agate

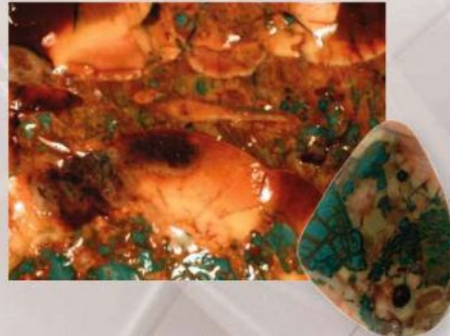
PRE-ORDER NOW!
1-877-533-7153
www.gemcenterusa.com

ROUGH MATERIAL & CABOCHONS

Crazy Lace



Fantasy Jasper



Viper Jasper



Rainbow Calcilica



Las Choyas Geodes



Trancas Geodes

SHOWS 2011 Tucson, Arizona Show 2 Locations!!

1. TEP, Tucson Electric Park, 2500 E. Ajo Way Tucson, AZ 85703, Space T12
(outside Tent #12), Jan 29 - Feb 13, 2011

2. Tucson Gem & Mineral Society, 260 S. Church Street, Tucson AZ Convention
Center, Space 16W, Feb 10-13, 2011

cabs • beads • mexican geodes • rough material • minerals

The Master Works of HAROLD VAN PELT



His Expert Quartz Carvings Are Finally on Display

Story by Bob Jones/Photos Courtesy
Harold and Erica Van Pelt



A fluted quartz cup is exhibited next to a natural quartz crystal to help viewers realize how much skill and patience is required to complete one of Harold Van Pelt's hard stone carvings.

History tells us that hard stone carving evolved millennia ago, probably in the Near East and in China. Today, hard stone carving is regularly practiced by professionals in China and Idar-Oberstein, Germany. In the United States, countless amateur lapidaries—and some professionals—carve solid rock into lovely works of art. The number of expert or professional hard stone carvers is limited, but these artists are recognized as professionals whose work is particularly noteworthy.

An expert carver who is almost unknown in this country is Harold Van Pelt. Harold is a shy fellow who just carves for a hobby, for entertainment, for a challenge—for every reason you can think of except recognition! Now Van, as his friends call him, is being recognized for his carving skills with an exciting exhibition of his work at the Bowers Museum of Cultural Art in Santa Ana, California (www.bowers.org). This is the first time a quantity of his work has been exhibited in the United States.

Traditionally, the finest hard stone carvings have been credited to Chinese artists, who devote years and sometimes a lifetime to carving breathtaking objects in jade, Chinese chicken blood stone, turquoise, and other hard stones. The Chinese tradition goes back thousands of years. Germany's carving tradition dates back a few hundred years. America's hard stone carving tradition is only a few decades old!

Chinese carvers dwell on traditional religious and natural subjects, while the talented experts in the twin cities Idar and Oberstein world renowned for their gemstone carvings of graceful birds and animals and decorative objets d'art in a variety of hard precious and semiprecious stones. Countless carved objects from Idar-Oberstein grace homes, mansions and museums all over the world.

In America, there is no carving center like Idar-Oberstein; carvers pretty much operate independently. Harold was one such artist. He worked for years, carving beautiful objects and going almost unrecognized for his work.

In the 1960s, Harold studied photography at the Brooks Institute. He and his wife, Erica, were professional photographers doing mainly catalog work when they were invited to photograph a group of exceptional mineral specimens in 1972. The subjects were a group of superb elbaite tourmalines recently dug by two well-known California dealer-collectors, Ed Swoboda and Bill Larson.

What made these gem minerals exceptional was their color zoning: superb pink prisms capped by a thin blue zone. Since that time, these elbaite tourmalines, probably the finest ever dug in California, have become well known as "Blue Cap" tourmalines.



This carved quartz egg is hollow, can be opened into two halves, and is unattached for easy removal from its hard stone support.



Harold and Erica Van Pelt exhibit the same care and expertise in their mineral photography as Harold does with his hard stone carvings.



Parallel faceted quartz containers rest in a holder with carrying handle fashioned from Arizona petrified wood.



Harold Van Pelt carved a sardonyx agate into this “rhyton”—a type of drinking vessel favored by the ancient Greeks—with a gold cap.



This lovely compartmented box, carved from clear quartz, has a dendritic quartz lid trimmed in gold.

Some are featured in the Smithsonian Institution and other museums, as well as in private collections.

This project launched them on a career of photographing gems, minerals and jewelry. They became recognized as the top photographers in the gem and mineral field. Their photographs have appeared countless times in books, magazines, reports, advertisements, posters and displays at mineral and gem shows.

If you ask mineral collectors or museum curators whether they have heard of Harold and Erica Van Pelt, the immediate response is an enthusiastic “Yes!” usually followed by compliments about their mineral and gem photography.

I am personally convinced that Harold and Erica’s photography is one major reason superb minerals are so highly sought and enthusiastically regarded today. Van Pelt photographs have surely raised the public’s awareness of quality minerals as collectibles by a quantum leap!

I know from personal experience that the Van Pelt’s are dedicated to perfection in their photography. Years ago, I was at the Smithsonian taking photographs of minerals for my files. As it happened, Harold and Erica were also there. They were set up to take photographs in the Blue Room, the inner vault in which highly valued specimens and jewelry are safeguarded. I was set up in Paul Desautels’ office, where I spent the day shooting a dozen or so minerals. During the same amount of time, the Van Pelt’s meticulously shot one specimen, not because of problems, but because of their exacting and meticulous care in getting the perfect photo. No wonder they are well known as photographers par excellence!

This same careful attitude of exactness, care and attention to detail is reflected now in Harold’s hard stone carvings.

As a result of being so involved in gem and mineral photography, the Van Pelt’s began visiting major gem and mineral shows and getting more and more involved in the hobby. They became interested in minerals, mainly quartz and agate, and bought nice specimens for their personal collection. Then Harold bought a slice of agate and decided to try his hand at carving it. This led to his carving hobby.

In 1972, Harold displayed one of his carvings at the world-famous Tucson Gem & Mineral Show™, and he continued to display a different piece each year after that. As a result, in 1993, he was invited to display some of his carvings at the Deutsches Edelsteinmuseum in Idar-Oberstein (www.edelsteinmuseum.de). The German artists were very impressed that an amateur American craftsman could produce such fine work. Such recognition confirmed that Harold was a skilled carver of hard stone.

Though his exhibition in Germany brought Harold European recognition, he remained virtually unknown as a skilled carver here in America. Few in America were aware of Harold’s talent for carving breathtaking objets d’art since he carves only for enjoyment, for the challenge with no intent to sell.

The Bowers Museum has gained a reputation for attracting exceptional displays of gems and minerals and presenting them in an innovative and artful way. It is refreshing to see the Van Pelt exhibit in a setting that is well known for fine gem and mineral displays. Credit for the display at the Bowers Museum is due to Peter Keller, a close



This hollowed-out quartz egg has 416 triangular facets and rests on a 363-carat aquamarine pedestal.

FIRE MOUNTAIN GEMS and Beads®

"Friendly Service" Since 1973

One Fire Mountain Way, DEPT C012 Grants Pass, OR 97526-2373

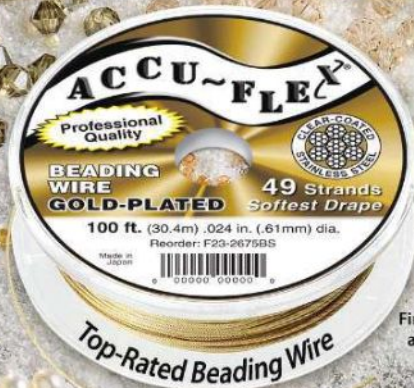
America's Favorite Beading and Jewelry Supply Company™

Request your **Free** full color
452 page catalog of HOT
jewelry-making supplies
Call 1.800.355.2137
or go online
www.firemountaingems.com

You supply the
creativity,
we supply
everything
else!®

Jody Young
www.beyondbeads.com

FINALIST
2010 Seed Bead
Jewelry-Making Contest



Fire Mountain Gems
and Beads© 2010



Van Pelt carved this freeform agate dish and lid from Brazilian agate. The abstract carving perceives and reveals the inherent design of nature.

friend of the Van Pelts and the museum's president. Peter convinced the Van Pelts to set up Harold's first American exhibition of his hard stone carvings.

Thousands of people have seen single examples of Harold's work in Tucson each year. The impact of just a single piece of his work is always impressive, but I suspect many at the Tucson Show only gave the work a passing glance, probably assuming they were looking at a very nice piece of cast glass. How wrong they were! Glass objects can be cast in minutes, while objects carved from clear, flawless, hard quartz take weeks, months, and even years to complete. A good example of this is an agate chair Harold is working on. He started that project 30 years ago!

It was not until I attended the Bowers Museum's opening-night reception for the Van Pelt carvings that I experienced the full impact of Harold's work. The event was attended by a large crowd of Van's friends, mineral and gem dealers and collectors, artists, museum benefactors, and supporters. The exhibit was an exquisite array of Harold's work. The variety of his designs and objects was amazing.

The exhibition offers a close-up look at several dozen of Harold's superb carved quartz objets d'art. Most of the carvings are done in clear natural quartz and some of the pieces are enhanced with colorful faceted gemstones. Some of the free-form carvings are executed in beautiful agate. All of them are superbly crafted into breathtaking forms.

To complement Harold's carved objects and to remind visitors that these beauties are carved from natural quartz, not glass, examples of natural crystals are displayed alongside some of Harold's works. The contrast between the fine natural crystals and

the artful carvings helps viewers realize the skill and patience Harold's work requires. Thanks to the Bowers Museum, the city of Santa Ana, and Peter Keller, American lapidary enthusiasts are now able to enjoy Harold's work for the first time in an exceptional exhibition.

To understand the true skill needed to carve Van Pelt's objets d'art, you must understand the physical properties of the medium of quartz. In crystallized form and in the cryptocrystalline form of agate, quartz is exceptionally hard (Mohs 7). It can scratch glass and has to be worked carefully with extremely sharp and hard abrasives and tools, preferably diamond.

Unfortunately for the artist, quartz does not cleave along flat planes, but exhibits conchoidal fracture, which is characterized by a curved breakage surface reminiscent of the surface of a mussel shell. Any undue pressure or excess heat generated during the carving process can result in a conchoidal fracture. To successfully carve quartz, the artist must guard against fracturing by avoiding excess heat and pressure. Therefore, working the quartz slowly and carefully is really important.

Harold likes to carve large objets d'art, some of which are 10 inches high. This requires him to start with very large natural quartz crystals, which he reduces to his planned size. The crystals he selects have to be completely flawless, since the finished pieces end up only millimeters thick! This creates a problem, as it is generally true that the larger a crystal is, the less perfect it is, having a greater chance for included flaws, cracks, unseen internal stresses, and hidden imperfections.

Selecting crystals that are suitable for carving may be the most challenging part of the process. Any hint of a flaw, crack

or imperfection is cause to reject a quartz crystal. Because of this, Harold has spent countless hours at quartz sources in places like Brazil and Arkansas to find suitable crystals for his work.

That Harold prefers large quartz crystals to other carving media is based on his innate desire to create glamorous objects of good size that will challenge his talents and skills. Yet, the finished object has to be graceful, eye appealing, and breathtaking. Harold has achieved these goals time and time again.

Each of his carved quartz pieces has been hollowed out, with the finished walls measuring just 3 or 4 millimeters thick! Imagine the skill and patience it takes to achieve such a delicate result with such a hard crystal. That is a challenge many carvers would find overwhelming.

To add a bit of color to the colorless quartz carvings, Harold often adds faceted gems to a lid or places a few colorful faceted gems inside the carving for contrast when displaying the piece. Some of his finished carvings are mounted on a colorful base carved from gem elbaite, aquamarine, or even inexpensive, colorful petrified wood! The addition of this colorful gem material increases the overall beauty of the carving.

Another of Harold's practices is to facet the quartz objects regardless of their final shape. He cuts dozens, sometimes hundreds of facets into the quartz. The fact that quartz is prone to fracturing is certainly a difficult challenge to overcome. While his vases, candleholders, cups, and other familiar forms are beautiful creations, Harold's carved and faceted quartz eggs are his most impressive works.

In what seems to be a direct challenge to Peter Carl Fabergé's famous Easter creations, Harold's carved quartz eggs are completely hollow with walls that are perhaps only 3 millimeters thick. It takes exceptional ability to do such work. Thanks to the artist's skilled hands, the egg's walls are not only thin, but they are finished with hundreds of triangular facets, a remarkable achievement in itself.

Be sure to visit the Bowers Museum (2002 N. Main St., Santa Ana, CA 92706; 714-567-3600) or the 2011 Tucson Show to see this master carver's creations for yourself. Harold Van Pelt has unintentionally created a carving legacy that will be considered the standard of expert hard stone carving in America for years to come. 💎



Twisted Jeweler

Jewelry Made the Twisted Way

**Big
Sale!!**

MERCHANDISE	SIZE & SHAPE	QUANTITY	MARKET PRICE	TWISTED PRICE
1. White Diamond (Small)	1-10 pointer	1cts	\$500	\$149
2. Green Diamonds	5-25 pointer	2cts	\$1200	\$199
3. Blue Diamonds	5-25 pointers	2cts	\$1200	\$199
4. Canary Diamonds	5-25 pointers	2cts	\$1200	\$199
5. Fine All color Mix Diamonds (Pink, Yellow, Brown, Champ)	1-10 pointer	2cts	\$1200	\$199
6. Cognac Diamonds	5-25 pointers	2cts	\$1800	\$199
7. Champagne Diamonds	5-25 pointers	2cts	\$1800	\$199
8. Black Diamonds	5-20 pointers	10cts	\$5000	\$399
9. Black Diamonds	1-5cts	10cts	\$8000	\$449
10. Burma Ruby Large	5-7mm round	10cts	\$1500	\$199
11. Burma Ruby	3-5mm round	20cts	\$2400	\$199
12. Brazil Emerald	¼-1ct	20cts	\$1200	\$199
13. Emerald	½-2cts	10cts	\$1300	\$199
14. Padparadscha Sapphire	½-1ct	10cts	\$2400	\$199
15. Yellow Sapphires	½-1ct	10cts	\$2000	\$199
16. Yellow Sapphires	1-3cts	10cts	\$4000	\$399
17. Pink Sapphire	½-1ct	10cts	\$1300	\$199
18. Ruby/Emerald/Sapphire Cabs	½-3cts	10cts	\$2400	\$299
19. Fancy Topaz (Mixed Shapes)	½-5cts	100cts	\$1400	\$199
20. Tanzanite AA+ TO AAA (Oval, Trillion, OCT)	1-3cts	20cts	\$9000	\$1500
21. Swiss Blue Topaz	½-3cts	300cts	\$1800	\$299
22. Rhodolite/Peridot	½-3cts	200cts	\$1200	\$199
23. Citrine/Amethyst	½-3cts	200cts	\$1200	\$199
24. White Topaz	½-5cts	400cts	\$1400	\$199
25. Garnet	½-5cts	400cts	\$1200	\$199
26. Green Gold Quartz	5-20cts	300cts	\$1200	\$199
27. Smokey Quartz	5-20cts	800cts	\$1200	\$199
28. Mixed Gemstones (Amethyst, Citrine, Quartz, Blue Topaz, Peridot, Garnet)	½ & below	400cts	\$2400	\$199
29. Multi Color Rainbow Precious (Diamond, Emerald, Ruby, Sapphire-Blue yellow pink)	½-and below	40cts	\$2400	\$199

Totally Twisted Prices! Act Now! Buy Now!

TwistedJeweler.com

phone (910) 816-9414 . fax (910)816-8260 . email TwistedJeweler@gmail.com

311 Hay St., Fayetteville, NC 28301

CABSTAR PROFESSIONAL

CabStar dop sticks are ergonomically shaped, machined from solid aluminum bar for a lifetime of use. Designed to be used with CA instant glues, or standard dop wax.



When cutting God's best ... CabStar



As featured in
June 2010
Shop Talk Column
of Rock&Gem!

SET OF THREE SMALL DOP STICKS
3/16", 1/4", and 3/8" dia..... \$19.95

SET OF THREE LARGE DOP STICKS
1/2", 5/8", and 3/4" dia.....\$22.95

SET OF ALL SIX DOP STICKS
3/16" thru 3/4" dia.....\$39.95

For check or money order purchase, send the amount of purchase plus \$7.95 S/H.

Make check or money order payable to:
Arc Precision LLC.

Please allow 3 weeks delivery.

Or go to www.cabstarpro.com
for quicker delivery.

U.S.A. orders only at this time.

Inquiries: cabstarpro@yahoo.com

CABSTAR PROFESSIONAL
24760 Ulysses CT NE, Isanti, MN 55040

ABRASIVE GRIT & POLISH

**100% VIRGIN
SILICON CARBIDE
STRAIGHT GRADED
30 - 1200 GRIT**

**TIN & CERIUM OXIDE
PLASTIC PELLETS
CORN COB
WALNUT SHELLS
MOUNTED STONES**

*EXCELLENT PRICES
OUTSTANDING SERVICE*

CALL FOR PRICE LIST

jesco products, inc.

1-800-422-GRIT

ORDER 24 HRS A DAY @
www.jescoproducts.com
email: jesco@jescoproducts.com

IN BUSINESS SINCE 1986

SHOP TALK

by William A. Kappelle

Information, Please

I have written several times about where to get information and where to find answers to questions about the lapidary hobby, and I still get lots of letters and e-mails on these subjects. Consequently, I decided to devote the column this month to repeating some of my answers and expanding on others.

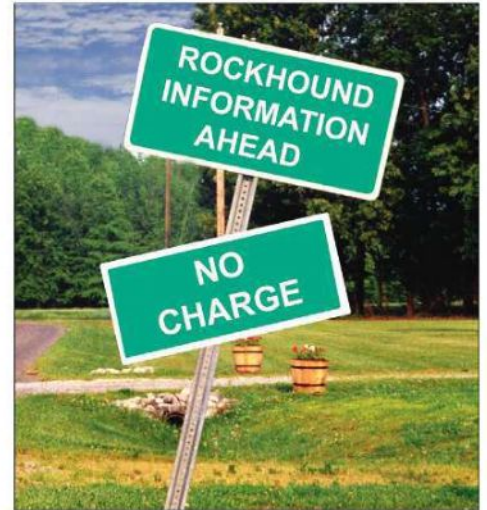
Frequently, readers who have just discovered the hobby want to know what equipment is needed to turn a rough rock into a cabochon. Very often these folks have not even seen a video of the process, much less had any hands-on experience. My suggestion is always that the best way to get started is to try to find a club where it is possible to talk to lapidaries, watch the various processes, and maybe get a little firsthand experience with some of the equipment.

This may be the ideal way to get started, but lots of folks live where there is no club nearby. Sometimes, the next best thing is a rock shop or lapidary supply store. Unfortunately, these stores tend to be where the clubs are, since they need customers to stay in business.

Quite often, you can find a university, college, community college, or vocational school in your area that has a geology and/or jewelry (art) department that has some lapidary equipment. It is often possible to take a class in lapidary or at least be able to wangle a demonstration of the equipment.

If all these options fail, there are some very good videos of the basic lapidary operations. They lack the big plus of human contact and they don't provide hands-on experience, but at least the process can be seen. I like the DVDs best because they can be paused, backed up, and fast forwarded in order to better see the operations that are of interest to you. The Internet is a good place to find these DVDs for sale. It is also the home to YouTube.com, a site where individuals and businesses put their videos for free viewing. Some are very good and some are awful, but remember, they are free. There is no running index or table of contents, so you may find a video available one day and gone the next.

I also get quite a few questions related to putting an artificial shine on rough rocks or slabs. Newbies discover very soon that nasty phenomenon that makes a rock look so much better when it is wet. Their first inclination is to find something to coat the rock with so that it always has that wet look. As a lapidary, I look upon this practice as being



akin to a silversmith making jewelry out of aluminum foil, but if anyone has a pretty rock or slab and no way to cut and polish it, then I say go for it. The only thing I stress to anyone wanting to coat a rock or a slab is that they do it with something that can easily be removed. I favor lacquer because it can be removed quickly and completely with lacquer thinner.

I have heard from folks who had rocks that had been coated with an unknown substance by a previous owner and nothing would soften the coating. Most polyurethanes and some resins can be softened with paint removers, but if you have a rock coated with epoxy, just enjoy it as is or throw it away. The only thing I am aware of that will dissolve epoxy is a very dangerous chemical that is probably not available to the public, anyway.

There are many more questions than can fit in one column, so if you have one (or many), write or e-mail me and I will do my best to get you an answer.

If you need help finding a club near you, try the Club Listing on the *Rock & Gem* Web site, www.rockngem.com. There you will find clubs in the United States and Canada listed by city and state. If your club does not appear in the listing, e-mail its contact information to editor@rockngem.com.

Please feel free to send your questions and comments about any of my columns to Shop Talk, 25231 Pericia Dr., Mission Viejo, CA 92691 or quappelle@cox.net.



BelOMO 10x Triplet Loupe

World's most popular loupe!

10 times magnification ratio
3 achromatic optical lenses bonded together
Larger viewing area than most loupes
Focal distance: 1.1 inch
Linear field of view: 0.67 inch
Size: 1.54 x 1.1 x 0.98 inch
Weight: 2.1 oz.



Distributed in North America by US Geological Supply

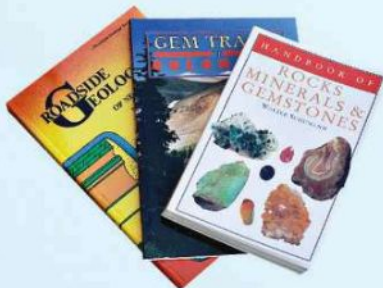
<http://www.belomo.us>

belomo@usgeologicalsupply.com

877-4BelOMO (877-423-5666)

Amateur Geologist

*Supplies for the recreational
geologist and rockhound*



Books - hundreds of titles - most at 30% off
Estwing rock hammers and tools
Loupes - BelOMO & Bausch & Lomb
Geology maps & charts
Educational rock & mineral collections
Hardness pick sets
Vests with pockets galore
Ultraviolet lights
Rock tumblers
Rockhound stuff for kids
Novelties



Discounted internet prices!!!

www.amateurgeologist.com

CHRYSANTHEMUM STONES



Hubei Province is the source of many large limestone rocks containing multiple, flowerlike celestite and calcite crystals. The stone itself is slightly over 20 inches high and 13.5 inches wide and is held in a natural root base modified to hold the stone.

Mineral "Flowers" Bloom in These Popular Collectibles

Story and Photos by Tom Elias

Chrysanthemum stones, long admired and valued in China and Japan for their beauty and rarity, have recently been attracting considerable attention in Western countries, and only in the last 30 years have they been found in California. These stones with three-dimensional, radiating crystals resembling chrysanthemum blossoms range from tiny, ping-pong ball-size pieces weighing a few ounces to very large, 2- to 3-foot-high specimens weighing several hundred pounds. While many minerals form radiating crystals, the crystal flowers in chrysanthemum stones are mainly calcite or celestite, or less commonly quartz and aragonite, and have their origin in ancient marine sedimentary deposits. Rather than separating the crystal formations from the matrix stone in which they are embedded, these specimens are valued and appreciated as a unit. Flower-pattern stones have been found in Korea and resemble these stones in general, but reportedly have an igneous origin.

In our search for chrysanthemum stones, my wife, Hiromi, and I traveled to China and Japan at least once a year for the last 10 years. We visited stone markets, tracked down serious collectors, and even met with several who specialized in collecting these stones. Our journeys took us into the field in China and to Neo Valley in Japan, where the majority of Japanese stones are found.

CHINESE STONES

The Chinese stones are generally distinct from the Japanese ones due to the different geological histories of the two countries. The geology of southern and southeastern China has its origin in ancient shallow seas that were once part of Pangea. One of our trips to China



A close-up of a large Chinese chrysanthemum stone shows how portions of the matrix have been carefully removed to expose more of the crystals.

to study stones and minerals took us to the Geology Department at the China University of Geosciences in Wuhan (Hubei Province), where geologists specializing in sedimentology informed us that the large, flowerlike mineral formations formed in a shallow, oxygen-deficient marine environment in the Middle Permian Chihhsia, or Qixia, Formation 290 million to 245 million years ago. Conditions then were quite different from those found today. The correct conditions were present in the sediments and interstitial water or pore water for the celestite and aragonite to precipitate.

A nucleus, or core, must be present initially in order for the radiating crystals to develop into their characteristic flowerlike formations. The crystals were first composed of celestite and aragonite, which slowly morphed to calcite as a result of heat and pressure. Scientists at the China University of Geosciences concluded that some of the large and magnificent crystal formations in China developed over a million or more years and were eventually covered by sediments. Compaction of the sediments caused the crystals to lose some of their three-dimensional aspects. The shallow marine floor was uplifted and the plate moved and joined with other tectonic plates to form much of present-day southern and southeastern China.

The mineral formations vary in size and shape from one region in China to another; however, the matrix stone is a relatively soft, light- to dark-gray or even black limestone. The flowerlike formations may be small with narrow, uniform "petals" and symmetrical in shape, as seen in stones from the Liuyang mines in Hunan Province. Hubei Province stones have flowerlike calcite formations that are typically larger, up to 2 feet across, with broad "petals" and an asymmetrical shape. Some stones from mines in Jiangxi

NATIONAL BONSAI AND PENJING MUSEUM, U.S. NATIONAL ARBORETUM



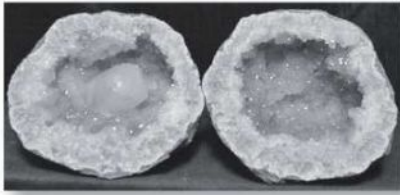
This Chinese chrysanthemum stone has two exceptionally large and well defined crystalline "flowers" in its dark matrix.



In Liuyang (Hunan Province) China, carving limestone rock containing flowerlike calcite or celestite crystals developed into a major industry.

GEODES

The Leading Supplier of Keokuk, Iowa Geodes
www.geodegallery.com



- Guaranteed Hollow Whole Geodes
- Opened Quartz & Calcite Geode Pairs, Halves & Pieces
- Sizes up to 12 Inches Regularly Available!
- Break Your Own Geodes for School & Scout Projects
- Retail & Wholesale
- eBay Seller ID: geode4



Contact us for your free Wholesale Geode Price List!
 Easy, secure, and accurate ordering online available!

The Geode Gallery
 Revealing Nature's Surprises

1131 80th St. Roseville, IL 61473
 (309) 335-6740
sand@maplecity.com

DISPLAY STANDS

Free Catalog

For Eggs, Geodes, Fossils, Meteorites, Spheres, Shells, Slabs, Rocks and more. BUY direct from the manufacturer.

Sylmar Displays

P.O. Box 3726-R
 New Haven, CT 06525-0726
 203 393-1059
 203 393-2457 fax

www.sylmardisplays.com

Wholesale Catalog with Resale Number



METEORITES

BEAUTIFUL GEMS FROM SPACE

Museum-Quality collectors' display and study specimens. Meteorite jewelry, books, collecting kits, unique gift items. Authenticity guaranteed.

The Universe Collection
 P.O. Box 3726-R
 New Haven, CT 06525-0726
 203 393-3395
 203 393-2457 fax
www.universecollection.com

Color Catalog
 \$3 USA, Canada and Mexico
 \$6 Foreign
 Refundable with order

VISA • MC • AMEX

Chrysanthemum Stones from page 21



This stone from the Neo Valley of Japan shows great contrast between the black matrix and the colored crystal formations.



This magnificent, large-flowered Japanese chrysanthemum stone was presented to the people of the United States by the people of Japan.

Province can have long, narrow crystals. This limestone, which was once part of the sea bed, is mined in large blocks. I saw one block in a Shanghai, China, stone market that measured about 10 feet long and 3 to 4 feet wide. Large blocks such as this are often broken into smaller pieces, depending upon the location and arrangement of the "flowers". The broken pieces are then ground and shaped, placed on hand-made wooden bases, and sold to collectors or, in the case of exceptional specimens, to museums. Most often, the minerals are seen in face view, although some stones are finished in a manner that exposes multiple cross sections of many individual crystals. At least 21 locations in China are known in which rock strata bearing chrysanthemum stones are found. The majority of the stones in the commercial markets originate from Hubei, Hunan, and Jiangxi provinces.

In China, some of the earliest records of the collection and use of these stones are from the 18th century, when they were used as carved art objects, particularly as inkstones. In Liuyang (Hunan Province), carving limestone rock containing flowerlike calcite or celestite crystals developed into a major industry. Large, outstanding Chinese chrysanthemum stones can be seen in most of the 61 public stone museums located in major cities throughout China. Stones markets are also found throughout the country, and both common and rarer types of these stones can be purchased. The markets in Hubei and Hunan provinces and in Shanghai are the best locations for purchasing these stones. Chrysanthemum stones for sale at most major gem and mineral shows in the United States are typically Chinese, rather than the rarer Japanese stones.

There is another unrelated type of chrysanthemum stone that comes from Huadu District in Guangdong Province. Found only on Chrysanthemum Mountain, these stones, with their abundant crystals, are believed to be much younger in origin, probably Cretaceous rather than Permian. The densely packed crystals are quartz and are

white, yellow or tan in color. They may be igneous in origin, but we must wait to be sure until ongoing studies of these stones by Chinese geologists have been completed. I visited this mountain in late 2008 with my Chinese colleagues and was able to collect a few samples of these fascinating formations. But these curious mineral formations are another story in themselves.

JAPANESE STONES

The geological history of the Japanese stones is more complex due to that country's location where two tectonic plates meet; one slid under the other causing a subduction zone, which is characterized by a high occurrence of volcanoes and earthquakes. Chrysanthemum stones here have their origin in ancient marine sediments that have been uplifted and subjected to increased heat and pressure. Neo Valley, in the mountains above Gifu, is the major source of chrysanthemum stones in Japan. Neo Valley is the site of a major fault line and its geology is extremely complex. There are several current theories in Japan to explain the formation of these stones, but they have not been rigorously studied like their Chinese counterparts. The Japanese stones are much harder rock, which I believe is caused by geological activity over long periods of time, including being subjected to greater pressures and higher temperatures, which caused more compaction and greater levels of silica in the matrix stone. More impurities, such as iron and barium, are present in the Japanese stones, often resulting in a range of colors in both the calcite crystals and the matrix stone. Attractively colored stones with contrasting, clearly defined mineral formations command high prices in Japan.

Chrysanthemum stones are known to come from at least five locations in Japan: Neo Valley (Gifu Prefecture), Okutama (Tokyo Prefecture), Shimonita (Gunma Prefecture), Niyodo River (Koichi Prefecture), and the Kamo River (Kyoto Prefecture). Neo Valley produces the vast majority of Japanese chrysanthemum stones. Neo Val-



**TUCSON
2011**

The
"Show of Shows"
In Tucson

Holiday Inn/Holidome

February 3 thru February 11, 2011

**Worldwide Exhibitors Showing in the
Meeting Rooms ~ Pavilion
Ballroom ~ Suites**



**WHOLESALE ONLY
Tax License Required
For Admission**


**Register Online for your
Tucson Buyer Badges
at glwshows.com**

For More Information Contact

Gem & Lapidary Wholesalers, Inc. • P.O. Box 98 Flora, MS 39071-0098

Phone: (601) 879-8832 • Fax: (601) 879-3282 • E-Mail - info@glwshows.com • www.glwshows.com

Silversmith Stamps
by
UNIQUE TOOL



DEALER INQUIRIES WELCOME

Since 1978, I have been hand grinding stamping tools for the silver jewelry trade. These stamps are hardened and tempered to approx. 58 Rockwell, (that's HARD!) blued, and satisfaction guaranteed. If you EVER are dissatisfied with any stamp we make, simply return it to us for a replacement, period. No questions asked.

- Hand-made in America from the best tool steel money can buy.
- \$8.00 each individual Stamp.
- Lifetime replacement warranty (*My lifetime, not yours*) ... no questions asked.
- 60 different designs available.

Shop the Website, or call or e-mail to request a catalog.
UNIQUE TOOL, P.O. Box 378, Rodeo, NM 88056
Call Toll-Free (800) 840-2434
www.thingswestern.com

COLLECTORCABZ.COM

Hand Crafted Cabochons



HALF-OFF
All Cabochons
For the Holidays!

Agates • Jasper • Ohio Flint

EARTHWORKS®

GEMS MINERALS FOSSILS

- Gold Panning Bags - Guaranteed gold 60mg 7.95, 3/19.95; 100mg 9.95, 3/25.95
- Gem Mining Bags - Ruby, Emeralds or Sapphire 7.95ea, 3/21.95 mix/match
- Gold Pan - 10" plastic w/ribs 3/9.95
- Salt Lamp w/cord 6" tall \$23.95
- Polished stones - 10 different w/ID 3.95
- Fossils - 3 different w/ID 2.95, 4/9.95
- Meteorite Pendant w/cord 8.95
- Prices plus S/H Catalog \$1

P.O. Box 2067, Round Rock, TX 78681
Pat@Earthworks.net 512-255-2844

Chrysanthemum Stones *from page 22*

ley stones are the best known and most valued stones due, in part, to the great variety of the stones' "flowerlike" formations, the distinctness of their central core and radiating crystals, and the color of the matrix stone and minerals due to the presence of impurities. Okutama, now closed to collecting because it is part of a national park, produced stones with 1/8- to 1/4-inch-wide, whitish to cream-colored crystals. Shimonita stones typically have very narrow crystals that are colored, along with portions of the matrix stone, a bluish green. Stones from the Niyodo and Kamo rivers are very scarce and are seldom seen.

The first documented chrysanthemum stones, known as river-washed stones, were collected in high mountain streams and beds in Neo Valley. These stones broke loose from the exposed strata containing them and slid into the waterways, where they were subjected to the scouring and tumbling action typical of high mountain streams, particularly in spring. Freezing and thawing action during the winter months also contributed to the wearing away of some of the outer layers of stone to expose the flowerlike mineral formations. The larger, nicer river-washed stones were found in the 1800s and early 1900s. Today, it is possible to find small stones of this type, but you have to compete with the local collectors in this valley, so it's hard to find a good one. I made two trips to these streams and was amazed at the great variety of rocks present in addition to calcite-bearing stones.

Mines were dug in Neo Valley to reach the Schalstein layer of sedimentary rock that contains the flowerlike deposits. Small to large boulders were extracted from the gray-green to green-brown layer and carried to the rock collectors' homes, where they could be processed. Because the mineral deposits are not often on the surface, but buried in the stones, cutting, grinding and polishing are needed to expose the "flowers". This process consists of making a series of cuts with a diamond-bladed saw, chipping away the surface stone, and then grinding the surface to maximize the exposure of the minerals.

Because the mineral deposits are not in a single plane but are often scattered through the stone matrix, it takes a skilled stone worker to expose the flowers while maintaining the natural shape of the stone. On occasion, only one side of the stone is ground and polished, leaving the other side or sides in their natural state. Serious collectors of chrysanthemum stones prefer these specimens. A few work their stones even more, using a diamond bit to remove a portion of the matrix from around part of the crystals to give them a more three-dimensional effect.



This natural, unaltered chrysanthemum stone, with its characteristic long, narrow crystals and a light greenish-blue hue to the stone, is from Shimonita, Japan.

One of the rarest and most valuable types of chrysanthemum stones has rugged, three-dimensional crystal formations that appear to have formed in a pocket of water, air, or soft mud. Unlike most of the stones, these were not compressed and are not totally embedded in a stone matrix. Because they are highly prized in Japan and scarce, they are seldom seen in Western countries. In some cases, these natural, unaltered stones and their minerals may have been exposed to extreme weather and environmental conditions, resulting in the breaking and partial to total loss of the crystals. As a result, only a cast of the mineral formation remains. These, too, are prized and collected by serious stone aficionados.

Unlike the Chinese stones, Japanese chrysanthemum stones are seldom carved into objects. Their harder, more siliceous stone matrix is more prone to chipping and breaking than the softer Chinese limestone. As a result, it is rare to see stones shaped for bola ties or belt buckles, small figures, or other art objects made from Japanese chrysanthemum stone. The heavily worked stones seen at U.S. rock and gem shows are invariably Chinese in origin. As we gathered more information about the Japanese stones, we learned that they played a historically important role, in addition to being aesthetic objects.

These stones were known from the mid to late Edo Period (1600 to 1865). They began to gain popularity in Japan in the late 1930s after several chrysanthemum stones were presented to Emperor Showa and members of the imperial household. It didn't hurt that the emperor's official emblem was a 16-petal chrysanthemum flower. In 1996, two large Japanese stones, among other gifts from Japan, were presented to President Gerald Ford and the American people in recognition of our country's bicentennial. A polished Japanese stone weighing over 200 pounds was also presented to Los Angeles Mayor Tom Bradley by the mayor of Nagoya, Japan. Rarely has so common a

Highland Precision 30" Slab Saw

Introducing the new
Barranca Diamond HP30
Slab Saw. The HP30 is
engineered for accurate,
smooth cuts of large rocks,
minerals and glass.

Features:

- 2 HP continuous duty commercial grade motor with thermal overload protection and manual reset
- Heavy duty cast iron carriage and 17" vise opening
- 3/4" screw drive vise carriage with automatic shutoff
- Variable feed rate (3 settings, pulley adjustable)
- Submersible pump delivers oil to the blade
- Depth of Cut: 11" -12" w/30" Blade, Blade Capacity: 24" -30"
- Includes 3035 (30"x.125x1") diamond blade



INTRODUCTORY SALE

List Price: ~~\$7,200~~

SALE PRICE: \$6,500

Sept. 1-April 1, 2011

* 50 Hz exports motor available (\$150 extra)
Crating charge: \$250, FOB Torrance, CA



BD-301 SUPREME NOTCHED RIM BLADES

This 301 Supreme Series is specially designed to provide superior cutting of hard materials such as agate, petrified wood and jade.



BD-3035 PRO SEGMENTED RIM BLADES

For cutting agate, quartz, jasper and jade.



BARRANCA DIAMOND

310.523.5867, 800.630.7682, www.BarrancaDiamond.com

Visit us at The Tucson Electric Park Show
Tent # 20, January 29-February 13, 2011

45th
Annual

WHERE IT ALL BEGAN...

QUARTZSITE POW WOW GEM AND MINERAL SHOW AND RELATED HOBBIES

SPONSOR - QUARTZSITE IMPROVEMENT ASSOCIATION

- - FREE PARKING - - FREE ADMISSION - -

JAN. 19 - JAN. 23, 2011 Wednesday thru Sunday

Field Trips Daily by Quartzsite Roadrunner Gem & Mineral Club

Food Served Daily Jan 18 - Jan 23, 2011

7 am-7 pm Cafeteria Style + Vendor Food Line

- NOTICE TO BUYERS -

Truly the buyers market of the world

Over 500 outdoor sites and 10,000 square foot building



Displays from
around the world

Dealers with gems

- Minerals -
- Jewelry -
- Beads -

Demonstrations

Wire wrap supplies
and Much More...

For Dealer Information write Show Chairman - QIA, P.O. Box 881, Quartzsite, AZ 85346-0881

Phone: (928) 927-6325

Fax: (928) 927-4503

E-Mail: powwow@qiaaz.org Web Site: www.qiaaz.org

Sales Tax License Required by AZ Department of Revenue

Quartzsite Vendor Selling Permit Required - Purchase prior to show @ QIA



"America's marketplace for fine jewelry, gems, beads, crystals, and treasures from around the world."

www.gemfaire.com

info@gemfaire.com (503) 252-8300

2010 / 2011 SCHEDULE

DEC. 3, 4, 5	SANTA BARBARA, CA
DEC. 10, 11, 12	COSTA MESA, CA
DEC. 17, 18, 19	SAN DIEGO, CA
JAN. 7, 8, 9	DEL MAR, CA
JAN. 14, 15, 16	SANTA ROSA, CA
JAN. 21, 22, 23	HILLSBORO, OR
JAN. 28, 29, 30	SAN RAFAEL, CA
FEB. 4, 5, 6	ROSEVILLE, CA
FEB. 18, 19, 20	SANTA BARBARA, CA
FEB. 25, 26, 27	COSTA MESA, CA
MAR. 4, 5, 6	DEL MAR, CA
MAR. 11, 12, 13	PLEASANTON, CA

Last _____ First _____

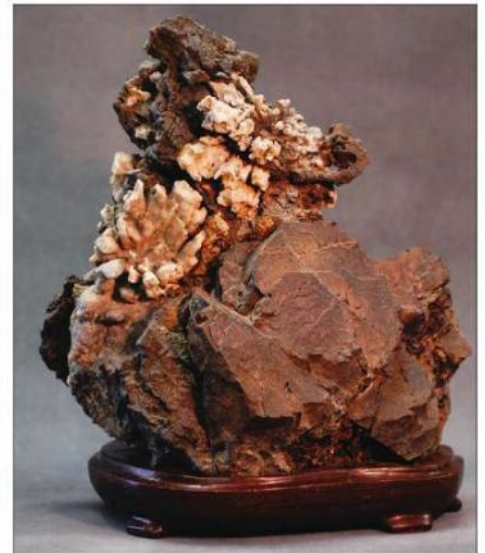
Address _____

City _____ State _____ Zip _____



Must present original coupon. Photocopies not accepted.

RG12/10



The natural, three-dimensional, flowerlike calcite crystals, together with the features of the matrix, give this stone a bold, rugged appearance.

mineral as calcite played such an important role in international diplomacy.

U.S. CHRYSANTHEMUM STONES

For many years, chrysanthemum stones were thought to be solely Asian in origin, but several documented stones have been found in northern California. The first one was collected in the early 1980s, and several more have been found since, bringing the total known to fewer than 10. This is exciting news, and now rock collectors are on the lookout for more. Up to this point, the stones were found in the Eel River, possibly tumbled into the river from a mineral-bearing seam somewhere above the river or along the river bank. Two of the stones have been analyzed. One flowerlike crystal was composed of aragonite, while the crystals on the second stone were of calcite and quartz. The American stones are more similar to the Japanese stones than the Chinese stones. I think many more American chrysanthemum stones will be found, likely in a Permian layer of marine deposits and particularly in Western North America.

To see outstanding examples of both Chinese and Japanese chrysanthemum stones in the United States, go to the National Bonsai and Penjing Museum at the U.S. National Arboretum in northeast Washington, D.C. Its collection is periodically on display, especially in autumn.

Chrysanthemum stones are excellent collectibles because they provide a permanent display of beauty, unlike their living counterparts, which fade and die. They are appreciated by a broad range of people, inside and outside the mineral-collecting community, and they hold value. A quality stone may even appreciate over time. They are still largely unknown in Western countries and the availability of quality stones in the West is limited. But this is slowly changing as information and stones become available. 💎

Lowest Prices Guaranteed

Tools & Equipment

Silicon Carbide Grits

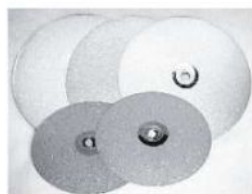
Polishing Powders



Diamond Wheels

6" - 78.95
8" - 98.95

All grit sizes



Diamond Lapping Plates

With Sticky Back
All grit sizes

6" - 19.95
8" - 24.95

Grit	Pr./Lb.
 46/70	1.45
60/90	1.45
120/220	1.55

Polishing Powder	Pr./Lb.
Cerium Oxide	6.45
Stainless Steel - Mix	12.00
Burnishing	2.85
CPP Tumble Polish	4.08
Plastic Pellets	1.80
Super Cerium French Cerium	15.14
Tin Oxide - 99.9% pure	17.75

Above prices are for 50 Lb. Package

Prices & specifications subject to change without notice

Call or fax to get your Free Catalog

Three in One

Complete Workshop with Accessories & Supplies

Size	Price
with 6" Flat Lap	339.95
with 8" Flat Lap	369.95



Saw



Flat Lap



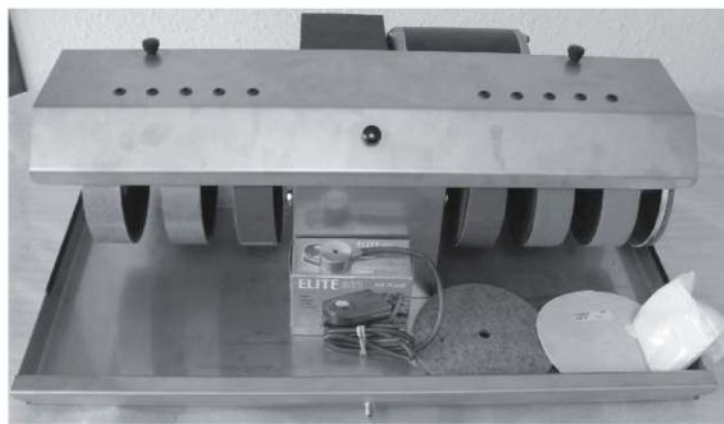
Grinder Shaper

6 Wheels Cabbing Machine

\$ 895⁰⁰

Made in USA

Complete with Wheels & Accessories



Note: When comparing our machine to others, make sure to ask your other suppliers:

What type(brand) of Wheels am I getting?

Most companies are offering Nova look alike wheels that is similar to our Hobby Use (Resin Bond).

Soft Wheel Selection

Hobby Use	Commercial Use (lasts 5-6 times longer than Hobby Use)	
Resin Bond	Expanding Drum & 3M Diamond belts	Diamond Pacific Nova
895.00	945.00	995.00

Visit us: Denver Gem & Mineral Show
Merchandise Mart, Sept. 17-19, 2010 - Booth # G35-37

Johnson Brothers

Ph: 714-771-7007 - Fax: 714-771-7075
Email: sales@jbfbc.com Web: www.jbfbc.com



A Whole World of Fine
PEARLS

All Kinds of Better Natural Stone

BEADS



All Sorts of Calibrated Better

GEMSTONES

Useful Jewelry & Beading

TOOLS



www.StachuraWholesale.com

- order on-line securely
- request Wholesale Catalog
- view photos of new items

Direct Importers – Best Prices since 1955

Joseph P. Stachura Co., Inc.

435 Quaker Highway, Rt. 146A
Uxbridge, MA 01569

T: 508.278.6525 F: 508.278.9458

contactus@StachuraWholesale.com

Visit our Showrooms – Wholesale Only

OPTIMA GEM
PO Box 1421, San Luis Obispo, CA 93406

CLOSEOUTS!

"huge selection of unique cuts, unusual gem types and crystals"

 4mm white TOPAZ Silver earring - \$2
"consistent fine quality calibrated gems with free matching"

 3x2mm Montana SAPPHIRES - 75¢
"The most accurate colored stone grading in the industry"

 8mm concave cut lab RUBY - \$7.50
"unenhanced color photos of every gem we offer"

 100cts Mexican OPAL rough - \$5.00
"honest and friendly customer service"

FREE monthly newsletter!

800 543-5563

www.optimagem.com

Curiosities from
the
Earth



rare and one-of-a-kind
gems and crystals our specialty

GEM-FARE

P.O. Box 213, Pittstown, NJ 08867

(570) 449-4577

E-mail: gf@sprintmail.com

ROCK SCIENCE

by Steve Voynick

The Texture and Toughness of Jade

Jade is not known as the "ax stone" for nothing. Because of its legendary toughness, ancient stoneworkers used it to fashion extraordinarily durable ax heads, knives, and spear points. Its remarkable ability to be worked extensively without fracturing also enabled Chinese carvers to create jade objects in the most exquisite and delicate shapes imaginable.

The collective term "jade" refers to two distinct minerals: the nephrite variety of actinolite-tremolite and jadeite. Jade was scientifically named "nephrite" in 1794. Two years later, actinolite was identified as a distinct mineral and nephrite was reclassified as a variety of actinolite. All jade was thought to be nephrite until 1863, when advanced quantitative analysis techniques enabled mineralogists to identify a new form of jade that they named "jadeite."

Both nephrite, $\text{Ca}_2(\text{Mg,Fe})_5\text{Si}_8\text{O}_{22}(\text{OH})_2$, and jadeite, $\text{NaAlSi}_3\text{O}_6$, are silicates with somewhat similar chemistries. Nephrite, an especially fine-grained variety of the actinolite-tremolite solid-solution series, is an amphibole mineral with a basic calcium magnesium iron silicate composition. Jadeite, a pyroxene mineral, is a sodium aluminum iron silicate.

Nephrite and jadeite also share similar physical properties like color. Both crystallize in the monoclinic system, almost always in compact, massive form, and exhibit a splintery fracture and no cleavage. Jadeite is slightly harder at Mohs 6.5 to 7 (nearly as hard as quartz), while nephrite is slightly softer at Mohs 6 to 6.5. Density is the only simple way to distinguish between the two jades. Jadeite has a specific gravity of 3.3 to 3.5, while nephrite is less dense at 2.9 to 3.

Although neither jadeite nor nephrite is particularly hard, their toughness has been compared to that of carbon steel. In its mineralogical context, "hardness" is defined as resistance to scratching, while "toughness," specifically fracture toughness, refers to resistance to fracturing. Only after the introduction of electron microscopy in the 1930s did mineralogists realize that the toughness of jade was not dependent on atomic bonding, as is the case with most minerals, but on its microscopic texture.


Under scanning electron microscopy (SEM) analysis, jadeite appears as a matrix of tightly interlocked, microscopic crystals. Mechanical energy travels through jadeite in a transgranular mode, that is, not around



Nephrite and jadeite are chemically and physically similar. Their extraordinary toughness is due to their microscopic textures.

the crystal grains, but directly *through* them. Because the individual grains in jadeite are randomly aligned, a propagating fracture (one that occurs in a linear manner) must change direction with virtually every grain that it cleaves. Accordingly, great amounts of mechanical energy can be absorbed—and must be expended—in the propagation of a fracture line in jadeite.

Nephrite, under SEM analysis, appears as a mass of randomly arranged individual crystalline fibers and bundles of fibers, all considerably smaller than jadeite microcrystals. Their small size results in a huge internal, intercrystalline surface area. When mechanical energy is applied to nephrite, these myriad crystalline fibers and fiber bundles "slip" slightly along their many surfaces, absorbing great amounts of energy in slippage friction. Researchers calculate that the mechanical energy necessary to propagate a nephrite fracture is even greater than that needed to propagate a jadeite fracture.

The bottom line, as revealed by SEM, is that jade, whether jadeite or nephrite, is eminently worthy of its legendary reputation for toughness—a toughness that has little to do with atomic bonding and everything to do with texture. 

Steve Voynick is a science writer, mineral collector, former hardrock miner, and the author of books like *Colorado Rockhounding* and *New Mexico Rockhounding*.



Crystal Classics ~ Ian Bruce ~ East Coker, Somerset, England
tel: +44 1935 862 673 email: ian@crystalclassics.co.uk



*Fine Minerals
Online*

Kristalle ~ Wayne and Dona Leicht ~ Laguna Beach, CA, USA
tel: +1.949.494.5155 ~ email: info@kristalle.com

www.kristalle.com
www.crystalclassics.co.uk



TYSON WELLS

Arizona's Largest Winter Attraction!



TYSON WELLS

Rock-Gem-Mineral Show

Quartzsite, Arizona

JAN. 7 - 16, 2011

A 10-DAY SHOW

- Gems • Rocks • Minerals • Jewelry •
- Silver & Goldsmithing • Faceting •
- Precious Metals •
- Lapidary Tools, Equipment & Supplies**

FREE ADMISSION • FREE PARKING

LOCATION AND DETAILS: S.W. Corner of I-10 Freeway and Highway 95, Quartzsite, Arizona, home of the largest show of its kind. • Takes days to see it all. • A buyers' and sellers' market of the world. • Smooth, fine graveled, dust controlled, packed surface for selling, parking and camping in the beautiful desert setting of Arizona's La Pos Valley. • Live on your show spaces or in our on-premises no-hookup campground with water and dump station. • Honey wagon available. • Easy access in and out of show. • Over 850 selling spaces on 25 acres. • This is a must see event.

TYSON WELLS 33rd ANNUAL

SELL-A-RAMA Rock-Gems-Arts-Crafts Show

**JAN. 21 - 30, 2011, A 10-DAY SHOW
A 25-ACRE OUTDOOR SPECTACULAR**

An Unbelievable Variety Displayed on 2.2 Miles of Aisle Frontage

- Gems • Rocks • Minerals • Arts •
- Crafts • Hobbies • Jewelry •
- Silver & Goldsmithing • Faceting •
- Precious Metals • Antiques • Coins •

TYSON WELLS

P.O. Box 60, Quartzsite, AZ 85346

Show Office Phone: (928) 927-6364 • For R.V. Office: (928) 927-6365

E-mail: tysonwells@tds.net

www.tysonwells.com

The Many Facets of ROCKHOUNDING

A Special Exhibit at the California Oil Museum

Story and Photos by Jim Brace-Thompson

For years, Steve Mulqueen of the Ventura Gem & Mineral Society (Ventura, California) has filled a small display case at the California Oil Museum, located in Santa Paula, California, with rotating exhibits. At one time, it might be mining artifacts; at another time, tar pit fossils or economic minerals. Every few months, Steve would make the short drive from Ventura to Santa Paula to change out the display case.

Housed in a building that contained the original 1890 corporate headquarters of Union Oil Co., the California Oil Museum highlights the history of the “black gold” that brought untold wealth and prosperity to California long after the original gold rush days of the nineteenth century had receded into history. Permanent displays about oil and oil wells include fossils from the oil fields and a full-size operating iron-and-timber drilling rig from 1900, as well as vintage gas pumps and antique gasoline station memorabilia. The building itself is a display piece, such a fine example of Victorian-Queen Anne architecture that it has been designated a National Register Historic Site.

In addition to its permanent displays, the museum has a gallery called the Iron Room for temporary exhibits. In the summer of 2010, Museum Coordinator Jeanne Orcutt asked Steve if the VGMS might be interested in assembling a special exhibit on rock-



The California Oil Museum occupies the original offices of the Union Oil Co. in a wonderful building that is designated a National Register Historic Site.

hounding. As VGMS president, I presented the idea to our members at the monthly club meeting in July. They enthusiastically voted to work with Jeanne and the museum to fill the Iron Room in what would ultimately prove a terrific team effort.

With the club's go-ahead, I outlined an action plan for signing up exhibitors, making a layout and case assignments, and installing displays. The sign-up and planning phase occupied us for the next couple months as participants considered what to enter. Fellow VGMS members Krishna Juarez and John Cook joined Steve and me to scope out the gallery and work out details such as an installation schedule, resources the museum could provide, security and insurance with Jeanne. Slowly, it all came together around a theme: “The Many Facets of Rockhounding”.

Rockhounding starts with field trips for specimen collecting. Robert and Deb Sank-

ovich, who are well known throughout the Southern California rockhounding community for leading memorable field trips, entered one case on rock and mineral collecting. They enhanced specimens with locality photos and maps to many classic sites in California and beyond.

Lowell Foster filled two cases with geodes, nodules and agates he has collected, cut and polished from the California desert, including ones from the famed “Hauser beds” of the Wiley Well district. Lowell's family members were long-time friends of Joel Hauser and his family, so he knows the locality like the proverbial back of his hand.

To complement Lowell's California geodes, Mary Meeker brought in Missouri geodes that her mother, Mary Haake, had collected decades ago as a girl. Now in her 90s, Mary continues to display at club shows and the county fair.



LASCO DIAMOND PRODUCTS, INC.

EXCELLENT QUALITY AND COMPETITIVE PRICING ON U.S. MADE DIAMOND CARVING TOOLS, CORE DRILLS, DIAMOND SLITTERS, DIAMOND POWDER, AND MUCH MORE ...

LASCO DIAMOND PRODUCTS MANUFACTURES DIAMOND TOOLS IN A WIDE VARIETY OF SHAPES AND SIZES, IN GRITS RANGING FROM 40 - 600.



D20 TR100 T100 CC22 P80 CLR1 CL1 B20 SG2 K2 F45 EL44 W22 BW1



BW8 ICR22 CL85 F100 CL95 CLR95 B60 Diamond Slitter

**DIAMOND SLITTER
AVAILABLE SIZES:
7/8" RIM SAW
7/8" FULL COAT
1-3/8" RIM SAW**

NEW MICRO ULTRA CARVING MACHINE



UNLEASH YOUR CREATIVITY!

Your own imagination and Lasco's U.S. Made Diamond Carving Tools are all you need to create stunning works of art. Our diamond tools work great on all types of stone, metal, and wood. There are no limits to what you can create. For more information, or to request a free catalog, please call us at (800) 621-4726 or (818) 882-2423, or Fax us at (818) 882-3550.



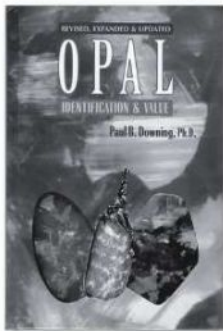
9950 Canoga Ave. #A8 * PO Box 4657 * Chatsworth, CA 91311

SEE US ON THE WEB AT
<http://www.lascodiamond.com/products>

Come see us in Tucson, AZ Jan. 29th - Feb. 13th in the Sonoran Room at the Executive Inn on Drachman. Can't wait for the show? Shop online and use coupon code: TUCSON at checkout and receive 20% off your entire order.

OPAL Identification & Value

By Paul B. Downing Ph.D



NO TWO OPALS ARE ALIKE...

This revised and expanded version includes new types of opal as well as updated methodology and prices for properly characterizing and placing a value on any opal.

Hardback - 224 full color pages
Over 300 spectacular photos

Order Today

\$49.95 plus \$6.00 s/h

Call (971) 218-4556 or
www.majesticpress.com

Majestic Press, Inc.

P O Box 1348, Estes Park CO 80517

Facet Shoppe

LAPIDARY EQUIPMENT
AND SUPPLIES

Custom Faceting Service.
Your One-of-a-Kind Specialist!

FACET ROUGH &
CUSTOM CUT GEMSTONES

PO Box 534, Burley, WA 98322
or e-mail: facet@gemcutter.com

(360) 443-6313

www.gemcutter.com

Ackley's Rocks

3230 N. Stone Ave.
Colorado Springs, CO 80907
(719) 633-1153

PROMPT MAIL ORDER SERVICE

We will SOON have
a NEW catalog!

Send for our catalog of lapidary supplies,
silversmith supplies, jewelry boxes & trays,
mountings and findings.

The Many Facets of ROCKHOONDING from page 30

Ron and Jean Wise filled one case with gorgeous Morgan Hill poppy jasper from around San Jose, California. They self-collected and polished all the material; its brilliant red, orange and yellow patterns are reminiscent of poppy flowers.

Diane Cook displayed her self-collected precious gemstones from the Pala tourmaline mining district of San Diego County. She collected many at fee dig sites where any of us can readily try our hand at gemstone mining and come away a winner, as her gorgeous specimens testify. In fact, by taking her advice and following in her footsteps, I stumbled onto a thumb-size bicolored tourmaline just last summer at the Himalaya mine.

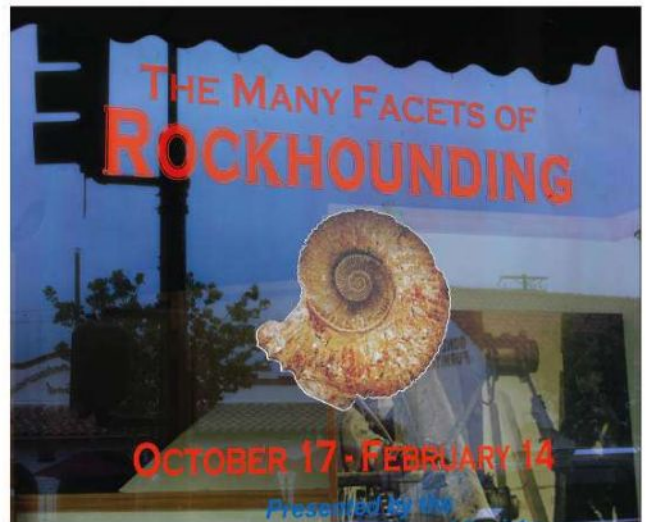
Field collecting is great, but what do you do with all those rocks once you've brought them home and they begin to fill your backyard? While some folks prefer just to collect, others are intrigued by the colors and patterns in the rocks and strive to make that natural beauty shine even more via the lapidary arts of gemstone cutting and jewelry making.

In their display, Greg and Valli Davis illustrated the fine arts of silverwork, bead stringing, and jewelry making with some of the award-winning pieces they've crafted. And Wayne Ehlers, who taught VGMS cabling classes for many years (he helped me through one of my first cabs), showed belt buckles accented with polished gemstone cabochons he has crafted over decades as a lapidary artist.

Susan Mulqueen filled a display case with carved gemstone bowls that span the spectrum of the rainbow, and Rob installed two large free-form sculptures, which he crafted from boulders of pink rose quartz and lilac lepidolite he collected during some of his many California field trips.

To show us what rocks look like both before and after a lapidary artist gets hold of them, Roy Boulch prepared a case of rough and polished stones. Finally, Ron Wise illustrated an ancient form of lapidary art with knapped arrowheads and knives that he crafted. He accompanied the display with framed specimens showing, step by step, how to proceed from rough obsidian to a finished spear point, and he's been offering "knap-ins" to teach fellow club members the process.

Rocks, minerals and gemstones aren't the only things of beauty out there for a rockhound to find and to prize. Fossils have intriguing shapes and tell the story of life on earth. Southern California abounds in



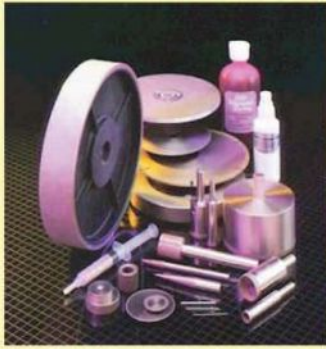
"The Many Facets of Rockhounding" special exhibit runs through Feb. 14, 2011, at the California Oil Museum in Santa Paula, California.

them, spanning geologic time from 500 million years ago to the Ice Ages of just a few thousand years ago. Therefore, in addition to their display about mineral collecting localities, Rob and Deb crafted a display highlighting fossil-collecting field trips. Most of the specimens on display were found just a short car ride away from the museum. Similarly, Angela and Luther Brown exhibited fossil whalebone they've collected along beaches and in riverbeds in Ventura and Santa Barbara counties.

From farther afield, John Cook displayed self-collected trilobites from the California desert. His display also provided an education about trilobite anatomy and lifestyle. And to highlight what can be found spanning the globe, Dave Mautz, who has assembled one of the most extensive personal trilobite collections in the world, displayed highlights from his collection. I brought in a large, free-standing fossil ammonite and a big slab with orthoceras fossils from Morocco to give us a view of what passed for calamari in the ancient world, when appetites must have been very large, indeed.

The building of a collection, both for personal appreciation and for educating others, is a true passion that is shared by the majority of rockhounds. Frank Boulch installed a case with a collection of specimens that illustrates the many forms of feldspar and quartz. Kathryn Davis brought in her petrified wood collection, along with a huge quartz crystal cluster from Arkansas. Nancy Brace-Thompson and Sharon Cunningham also displayed quartz in the form of large amethyst geodes from Brazil. To provide a historical touch, Steve Mulqueen displayed highlights from his collection of mining artifacts. And to take the exhibit out of this world, Andy Anderson and I put together a collection of "Rocks from Space"—meteorites and tektites.

continued on page 66



www.lapcraft.com

is all you need to know for your diamond tool needs

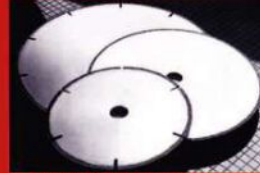
Lapcraft, Inc. excels in the manufacture of standard as well as custom designed products in both diamond and cbn plated abrasives. Customer inquiries are invited.



DIAMOND WHEELS



DIAMOND DRILLS



DIAMOND SAW BLADES



DIAMOND DISCS

DOWNLOAD OUR CATALOG!



Lapcraft, Inc.®

CustService@Lapcraft.com

195 West Olentangy Street, Powell, OH 43065-8720 USA

Phone (614) 764-8993

Sales (800) 432-4748

FAX (614) 764-1860



**TUCSON
2011**

GRANT INN

I-10 at Grant Road

JANUARY 29 THRU FEBRUARY 11, 2011

TUCSON'S UNIQUE SHOW

Displaying a Variety of

**Fossil Walrus Jewelry • Silver Jewelry from Tibet
Meteorites • Turquoise Heishi • Tribal Silver Jewelry
African Wood Beads • Ethnic Jewelry • Moroccan Fossils
Beads from Himalayas • Vermeil Findings • Egyptian Earrings**

Wholesale Only Tax License Required for Admission

Register Online
@ glwshows.com
for your Tucson
Buyer Badges

For More Information Contact

Gem & Lapidary Wholesalers, Inc. • P.O. Box 98 Flora, MS 39071-0098

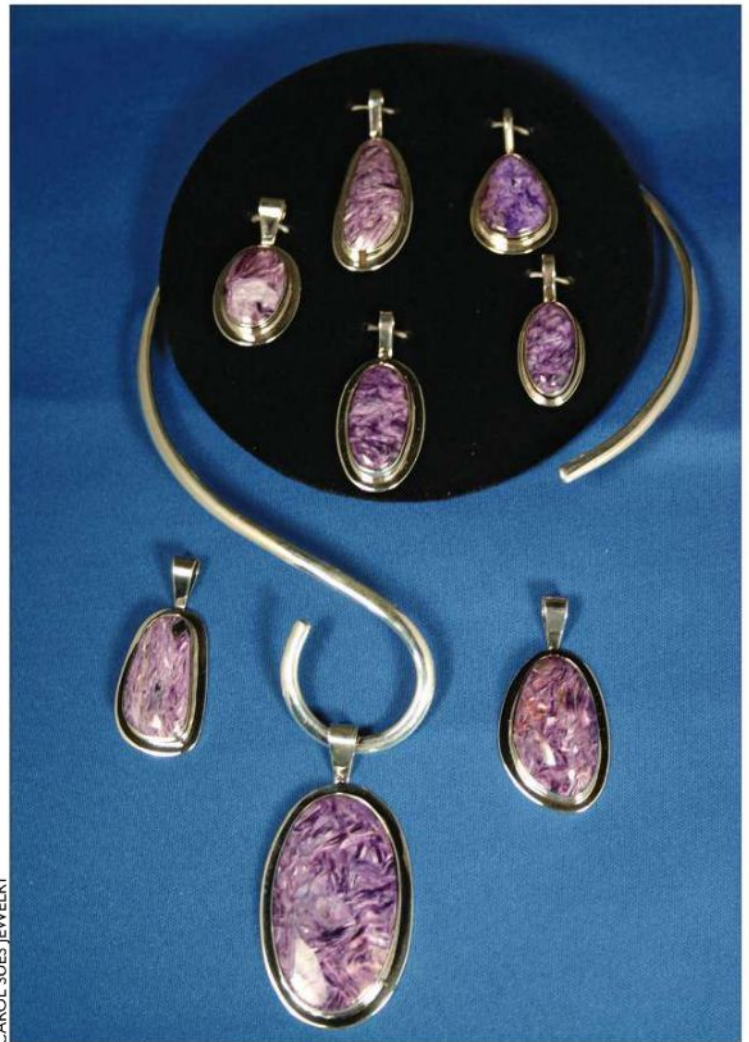
Phone: (601) 879-8832 • Fax: (601) 879-3282 * E-Mail - info@glwshows.com • www.glwshows.com

CHAROITE: Russia's Royal Gem

This Pleasing Purple
Material Is a Rock
and a Mineral

Story and Photos by Bob Jones

Imagine, if you will, what the Russian czars would have done if charoite, an exceptionally colorful violet ornamental stone, had been discovered in Siberia during their reigns! The world is well aware of how they used ornamental gem material for large decorative projects in their major cities. In St. Petersburg, the Malachite Room in the Hermitage is decorated with malachite columns, pilasters, vases, and fireplaces, and St. Isaac's Cathedral boasts two 30-foot-high columns of Siberian lapis and 10 50-foot-high columns of Siberian malachite. Both lapis and malachite were discovered during a czar's reign!



CAROL SUES JEWELRY

The amount of charoite mineral present affects the overall color of the charoite rock, which ranges from light violet to intense purple.



A small vase carved in charoite makes a fine objet d'art suitable for a czar!

The lobbies in Moscow's subway stations are walled with huge slabs of Russian malachite, rhodonite, and other gem materials. Just think of what the czars would have commissioned at Ekaterinberg's lapidary factory if charoite, a lovely violet to lilac gem material, had been found in quantity during their reigns!

This remarkably colorful mineral, a new-comer in the gem world, was identified in 1978 by a delightful young geologist named V. Rogova, whom I met at the St. Petersburg Mining Institute. The first example of this mineral was actually found back in 1948. At the time, it was thought to be the magnesium iron silicate hydroxide mineral cummingtonite, so it was not investigated further. This mistake may have been made because outcrops of the rock had been exposed to prolonged weathering and sunlight and had lost some of its color.

On my visit to the Mining Institute in 1996, I had an opportunity to talk with the people involved in the study of charoite and I was able to handle a number of superb blocks of the violet-hued rock. They were superb pieces with intense color and were a delight to study and photograph.

On a later visit to the GEMS Museum in Moscow, we saw a fine array of decorative objects fashioned from charoite. This museum is charged with the commercial marketing of Russian lapidary and building stones and is operated by the Ministry of Natural Resources of the Russian Federation. One wonderful display in the museum was a selection of beautifully colored charoite vases, dishes, and similar items.

Studies at the Mining Institute revealed that charoite was an extremely complex hydrous, hydrate, fluoro-potassium, calcium, barium, strontium, silicate. Its chemical formula looks like a listing of almost every known chemical element!

Further investigation of the charoite rock showed that a majority of it was composed of one mineral, charoite. To be used for lapidary work, charoite rock must contain 30 percent to 95 percent charoite mineral. The amount of charoite affects the overall color, which ranges from light violet to intense purple.

The remainder of charoite rock is made up of more than 30 different mineral species! Most of these minerals occur in very minor amounts and some were first identified upon their discovery in the charoite. A few of these species are prominent enough to create variations in color and pattern in the rock. The more common minor species within charoite include greenish-yellow canasite, black aegirine-augite, yellowish-orange tinaksite, and grayish nepheline.

Other species include miserite, fedorite, ekanite, K-richterite, and the new species murunskite, tokkoite and davanite. There are even some traces of sulfides in the rock: galena, bornite, chalcocopyrite, sphalerite, chalcocite and others.

Thanks to these minor mineral species, charoite is more accurately described as a rock, a mixture of two or more mineral species. The Russians distinguish the two by calling the pure mineral charoite and the rock charoiteite, a tongue twister!

Such a complex rock has a complex history of formation. Though found in outcrops and near-surface veins, it developed deep within the earth. It is part of a very complex deep-seated metamorphic formation, the Maly Murum Massive, and the area where found is called the Sirenevy Kamen deposit. ("Sirenevy Kamen" translates as "lilac stone".)



CAROL SUES JEWELRY

These pendants show the variety of crystal forms that develop in charoite.



GEMS MUSEUM, MOSCOW

A close-up of a slab of charoite shows the variations in the mineral content and color of the rock. Note the colorful orange canasite spots.



MIL'S

Minnesota Lapidary Supply

"YOUR LAPIDARY GENERAL STORE"

For EQUIPMENT and SUPPLIES

Some of the Equipment and Supplies we stock:

- Tumblers • Arbors • Drills
- Abrasives • SiC Wheels • Laps
- Polishes • Diamond • Books
- Saws • Wheels • Cutting Oil
- Blades • Belts • Tools

Some of the many vendors we stock:

- Lortone • MK • MLS
- Estwing • Mini-Sonic • Diamond
- Calway • Hughes • Pacific
- Foredom • Raytech • Cascade
- Lapcraft • Gryphon • Tru Square

Please contact us for our FREE Catalog !!

Minnesota Lapidary Supply

201 N. Rum River Drive

Princeton, MN 55371

Ph/Fax: (763)-631-0405

e-mail: sales@lapidarysupplies.com

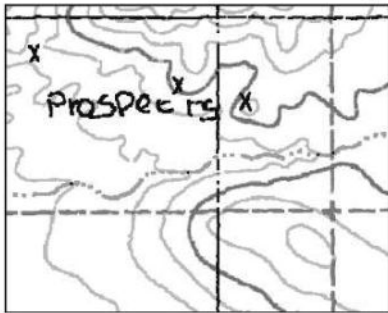
Our Hours are:

Sun. & Mon. --- Closed

Tues. thru Fri. --- 9:00 a.m. to 5:00 p.m. CST

Sat. --- 9:00 a.m. to 4:00 p.m. CST

USGS Topo Maps



All USA in Stock!

Plus

- Forest Service Maps
- BLM Maps
- Geology Maps

Call us! (714) 633-0800

10am-6pm Tues - Sat
Closed Sun - Mon

"Serving outdoor professionals
and recreational enthusiasts."

Visit our store in Orange or
Buy direct on-line

Google Us!

Pacific West Maps

994 N Main St, Orange CA 92867



This display of carved charoite rock in Moscow's GEMS Museum shows the versatility of this royal purple lapidary material.

The Maly Murum Massive is located deep in Siberia, along the border of the Sakha-Yakutia Republic, north of Lake Baikal. It is near the town of Torgo and south of the settlement of Olekminsk. It is believed to have its origins in Archean and Proterozoic rocks, which date back at least 500 million years. The surrounding rock—old sedimentary sandstone and conglomerate—seems to be about 300 million years old.

Charoite lapidary stone, which is found nowhere else in the world, is part of a rock that has been tentatively identified as carbonite, a magmatic calcite-rich intrusion. The violet mineral and the other minerals mixed with it were probably introduced by a process called hydrothermal-metasomatic intrusion. Hot, watery, mineral-rich solutions gradually entered the host rock and either replaced it or altered it to create new species.

These ancient rocks developed at least nine miles deep in the crust. Later crustal movements eventually brought this vast formation to the surface, exposing dozens of rich deposits of charoite.

The charoite area has been repeatedly subjected to glacial action, so outcrops of the rock have been abraded and broken up. This created areas rich in alluvial gravels containing charoite debris, which was mined from the loose deposits. Such sites are considered part of the dozens of currently listed charoite sites.

Glacial action scoured solid outcrops, which were the exposed ends of thick veins and pods. The discovery of these exposed outcrops prompted extensive drilling on many sites in the Sirenevy Kamen area. Drilling proved that a large number of charoite zones, some buried as deep as 50 meters, were present. These zones can range from 5 meters to 20 meters thick and have been shown to extend some 20 kilometers! Such a quantity of purple rock would have delighted the czars! There is enough charoite to satisfy every lapidary in the world.

The problem is that extraction requires hardrock mining, and transporting the necessary equipment to such a remote location is really a test of the will! Also, the area has few roads and can only be reached by days of water travel and some overland hiking. This remoteness has to have a negative effect on the cost of fine material, so care has to be taken on site to only mine and sort out the quality rock.

If you have pieces of charoite, they have most likely come from the Yakutsky or Stary sites, which have been judged to be the most economically important. The Stary site was the first to be seriously studied.

There has been some speculation as to the origin of this lovely mineral's name. The answer is quite simple: The deposits are not far, as the crow flies, from the Chara River. Loosely translated, "chara" means "beautiful".

As a gemstone, charoite is an ideal lapidary and ornamental stone, and when it first appeared on the gem market in 1978, it created a lot of excitement and interest. Since then, it has found its place among the more highly prized decorative stones. The Russian czars would have cherished it because of its fine violet color, yet, charoite is not monochromatic. It has breathtaking patterns and a hardness that varies from 5.5 to 6 on the Mohs scale, depending on the mineral species content.

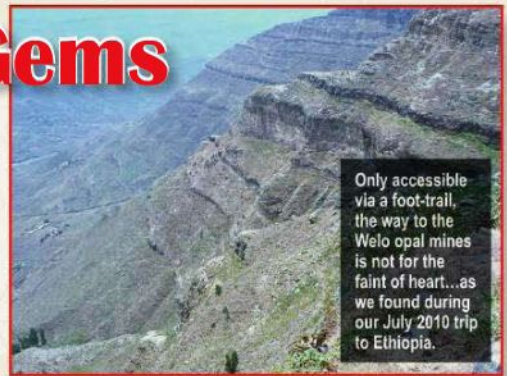
When you are selecting a piece of charoite for lapidary work, certain guidelines are worth considering. The more charoite present in the stone, the more violet color it will have, which makes it more attractive and useful. The lovely violet color is due to the presence of trace amounts of manganese atoms with three electrons in their outer shells, which act as a chromophore. By absorbing some light energy waves, manganese atoms in the charoite allows the violet light waves to dominate, resulting in the color we see.

The ideal lapidary specimen has to have a very strong silky or chatoyant luster. This is often referred to as a silky-pearly luster and is caused by the varying fibrous structure of charoite's needle crystals. These cause the rock surface to have excellent chatoyance, glimmers of reflected light as you rock the piece back and forth.

continued on page 62

Opals: The Queen of Gems

WELO OPAL Ethiopian Opal from the newly discovered deposit in the Welo Province. The best way to describe the play-of-color characteristics of this opal is a delightful combination of bright, multi-color opal coming from 3 sources: Mexico, Brazil and Australia. Welo is a very clear crystal opal with the stability and brightness of top gem Australian precious opal. But be forewarned... when you cut your first piece of this opal you are going to want to cut more. Welo opal is available in Mine Run grade, Grade "AA", "A", "B+" and Grade "B" in 3 sizes: .5gm-2gm, 2gm-5gm and 5gm-10gm. Keep an eye on our website for other grades and sizes of this opal coming soon.

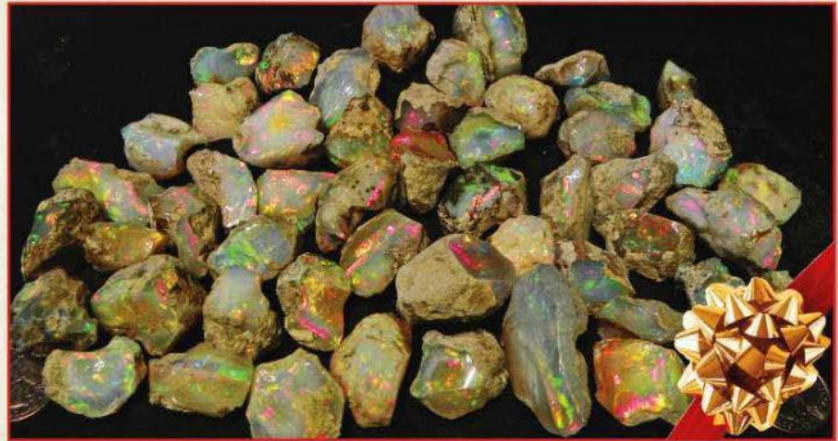


Only accessible via a foot-trail, the way to the Welo opal mines is not for the faint of heart...as we found during our July 2010 trip to Ethiopia.

DECEMBER OPAL SPECIAL \$100 OFF!

Great Christmas present special!! We've never put our large size opal on sale because our stock was limited. But we've recently acquired 4 very gemmy kilos of this relatively rare size of Welo opal. Weights of these stones vary from 5 grams to 12 grams each...so each 1 ounce parcel (31.1gms) will contain approximately 3-4 stones.

This is VERY gemmy opal "A" grade opal! Was \$695/ounce now \$595/ounce or 2 ounces for \$995.00 (was \$1150.00)... plus \$15.00 shipping on either order.



The Village Smithy Opals, Inc.

Proprietors Steve & Darlene

P.O. Box 21704, Billings, MT 59104-1704

Phone: 406-651-4947 • Mobile: 406-208-2577 E-mail: vsmithy@bresnan.net

Website: www.villagesmithyopals.com

One of the Largest Collections of **FIRE AGATE** IN THE WORLD

Can be seen at
**DESERT GARDEN'S
SPACE J-20**

Gold and Silver Jewelry of all kinds.

Thousands of Finished Stones!

Also Coins of all kinds from around the world.

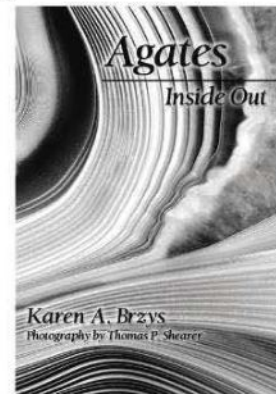
A VIDEO on **FIRE AGATE CUTTING**
WILL BE SHOWN AT 1:00 p.m. EACH DAY

COME SEE US!

Also at the
**Q.I.A.
SPACES 251 - 252**

(928) 277-9802, (928) 757-2275
ArizonaFireGems@Yahoo.com

NEW AGATE BOOK *Agates: Inside Out*



- Purpose is to help readers to understand and find agates.
- Describes agates from all over the world.
- Size is 6" by 9" with heavy art-card cover.
- Has 258 pages printed on coated art paper.
- Includes 265 color photographs & diagrams.
- Cost is \$22.95 + s/h and sales tax (MI only).

Contact Karen at 906-494-2590 or
Karen@agatelady.com.

For more information visit
www.agatelady.com

or stop by the Gitche Gumee Museum
in Grand Marais, Michigan.

Trilobites

Trilobites were a type of arthropod, which is an animal with a soft, segmented body held together by an external skeleton. These buglike animals are distant relatives of modern horseshoe crabs. Like the crabs, they lived in the ocean. But while horseshoe crabs still exist, trilobites died out during a mass extinction event. This occurred 245 million years ago, at the end of the Paleozoic Era, when 90 percent of all species on earth went extinct.

Starting in the Cambrian Period, 544 million years ago, trilobites flourished for 300 million years. The Cambrian is sometimes called the Age of Trilobites. The animals grew in diversity over the eons—more than 10,000 species have been identified! Some are simple in appearance, while others grew spines, eye stalks, and frilled headshields. Some were tiny—a few millimeters in length—while others grew to a meter (3.28 feet) long. This diversity makes trilobites popular among fossil collectors. A collecting trip among Paleozoic rocks is always considered a success if one of these little critters is uncovered.

The term “trilobite” refers to three lobes that run up and down the trilobite body: a central lobe and left and right lateral lobes. Their bodies are also divided three ways horizontally, with a head (cephalon), body (thorax), and tail (pygidium). The trilobite’s hard external skeleton (exoskeleton) protected it from predators. If disturbed, some could roll themselves into a ball for further protec-



JIM BRACE-THOMPSON PHOTO

One thing collectors appreciate about trilobites is the amazing variety of their forms.

tion. As they grew, they would molt, casting off their exoskeleton and forming a larger one. Many trilobite fossils found are actually discarded exoskeletons. Most trilobites were gentle bottom dwellers that scavenged for food on the ocean floor.

—Jim Brace-Thompson

Special Effects: Scepters

A royal scepter is a rod capped with some bulging, bejeweled ornamentation. It is a symbol of power and is carried on special state occasions. To mineral collectors, however, a scepter is a large crystal capping a slender crystal stem, like a head perched on a thin neck.

Crystals begin forming around a central point, or nucleus; therefore, the starting phase of crystal growth is called “nucleation”. Scepters result from an interruption of crystal growth. When growth resumes, a new point of nucleation is established atop the original crystal. The new crystal forms around the tip of the original crystal.



JIM BRACE-THOMPSON PHOTO

The scepter is a rare type of crystal formation. At one location in which they are considered common, there’s still only one scepter in every 10,000 crystals found!

In the mineral specimen marketplace, you’ll most often run across quartz scepters. Some areas are more famous than others for consistently producing quartz scepters. I found one on Petersen Peak (Hallelujah Junction) on the California-Nevada border, a location famous for its particularly large smoky and amethyst quartz scepters. In my collection, I also have a clear quartz scepter from Washington State, and I’ve seen clusters of delicate little amethyst scepters from Veracruz, Mexico.

—Jim Brace-Thompson

This unusual quartz scepter from China is doubly terminated, with sharp crystal points (terminations) on both the “head” and the “neck”.

Introducing Hannah P.

Hannah P. is 14 years old and lives in New York State. She is in 8th grade this year. She has a lot of interests, including writing, drawing, swimming, riding her bike, and collecting minerals. Hannah's dad is a mineral collector, too. Hannah has two older brothers, but they are not interested in minerals at all.

Hannah likes to display the minerals she collects in her room. She has a lot of specimens that her dad gave to her. She also has one very special specimen of pyrite that was given to her by Bob Jones. Mr. Jones is a well-known mineralogist and writer. He writes articles for *Rock & Gem* magazine every month.

One August a couple years ago, Hannah visited the East Coast Gem & Mineral Show in Springfield, Massachusetts, where she met Mr. Jones. He surprised her by giving her a beautiful cluster of pyrite crystals. It turns out that pyrite is Hannah's favorite mineral! She has more than 35 mineral specimens in her collection and hopes to collect more as she gets older.

I asked Hannah what she likes best about minerals. She told me, "It's fun to learn about them."

I asked whether she had ever gone to a rock shop to learn about and maybe buy some minerals. Hannah replied, "I went to rock shops in South Dakota this summer when I visited my Uncle Dana."



DARRYL POWELL PHOTO

Hannah P. holds her special pyrite specimen.

—Darryl Powell

Take the Quiz, Win a Prize!

The Quiz is open to U.S. residents 17 and younger. All the questions can be answered by carefully reading *Rock & Gem Kids*. Mail your answers to **December Quiz, *Rock & Gem* magazine, P.O. Box 6925, Ventura, CA 93006-9899**. Five winners will be drawn from the valid entries received by **Dec. 31, 2010**. Valid entries must include the correct answers, the entrant's name, age and address, and the signature of a parent or guardian. This month's prize is a Belomo 10X loupe, generously donated by Amateur Geologist (www.ama-teurgeologist.com; see ads on pages 19 and 40).

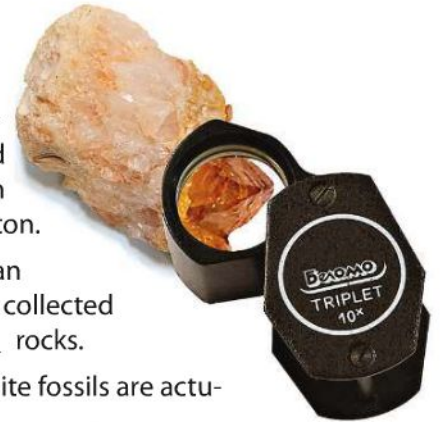
1. _____ are animals with soft, segmented bodies held together by an external skeleton.

2. Trilobites can sometimes be collected among _____ rocks.

3. Many trilobite fossils are actually discarded _____.

4. _____ is the starting phase of crystal growth.

5. The most common scepters seen for sale are composed of the mineral _____.



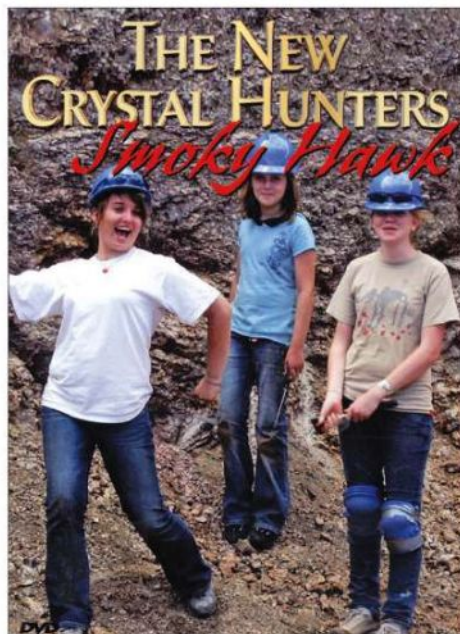
DVD REVIEW:

The New Crystal Hunters: Smoky Hawk

Have you ever wondered how those amazing crystal groups you see for sale at rock shows get from the ground to the dealer's shelf? Join rockhounds Lauren, Nora and Lo as they learn techniques for finding and preparing amazonite and smoky quartz specimens in the entertaining and educational DVD "The New Crystal Hunters: Smoky Hawk" (BlueCap Productions, 2010).

The Smoky Hawk is a mineral claim located in the foothills of Pikes Peak, about two hours southwest of Denver, Colorado. Claim owner Joe Dorris teaches the three crystal hunters how to track down a pocket of crystals by following the trail of "float", loose crystals on the surface of the ground, to its source. Then he turns the girls loose on an exposed wall in the quarry. You get to watch as they pull mud-covered crystal groups from the broken rock. It gets even more exciting when the red mud is washed off and the colors of the minerals are revealed.

On day two of their adventure, Joe's son, Tim Dorris, demonstrates for the camera how oxide staining is removed from the



crystals and broken groups are put back together. Join the girls in Joe's showroom to admire some cleaned and repaired specimens before heading back to the claim.

Working in the main pit, the crystal hunters get the chance to empty a freshly opened pocket of choice smokies and amazonites. Listen while Joe explains the proper techniques for carefully collecting the specimens. Watch as the camera zooms in on the crystals in place and learn how crystal groups should be removed and wrapped for later cleaning and repair. Some of the specimens that were removed from this pocket were cleaned and repaired and put on display at the 2010 Tucson Gem & Mineral Show™.

A bonus section titled "Visit the Lab" gives viewers a behind-the-scenes look at The Collector's Edge's specimen cleaning lab. Watch as Lab Manager Robert Lorda turns a box full of dirty pieces into an amazing display specimen.

"Smoky Hawk" sells for \$24.99 and is the third installment in BlueCap's New Crystal Hunters series. Find other mineral collecting adventure DVDs at www.newcrystalhunters.com.

—Lynn Varon

December 2010
 Featured Mineral:
**BOULDER
 OPAL**



We invite you to join now!

**MINERAL of the
 MONTH CLUB**

1-800-941-5594

mineralofthemonthclub.org

- ♣ Custom jewelry designs
- ♣ Estate pieces
- ♣ Gemstone carvings
- ♣ One of a kind mineral specimens
- ♣ Gemstone beads, findings & jewelry making supplies
- ♣ Lapidary equipment, tumblers and supplies
- ♣ Silversmithing supplies
- ♣ Gemstones and custom cabochons
- ♣ Beading & wire wrapping classes



TREASURE CHEST

1942 S. Glenstone Avenue
 Springfield, Missouri, 65804
 417-823-3800

www.treasurechestspringfield.com

Stone Carvings



BILL EGLESTON

509 Brentwood Rd.
 Marshalltown, IA 50158
 (641) 752-4579

www.BillEgleston.com

Amateur Geologist

*Supplies for the recreational
 geologist and rockhound*



Books - 800 titles - most
 at 30% off

Estwing rock hammers
 and tools

Loupes - BelOMO &
 Bausch & Lomb

Geology maps & charts
 Educational rock &
 mineral collections

Hardness pick sets

Vests with pockets galore

Ultraviolet lights

Rock tumblers

Rockhound stuff for kids

Novelties

Discounted internet prices!!!

www.amateurgeologist.com

2011 Calendar of Fine Agates & Jaspers



12 - 8.5"x11" color photos...
 Laguna & Agua Nueva Agate,
 Imperial Jasper, Biggs Jasper,
 Plume Agate & more...
 \$11.95 + \$2.50 S/H ea.
 MC/Visa/Ck/MO/PayPal
 quantity discount available

Show Schedule

Quartzite Pow-Wow Jan 19-23, 2011
 Tucson Showplace Space A-1
 Jan 28- Feb 13 2011

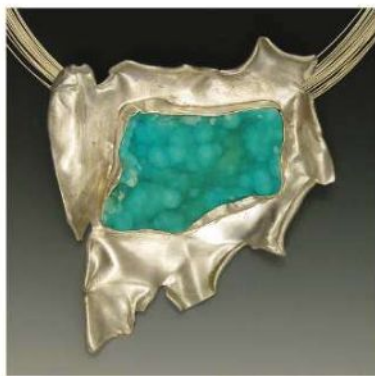
The Gem Shop, Inc.

W64N723 Washington Ave
 Cedarburg, WI 53012
 Toll Free Orders: 866.377.4666
thegemshop.com
mail@thegemshop.com



Wearable Art for Mineral Lovers
Carina Rossner

www.carinarossner.com or 650-327-8434



JOHN E. GARSOW
FOR GEMS & MINERALS



P.O. Box 594, Murrieta, CA 92564

Phone/Fax (951) 698-4833

Cell (818) 800-5644

johngarsow@sysmatrix.net

www.JohnGarsow.com



Come See Us

JANUARY 29th
thru FEB. 12th

THE TUCSON CITY CENTER
 (Previously known as Inn Suites)
 475 North Granada Ave., room #235

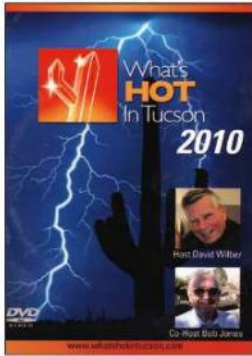
TUCSON, AZ

FACETING ROUGH,
 CABOCHON ROUGH,
 FACETED GEMS,
 MINERAL SPECIMENS,
 AND GOLD JEWELRY

DVD REVIEW:

What's Hot in Tucson: 2010

If you didn't get to see everything you wanted to see at the 2010 gem and mineral shows in Tucson, Arizona, or if you didn't get there at all, "What's Hot in Tucson: 2010" (BlueCap Productions, 2010) can fill in the gaps. The latest DVD in this series continues the tradition of highlighting the best of the best on display and for sale at the biggest mineral and gem show in the world.



For this DVD, regular host David Wilber welcomed *Rock & Gem's* senior consulting editor Bob Jones as his co-host, as well as Delphine Leblanc as the host of the first-ever "What's Hot in Tucson-Gems and Jewelry" DVD. A segment from this new series is included in the Special Features on "What's Hot: 2010".

Dave and Bob visit five major shows around Tucson and interview more than 30 top U.S. and international dealers. Each dealer shows off the newest and hottest minerals in his stock, explains their interesting features, talks about their formation, and shares insights on current mining operations. This background information is fascinating to the mineral collector who is trying to build his store of knowledge about minerals and their sources.

At the Tucson Gem & Mineral Society Show, our hosts also take a closer look at several outstanding display cases, talk with the organizers of popular exhibits, and interview Peter Megaw, the winner of the 2010 Carnegie Award.

The easy camaraderie among the collectors, dealers and hosts conveys the warmth of the hobby. Screen captions provide specimen location information and dealer names and contact information. Quality video and sound make this viewing experience as up-close and personal as if you were there.

"What's Hot in Tucson: 2010" sells for \$39.99. The three-disc set contains over six hours of footage.

—Lynn Varon

BlueCap Productions, 578 Washington Blvd., Suite 307, Marina Del Rey, CA 90292, (310) 856-9882; info@bluecapproductions.com; www.whatshotintucson.com

BOOK REVIEW:

Minerals and Precious Stones of Brazil

by Carlos Cornejo and Ndreia Bartorelli

Given the enormity of Brazil's history and the extensive variety of and production of gems and minerals, *Minerals and Precious Stones of Brazil* (Solaris Cultural Publications, 2010) is a remarkably complete and comprehensive



text. It is an absolute must for every collector's library. Considering the completeness of this volume, the authors are to be commended for their efforts in bringing so much of Brazil's mining and mineral production together under one cover!

The authors left out nothing as relates to this country's history and development of gem and mineral activities. Beginning with a description of stones and carvings by Brazilian natives, the authors describe the early pioneer search for gems and minerals, describing in some depth the evolution of mining for diamonds, gold, minerals and gems into the present time.

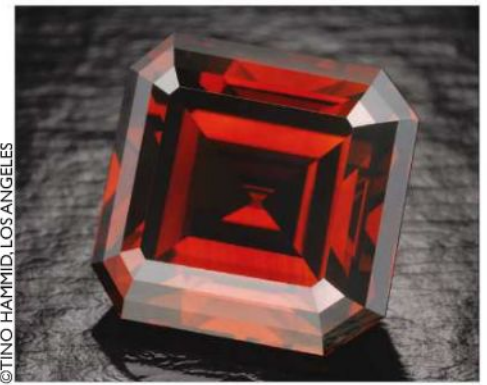
The first portions of the book are devoted to Brazil's early mineralogists, mining, collections and museums. The book ends with descriptions of modern dealers, collectors, and others whose efforts have been so important in bringing Brazil's treasures to light.

The heart of the book is the systematic and very comprehensive description of the gems and minerals of Brazil we all enjoy and collect. Remarkably useful photographs, many taken in the field and underground, accompany the detailed description of Brazil's vast mineral resources. Anyone who collects Brazilian minerals should own this text and will find this compendium both very informative and useful.

This book provides a most complete and detailed look at the minerals and gems of Brazil while providing a greater understanding of the development and history of Brazil's mining and mineral production. Its 700 pages contain 1,200 full-color photographs. To own it is to enjoy it!

—Bob Jones

Solaris Cultural Publications, Rua Tavares Bastos, 41, Perdizes, Sao Paulo, SP, Brazil CEP 05012-020, phone-(55) 11-3675-0307, 11-3675-6396; Solarisd@terra.com.br; www.solariseditora.com.br



©TINO HAMMID, LOS ANGELES

Kazanjian Red Diamond

Rare Diamonds at AMNH

The American Museum of Natural History (AMNH) unveiled the Kazanjian Red Diamond, an extraordinary 5.05-carat red gem, for public view on Wednesday, Sept. 22, 2010 in the museum's Morgan Memorial Hall of Gems.

The original 35-carat piece of rough was discovered in Lichtenburg, South Africa, during the "diamond rush" of the mid-1920s and sent to Amsterdam to be cut. After seven months of study, a beautiful emerald cut emerged that, under flickering candlelight, looked as if "a drop of blood fell upon the hand of the cutter". By the onset of World War II, the red diamond was placed in a safe in the city of Arnhem, Holland, from which it was seized by the Nazis in 1944 and sent to Germany. U.S. Army General Joseph McNarney found the stone in a salt mine and believed it to be a ruby. In February, 2007, after 30 years in a private collection, the stone was purchased by Kazanjian Bros. Inc.

Red diamonds are the rarest among colored diamonds. Only three 5-carat red diamonds are known to exist: the Kazanjian Red diamond, the 5.11-carat Moussaieff Red, and the 5.03-carat De Young Red.

In its Harry Frank Guggenheim Hall of Minerals, the museum unveiled the 31.06-carat natural, fancy, deep-blue Wittelsbach-Graff diamond for public view on Thursday, Oct. 28. Originally found in India, it has had a long history of royal owners, including the Infanta Margarita Tereza of Spain (17th century) and Bavaria's ruling House of Wittelsbach (18th century). In 2008, the diamond was purchased at auction by Laurence Graff.

For decades, experts have wondered whether this diamond was cut from the same stone as the 45.52-carat Hope diamond, another famous blue diamond from India, but a recent comparison shows that is not the case. Type IIb blue diamonds such as the Wittelsbach-Graff diamond and the Hope diamond are believed to make up less than 0.5 percent of all diamonds found in nature.

The AMNH is located at 79 Street and Central Park West in New York City. The Kazanjian Red Diamond will be on display at the museum through Sunday, Mar. 13, 2011. The Wittelsbach-Graff diamond will be on display through January 2011.

BOOK REVIEW:

Rocks, Gems and Minerals

by Patti Polk

Rocks, Gems and Minerals (Krause Publications, 2010) is part field guide and part price guide. The goal of the book, according to author Patti Polk, is to help rock-hounds identify their finds in the field and at rock shows and

to help them determine whether they're paying a fair price for specimens and lapidary rough.

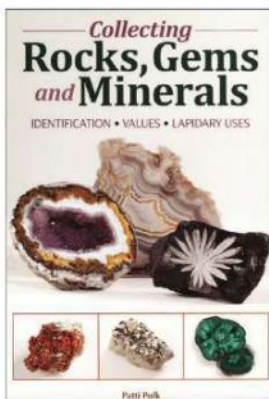
The book's 271 pages include more than 500 color photographs, a glossary, a resource list, and an index. After addressing What Are Rocks and Minerals, How to Locate and Collect Rocks and Minerals, and Use and Care of Rocks, Minerals and Gemstones, the text offers very brief descriptions of a large variety of specimens, which are well figured. Specimens are divided into Collectible Materials for Lapidary Use and Display and Mineral Display Specimens. The usefulness of this text lies in its myriad photographs. Many of the mineral and gem specimens shown are typical of what a field collector will encounter.

Though the majority of the photographs lack descriptive captions, each mineral is accurately named, which helps the collector quickly identify rocks and fossils while in the field or at a show.

The glossary is very useful, as is the resource list, which gives the reader lists of magazines, mineral shops, books, clubs and suppliers. The modest size of the book (6 inches by 9 inches) and coated, stiff cover make the book suitable to take on specimen collecting trips.

—Bob Jones

Krause Publications, 700 East State St., Iola, WI 54990-0001, (800) 258-0929; www.krausebooks.com



MINERALS OF CALIFORNIA

TUCSON GEM & MINERAL SHOW™



**INSIDE THE TUCSON CONVENTION CENTER
FEBRUARY 10-13, 2011**

CALIFORNIA DREAMIN'

Experience the mind-expanding colors and textures of the four-day 2011 Tucson Gem & Mineral Show—*inside* the Tucson Convention Center. With its huge range of displays from museums, private collections and world-class mineral, gemstone, jewelry and fossil dealers, this year's *Minerals of California* show will be the largest, most exciting ever!

For 2011 show updates and event schedules, visit us at **TGMS.org**.

Subscriber Alert!

You may be contacted by unauthorized subscription agents asking you to renew your subscription. These companies are not authorized to represent *Rock & Gem*, nor are they affiliated with us in any way. Please do not give out any personal, payment, or credit card information to these companies. *Rock & Gem* will not accept orders from these companies; if you choose to renew through them, you will likely never receive any issues of *Rock & Gem*. If the status of your subscription is in doubt, call our authorized subscription service at (760) 291-1549 or e-mail RockAndGem@pcspublink.com and request a reply.



Presented by the

TUCSON GEM & MINERAL SOCIETY

80.69 ct Pink Tourmaline.
Cut by John Dyer.
Photography by Lydia Dyer.

CABKING-6V3

COMPLETE GRINDER/POLISHER

Free Ground
Shipping in
Continental 48
States



Also Available
in 220V

Optional Trim Saw
Attachment
Available

DO YOU WANT TO:

ELIMINATE CONTAMINATION?
CONTROL YOUR WATER FLOW?
AVOID EMPTYING DRIP PANS?
SET-UP WITHOUT A FUSS?

IF SO, THE CABKING-6V3 IS FOR YOU.

Stock No. 1-0285

Trim Saw Attachment \$275.00 - Stock No. 1-0154

WWW.KINGSLEYNORTH.COM



Kingsley North, Inc.
P.O. Box 216: Dept 3
910 Brown Street
Norway, MI 49870-0216

Secure on-line ordering:
www.kingsleynorth.com

Toll Free:

1-800-338-9280

Fax:

1-906-563-7143

email:

sales@kingsleynorth.com

William Holland School of Lapidary Arts

Classes from April through first week of November

For Information, please visit us on-line at
www.Lapidaryschool.org
or e-mail us Lapidary@WindStream.net
(706) 379 - 2126

P.O. Box 980, 230 Lapidary Ln., Young Harris, GA 30582

Classes Offered Include:

- Baskets
- Beading (seed & reg)
- Cabochons · Carving
- Casting · Chain Making
- Channel · Enameling
- Faceting · Gem ID
- Gem Trees · Glass Fusing
- Inlay · Intarsia
- Lampwork Beads
- Kids' Classes · Mineral ID
- Opals
- Photography for Jewelry
- PMC Silver · Polymer Clay
- Scrimshaw · Silver
- Stained Glass
- Wire Wrapping
- Wire Sculpture

Show Dates from page 10

JANUARY-FEBRUARY 2011

28-13—TUCSON, ARIZONA: Show; ColorWright; ColorWright Warehouse, 1201 N. Main Ave.; 10-6 daily; free admission; cutting and carving rough, slabs, cabochons, gemology equipment, fossils, fossil preparation equipment, Covington lapidary equipment, new Highland Park slab saws, books, jewelry; contact Rob Kulakofsky, 1201 N. Main Ave., Tucson, AZ 85705, (520) 792-1439; e-mail: rk3@colorwright.com; Web site: www.rglshow.com

31-6—TUCSON, ARIZONA: Wholesale show; Arizona Global Gem & Jewelry; The Hotel Arizona, 181 W. Broadway; Mon. 10-6, Tue. 10-6, Wed. 10-6, Thu. 10-6, Fri. 10-6, Sat. 10-6, Sun. 10-6; contact Ron Swanson, (520) 396-4469; e-mail: ron@aggjs.com; Web site: www.aggjs.com

FEBRUARY 2011

1-28—QUARTZSITE, ARIZONA: Show, "Desert Gardens International Gem & Mineral Show"; Desert Gardens RV Park; 1064 Kuehn St. (I-10 Exit 17, south side); 9-6 daily; free admission; crystals, minerals, rough, polished, jewelry, lapidary equipment; contact Sharon or Sandy, 1064 Kuehn St., Quartzsite, AZ 85346, (928) 927-6361; e-mail: info@desertgardensrvpark.net; Web site: www.desertgardensrvpark.net

12-13—MERRITT ISLAND, FLORIDA: 34th annual show, "Symphony of Gemstones"; Central Brevard Rock & Gem Club; Kiwanis Island, Merritt Island Causeway; Sat. 10-5, Sun. 10-5; adults \$3, children 12 and under free with adult; demonstrations, silent auction, exhibits, grand prize, lapidary supplies and equipment, gemstones, jewelry, beads, rocks, minerals, hourly door prizes; contact Ray Huntington, (321) 799-8536; e-mail: bdewey@cfl.rr.com

12-13—OAK HARBOR, WASHINGTON: 46th annual show, "Sweetheart of Gems"; Whidbey Island Gem Club; Oak Harbor Senior Center, 51 SE Jerome St.; Sat. 9-5, Sun. 9-4; contact Keith Ludemann, (360) 675-1837; e-mail: rock9@whidbey.net

18-27—INDIO, CALIFORNIA: Show, "Riverside County Fair & National Date Festival"; San Geronio Mineral & Gem Society; Riverside County Fair & National Date Festival, Gem & Mineral Bldg., 46-350 Arabia St.; 10-10 daily; adults \$8, seniors \$7, students \$6, children free; 16 dealers, 108 lapidary display cases, lapidary demonstrations, geode cutting and sales; contact Bert Grisham, 1029 N. 8th St., Banning, CA 92220, (951) 849-1674; e-mail: bert67@verizon.net

19—UPPER MARLBORO, MARYLAND: 21st annual show; Southern Maryland Rock & Mineral Club; The Show Place Arena, 14900 Pennsylvania Ave.; Sat. 10-5; admission \$3, children 6 and under free; vendors, minerals, fossils, gems, original jewelry designs, exhibitors, demonstrations, faceting, bead stringing, wire wrapping, gold panning, children's crafts, door prizes; contact Michael Patterson, 11000 Thrift Rd., Clinton, MD 20735, (301) 297-4575; e-mail: michael.patterson@pgparks.com; Web site: www.smrnc.org/index.html

25-27—GOLDEN, COLORADO: Show; Denver Gem & Mineral Guild; Jefferson County Fairgrounds, 15200 W. 6th Ave.; Fri. 10-6, Sat. 10-6, Sun. 11-5; free admission; gem-cutting demonstrations, geode cutting, mineral sample bags, mineral displays, dealers, gems, minerals, fossils, geodes, jewelry, books; contact Joseph Payne, 6101 S Logan Ct., Centennial, CO 80121, (303) 783-0221; e-mail: jpayne@englewoodgov.org; Web site: www.denvergem.org

25-27—NEWARK, CALIFORNIA: Annual show and sale; Mineral & Gem Society of Castro Valley; Newark Pavilion, 6430 Thornton Ave.; Fri. 10-6, Sat. 10-6, Sun. 10-5; adults \$6 (3-day pass), coupon on Web site; children under 12 free with adult; rare Ice Age fossils, fluorescent rock display, 48 display cases, 40 dealers, eight lapidary demonstrations, rocks, minerals, jewelry, gemstones, fossils, faceted stones, beads, petrified wood, lapidary equipment, jewelry making supplies, kids' Spinning Wheel, live auction, door prizes; contact Larry Ham, P.O. Box 2145, Castro Valley, CA 94546, (510) 887-9007; e-mail: showchair@mgscev.org; Web site: www.mgscev.org

26-27—BOISE, IDAHO: Annual show; Idaho Gem & Mineral Club; Expo Idaho, 5610 Glenwood St.; Sat. 10-6, Sun. 10-5; contact Charlie Smith, P.O. Box 8443, Boise, ID 83707, (208) 628-4002

26-27—EVERETT, WASHINGTON: 58th annual show; Everett Rock & Gem Club; Washington National Guard

continued on page 58

LORTONE, inc

- Slab Saws
- Arbors
- Tumblers
- Laps
- Trim Saws
- Jewelry Tools
- Abrasives

Bring out the shine!



Professional
Oscillating Laps

12130 Cyrus Way, Mukilteo, WA 98275 • Phone: (425) 493-1600 • Fax: (425) 493-9494
email: equipment@lortone.com • www.Lortone.com

Arizona Global Gem & Jewelry



4620 E. Speedway
Tucson, AZ 85712 U.S.A.

Phone: 520-396-4469
Fax: 520-396-4618
Email: info@aggjs.com

January 31 - February 6, 2011

at

The Hotel Arizona

181 W. Broadway, Tucson, AZ 85701



Tucson Show

Complete show details for Buyers,
Exhibitors and Press/Media can be found at:
www.AGGJS.com

www.johnbetts-fineminerals.com

Featuring
NATURAL DIAMOND CRYSTALS
up to 20 carats
Priced \$75 to \$9500



John H. Betts - Mineral Dealer
www.johnbetts-fineminerals.com
Cash paid for mineral collections!

ASPEN'S *Silver Lining*

This Colorado Resort Has Its Roots in Mining

Story and Photos by Steve Voynick



The ghost town of Independence marks the site of the first mineral discovery in the Roaring Fork Valley.

Few mining camps ever enjoyed a second chance at life. When the ore ran out or the metal markets collapsed, most simply became ghost towns. Some, of course, survived, but only a handful ever found renewed

fame and fortune. A good example of the latter is Aspen, Colorado, a name now synonymous with world-class skiing, high-end art galleries, chic bars and restaurants, and multimillion-dollar homes of the rich and famous.

But long before Aspen became an internationally recognized destination resort, it was a rough-and-tumble silver-mining camp, and a big one at that. In 1891, Aspen was the largest silver district in the United States. Over 40 years, its cumulative production topped \$100 million. Aspen was also a famous source of crystallized and wire silver specimens, and it even turned out the largest silver “nugget” ever mined, a mass of nearly pure metal that weighed more than a ton.

Although nearly 90 years have passed since it mined its last silver ore, Aspen hasn't

forgotten its roots. Its heritage still comes alive in tours of two historic, underground silver mines and through the superb exhibits at a newly established mining museum.

Geographically, Aspen is located on state Highway 82 in west-central Colorado, 35 miles southeast of Glenwood Springs and Interstate 70. Geologically, Aspen is part of the Colorado Mineral Belt, a 140-mile-long, 30-mile-wide mineralized zone that extends diagonally across the western half of the state. The mineral belt includes all of Colorado's important metal-sulfide depos-

its and such well-known mining districts as Idaho Springs, Central City, Breckenridge, Leadville, Creede, Ouray and Silverton.

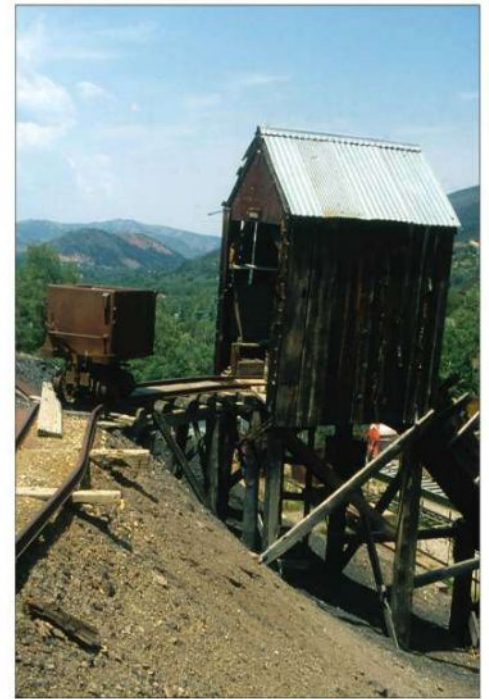
Aspen's silver-lead-zinc mineralization was emplaced some 65 million years ago during the Laramide Orogeny, the mountain-building episode that created the modern Rocky Mountains. As dramatic uplifting fractured the country rock, superheated, mineral-rich solutions surged upwards through faults and fissures to deposit metal sulfides in bodies of widely varying composition, concentration and configuration.

TOP LEFT: During the first three years of mining at Independence, miners produced 10,000 troy ounces of gold.

TOP RIGHT: The original ore chute still stands outside the portal of the Smuggler mine, famed as the source of a 2,350-pound "nugget" of native silver.

CENTER: The original sampling building of the Holden Lixiviation Plant is now the heart of the Holden-Marolt Mining & Ranching Museum on the west side of Aspen.

BOTTOM: A restored 1888 steam engine, early mining tools, historical photographs, and hundreds of mineral and ore specimens are on display in the museum.



Aspen's silver ores occur as replacement deposits in limestone. They formed when acidic, superheated solutions rich in silver, lead and zinc dissolved sections of the Mississippian-age limestone of the Leadville Formation to create pod-, lens-, and vein-shaped voids. The dissolving calcium carbonate decreased the acidity of the intruding hydrothermal solutions, causing them to precipitate sulfides of silver, lead and zinc within the voids.

Of Colorado's many mining camps, Aspen was most closely related—mineralogically, culturally, and economically—to Leadville, 30 air miles to the east. Mining in Leadville predated mining in Aspen by about five years. Prospectors discovered rich, replacement-type silver deposits at Leadville in 1876, and by 1879 it had become the biggest silver camp in the Western United States. Once its valuable ground had all been staked, Leadville's prospectors fanned out through the surrounding Rockies in search of new deposits. Some crossed the Continental Divide at 12,095-foot-high Hunter Pass (now Independence Pass) and descended into the upper Roaring Fork Valley. A few miles below the pass, they discovered lode-gold outcrops at a site named Independence in honor of its July 4th discovery date.

Despite its elevation of nearly 11,000 feet, Independence grew quickly into a bustling camp of 500 residents. In just two years, its miners recovered 10,000 troy ounces of gold. Unfortunately, the veins played out quickly and by 1883, Independence had become just another minor gold camp struggling to survive.

But silver, not gold, proved to be the true mineral wealth of the upper Roaring Fork Valley. And in August 1879, prospectors found it as outcrops of oxidized silver-lead mineralization 13 miles farther down the Roaring Fork River at the more amenable elevation of 8,200 feet. Driving narrow exploratory tunnels, they blasted into veins of silver, lead and zinc sulfides, some containing hundreds of troy ounces of silver per ton.



HUGHES ASSOCIATES

QUALITY PRODUCTS FOR OVER THIRTY YEARS

EPOXY 220amber clear bonding
EPOXY 330water clear bonding
TENAXinstant super glue
TENAX + PLUSa thick instant adhesive
OPTICON 224fracture sealer
ATTACKepoxy solvent

AT YOUR DEALER

Hughes Associates

18116 Mtka. Blvd., Wayzata, MN 55391

phone: 952-404-2626 fax: 952-474-4636

Sale
\$139.50
Plus shipping

JUMP RING MAKER by PepeTools®



The new Jump Ring Maker system allows the user the option of making Jump rings by using either the hand winding Jacobs chuck or a standard Jacobs style hand piece on a flexible shaft motor. A standard Jacobs style hand piece is also provided in the set. 20 inner core winding rods range from 2.5 to 12.5mm in diameter. The coiled wire holder is designed for cutting the wire with a separate cutting disc using a flexible shaft tool.

Stock No. 6-1404



Kingsley North, Inc.
P.O. Box 216 • 910 Brown St
Norway, Michigan 49870
Phone (800)338-9280 Fax (906)563-7143
www.kingsleynorth.com
sales@kingsleynorth.com



Arrowhead LAPIDARY & SUPPLY

Lapidary Supplies and Equipment

Most Orders Shipped within 24 Hours

Authorized Dealers of: Crystalite, Lapcraft, Covington, Inland, MK Diamond, Raytech, Diamond Pacific, Graves and more.

Order Toll Free (866) 929-8575
email: info@arrowheadlapidarysupply.com
Arrowhead Lapidary Supply
P. O. Box 247
Wellington, OH 44090
Website: arrowheadlapidarysupply.com

ASPEN'S Silver Lining from page 47

They originally named it Ute City, but miners changed their camp's name to Aspen a year later. By then, they had learned two things: that they were sitting atop a true silver bonanza and that mining it was not going to be easy.

Since railroads had not yet crossed the Continental Divide, Aspen was completely isolated. Leadville, the nearest source of supplies, was 60 miles away over rough trails. The mules and freight wagons that hauled supplies from Leadville to Aspen had to surmount the steep, treacherous grades of lofty Independence Pass, which was snowbound eight months of the year. Because it was impossible to haul in the steam engines and air compressors necessary to power mechanical rock drills, Aspen's miners drove their narrow tunnels through the hard rock using nothing more than hammers and hand steels.

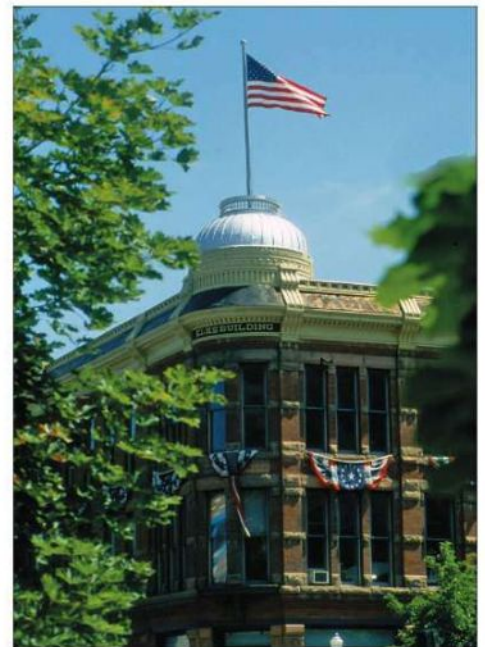
For several years, the only Aspen ores with any immediate value were those that were rich enough to ship to the Leadville smelters. Miners dumped the lower-grade ores—even those containing as many as 100 troy ounces of silver per ton—into growing heaps outside the mine portals.

Amazingly, snow-shovel crews overcame blizzards, avalanches, and bitter cold to keep the narrow, rutted trail over Independence Pass open all year round. Pack trains and long lines of freight wagons carried mining equipment and the necessities of life west to Aspen, returning with high-grade silver ore bound for the Leadville smelters.

By 1885, the Aspen Mining District had more than 7,000 registered mining claims. While fewer than 150 ever proved valuable, these were developed into a dozen major mines, most notably the Smuggler, Compromise, Free Silver, Midnight, and Mollie Gibson. Mining had revealed that Aspen's complex mineralization consisted of small but very rich bodies of silver, lead and zinc sulfides, all aligned along 40 major faults. Ores consisted primarily of native silver and the sulfide minerals acanthite, galena and sphalerite.

Of Colorado's dozens of silver-mining districts, only about five—Caribou, Ward, Leadville, Telluride and Aspen—ever produced significant quantities of the native metal. Most of it was found at Aspen, where it occurred in three distinct forms: dark masses, blocky crystals, and delicate and heavy wires. The crystallized and wire forms of native silver from the Aspen mines were among the specimens from western mining camps that first attracted the attention of American mineral collectors in the late 1880s.

The main gangue minerals at Aspen were white and colorless calcite and white, pink and yellow barite. Some oxidized copper minerals, notably azurite, were also present.



Many of the restored buildings in downtown Aspen were erected during the height of the silver boom between 1887 and 1893.

During the 1880s, miners grouped Aspen's silver ores into three economic categories: bonanza ores, milling ores, and low-grade mineralization. The bonanza ores held hundreds of troy ounces of silver per ton and could be smelted without prior concentration. These ores, which were initially hauled to the Leadville smelters, sustained Aspen during its early years. Milling ores contained between 20 and 100 troy ounces of silver per ton and required pre-smelting concentration. Low-grade mineralization graded less than 20 troy ounces of silver per ton and could not be economically treated with existing concentration methods.

As late as 1886, only a few small, crude smelters handled Aspen's bonanza ores, while miners continued to set aside milling-grade ores and low-grade mineralization, both of which still had no immediate value. But Aspen's fortunes improved dramatically when the railroad finally arrived in 1887, dropping per-ton freight charges from \$100 to just \$10. As heavy equipment for deeper mines, concentration mills, and bigger smelters rolled into Aspen, production of silver, along with that of lead and zinc, increased rapidly. The new mills now employed high-volume, gravitational-separation processes to concentrate the stockpiles of milling-grade ores.

By 1889, Aspen had grown into a bona fide city with a population of 12,000, two railroads, six newspapers, electric lighting and trolley systems, an opera house, three theaters, and 16 hotels. Its 12 major mines, four smelters, and four gravitational-concentration mills worked day and night to turn out record amounts of silver.

In 1891, Aspen posted its best year ever, producing more than 10 million troy ounces (about 322 metric tons) of silver—the



Covington Lapidary Machines Quality Built Since 1848



- * 16 Different horizontal machines to choose from.
- * From 8" Maxi-Laps to 16" production, one & two speed lapidary units.
- * 3 Automatic Vibra-Laps from 10" to 16" takes the work out of lapping.
- * Now proud manufacturer of the Rociprolap, 20", 24", 30" & 36", all models machined cast iron.
- * Maxi-Laps and Vibra-Laps made with heavy cast aluminum.



- * 6 Heavy Duty Slab Saws to choose from.
- * High performance slab saws for superior cutting, from 16" to 36". **Blade is Included.**
- * Six speed power feed with auto shut off.
- * Cross feed permits up to 8" of material to be slabbed without reclamping.
- * Completely assembled ready to plug in, add coolant, and operate.



Covington Engineering Corp.
P.O. Box 35 - 715 West Colton Ave.
Redlands, CA 92373

CALL US TOLL FREE (877)-793-6636
Outside U.S. (909)-793-6636
FAX (909)-793-7641

Visit us online at www.covington-engineering.com or www.covington-engineering.us



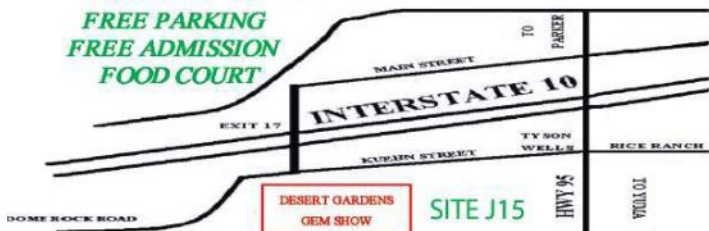
JANUARY 1 – FEBRUARY 28, 2011

*A select group of dealers from around the world.
(RETAIL & WHOLESALE)*

- GEMS * MINERALS * PETRIFIED WOOD
- ROUGH ROCK & SLABS
- ROCKHOUND & LAPIDARY SUPPLIES
- JEWELRY * CRYSTALS * BEADS
- ROUGH & CUT STONES * FACETING
- SILVER & GOLD SMITHING
- FOSSILS * CARVINGS
- LEATHER & MUCH MORE

CALL (928) 927-6361 FOR MORE INFORMATION
JUST OFF EXIT 17 ON INTERSTATE 10
QUARTZSITE, ARIZONA

**FREE PARKING
FREE ADMISSION
FOOD COURT**



**Will you be ready when
Inspiration Strikes?**

**Come to IJS to SAVE
on all your SUPPLIES**

Metals, Findings,
Tools, Stones
and **MORE...**



JUST OUT OF THE BOX
**TOMAHAWK
EDITION
BLADES**

www.ijssinc.com

or call 1(800) 545-6540

to receive a **FREE CATALOG!**

NEW ERA GEMS

Please call us for our
FREE COLOR CATALOG!

**WE TRAVEL TO AFRICA & BRAZIL TO BRING
YOU THE BEST, DIRECT FROM THE SOURCE!**

2011 SHOW SCHEDULE

TUCSON, AZ

January 30th - February 11th, 2011

The Pueblo Gem & Mineral Show
The Riverpark Inn (formerly the Pueblo Inn)
350 S. Freeway, Tucson, AZ 85745

SEATTLE, WA

March 2011

International Gem & Jewelry Show
Seattle Center Exhibition Hall and NW
Rooms, Booth #701
299 Mercer St., Seattle Wa 98109

SAN MATEO, CA

April 2011

International Gem & Jewelry Show
County Event Center - Expo Hall, Booth #700
2495 S. Delaware Street, San Mateo, CA

WE TRAVEL DIRECT TO TANZANIA

We're displaying a wide variety of faceting rough,
cabbng rough, cut gems, mineral specimens
& polished Brazilian quartz objects!

New Era Gems

14923 Rattlesnake Rd., Grass Valley, CA 95945
CALL US TOLL FREE 1-800-752-2057
(530) 272-1334 FAX (530) 272-2985
email: neweragems@hotmail.com
www.neweragems.com

Lamberton Rake

You'll LOVE it!

Use our Versatile
Combination Rake /
Hoe in the field,
at home and for
Hunting Gold!



For more information or to order
see our website at HYPERLINK

"<http://www.lambertonrake.com>"

www.lambertonrake.com



GILMAN'S

**YOUR COMPLETE JEWELRY
AND LAPIDARY SUPPLY HOUSE**

**P.O. Box M, 726 Durham St.
Hellertown, PA 18055**

**PHONE (610) 838-8767
FAX (610) 838-2961**

ASPEN'S Silver Lining *from page 48*

most of any district in the nation. But to reach its full potential as a silver producer, Aspen still needed a way to economically concentrate its low-grade mineralization. In 1890, this problem attracted the attention of William Holden, a former Leadville chemist and assayer. Holden believed that the answer was lixiviation, a chemical process that dissolved silver from its ores.

A silver-lixiviation process had been developed in Austria in 1874. A decade later, American metallurgist Edward Russell patented his improved "Russell Process", in which low-grade sulfide ores were crushed, mixed with salt (sodium chloride), and roasted to convert the silver sulfide to silver chloride. The silver chloride was then dissolved in a solution of sodium thiosulfate, an inexpensive chemical reagent. A final step precipitated the dissolved silver as silver sulfide in a concentrated, particulate form that was ready for smelting.

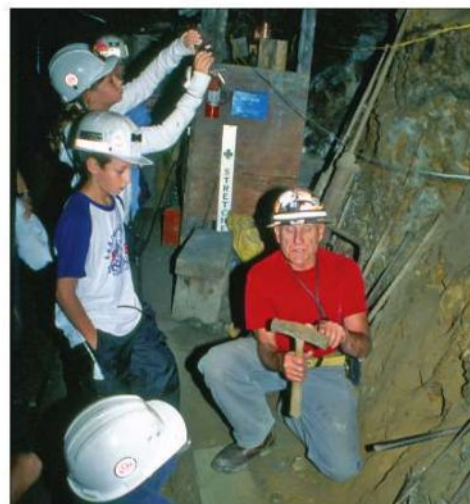
Holden designed and constructed a lixiviation plant utilizing the Russell Process, the first stage of which went into operation on the west side of Aspen in November 1891. The plant's 165-foot-high smokestack was the highest in the state. Its six six-stamp mills and 125 employees could concentrate 125 tons of low-grade ore per day and it was recognized as one of the world's most advanced ore-beneficiation operations.

At the Holden plant, incoming silver ore was sampled, crushed and assayed at the sampling building. Accurate assaying was critical because the lixiviation process demanded precise chemical control. Capable of extracting 95 percent of the silver in ores grading as low as 10 troy ounces per ton, Holden's lixiviation plant was a great success and contributed significantly to Aspen's booming silver production.

Though Aspen's average ore grades began to decline by the early 1890s, miners were still encountering pockets of bonanza ores that contained several thousand troy ounces of silver per ton. They also sometimes found large masses of native silver. In 1890, the Mollie Gibson mine made news by turning out a 387-pound mass of metallic silver.

But that record was eclipsed at the Smuggler mine in November 1892, when miners recovered the largest silver "nugget" ever documented, a mass of metallic silver weighing 2,350 pounds. The nugget consisted of 93 percent metallic silver, while the remaining 7 percent was mostly acanthite. Because it was too large to fit into the Smuggler's tiny, 1-ton ore cars or to be hoisted up a narrow, internal shaft, it was set aside for later removal from the mine.

But time was already running out on Aspen's glory days. For more than a decade, Western mining districts had been flooding the market with far more silver than was



Tour guide Jay Parker demonstrates the single-jack method of hand drilling used to prepare blast holes during the first seven years of mining in Aspen.

needed to manufacture jewelry, silverware, ornaments and, most importantly, coinage. To keep the districts operating, Congress had passed the Sherman Silver Purchase Act of 1890, which required the U.S. Treasury to purchase even more silver to support the metal's price. Finally, in early 1893, Congress yielded to political pressure from the Eastern states and repealed the controversial act.

As silver prices plummeted from \$1.29 to 60 cents per troy ounce, Western silver mines closed by the hundreds. Aspen's economy was devastated as most of its mines, mills and smelters shut down. Among the casualties was the new Holden Lixiviation Plant, which had operated for only 14 months.

Another casualty was that huge silver nugget, still gathering dust in a lower level of the Smuggler mine. By the time mine managers ordered it broken into three pieces for removal in 1893, the silver market had crashed. When it was first mined, the 1-ton nugget had been worth about \$30,000, but by the time it was finally removed from the mine it was worth only half that.

Although Aspen's glory days ended with the silver-market crash, mining continued, albeit at a much slower pace. When the last mines finally closed in the early 1920s, the Aspen Mining District, with more than 100 miles of underground workings, had produced more than 90 million troy ounces (about 2,900 tons) of silver.

Without its mines, Aspen's population dropped to just 700, its elaborate Victorian mansions fell into disrepair, and its economy slowly shifted to ranching and scraping timbers and steel from inactive mines, mills, and smelters. The town survived, but with little hope for its future.

Aspen's second chance came, suddenly and unexpectedly, after World War II with a visit by Walter P. Paepcke, a wealthy Chicago industrialist. Paepcke saw Aspen as not just another faded mining town, but as a place where spectacular scenery, a winter



TYSON WELLS

Arizona's Largest Winter Attraction!



TYSON WELLS

Rock-Gem-Mineral Show

Quartzsite, Arizona

JAN. 7 - 16, 2011

A 10-DAY SHOW

- Gems • Rocks • Minerals • Jewelry •
 - Silver & Goldsmithing • Faceting •
 - Precious Metals •
- Lapidary Tools, Equipment & Supplies**

FREE ADMISSION • FREE PARKING

LOCATION AND DETAILS: S.W. Corner of I-10 Freeway and Highway 95, Quartzsite, Arizona, home of the largest show of its kind. • Takes days to see it all. • A buyers' and sellers' market of the world. • Smooth, fine graveled, dust controlled, packed surface for selling, parking and camping in the beautiful desert setting of Arizona's La Pos Valley. • Live on your show spaces or in our on-premises no-hookup campground with water and dump station. • Honey wagon available. • Easy access in and out of show. • Over 850 selling spaces on 25 acres. • This is a must see event.

TYSON WELLS 33rd ANNUAL

SELL-A-RAMA Rock-Gems-Arts-Crafts Show

JAN. 21 - 30, 2011, A 10-DAY SHOW

A 25-ACRE OUTDOOR SPECTACULAR

An Unbelievable Variety Displayed on 2.2 Miles of Aisle Frontage

- Gems • Rocks • Minerals • Arts •
- Crafts • Hobbies • Jewelry •
- Silver & Goldsmithing • Faceting •
- Precious Metals • Antiques • Coins •

TYSON WELLS

P.O. Box 60, Quartzsite, AZ 85346

Show Office Phone: (928) 927-6364 • For R.V. Office: (928) 927-6365

E-mail: tysonwells@tds.net

www.tysonwells.com

ROCK'S GEM TRIM SAWS & BULL WHEEL ARE TIME TESTED MACHINES MADE OF HEAVY DUTY CAST ALUMINUM AND MADE IN THE U.S.A.

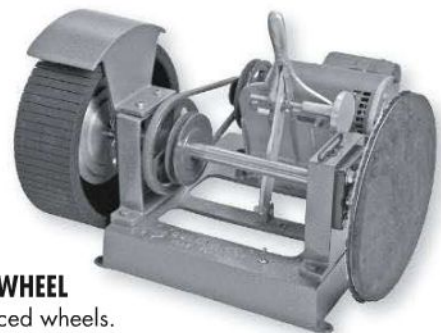


FEATURES OF 4" & 6" HIGH SPEED GEM TRIM SAWS

- Solid cast aluminum construction.
- Attractive and durable powder coat finish.
- 8 ft power cord.
- 3000 rpm motors.
- 1/2" arbor.
- MK-303 Saw blade included.
- Package of Crystalcut included.
- Made in the USA.

FEATURES OF THE BULL WHEEL

- Complete unit with balanced wheels.
- Solid cast aluminum construction.
- Attractive and durable powder coat finish.
- 4" x 12" expanding sanding wheel. (4 belts included)
- 12" flat disc with sponge rubber. (4 disc included)
- 12" convex disc covered with leather over a sponge rubber backing.
- 3/4 hp 120v 60hz motor.
- Quick change motor mount.
- 8 ft power cord.
- Made in the USA.



DEALER INQUIRES WELCOME

P.O. Box 248, Wellington, OH 44090 Phone # 419-929-8575 Fax # 419-929-2913

Email: info@polaristool.com Website: www.polaristool.com

The Smart Choice!

**F
I
N
I
S
H
I
N
G**



*Raytech has a machine to suit your application, whether you make castings, stampings, fabrications, or process gemstones. **Raytech is the world's leader** in the manufacturing of small mass finishing equipment and accessories.*

Contact your local distributor
or phone 1-800-243-7163
for a full line catalog
www.raytech-ind.com

RAYTECH INDUSTRIES
A Division of Lyman Products
475 Smith Street
Middletown, CT 06457

Ph: 860-632-2020
Fax: 860-632-1699



During its 40-year lifetime, the Smuggler mine produced more than 10 million troy ounces of silver.

abundance of powdery snow, and a wealth of Victorian architecture awaiting restoration all added up to enormous resort potential. He bought or leased many buildings, founded the Aspen Ski Corp., and invested millions of dollars into restoration and clearing slopes and building ski lifts. Paepcke also planned to develop crafts industries that would produce such items as jewelry fashioned from native silver, much of which was still readily available from retired miners and other local residents.

Although the native-silver jewelry never caught on, the rest of Aspen certainly did. Almost overnight, the moribund old mining camp became one of the liveliest spots in Colorado. By the early 1950s, Hollywood celebrities like John Wayne, Lana Turner, and Gary Cooper were regular visitors. Aspen subsequently evolved into a center of hippie counterculture, boasting residents like folksinger-songwriter John Denver and gonzo journalist Hunter S. Thompson. And by the late 1980s, it had matured into its current incarnation as a jet-set retreat, international ski mecca, and center for culture and the arts.

Yet, despite all these changes, today's visitors can still explore Aspen's silver-mining history and heritage at several impressive attractions. One is the Holden-Marolt Mining & Ranching Museum on the west side of town. This new museum, owned and maintained by the Aspen Historical Society, occupies 22 acres of the original site of the old Holden Lixiviation Plant. Displays are housed in the original sampling building. Exhibits include a massive stamp mill, assaying equipment, restored and operational air compressors and steam engines, a detailed model of the original lixiviation plant, and an extensive collection of historical photographs, drawings and photographs of Aspen's mines and mills.

**THUMLER'S
TUMBLER
ULTRA VIBE**

Order Toll Free: 1(800) 225-1017
<http://www.thumlerstumbler.com>



- 30 models & kits
- 1 qt - 4 3/4 gal.
- Thermally Protected
- Durable & Safe
- All Steel Construction

*Building Tumblers
for Hobby &
Industry Since 1959*

Write for Catalog
Tru-Square Metal Products • P.O. Box 585 • Auburn, WA 98071



High-grade ore taken from the Smuggler mine sometimes contained thousands of troy ounces of silver per ton.

Other exhibits explain the silver-lixivation process of the 1890s, which utilized sodium thiosulfate as the solvent. Interestingly, lixiviation processes using cyanide solvents are the foundation of the gold-mining industry today. And researchers are currently studying sodium thiosulfate as a possible nontoxic replacement for sodium cyanide as a gold lixiviant.

The museum also contains hundreds of specimens of Colorado minerals. Among them are Aspen ore and gangue minerals, including native silver in massive form, blocky crystals, and delicate and heavy silver wires, all mined in the late 1880s.

Surprisingly, specimens of native silver from Aspen, mostly from the Smuggler, Midnight, and Mollie Gibson mines, are still available at mineral shows and through dealers. One-inch specimens with minimal wire formation are priced around \$250, while 2-inch specimens with blocky crystals or well-developed wires can sell for as much as \$7,500.

On the east end of Aspen, two of Aspen's richest silver mines, the Smuggler and the Compromise, offer underground tours. The Smuggler, located on Smuggler Mountain, was Aspen's biggest mine with 30 miles of underground workings. Guides now lead visitors 1,200 feet into the mine to visit two levels on a 90-minute tour. Veins of high-grade silver ore still glitter from the rock walls, as do such colorful gangue minerals as pink barite, white calcite, and blue azurite. Many of the drifts, ore chutes, and open slopes are more than 120 years old and show the mineralogical signs of their age. One drift is covered with inch-long calcite and aragonite stalactites, another with gleaming needles of calcium sulfate called "gypsum flowers".

The Compromise mine is located beneath the ski slopes of nearby Aspen Mountain.

get
HANDS ON

DB-100™
Diamond Band Saw

Item# 91030 DB-100™
Diamond Band Saw
MSRP: \$269.95

Makes a Great Holiday Gift!

inland
www.inlandlapidary.com

C L O S E O U T

Fine quality gems at liquidation prices!



FACETED & CABOCHON STONES

CEYLON SAPPHIRE, pastel color, blue, pink, green, 2.50 - 2.75 mm princess	3 pc for \$8.00
BLACK STAR SAPPHIRE, cabochon , fine quality, 8x6 mm oval	\$10.50 each
RUBY, Burma, nice color, 2 mm round	5 pc for \$3.25
TANZANITE, blue, AAA, beautiful cut, 3 mm round brilliant	\$18.00 each
SPINEL, Burma, pink, fine cut, 2 mm round	\$ 2.99 each
BLACK SPINEL (black diamond subst.), fine cut, 2 mm round brilliant	\$0.90 each
SILVER TOPAZ, fine cut, 3 mm round brilliant cut, \$0.75 each, 6 mm round	\$3.60 each
SKY BLUE TOPAZ, fine cut, 3 mm round	\$2.00 each
AMETHYST, dark purple, fine cut, 3 mm, round brilliant cut	\$1.25
CITRINE, gold color, fine cut, 6x3 mm marquise	\$1.99 each
GARNET, red, fine cut, 4 mm round	10 pcs for \$7.50
RHODOLITE GARNET, fine cut..... 4 mm round, trillion \$2.50 each	2.5 mm, round \$.80 each
HESSONITE, 3 mm, round brilliant, root beer color,	\$1.75 each
MEXICAN OPAL, fine cut..... orange, 4x6 mm oval \$3.00 each	yellow, 7x5 mm oval, \$2.99
ZIRCON, Cambodia, with a hint of blue beautiful 2 mm round	\$0.50 each
HELENITE, volcano stone, fine cut 5 mm rounds, red, blue, or green	\$3.00 each
TOURMALINE, cabochon , pink..... round, 4 mm \$3.50 each	round, 5 mm \$5.40 each

Visit us at

www.midlandgems.com

BURMA JADE & MAW SIT SIT

ROUGH Huge selection!

Gemstone Carvings

FACETING AND CARVING SERVICES

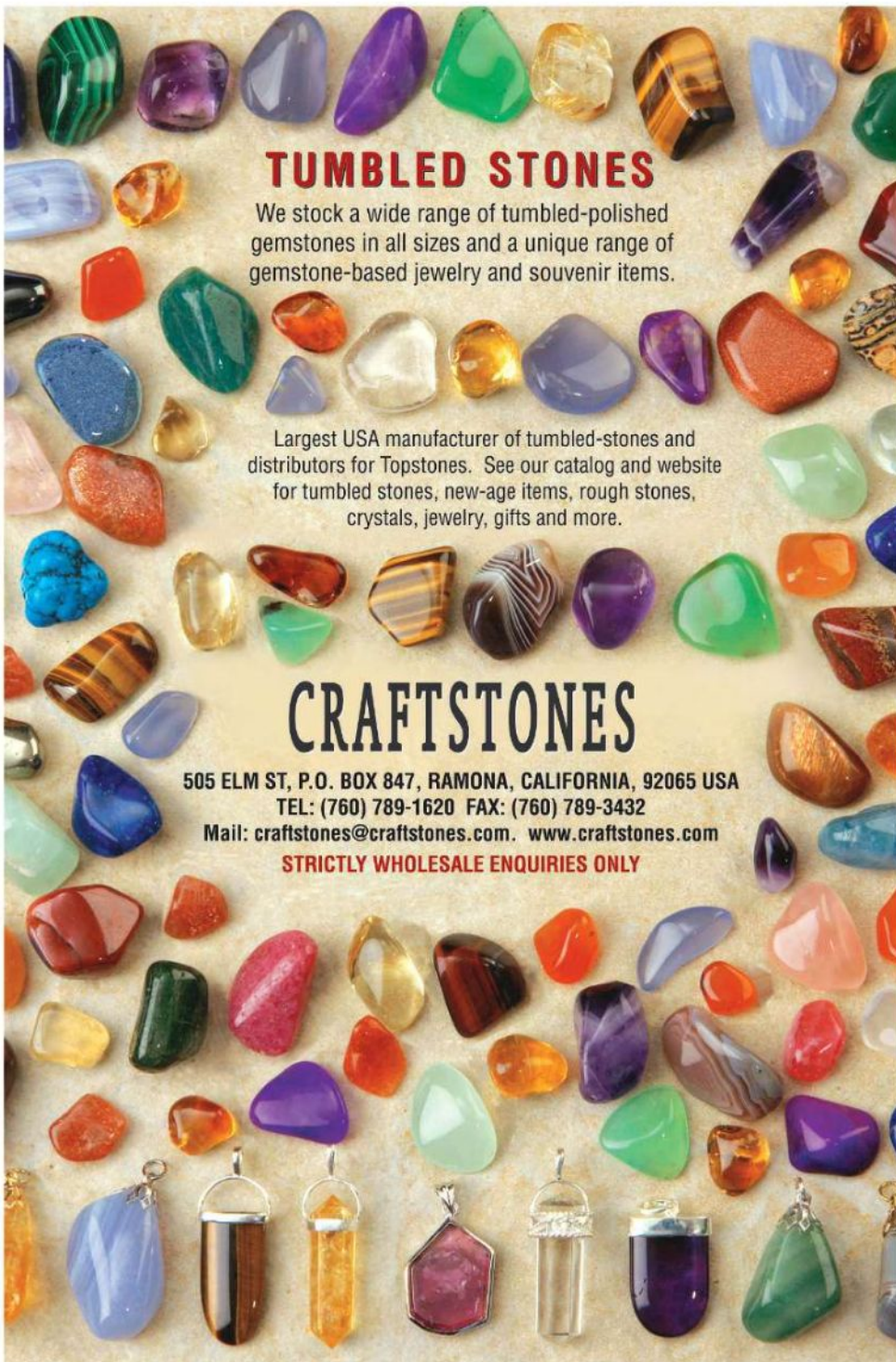
VISA, MC, AMEX, CHECKS, Money Orders are welcome.

S&H \$5.00 USA, 8.25% sale tax for CA residents without valid sale permit, free price list available.



VR GEM CUTTERS

PO Box 1263, Thousand Oaks, CA 91358 1-888-777-3148 Email: virgms@msn.com



TUMBLING STONES

We stock a wide range of tumbled-polished gemstones in all sizes and a unique range of gemstone-based jewelry and souvenir items.

Largest USA manufacturer of tumbled-stones and distributors for Topstones. See our catalog and website for tumbled stones, new-age items, rough stones, crystals, jewelry, gifts and more.

CRAFTSTONES

505 ELM ST, P.O. BOX 847, RAMONA, CALIFORNIA, 92065 USA
 TEL: (760) 789-1620 FAX: (760) 789-3432
 Mail: craftstones@craftstones.com www.craftstones.com
STRICTLY WHOLESALE ENQUIRIES ONLY



This specimen of high-grade ore from the Smuggler mine contains about 200 troy ounces of silver per ton.

On summer weekends, an electric mine locomotive hauls trains filled with visitors over an underground, mine-gauge railroad on two-hour tours. At the halfway point, visitors are a half-mile into Aspen Mountain, directly beneath the famed Little Nell ski slope. Along the way, guides point out veins of high-grade silver ore and demonstrate the "single-jack" method of hand-drilling used during Aspen's early years.

The ghost town of Independence, 13 miles east of Aspen along state Route 82, is now an archaeological preserve maintained by the Aspen Historical Society. In summer, a resident caretaker oversees the remains of log buildings, manages a general store filled with historical photographs and artifacts, demonstrates gold panning, and answers questions posed by 600 weekly visitors.

Independence Pass, four miles from Independence and 1,300 feet higher on state Route 82, is North America's highest paved pass. Both its eastern and western approaches have tight turns, steep grades, dramatic cliffs, and spectacular overlooks. Traversing the pass, one can appreciate the difficulties of keeping it open for mule trains and freight wagons during the first seven winters of Aspen's existence. Today, Independence Pass is open only from late May through October, snow conditions permitting.

After a day of touring mines and museums, enjoy dinner in one of Aspen's chic downtown restaurants (bring *all* your credit cards). Remember that the beautifully restored brick buildings and brightly painted Victorian mansions were built not by modern skiing and tourism, but by silver mining more than a century ago.

The Smuggler mine offers tours year-round; the Compromise mine on Saturdays only during July and August. Reservations are required for both. For additional information on these mines and to schedule tours, telephone (970) 925-2049. For information on the Holden-Marolt Mining & Ranching Museum and the Independence town site, call the Aspen Historical Society at (970) 925-3721 or (800) 331-7213, or visit www.aspenhistory.org.



LAPIDARY EQUIPMENT
JS GEMS

Our slogan is "Quality lapidary equipment at discount prices"

*Ameritool *Covington Engineering *Gryphon
 *Barranca *Diamond Pacific *and More!!

(909) 519-1545
 e-mail: jsgems@dslextreme.com
www.jsgemslapidary.com

The Tenth Annual

CLOUD'S Gem & Jewelry Show



FRIDAY, JANUARY 7th THRU SUNDAY, JANUARY 16th, 2011

CONTACT **CLOUD EVENTS**

PHONE (866) 558-7719 FAX (928) 927-7547

SHOW LOCATED AT **AVI RESORT & CASINO**
10000 Aha Macay Pkwy., Laughlin, NV 89029

MAIL RESERVATION FORM & PRE-PAYMENT TO:
Cloud Events, P.O. Box 1917, Quartzsite, AZ 85346

IT'S THE MOTHER LODE!

BELOW LIST PRICES on Rockhound Supplies, Lapidary Equipment, Beads & Beading Supplies & Much More!

FAST SERVICE!

Eloxite Corp.

"Your complete jewelry craft & lapidary supply house!"

Write or call for your **FREE CATALOG** with **LOW, LOW, BELOW LIST PRICES** on: Beads & Beading Supplies, Cabochons, Faceted Stones, Many Gemstone Items, Rockhound Tools, Lapidary Equipment, Polishes, Findings Galore, Earrings, Bracelets, Chains, Charms, Leather Belts, Pendants, Money Clips, Sterling Silver Items, Feathers, Rings, Bola Slides, Bola Ties, Belt Buckles, Buckle Inserts, Jeweler's Tools & Supplies, Clock Movements, Jewelry Boxes, Diamond Tools & Saw Blades, and much, much, more! (Quantity Discounts Available)



WE'RE ON THE INTERNET!
Visit our On-Line Store at www.eloxite.com



Call, write, or fax for your **FREE 122 PAGE CATALOG FULL OF OVER 2000 items at Below List Prices.**

PHONE (307) 322-3050
FAX (307) 322-3055, or write:
Eloxite Corp.
Dept. 5; P.O. Box 729
Wheatland, WY 82201

CALL BEFORE NOON MOUNTAIN TIME AND YOUR FREE CATALOG WILL BE ON THE WAY THE SAME DAY!



The

R&G Shopper



OXY ROCKS THE GEM AND MINERAL CLEANER

PROVEN

Cleaning product, safely removes calcium, organics, rust and other deposits, leaving your specimens sparkling. Revolutionary discovery created in lab for you! Repairs harsh chemical burns. Efficient cleaning. No noxious fumes.

DISTRIBUTED EXCLUSIVELY BY

OXYROCKS.COM

THE
SECRET
IS OUT!

Gems by John Soft Stop Dial

Enhancement accessory for Mark IV & I Faceting Machines. Immediate Visual Feedback, Greater Repeatability, More Precision, Faster Cutting.



www.GemsByJohn.com (859) 539-2407

ROCK SHOP



I-44 Exit 189
11010 Dillon Outer Road
Rolla, Missouri 65401
573.368.3737

Open seven days a week

**Minerals-Fossils-Lapidary
~ Gem Sluice ~**

Yard Rock to Museum Quality Specimens!
route66rockshop.biz

METEORITES Rare Rocks From Space

I have many excellent specimens at great prices. Send for a FREE paper list, OR sign-up for FREE periodic e-lists at:
brMeteorites_list_under_Yahoo-groups.

Blaine Reed - Meteorites
P.O. Box 1141, Delta, CO 81416

PEWTER FIGURINES

100's OF STYLES
HIGH QUALITY WHOLESALE PRICES
FREE CATALOG
IMPERIAL MFG.
14502 Resort Ln., Lakewood, WI 54138
(715) 276-7865

JEANNE'S ROCK & JEWELRY®

www.JeanneRockShop.com
PHONE: 713-664-2988 FAX: 713-664-1714
· LW & SW FLUORESCENT MINERALS ·
· DISPLAY STANDS - PLEXI & WOODEN COBRA ·
· DISPLAY ITEMS - TRAYS, PADS, ZIPS & MORE ·
· CABOCHONS · STAUROLITE CROSSES ·
FOR LISTS: SEND \$1 AND BUSINESS ID/INFO
IN SOUTHWEST HOUSTON SINCE 1972

FREE CATALOG

THE #1 SOURCE to THE TRADE
ALL TYPES ROUGH & CUT GEMS

KNIGHT'S BOX 411 WAITSFIELD VT 05673
FAX 1-802-496-5619 TEL 1-802-496-3707
e-mail - knights@madriver.com

FREE TREASURE RESEARCH CATALOG

BOOK - MAPS
VIDEOS - ALL SUBJECTS - LOW PRICES

1-800-345-8588

Research Unlimited, Oscoda, MI 48750

www.midlandgems.com

FINE GEMSTONES, GEM ROUGH,
CRYSTALS, SPECIMENS &
GEMSTONE CARVINGS
CALL (888) 777-3148



CarTopCamper.com

Sleep comfortably
above the rocks,
mud & critters.

\$795 (plus shipping)

Mineral Specimens Cut & Uncut Gemstones New & Used Lapidary Equipment

CRYSTAL CAVE

6835 Stirling Rd., Davie, FL 33314
(954) 585-8988 FAX: (954) 585-8989

The Mineral Gallery Minerals and Crystals

Top Quality Cabinet Sizes Our Specialty



Visit Our Web site and Online Mineral
Auction Complete with Color Photos at:
<http://www.themineralgallery.com>

PO Box 91448, Mobile, Alabama 36691

Leeds Lapidary & Rock Shop

Premium Kentucky Agate

Slabs, Cabs, Beads and Rough.
Lapidary & Jewelry services available.

www.johnnyrocks.com

108 East Main St. Richmond KY 40475
Office: 859.624.4200 or Cell: 859.582.7406

Kino Rocks & Minerals

Mineral Specimens • Bookends
Jewelry Findings • Slabs & Rough
Custom Sawing • Lapidary Supplies
NO CATALOG

6756 S. NOGALES HWY., TUCSON, AZ 85756
(520) 294-0143

MarZee Lapidary Tutorial DVDs

**BEGINNING CABOCHON. FLAT LAP.
LAPIDARY DRILLING. SLOW WOOD LAP.
CARVING A JADE BANGLE.**

63 Park Hill Ave., San Francisco, CA 94117
email: marzeetutorials@znet.com
web: <http://marzeetutorials.com>

GEMSTONE CARVING CLASSES

Taught by Ron Martinez

CUSTOM JEWELRY DESIGN & FABRICATION

By GIA Trained Carmen Martinez

www.VisionsByRon.com

408-568-2015

IN METAL BUILDING H-6 AT PROSPECTORS

*Personal collection of
Lapis Lazuli and
Star-Sapphires!*
Contact: June MacNeil 509-485-2472

Advertising Works

**Be Seen By
Thousands**



For more info call Brian at 623-327-3525

Welcome to the ROCK&GEM Shopper, the one-stop shopping place for your rockhounding and lapidary needs. Every month many thousands of shoppers will browse through this convenient shopping section.

To be part of the Shopper,
call Brian Roberts at: 623-327-3525
or email: broberts@jmillermmedia.com



PrettyRock.com
Gemological Tools,
Faceting Rough &
Lapidary Supplies
704-299-2853
POB 38930 Charlotte NC 28278

On the Rocks
Gems, Jewelry & More
5709 N. Clark St. Chicago, IL 60660
(773) 649-0111
visit us online:
www.ontherocksinc.com

WHOLESALE
PAUA SHELL Bracelets ...
HEMATITE Necklaces, Rings ...
COPPER Jewelry ...
MAGNETIC Wraps ...
Tel: 352-338-3576
website: www.jscopti.com

NEW DIRECTIONS GEMS
FREE CATALOG / NEWSLETTER
100% Satisfaction Guarantee
EMAIL: gemsnewd@gemsnewdirections.com
WEB: <http://gemsnewdirections.com>
PHONE: (866) 219-7727

Dragonsaye Auctions
An auction site dedicated solely to the lapidary trade.
Find supplies, rock, slabs, handcrafted precious metal jewelry and equipment all in one place.
Great seller perks! NO Final Value Fees, user-friendly Paypal and Credit Cards.
\$15.00 free-credit to early applicants.
See more at
www.dragonsayeauctions.com
Ask for Dragon 410-437-9695

LAPIDARY EQUIPMENT
* Ameritool * Barranca
* Diamond Pacific
* Covington Engineering
* Gryphon and More!!
JS GEMS
phone: (909) 519-1545; e-mail: jsgems@dslextrreme.com
www.jsgemslapidary.com
Our slogan is "Quality lapidary equipment at discount prices"

Mineral Specimens: Agates & Mounts. Full color Catalog, 44 pages with over 150 color pictures. \$5.00 refund with order.
PICKENS MINERALS
610 N. Martin Ave. Waukegan, Illinois 60085
email: picmin@sbcglobal.net
Ph: 847-623-2823
www.pickensminerals.com

B&J ENTERPRISE
Rock Shop Specializing in
Silver & Gold Jewelry, Gemstone & Glass Beads and Unique Gifts
106 East "B" Street (Hwy 30)
P.O. Box 84, Rainier, OR 97048
(503) 556-2543

Poly-Metric
Inventing equipment
Scintillator "36"
Poly-Metric Instruments, Inc.
P.O. Box 400
Clayton, WA. 99110
Phone (509)276-5565
Fax (928)222-6731
www.PolyMetricInc.com
info@polymetricinc.com

WAX PATTERNS
AU-RUS Wax Patterns
5500+ Patterns Online
302 Main Street, Kellogg, Idaho 83837
(208) 786-9301
website: www.auruswaxpatterns.com

www.finemineralshow.com
Westward Look Show
Houston Fine Mineral Show
San Francisco Fine Mineral Show
info@finemineralshow.com

CLOUD'S
Gem & Jewelry Show
JANUARY 7-16, 2011
(928) 927-6334
@ Avi Resort / Casino in Laughlin, NV

A2Z
CNC NoMar Forming Tools
Machined From Engineering Plastic
Prices \$25.99 to \$189.99
Available from Rio Grande or direct from the manufacturer A2Z CNC
www.A2ZCorp.us/store

Fort Worth's Newest
Rock Shop and Artisan Gallery
Located inside Ridgmar Mall (lower level)
CRYSTAL MOON GALLERY
cutting rough, mineral specimens,
artistic creations 817-737-2244
www.crystalmoongallery.com

Diamond Compounds
Lapcraft Inc. USA
195 W. Olentangy Street • Powell, OH 43065
Ph: (614) 764-8993 Fax: (614) 764-1860
www.lapcraft.com custservice@lapcraft.com

SPECIAL OFFER

240 ROCKS, MINERALS, FOSSILS FOR
STUDY AND COMPARISON USES — POSTPAID

SIZE: Random sizes ranging from about 1/2-inch to 1x1-1/4-inch, unless otherwise noted below. Starred (*) items are chips, fibers, sands, etc., packaged in plastic bags. The fossils and crystals range from about 1/4-inch to 1/2-inch.

LABELS: Each specimen is packaged in a resealable plastic bag with a label that includes the name of the material, the locality, composition, and major associated minerals. Rock labels include the classification (sedimentary, metamorphic or igneous) rather than the composition.

PRICES INCLUDE U.S. SHIPPING • SATISFACTION GUARANTEED

GROUP NO. 1—MINERALS OF ECONOMIC INTEREST 60 Specimens

Bauxite	*Bentonite	Rhodochrosite	Enargite	Chalcocite	Cuprite
Chromite	Diatomite	Feldspathic	Cinnabar	Tripoli	Azurite
Fluorite	Galena	Oolitic Hematite	Corundum	Lepidolite	Bornite
Hematite	Quartz	Gypsum (Satin Spar)	Celestine	Sphalerite	Calcite
Limonite	Sulfur	Wollastonite	Andalusite	Polyhalite	*Kernite
Stibnite	Barite	Goethite	Pyrolusite	Collophane	Alunite
*Columbite	Pyrite	Hausmannite	Covellite	Colemanite	Braunite
Magnetite	Halite	Tetrahedrite	Willemite	Garnierite	Talc
Magnesite	Vanadinite	Arsenopyrite	Spodumene	Kyanite	Emery
Scheelite	Chalcocopyrite	Skutterudite	1/4" Rutile	Bruceite	Beryl



GROUP NO. 2—GEMS & MINERALS (not for cutting; study specimens) 60 Specimens

Wavellite	Rose Quartz	Hydrozincite	Orbicular Felsite	Siderite	Jasper
Alabaster	Wonderstone	Smoky Quartz	Indian Moss Agate	Selenite	Citrine
Andradite	Romanechite	Blue Calcite	Flowering Obsidian	Sunstone	Ulexite
*Turquoise	Apophyllite	Pyrophyllite	Pisolithic Limestone	Jarosite	Emerald
Grossular	Stibiconite	Manganaxinite	Mizzonite-Scapolite	Melanite	Opal
Honey Onyx	Chrysocolla	*Sapphire Sand	Limonite Pseudomorph	Amethyst	Chalk
1/4" Peridot	Spessartine	Petrified Wood	Barite — "Rose" Form	1/4" Moonstone	Variscite
Yvesuvianite	Dumortierite	Hydromagnesite	1/4" Amber	Piemontite	*"Fancy" Jasper
Desclozite	Aventurine	Carrara "Marble"	Rhodonite	Agate	Lawsonite
Forsterite	Franklinite	Ganiobasis Agate	Nephrite	Prase	Purpurite



GROUP NO. 3—ROCKS & ROCK-FORMING MINERALS 60 Specimens

Black Obsidian	*Adobe	Omphacite	Basalt	Rhyolite	Albite
Nepheline Syenite	Chert	Sandstone	Gabbro	Sodalite	Biotite
Black Tourmaline	Anhydrite	Limestone	Marble	Glaucconite	Epidote
Hornblende Schist	Anorthite	Almandine	Augite	Oligoclase	Diorite
Radiolarian Chert	Nepheline	Greenstone	Gneiss	Microcline	Granite
Barkevikite Syenite	Greywacke	Serpentinite	Pumice	Travertine	Okenite
Hornblende	Enstatite	Hypersthene	Flint	Mica Schist	Tuff
Actinolite	Muscovite	Hedenbergite	Andesite	Anthracite	Tufa
Quartzite	*Kaolinite	Cumingtonite	Dolomite	Phlogopite	Shale
Glaucophane	Geyserte	Jasper Breccia	Diopside	Novaculite	Slate



GROUP NO. 4—ROCKS, MINERALS, CRYSTALS & FOSSILS (Crystal abbreviated as xl) 60 Specimens

Sanidine Trachyte	Scoria	Arsenic	Gilsonite	Rock Crystal Quartz
Zircon — xl portion	Bryozoa	Caliche	Concretion	Hustedia (Brachiopod)
Hanksite — xl portion	Olivenite	Diabase	*Coquimbite	Orthoclase — xl portion
Barite — nodule portion	*Dune Sand	Chalcedony	Coquina	Tourmaline — xl portion
*Hexahydrite (Epsomite)	Heulandite	Topaz — xl	*Sylvite	Blue Barite — xl portion
Gryphaea (Pelecypod)	Shark Tooth	Garnet — xl	Chlorite	Admetopsis (Gastropod)
Danburite — xl portion	Hemimorphite	Chondrodite	Phyllite	Calcite (Satin Spar type)
Mucrospirifer (Brachiopod)	Crinoid Stem	Liparite	Stilpnomelane	Clinzoisite — xl portion
Glabrocingulum (Gastropod)	Conglomerate	Peperino	Ostrea (Pelecypod)	Obsidian — "Apache tear"
Rhynchonella (Brachiopod)	Star Crinoid	Fossilized Coral	Gedrite	*Ilsemanite with jordsite
Fossilized Dinosaur Bone	Oil Sandstone	Natrolite	Ruby Corundum — xl	1/4" Aeschynite — (Y)
*Brazilianite — xl fragments	Pirssonite — xl	Oil Shale		Sulphohalite — xl portion



THESE PRICES INCLUDE U.S. SHIPPING

- 15 Specimens, your choice \$28.00
- 50 Specimens, your choice \$59.00
- 100 Specimens, your choice \$99.00
- Any One Group, 60 specimens \$55.00
- All Four Groups, 240 specimens \$160.00

CALIFORNIA CUSTOMERS: Please add 8.25% state sales tax.

FOR CATALOG ONLY, SEND \$2.00

TYPICAL COMMENTS: "The shipment arrived in great shape. They exceeded my expectations as to the quality of the material, care of labeling, packaging, accuracy of count, and the very good value for the price."

MINERALS UNLIMITED

P.O. Box 877, Dept. RG • Ridgecrest, CA 93556-0877 USA

Phone (760) 375-5279 Fax (760) 375-2300 email wendi@mineralsunlimited.com

www.mineralsunltd.com

Show Dates from page 44

Armory, 2730 Oakes Ave.; Sat. 10-6, Sun. 10-5; free admission; dealers, demonstrations; contact Fritz Mack, P.O. Box 1615, Everett, WA 98206, (425) 232-0809

26-27—SAN FRANCISCO, CALIFORNIA: Show, "San Francisco Crystal Fair"; Pacific Crystal Guild; Fort Mason Center, 99 Marina Blvd.; Sat. 10-6, Sun. 10-4; adults \$6, ages 12 and under free; 30 dealers, minerals, gems, crystals, beads, metaphysical healing tools; contact Jerry Tomlinson, P.O. Box 1371, Sausalito, CA 94966, (415) 383-7837; e-mail: jerry@crystalfair.com; Web site: www.crystalfair.com

MARCH 2011

4-6—RICHMOND, INDIANA: 38th annual show; Eastern Indiana Gem & Geological Society; Wayne County Fairgrounds, 861 N. Salisbury Rd.; Fri. 10-6, Sat. 10-6, Sun. 11-4; adults \$4, seniors (60+) \$3, students (7-18) \$1, children 6 and under free; jewelry, minerals, fossils, crystals, dealers, demonstrations, displays, silent auctions; contact John LaMont, (765) 647-4894, or Dave Straw, (765) 966-4249

5-6—ARCADIA, CALIFORNIA: Show; Monrovia Rockhounds Inc.; LA County Arboretum, Ayres Hall, 301 N. Baldwin Ave., 1 block south of 210 Fwy.; Sat. 9-4:30, Sun. 9-4:30; adults \$8, seniors and students \$6, children \$3; more than 10 dealers, minerals, gems, jewelry, beads, findings, fossils, club geode cracking, Grab Bags, Treasure Wheel, Dino Dig, Fossil Find, prize drawings, grand prize raffle; contact Jo Anna Ritchey, 224 Oaks Ave., Monrovia, CA 91016, (626) 359-1624; e-mail: joannaritchey@gmail.com; Web site: www.moroks.com

5-6—BIG SPRING, TEXAS: 42nd annual show; Big Spring Prospectors Club; Howard County Fair Barn; Sat. 9-5, Sun. 10-5; free admission; gems, minerals, jewelry, dealers, demonstrations, displays, spinning wheel, hourly prizes, jewelry repair, stone setting; contact Jerald Wilson, 707 Tulane, Big Spring, TX 79720, (432) 263-4662, or Lola Lamb, (432) 263-3340

5-6—NEWARK (STANTON), DELAWARE: 48th annual show; Delaware Mineralogical Society; Delaware Technical and Community College, Churchmans Rd. (Rte. 58), I-95 Exit 4B; Sat. 10-6, Sun. 11-5; adults \$6, seniors \$5, juniors \$4, children under 12 free with adult; mineral, lapidary and fossil exhibits, museum displays, dealers, minerals, fossils, gems, jewelry, lapidary supplies, door prizes, large specimen raffle, lapidary demonstrations, children's booth, club lapidary work and specimens for sale; contact Wayne Urion, (302) 998-0686; e-mail: wurion@aol.com; Web site: www.delminsoc.org

12-13—KLAMATH FALLS, OREGON: Annual show; Rock and Arrowhead Club; Klamath County Fairgrounds, 3531 S. 6th St.; Sat. 9-5, Sun. 10-4; Petrified Wood; contact Jennifer Zimmerlee, (541) 545-6773; e-mail: jiazys@hotmail.com; or Marv Stump, (541) 882-8341

12-13—SPRECKELS, CALIFORNIA: Show, "Parade of Gems"; Salinas Valley Rock & Gem Club; Spreckels Veteran's Hall, 5th St. and Llano St.; Sat. 10-5, Sun. 10-5; free admission; demonstrators, cab making, bead enameling, youth beading and rock painting, fluorescent display, rock bags with prizes, "wheel of fortune" raffles, free drawings, auction, dealers, jewelry, beads, fossils, craft supplies, minerals, crystals; contact Karen Jones, P.O. Box 668, Soledad, CA 93960, (831) 678-0337; e-mail: kenkaren0337@att.net

18-20—HICKORY, NORTH CAROLINA: 41st show, "Unifour Gem, Mineral, Bead, Fossil and Jewelry Show"; Catawba Valley Gem & Mineral Club; Hickory Metro Convention Center, I-40 Exit 125; Fri. 9-6, Sat. 9-6, Sun. 10-5; adults \$4, children and school groups free; contact Baxter Leonard, 2510 Rolling Ridge Dr., Hickory, NC 28602, (828) 320-4028; e-mail: gailandbaxter@aol.com

18-20—JACKSON, MICHIGAN: 49th annual show; Michigan Gem & Mineral Society; Jackson County Fairgrounds, 200 W. Ganeson St.; Fri. 10-7, Sat. 10-7, Sun. 10-5; jewelry, minerals, fossils, dealers, demonstrations, silent auctions, geode cracking; contact John LaMont, (765) 647-4894, or Dan Hovater, (517) 518-1045

18-20—SPANISH FORK, UTAH: 52nd show, "Spring Parade of Gems"; Timpanogos Gem & Mineral Society; Spanish Fork Fair Grounds, 475 S. Main St.; Fri. 10-7, Sat. 10-7, Sun. 10-5; free admission; displays, dealers, jewelry, fossils, equipment, Mr. Bones, door prizes, touch table, rock sales, kids' grab bags, Wheel of Fortune, instructions on polishing rocks, metal detectors, lapidary equipment, demonstrations, faceting, knapping, wire wrapping, beading, fluorescent mineral display, silent auction; contact Keith Fackrell, 2295 East 700 South, Springville, UT 84663, (801) 489-7525; e-mail: krfackrell@msn.com; Web site: http://timprocks.weebly.com

continued on page 64

South Pacific Wholesale

114 River Street, Montpelier, VT 05602

Semi-Precious Stone Beads

Freshwater Pearls

Goldfilled & Sterling Beads and Findings

Stringing Materials

Since 1977 and that's forever in the Bead Business.

www.beading.com

Two formats – One great magazine.

You can now enjoy your monthly edition of

Rock & Gem

Online or in Traditional Print



ONLINE Just click and read —
no download or software required.
Same great magazine
plus **HOT LINKS** and more!

You'll get the exact issue you'd receive in the mail while
saving resources and reducing our environmental footprint.

Our digital magazines feature live links in every issue, permanent access to your electronic
back issues, all in an easy-to-use format.

PRINT To receive our traditional, full-color print edition in your
mailbox each month, complete and return the subscription
card inserted in every issue of *Rock & Gem* or go to our website
and click "subscribe."



www.rockngem.com

Easy Steps Video Step-by-Step Method Jewelry Design Jewelry Crafting Gem Cutting.

Includes: Lapidary, Faceting, Carving, Wire Work, Bead Stringing & Knotting, Soldering, Repair, Wax Casting, and more. One of the most extensive VHS tape and DVD libraries by master designers and master craftsman.

For a free Catalog
call 800.382.3237
www.EasyStepsVideo.com

FREE 64 PAGE CATALOG

TOP "AAA" Quality, Precision Cut
and Polished GEMSTONES

For:
Gem Collectors, Hobbyist Jewelers
Wirewrappers, Retailers
Manufacturing Jewelers

1,000's of different varieties
and sizes

Our 38th YEAR



Pioneer Gem Corporation

Dr. Edward J. Nowak, Jr.
PO Box 1513 RG
Auburn, WA 98071-1513
Phone: 253.833.2760
FAX: 253.833.1418
Website: www.pioneeragem.com
email: pioneeragem@seanet.com

BOXES THE FOOTHILLS INC.



Minerals — Mineral Boxes

Mineral and Stock Boxes Since 1975

201 N. Copia St., El Paso, TX 79905

U.S. Ph 915-534-7095

Cell Ph 915-726-1554

TheFoothillsinc@yahoo.com

Mineral & Fossil Marketplace - Tent #14



Learn the fun hobby of
**STAINED
GLASS!**

Professional stained glass supplies, tools, books, kits, patterns, jewels, mosaic and etching supplies, and things you never knew you needed until now.

Oh, and glass. Lots of glass.

Send \$3 for our catalog and receive free bonus coupons and "Getting Started in Stained Glass"

Whittemore-Durgin Glass Co.
P.O. Box 305, Rockland MA 02370

Visit our fun store: 825 Market St., Rockland, Mass.
(800)262-1790 www.whittemoredurgin.com



FF THE DOP

by Jim Perkins

Citrine Quartz

Citrine is one of my favorite varieties of quartz. Like all quartz, it has a refractive index of 1.54 to 1.55 and a critical angle of 40.49 degrees to 40.18 degrees. The color of citrine varies from yellow to orange to brownish orange. Over the last several years, I've been able to obtain what I consider a very special type of citrine from New Era Gems (www.neweragems.com) called Sunfire citrine from Brazil. The color is a strong yellow orange to brownish orange, and when cut, the stone shows flashes of orange and red. The pieces I've cut have had no color zoning, and they cut and polish easily. I've cut them in custom designs and round brilliants and have a couple set aside to cut into 10-millimeter by 14-millimeter or 10-millimeter by 16-millimeter ovals when time permits.

Quartz is durable, with a Mohs hardness of 7 and good toughness. Generally, it requires no special care beyond avoiding steam cleaning, as well as any other sudden temperature changes, which could cause the stone to fracture or crack. Citrine, like all varieties of quartz, is abundant and found in many locations around the world.

My Sunfire citrine round brilliant weighs 3.1 carats and measures approximately 10 millimeters in diameter. I simply cut this material for my own enjoyment because it produces such a happy little stone and it makes me smile whenever I look at either the rough or a cut stone. I often think it's like having sunshine trapped inside a natural gem that can brighten my day even when it is cloudy or raining outside.

In the past, some dealers sold citrine as the November birthstone because it looks similar to Imperial or Golden topaz, which is the true birthstone for November. However, topaz is a different species of mineral altogether and has nothing to do with citrine quartz. I believe the easiest way to distinguish quartz from topaz is to check polished stones using a refractometer, as topaz has a refractive index of approximately 1.62. Rough topaz can be distinguished from quartz by looking for the cleavage plane, which is obvious in topaz. Topaz will also weigh heavier by volume than quartz. Topaz also has a specific gravity of 3.53, whereas quartz has a specific gravity of 2.57 to 2.64, according to *Descriptions of Gem Materials*, 3rd Edition, by Glenn and Martha Vargas (2006).

There are a great number of recommendations regarding the angles at which to cut



quartz. Depending on the books you read or the charts you reference, pavilion mains range from 41 degrees to 45 degrees. Over the years, I have experimented with numerous angles and symmetries and, in an effort to reduce extinction in my gemstones, have gone as low as 40.8 degrees for pavilion mains with good success. I usually "spike" the mains, meaning that I change the angle from the pavilion break facets by 1.5 degrees or less, which produces greater liveliness in the gem.

More recently, I have started changing the crown heights of my designs to one third of the pavilion depth. I was taught that a faceted gem should have a crown that is 40 percent of the total height and a pavilion that is 60 percent of the height. The problem with gems that are cut this way is that I think they look so top-heavy proportionally. When I reduced the crown height to one third of the pavilion depth, they looked much better to me and I found that this proportion seemed to produce optical performance that was more to my liking.

The only reason to cut a higher crown or a deeper pavilion, in my opinion, would be to increase carat weight. Depending on the gem material and the desired recovery for commercial purposes, different proportions may have merit in some cases. However, my primary concerns are color, brilliance, scintillation, contrast, and limited extinction, so my proportions work out much better for me in most cases. ♦

Send your comments and questions about any of my columns to Off the Dop, P.O. Box 1041, Medina, OH 44258, or e-mail me at jimperkins@zoominternet.net.



2010

Lapidary Article of the YEAR CONTEST

SPONSORED BY



OFFICIAL CONTEST RULES

WHO IS ELIGIBLE

U.S. residents only, age 18 and older.

HOW TO ENTER

Submit a step-by-step lapidary project article to *Rock & Gem*. For submission guidelines, visit www.rockngem.com/submissions.asp or write to *Rock & Gem* Writers' Guidelines, P.O. Box 6925, Ventura, CA 93006-9899.

"Lapidary" is defined as the working of precious or semiprecious gem materials or metals into an ornament to be worn or decoratively displayed. How-to stories dealing with the building of lapidary tools, display paraphernalia, and other items are welcome, but are not eligible for the contest.

Authors must complete and return a Contributor Agreement and W-9 form before their entry will be considered for publication. Contact Managing Editor Lynn Varon at (805) 644-3824 ext. 129 or editor@rockngem.com for these forms.

All conditions and requirements of the writers' guidelines and the Contributor Agreement apply.

All step-by-step lapidary projects published in 2010 cover date issues of *Rock*

& *Gem* are eligible for the 2010 contest, regardless of the year of submission, and will be automatically judged.

The number of lapidary project submissions received may exceed the available space. *Rock & Gem* publishes approximately 6 to 12 project article per year.

The authors of all published articles will receive normal payment for the article, as determined by the editor.

If a winning entry was contributed by a separate author and photographer or by multiple authors, one prize will be awarded to the contributors, to be divided as they see fit.

JUDGING

Articles will be judged by a combination of reader response and editorial merit. Readers should send a brief explanation of why a project deserves the big prize to 2008 Lapidary Article of the Year Contest, *Rock & Gem* magazine, 290 Maple Ct., Ste. 232, Ventura, CA 93003 or to editor@rockngem.com.

Don't wait to send in your vote! The deadline for 2010 votes is January 1, 2011. The winner will be notified by January 17, 2011.

Readers may vote for more than one article per year, but are limited to one vote per article.

The final decision will be made by the Managing Editor of *Rock & Gem*.

THE PRIZE

The winner will receive a complete faceting package from Lapcraft Inc. that includes four 8-inch faceting laps (a 360 Islander, a 1200 standard, a 3000 standard, and a Finalap with 50000 diamond slurry), a bottle of 50000 diamond spray, an 8-ounce bottle of Tool Cool, and a DiaLaser diamond saw blade in the winner's choice of size (4 to 8 inches). It is valued at \$550.

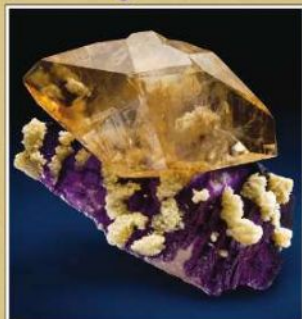


Lapcraft Faceting Package

COMING SOON
RESERVE YOUR COPY TODAY!

The Frugal Collector, Volume 1

The Frugal Collector



by Robert Jones

From the Publishers of Rock & Gem Magazine

by **ROBERT (BOB) JONES**,
Senior Consulting Editor, Rock & Gem

Each chapter features a popular mineral or group of minerals, complemented with an abundance of beautiful photographs and a generous sprinkling of anecdotal adventures drawn from Bob's seven decades of world travels in search of minerals and their stories.

Wonderfully illustrated with over 200 color photos. Hardbound.

\$48.95 (includes S&H).

Canadian/Foreign orders, please add \$10.
CA residents, please add \$3.54 sales tax.

Order online

www.RocknGem.com/shop

or send check or money order along with
your name and mailing address to:

**The Frugal Collector Vol. 1,
P.O. Box 6925, Ventura, CA 93006**



CHAROITE from page 36

This chatoyancy does cause some cutting and polishing problems. Just about all charoite shows some chatoyance, which adds to the luster of a cut gem and makes it more desirable. Though the most sought after charoite is a rich violet, the rock can also be pink, bluish, reddish, and even brown.

The mineral charoite can develop a parallel fibrous, radially fibrous, scaly, columnar, prismatic or acicular structure, and can even lack crystal structure, in which case it is considered cryptocrystalline. This massive material offers fewer problems in cutting because it is solid and less apt to splinter or chip. Care must be taken when sawing the fibrous forms to avoid flaking.

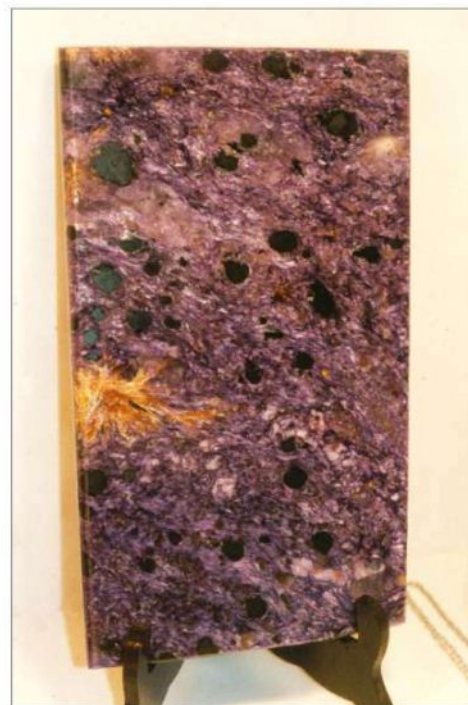
The first charoite showed up in America in quantity around 1977-78. One importer was Jack Greenspan, the well-known owner of the lapidary equipment business Crystallite. Jack, now deceased, told me he happened to be in London when about a half ton of early mined charoite came up for sale. He bought it all and shipped it to the United States.

Jack's skill in working with lapidary equipment and materials were well known. He made a careful study of the new Russian material and its problems and successes so he could sell the material with some assurance that it was workable. He shared his insights with me when I visited him after his retirement.

Jack particularly liked to work with charoite that was rich in black needle sprays of aegerine-augite, a complex metallic silicate. The sprays are often 2 inches across with black needles radiating in every direction to form a lovely flowerlike pattern in a violet matrix. The included minerals provide a variety of scenes: mountains, flowers, landscapes, and almost anything your mind can imagine. Jack also enjoyed charoite with tinakite, a lovely orange mineral, in it. The contrast between violet charoite and orange tinakite is stunning.

Before cutting a piece of charoite, he advised, examine it carefully. If massive it may still show a faint more or less linear pattern and it can be cut in any direction. However, if the charoite shows thin banded lines, possibly from metamorphic action, you have to be careful with your direction of cut. This charoite is best cut parallel to the banding. Cutting at 90 degrees to that banding is also OK. This avoids the flaking or shedding that can show up when you cut the charoite block at an angle.

Because of the plethora of minerals in charoite rock, each with its own hardness, Jack found that undercutting can be a problem. This problem is more evident



This superb meter-high charoite panel at the GEMS Museum in Moscow displays the variety of colors and form seen in charoite rock.

where a lot of chatoyance is visible because of the fibrous nature of the charoite. He found he could avoid or deal with this by using a hard pad with diamond to grind and polish the stone.

As with any rock, polishing has to be done using a sequence of grits. After cutting the rock, Jack would grind the surface with 600 diamond grit. After a thorough cleaning, he'd switch to 325 diamond compound. He'd clean again and go to 1,200 diamond compound. After cleaning a third time, he'd use 50,000 diamond powder to give a very fine finish. At this point the work was almost done. To get a really high polish, he'd add a bit of 50,000 diamond compound to his choice of final polishing paste. Luckily, charoite can take a lot of heat and pressure, so you can bear down when polishing. This creates a really fine glasslike surface that most lapidaries call a "heat flow finish."

Charoite has an established place as an ornamental gem. The great number of sources, in spite of their remoteness, means good charoite will be around for decades to come! ♦

Author's Note: Much of the technical information in this article was found in the excellent text *Geology of Gems*, by Eugenio Kivlenko. You can obtain a copy of this 2003 book from Ocean Pictures Ltd., 4871 S. Dudley St., Littleton, CO 80123 or by e-mailing minbooks@online.ru.

You'll find all the mineral species mentioned in this article listed in the current edition of *Fleischer's Glossary of Mineral Species*, published by The Mineralogical Record, P.O. Box 35565, Tucson, AZ 85740.

5th Annual

Tucson Electric Park RV Gem Show

(A juried Rock, Gem & Jewelry Show)



Retail & Wholesale
Demonstrations
Food Court
Free Parking & Admission
Dry Camp Area (\$10 per day)

Jan. 29 - Feb. 13, 2011

Open Daily 9:30am to 5:30pm

Cabs & Slabs
Jewelry · Rough Rock
Beads · Lapidary Supplies
Fossils · Wire Wraps
Faceting Rough
Minerals

*Location: Kino Sports Complex, 2500 East Ajo Way, Tucson 85713
Adjacent to the well known "Tucson Electric Park Gem & Mineral Show"*

1st Time Exhibitor Guarantee!

Dealers, if you try our show & are not satisfied,
pay only half our show fee (\$750).
Phone: 800-983-0133 Email: teprv.gemshow@yahoo.com

Dealer Day January 28th!

If you are an exhibitor at one of the other Tucson shows,
come see our vendors **before** your own show begins!
We are open Friday, January 28th from 9:30am to 5:30pm.

We will
BEAT any
advertised
price
ANYTIME
on Czech
Fire Polished
beads*

SHIPWRECK BEADS

The World's Largest Selection!

*Visit our
website
for full
details and
information!

Open 9am
to 6pm
7 days
a week!

Visit our showroom for wholesale or retail!

Sales (800)950-4232 Info (360)754-2323

8560 Commerce Pl Dr NE Dept RG Lacey, Wa 98516

www.shipwreckbeads.com

GY ROC® THE ULTIMATE IN JEWELRY FINISHING AND LAPIDARY EQUIPMENT & SUPPLIES

PREFORMER
8" and 10" TRIM SAW



Unique Design
Cuts Quickly and Accurately

**WRITE FOR
FREE LITERATURE
AND LOCATION
OF YOUR
NEAREST DEALER**

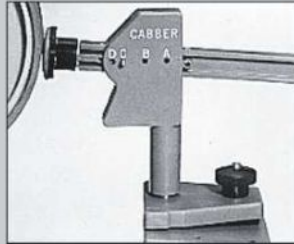
Dealerships And
Distributorships
Available

VIBRAHONE



Available in 3 Sizes
2.5 lbs.-10 lbs-40 lbs
Produces Unequaled Results
For Grinding And Polishing
Stones And Finishing Jewelry

CABBER



Easy To Use
Forms Precision Domes
For The Professional
And Amateur.

TAGIT®

Manufactured by
P.O. Box 1534, San Juan Capistrano, CA 92675
(562) 949-8380 (949) 496-7742

Show Dates from page 58

19-20—BAKERSFIELD, CALIFORNIA: 10th annual show, "Rendezvous"; Lewis M. Helfrich; Kern County Shriners, 1142 S. P St.; Sat. 9-5, Sun. 9-5; free admission; free drawings, demonstrations, sphere making, cabochon making, silver-smithing, wire wrapping, grab bags, Wheel of Fortune, raffle, silent auction, General Store, dealers, rocks, fossils, gems, jewelry, rough rock, diachronic glass, lapidary equipment, beads and beading supplies; contact Lewis M. Helfrich, (661) 323-2663 or (661) 378-4450; e-mail: lewsocks@bak.rr.com

25-27—INDIANAPOLIS, INDIANA: 13th annual show, "Spring Indianapolis Gem, Mineral & Jewelry Show"; Treasures Of The Earth Gem & Jewelry Shows; Indiana State Fairgrounds, Ag/Horticulture Bldg., 1202 E. 38th St.; Fri. 10-6, Sat. 10-6, Sun. 11-5; adults \$5 (3-day ticket), children under 16 free; jewelry makers, goldsmiths and silversmiths size, reconstruct, repair, design or make original jewelry from customer-selected gems, stones, opals and crystals, wire wrap, wire sculpture, stone beads, pearls, stone setting, dealers, amber, opal, fossils, minerals, door prizes, grand prize, 500 Earth Science Club and Indiana Bead Society displays, silversmithing demonstrations and classes, lampwork bead demonstrations, wire wrapping classes; contact Van Wimmer Sr., 5273 Bradshaw Rd., Salem, VA 24153, (540) 384-6047; e-mail: van@toteshows.com; Web site: www.toteshows.com

26-27—ANGELS CAMP, CALIFORNIA: Show, "Jump for the Gold"; Calaveras Gem & Mineral Society; Calaveras County Fairground, 101 Frogtown Rd.; Sat. 10-5, Sun. 10-4; adults \$4, children 12 and under free with paying adult; exhibits, demonstrations, kids' activities, silent auction, sales, raffle, door prizes, dealers, fossils, jewelry, meteorites, books, lapidary supplies, slabs, gems, beads; contact Tak Iwata, 18310 Coyote Meadow Rd., Sonora, CA 95370, (209) 928-5579; e-mail: Tak2me@msn.com; Web site: www.calaverasgemandmineral.org

26-27—HOLYOKE, MASSACHUSETTS: Show; Connecticut Valley Mineral Club; Holiday Inn at Ingleside, I-91 Exit 15; Sat. 10-5, Sun. 10-4; adults \$4, children 12 and under free with adult; minerals, gemstones, jewelry, crystals, beads, fossils, lapidary, demonstrations, exhibits; contact Lee Champigny, (413) 320-9741; e-mail: pullG4fun@verizon.net; Web site: www.cvmineralclub.org

26-27—ROSEVILLE, CALIFORNIA: 49th annual show; Roseville (Placer County) Fairgrounds, 800 All America City Blvd.; Sat. 10-5, Sun. 10-4; adults \$6, seniors (60+) \$5, kids 12 and under free; more than 35 vendors, crystals, gold, geode cracking, beads, gemstones, fossils, polished stones, handcrafted jewelry, opal, world-class mineral specimens, tourmaline, sunstones, amber, mineral identification, "Kids' Junction"; demonstrations, silent auctions, more than 40 exhibits, raffle, lapidary shop open house; contact Gloria Marie, (916) 216-1114; e-mail: gloriarosevillerockrollers@gmail.com; Web site: www.rockrollers.com

26-27—SAYRE, PENNSYLVANIA: 42nd annual show; Che-Hanna Rock & Mineral Club; Athens Twp. Volunteer Fire Hall, 211 Herrick Ave.; Sat. 9-5, Sun. 10-5; adults \$3, students \$1, children under 8 free; club demonstrations and displays, dealers, fossils, minerals, gems, junior activities, miniature, geode cutting, Carnegie Museum and Paleontological Research Institute displays; contact Bob McGuire, P.O. Box 224, Lopez, PA 18628, (570) 928-9238; e-mail: uvbob@epix.net; Web site: www.chehannarocks.com

26-27—SWEET HOME, OREGON: 63rd annual show; Sweet Home Rock & Mineral Society; Sweet Home High School Activity Gym, 1641 Loe St.; Sat. 10-6, Sun. 10-5; fossils, rocks, gems; contact Joe Cota, P.O. Box 2279, Lebanon, OR 97355, (541) 451-4027

APRIL 2011

7-9—WYOMING, MICHIGAN: Show, "Unburied Ancient Treasures"; Indian Mounds Rock & Mineral Club; Rogers Plaza Town Center, 972 28th St., 0.25 mile west of US 131; Thu. 9:30-9, Fri. 9:30-9, Sat. 9:30-8; free admission; Science Museum of Minnesota display, museum-quality exhibits, mineral and fossil identification, club sales, children's collectibles, demonstrations, dealers, micromounts, crystals, stone beads, carvings, meteorites, jewelry, specimens; contact Don Van Dyke, 4296 Oakview, Hudsonville, MI 49426, (616) 669-6932; e-mail: donvandyke@tm.net; Web site: http://indianmoundsrockclub.com/index.htm

8-10—SPOKANE, WASHINGTON: 52nd annual show; Rock Rollers Club; Spokane County Fair & Expo Center, North 604 Havana at Broadway; Fri. 10-6, Sat. 10-6, Sun. 10-5; adults \$6, seniors \$5, children 12 and under free; more than 40 dealers, 60 display cases, fossils, gemstones, mineral specimens, handcrafted jewelry, lapidary supplies and demonstrations, hourly

continued on page 71

GOLD SPECIMENS
GOLD NUGGETS
GOLD NUGGET JEWELRY

14Kt • 12Kgf

Sterling Silver
Lockets
& Findings

Easy Assembly

Satisfaction
Guaranteed



The perfect way to display your treasure.
Available in several shapes and sizes,
with and without gold.

We also
sell
GOLD!



Please visit our newly updated website for
quality gold specimens and nuggets.

MINER'S KEEPERS
PO Box 175, Sumpter, OR 97877

(800) 842-8655

www.minerskeepers.com
information@minerskeepers.com



Send \$1.00 for brochure
(Refundable with Order)

NORTHWEST DISTRIBUTORS, LLC

Maps Maps Maps

Find the mineral deposits and
mining sites of 100 years ago.
5 maps, 17.5 x 23, printed on
both sides. Early stage roads
& town sites shown. Many
rock & gem deposits included.
Price \$12.95 each plus postage.
AZ-CA-CO-ID-MT-NM-NV-OR-WA

www.maps-nwd.com
(877) 791-3500

RocknGem.com

World Wide Web Sites for Rockhound and Lapidary Hobbyists

www.kristalle.com

Laguna Beach, California. Specializing in fine mineral and gold specimens for collectors and museums. Booths at major shows around the world.

www.themineralgallery.com

Offering a large assortment of quality mineral specimens in varying sizes. We also feature a bi-weekly rock and gem auction. Cabinet size specimens our specialty. e-mail: kward@themineralgallery.com

www.thegemshop.com

Online since 1998, offering rough rock, designer cabochons, fine agate and jasper specimens, beads, publications, lapidary equipment, monthly specials. Mining reports, rock location information and galleries. Order securely online, MC/Visa/PayPal, Toll Free (866) 377-4666. e-mail: mail@thegemshop.com

www.azTimelessTreasures.com

Collector items from the USA, fossils, finished or rough lapidary material and equipment, brilliant fluorescents and petrified wood slabs at bargain pricing. New items added regularly. Call (928) 775-9595. Ask about Free U.S. Shipping, our catalog and 50% off coupons.

www.minertown.com

Worldwide mineral specimens, quartz and gem crystals featuring U.S., Africa, Pakistan and Minas Gerais, Brazil. Cut and polished stone eggs, spheres, bookends, tumbled stones and carvings. Cutting rock and fossils. Madagascar quartz page reduced prices 25% until November 30. Individual photographs and detailed descriptions. Secure online shopping cart and credit card form.

www.gia.edu

Learn from the World's Foremost Authority in Gemology™ online! Find out about the Gemological Institute of America's courses and programs, browse and shop for gemology instruments and books. Stay up-to-date on diamond and gemstone news and research.

www.lehighmineralauktion.com

Weekly auction of 50 specimens with an assortment of quality but affordable worldwide minerals. Don't miss the bargain prices. e-mail: jim@lehighminerals.com

www.wrightsrockshop.com

Minerals, rare minerals, fossils, cutting rough, lapidary and rockhounding equipment, metaphysical minerals, supplies, wholesale and retail, tourmaline, fluorite, quartz, calcite. Over 3,000 mineral specimens photographed on-line, with over 750,000 mineral specimens in stock.

www.CrystalGrove.com

Herkimer "Diamond" Gem Mining, camping on site, cabins, RV & tent sites. Rock Shop. Nature and mining — it's all here in the foothills of the Adirondacks in upstate NY.

www.rocksandminerals.org

Published since 1926. The Magazine for everyone Interested in Minerals, Rocks and Fossils. e-mail: subscribe@heldref.org

www.beautifulagates.com

Bringing you the best in the world of exceptional agates. We specialize in Mexican, Lake Superior and other world-wide agates. We also carry many fine books about agates. e-mail: agatemike@msn.com

www.mineralman.net

Large selection of worldwide mineral specimens from thumbnail to cabinet at affordable prices. Fluorescent minerals, "WAY TOO COOL" Ultraviolet lamps, beginner mineral collections, decorative mineral carvings, fossils, custom jewelry, antique documents and other collectibles. Secure online ordering with Paypal or major credit card. Free shipping on mineral orders over \$150.00 in the USA.

www.superagates.com

Offering exceptional agate specimens including Botswana, Laguna, Fairburn Condor, Argentine agates, Dryhead, Crazy Lace and others. We also offer a wide variety of rough cutting nodules and fine tumbling rough at reasonable prices. (402) 992-2935. e-mail: sales@superagates.com

www.sapphiremining.com

Montana Sapphire Gravel concentrate and jewelry. From Rock Creek Deposit near Philipsburg. Ship up to 4 bags for \$10 shipping. 406-363-6650.

www.dragonsayeauctions.com

Accepting registration for sellers and buyers NOW. A website dedicated strictly to handcrafted jewelry, lapidary, gems, fossils, rough, slabs, periodicals. Call (410) 437-9695 for more info or view the site for all the details!

www.worldofrocks.com

We are celebrating our 25 year--spend \$25.00 and receive a FREE gift! We carry crystals, rocks, fossils and meteorites from all corners of the world. FREE shipping! Order on-line or visit our shop in Michigan. 734-481-9981.

www.naturesoutback.com

Offering rough agates and jaspers from around the world, books, designer cabochons, slabs, wire wrapped pendants and more. New items are added monthly. Major credit cards, money orders, checks and Paypal accepted. email: jeyewal@aol.com

www.rockawayopals.com

Buy Exquisite Black Opal Gems. Prime selection of cut solid opals from Lightning Ridge, Coober Pedy, Queensland, Mexico & Ethiopia. Unique and custom opal jewelry. e-mail: Scott@rockawayopals.com.

www.katyrockshop.com

Offering exciting rocks, minerals and fossils from all over the world. We have everything from small miniature to large cabinet specimens. You will find items for all collectors priced to fit your budget.

www.oakrocks.net

We sell rough rock, decorator polished pieces, eggs, spheres, animal carvings, cabochons, mineral specimens, slabs, fossils, jewelry, beads & more! For designer cabochons visit [www.barlowsgems.net!](http://www.barlowsgems.net)

www.deepakgems.com

Order online from 30,000 faceted gemstones, carved, cabochons, necklaces individually listed with shapes, sizes, weights, prices. Another 10,000 listed for US\$0.95 each. Jewellers tools, rough gemstones, jewellery available. Credit cards accepted. Free gemstone with catalog. e-mail: deeprok@vsnl.com

www.Amber-Werx.com

ez-kutter six wheel all diamond 4" \$500. Resurface your soft wheels 6" \$40, 4" \$30. Rough Colombian amber 1 Kilo \$80, 1/2 Kilo \$50. Used equipment as good as new. PO Box 999, Trinidad, CA 95570

www.optimagem.com

We have the most accurate colored stone grading in the industry. Our free monthly newsletters include unenhanced color photos of every gem we sell. We provide consistent fine quality calibrated gems with free color matching. In addition we have a huge selection of unique cuts, unusual gem types, crystals and bargain closeouts. Have fun with our monthly gem quiz and enter to win free gems. Call our USA based customer service team today for honest and friendly service. (800)543-5563 support@optimagem.com

www.rockstarjewelrydesign.com

Designer cabochons, unusual gemstone bead strands, gemstone intarsia, lapidary services, slabbing, custom sterling silver findings. Visit our online store at www.rockstarjewelrydesign.com/store, Enter promo code RGM for 10% discount off first order. 619-889-2472.

www.phoenixorion.com

100's of metaphysical and gem stone collectibles at rock bottom prices! Crystal and Feng Shui gifts, gem spheres, eggs, hearts, carvings & more. Free shipping and 2 gift wraps w/\$50.00 order! Easy ordering w/same day shipping, online or toll free (866) 720-4174.

www.CapistranoMining.com

We sell Mineral Specimens, Home Mining Gravel and Ore packages of Rare Benitoite from California, Sapphire from Montana's El Dorado Bar and Philipsburg Regions, and Tourmaline from San Diego County, California, Faceted gemstones and much more. Check out our Ebay auctions and feedback, ID capistranomining. R&G readers get a 10% discount on orders of \$100 or more. Must use Discount Coupon Code RG20101 at check out. Order Now!

RocknGem.com for as little as \$35 per insertion. Contact ads4miller@jmillermmedia.com
Phone: (805) 644-3824 x127; Fax: (805) 644-3875; Rock & Gem, 290 Maple Court, Suite 232, Ventura, CA 93003

MINERAL AND GEM ID TOOLS

Mineral Search Software v4



CD for Win XP or later. 700 minerals w/photos Identify/Catalog. **\$69**

Mineralab

2860 W. Live Oak Dr. G, Prescott, AZ 86305
(800) 749-3766 (928) 442-1155
www.mineralab.com
MC/VISA/Amex/Disc Add \$8.00 S&H



Gem Tester Colored Stone

Estimator. Touch probe to rough, cab, faceted, or mounted stones. **\$219**

Hardness Picks

Metal points Mohs' 2 thru 9 with Streak Plate, Magnet, Wood case. Excellent Gift! **\$79**



Gem-n-Eye Digital Refractometer



Measure RI to 2.700. Accurate to .01 Easy to read No toxic fluid. **\$348**

Geiger Counter

Detect radioactive rocks and minerals. Meter/audio clicks to 50 mR/hr. **\$259**



Raytector 5-2 UV Lamp

Portable Combo SW LW, Rechargeable, two 6 watt bulbs, w/ 110V adapter. **\$289**

Specific Gravity Kit

For your Electronic Scale. Measures Specific Gravity of Gems and Minerals. Specify version either for Bench Scale or Pocket Carat Scale. Easy to use! **\$79**



ROCKHOONDING from page 32



During the opening ceremonies on Oct. 17, members of the general public came to enjoy our exhibit "The Many Facets of Rockhounding".

Several of the exhibits were organized around displays that have won trophies at the Ventura County Fair and at the annual shows and conventions of the California Federation of Mineralogical Societies and the American Federation of Mineralogical Societies. Thus, the exhibits truly shine with a professional polish. For a finishing touch, we decorated the whitewashed walls of the gallery with photos and posters about rocks, fossils and minerals and information about the Ventura club and its many activities. A supply of club fliers is also on hand for any visitors wishing to learn more about the club and how to become rockhounds.

To kick off the exhibit, I gave an informal talk titled "The Many Facets of Rockhounding" during the grand-opening ceremonies on Oct. 17. The club hopes to host other talks during the exhibit, which runs through Feb. 14, 2011. The California Oil Museum is located at 1001 E. Main St. in Santa Paula, off state Route 126. The museum is open to the public from 10 a.m. to 4 p.m., Wednesday through Sunday. Admission is \$4 for adults, \$3 seniors, and \$1 youth. For further details, visit www.oilmuseum.net or call (805) 933-0076.

The overarching goal of this special exhibit is to show the public the broad spectrum our avocation has to offer by highlighting the varied interests and expertise of individual club members in an effort to tempt more people into this great hobby of ours. I like to believe that VGMS members have succeeded admirably. The experience has proved to be a fun, educational, community-oriented project, and members of the VGMS encourage all clubs with a local museum to explore similar possibilities for bringing an appreciation of rockhounding to the general public. We thank Jeanne Orcutt and the California Oil Museum for giving us that opportunity! ♥

"The Facetron unit is not only a beautiful piece of machine work, but an absolute perfection of a faceters dream. It serves perfectly for meetpoint faceting accuracy." G. Elwood Thompsen, Wellington, NV

"I enjoyed visiting your facility and seeing the care with which you make the Facetron. It makes me value mine even more!" Joyce A. Schneider, Catonsville, MD



- Digital Protractor
- Built-in Dial Indicator With Hard Stop

JARVI TOOL CO.

780 E. Debra Lane
Anaheim, CA 92805
714-774-9104 Fax: 714-774-9105
e-mail: jtfacetron@earthlink.net
www.facetron.com



"The Original" SPENCER OPAL MINES

Located in Spencer, ID at North end of Opal Ave.

Mini Mine open 9:00 am to 5:00 pm during the summer.

Bring your own tools, eye protection required and no open toed shoes.

Summer Contact:

27 Opal Ave.,
Spencer, ID 83446
(208) 374-5476

www.spenceropalmines.com

Winter Contact:

P.O. Box 521
Salome, AZ 85348
(928) 859-3752

PARKING

FREE



Tucson 2011

GEM MALL

(behind the Holiday Inn/Holidome)

January 29 thru February 11, 2011

Wholesale Only Tax License Required for Admission

FREE Shuttle Service to all G&LW Shows

Register Online
@ glwshows.com
for your Tucson
Buyer Badges

For More Information Contact:

Gem & Lapidary Wholesalers, Inc. • P.O. Box 98 Flora, MS 39071-0098

Phone 601.879.8832 • Fax 601.879.3282 • E-mail info@glwshows.com • www.glwshows.com

PORTABLE STAND WITH SIFTING SCREENS



- **Portable • Sturdy • Durable •**
- 1/4" & 1/2" • Only 12 Pounds**

Whether looking for gemstones, crystals, arrowheads, fossils, seashells, or whatever, this is the tool to use.

Only \$120.00. Shipping free in USA.

Great South Gems & Minerals, Inc.

38 Bond Drive, Ellenwood, GA 30294

1-888-933-4367 www.greatsouth.net



Patterned Brass and Copper Sheet

www.metalliferous.com

TEL. 888-944-0909

BOOKS & VIDEOS

Book "The Rockhound" Humorous anecdotes of 50 years of collecting. Send \$14.00 each, check or money order (includes shipping) to Ed Martinek, 15674 Indiana Gulch, Jamestown, CO 80455. (303) 459-3333 LE11

BUSINESS OPPORTUNITIES

Wanted: Jewelry Artist. Veronique of Santa Cruz is an artist networking gallery with limited number of artists and items, giving the artist control over their product. Contact and view site at <http://veroniqueosc.com> LE11

CABOCHONS

Lapidary artist offering high quality cabochons at affordable prices. Specializes in agates and jaspers. Visit our website: www.caution-rocks.com LE11

Astounding Cabochons and More. Amber, ammonite, chrysocolla, chrysoprase, druzy, eilat, fire agate, unusual garnets, jades jaspers. Orbicular, picture, Montana, Mexican agates, labradorite, moonstones, opals, parrot wing, spectrolite, sugilite, sunstone, tabu, thulite, variscite, many more! Also cut gems, crystals, minerals, meteorites, slabs, cab and facet rough, supplies. Color Catalog \$3.00. Riviera Lapidary, Box 40, Riviera, TX 78379-0040. rivlap@yahoo.com. CB11

Free Catalog. All types of Facet, Star of Cabochon rough and cut gems. The Source. KNIGHTS, Box 411, Waitsfield, VT 05673. (802) 496-3707. E-mail: knights@madriver.com XX

My Old Collection Needs You! It includes: large and small crystals, Fossils of all kinds, Franklin fluorescents, agate slabs, used lapidary equipment, polished petrified wood, all at low pricing. FREE list with photos. Timeless Treasures, PO Box 26324, Prescott Valley, AZ 86312. FREE shipping available. Call (928) 775-9595. KD11

FINISHED GEMS

Free Wholesale Catalog. Most Varieties of Gemstones Included at Lowest Wholesale, Direct Importer Prices. jmsstones@aol.com (330) 453-4628. Jim's Gemology, 1322 Harrisburg Road NE, Canton, OH 44705-1851. AL10

Fire Agate for Sale. Large inventory of rough, cut and windows (all qualities) from Deer Creek and Slaughter Mountain. Ryszard (604) 947-9004. ryszardk@shaw.ca, www.fireagateartstudio.com A11

FOSSILS

Paleoimages™: museum quality fossil replicas. Fossil sets, ammonites, trilobites, wood, etc.; fossil jewelry. Lithocanis™ americanus: clothing items, selected with the rockhound in mind. Fluorescent minerals and UV lights. www.tlcenterprises.com. FE11

Wholesale Utah Cambrian Trilobites: 25 bites Assortment: 25 for \$75.00. Blind Trilobites on Matrix: 25 for \$30.00. Large Coiled Utah Gastropods: 10 for \$25.00. Giant Fossil Oysters: 10 for \$25.00. Large Clam Fossil Clusters: 10 for \$25.00. Ornamented Gastropods: 100 for \$25.00. Large Size Devil's Toenails: 100 for \$25.00. Horn Corals: 100 for \$25.00. Star Crinoid Stems: 100 for \$7.50. Triassic Brachiopods: 100 for \$15.00. Fossil Dinosaur Bone: 100 for \$25.00. Fossil Petrified Wood: 100 for \$25.00. Crystallized Fossil Petrified Wood Sections: 100 for \$30.00. Assorted Identified Utah Fossils: 100 for \$35.00. Shipping extra. FAWCETT HOBBIES,

320 S. 300 W., Hurricane, UT 84737. (435) 635-2980. www.fawcettobbies.com XX

Giant Size Utah Cambrian Trilobite: \$25.00. Jewelry-Grade Trilobites: 10 for \$40.00. Utah Cambrian Trilobite Assortment: 25 for \$50.00. Plates with Multiple Trilobites: 3 for \$25.00. Assorted Blind Trilobites on Matrix: 10 for \$25.00. Utah Cambrian Brachiopods: 10 for \$25.00. Utah Cambrian Fossil Algae, Large Sizes: 3 for \$15.00. Red Trilobites on Matrix: 10 for \$25.00. Giant Utah Cretaceous Gastropods and Oysters: 4 for \$15.00. Utah Permian Brachiopods: Two for \$12.50. Utah Triassic Brachiopods: 25 for \$10.00. Fossil Dinosaur Corrolites: 3 for \$25.00. Ornamented Cretaceous Utah Gastropods: 10 for \$7.50. Giant Devil's Toenails: 10 for \$7.50. Fossil Dinosaur Bones: 4 for \$10.00. Polished Ammonite Assortments: 4 for \$25.00. Utah Fossil Crystal Petrified Wood: 3 for \$15.00. Jewelry-Polished Ammonites: 10 for \$30.00. Fossil Dinosaur Teeth: 4 for \$15.00. Red and Black Dendrite Ferns: 3 for \$15.00. Beautiful Giant Fossil Oysters: 4 for \$15.00. Large Fossil Clams: 5 for \$15.00. Black Coiled Ammonites: 3 for \$17.50. Polished Orthocerous (Beautiful Specimens): 4 for \$25.00. Identified Assorted Utah Fossils: 100 for \$35.00. Shipping extra. FAWCETT HOBBIES, 320 S. 300 W., Hurricane, UT 84737. (435) 635-2980. www.fawcettobbies.com XX

Georgia Petrified Wood. Good for specimens, tumbling, and capping. Only \$2.00 per pound + shipping. Great South Gems & Minerals, Inc. 38 Bond Drive, Ellenwood, GA 30294 (888) 933-4367 www.greatsouth.net X

JEWELRY & SUPPLIES

Genuine Gemstone Sterling Jewelry *Made in USA* Most necklaces \$25 to \$40 * Paypal Guarantee * www.mineralman.etsy.com L10

Ammolite Luxury Gems. We carry a great selection of Ammolite Gemstones and hand crafted Ammolite Gemstone Jewelry. www.ammoliteluxurygems.com J10

LAPIDARY EQUIPMENT

Huge website for jewelers, rockhounds, and goldbugs! Over 5,000 items that can ship right to your door. Tech support, too. www.deltaonelapidary.com. AB11

New and Used: Barranca, Covington, Diamond Pacific, Inland, Lortone, Raytech, tools, supplies: shipping available; see website lists; Hwy 50-95 Rock Shop, 4261 Reno Hwy, Fallon, NV 89406; (775) 867-2144; www.fallonrockshop.com C11

LAPIDARY SUPPLIES

Colorado Springs. Ackley's carries an extensive line of lapidary and silversmithing supplies, rough rock and mineral specimens. Also jewelry findings, such as French earwires, beads, chains and mountings. ACKLEY'S, 3230 N. Stone, Colorado Springs, CO 80907. J11

Tools, supplies, equipment, rough rock; shipping available; see website lists; Hwy 50-95 Rock Shop, 4261 Reno Hwy, Fallon, NV 89406; (775) 867-2144; www.fallonrockshop.com C11

MACHINERY

Nelson Lapidary Equipment Owners. If your equipment needs repair or if you need parts, contact Ray Nelson, PO box 716, Salome, AZ 85348. (928) 859-3493. ncm1tds.net HA11

MINERALS

Over 400 identified minerals, fossils, gems and educational rocks, \$100.00. Large Mogui marbles 5 for \$25.00. Medium moquis 10 for \$25.00. Moqui marble attached groups 5 for \$25.00. Moqui marbles hollow center halves 10 for \$15.00. Lodestone 100 for \$60.00. Petrified wood crystals 10 for \$25.00. 100 white floating pumice 100 for \$35.00. Rainbow wonderstone slabs 100 for \$35.00. 300 identified Utah fossils \$100.00. Polished banded agate slabs 10 for \$25.00. Bag of polished worldwide gems 2 for \$25.00. Large white calcite clam fossils 20 for \$25.00. Clam clusters 5 for \$30.00. Fossil fish 3 for \$20.00. Fossil Fish multiple plates \$25.00 each. 5 different identified Utah Cambrian Trilobites \$25.00. Shipping extra. Fawcett Hobbies, 320 S. 300 W. Hurricane, Utah 84734. Phone (635) 435-2980. XX

Orlando, FL, Mineral, Fossil and Artifacts store. Many different fossils and minerals, including Florida material, Tampa Bay coral rough. Ancient Artifacts & Treasures, 1999 West Fairbanks Ave., Winter Park, Florida, (407) 678-9300. www.mcintosh55.com KJ11

Pink Fedspar from Georgia. Pretty pink glossy color. Good for specimens, tumbling or lapidary work. Nice. Limited quantity. Chunks from egg to baseball size. \$4.00 pd plus postage. Great South Gems & Minerals, Inc. 38 Bond Drive, Ellenwood, GA 30294. www.greatsouth.net Toll Free: 888-933-4367 XX

Pala Mining Adventure: Screen for tourmaline, beryl, spodumene and associated pegmatite minerals. Tables, tools and mine tour included. Day trips \$60 per person most Sundays. Reservations required. (760) 415-9143. More information at www.digforgems.com L10

Collect Minerals in Maine. We have exclusive access to private and closed locations like Mount Mica, Mount Apatite and more! A unique and complete vacation opportunity. POLAND MINING CAMPS, Dudy and Mary Groves, P.O. Box 26, Poland, ME 04274. (207) 998-2350. www.polandminingcamps.com LA11

MISCELLANEOUS

Colored glass chunks, assorted sizes and colors. By the piece or by the ton, great attention getter. www.amersonfarms.com. (502) 863-3799 FL10

Wax Patterns. 10,000 Styles. Color Catalogs. Cast colored stones in place. Mold Making. Casting Service. Details at our Web site www.waxpatterns.com. Wilson's/TCD (863) 686-9738. LK10

Rock and Mineral T-Shirts. Beautiful, original designs. First quality, 100 percent cotton. New designs added regularly. www.sheryamitcham.com KJ11

NUGGETS

QC Turquoise carries drilled & undrilled nuggets, crushed turquoise for inlaying, buttons, rough, slabs, cabochons & 16" strands of American turquoise. Post Office Box 6801, Apache Junction, AZ 85278-6801. (480) 626-7233. patriciaqc@mchsi.com AL10

OPAL

Virgin Valley, NV. Bonanza Opal Mine Share for Sale for \$8000. Contact John (360) 249-5443 HA11

Lightning Ridge, Coober Pedy, Andamooka, Mintabie, Mexican. We're the largest and most consistent Opal suppliers in the industry. Free Catalog. KNIGHTS, Box 411,

Waitsfield, VT 05673. (802) 496-3707. E-mail: knights@madriver.com XX

Australian Opal Imports. Fine black opal, rough and cut stones. Ph 562-208-7494 www.australianopalimports.com. Business is for sale: name, website & inventory. IG11

The RocDoc For Opal you can afford. We stock: African Brown, Wello, Australian White, Blue Azure, Honduran Black, Japanese Kyrocera, Larimar, Blue Amber. Call: (870) 867-4625, (985) 790-0861(c), or email at therockdoc@windstream.net CB11

Top-Quality Genuine Black Opal Triplets. All grades and sizes. Geoff Hutchinson, Opal Cutter. 4 Hartley Street, Riverton, South Australia 5412. Phone and fax: 61-888472097. E-mail: hutchopals@dodo.com.au L10

Swordfish Mining: Virgin Valley Opal Claim sales, guided tours, E-Store: Specimens, Gemstones, Parcels, Wire Wrapped Pendants, Beads, Pine Cones, Crystals, Fulgurites, and more. www.virginvalleyopal.com 1-866-698-5666. L10

PROSPECTING

Mine Sapphires and Pan Gold at Home. Mine run sapphire concentrates and panning gravel with nuggets. Write DreaMail RG, P.O. 1790, Fairview, NC 28730 L10

ROCK SHOPS

CENTER OF NEW ENGLAND: The Quartz Source located 503 Nashua Street (101A) Milford, NH is never far away. Tons of rough, crystals, fossils, mineral specimens, jewelry, finished pieces and tumbled. We only sell rocks. Come visit us Tuesday through Saturday 9-5. 603-673-0481. quartzsource@comcast.net. JL10

WWW.CJPGEMS.COM: Northeastern Ohio. Finished Gems, facet and cab rough, slabs, rough rocks, minerals, crystals, tektites, geodes, nodules. 330-878-7295 - Check website for show schedule! IB11

Davis Creek Rainbow Obsidian \$2.00 and up per pound, plus shipping. By the ton or pound. Top quality knapping obsidian. Wide range of material for capping/lapidary. Call (541) 947-0282 or email outbackrocks@gooselake.com HA11

Keokuk Geodes, Agates, Fossils and more. Polished geodes and stones, cracked and unopened. Access to 6 geode mines. Custom cracking, sawing and guided hunts available Woodies Rock Shop, Hamilton IL. www.woodiesrockshop.com GF11

Marbleton, Wyoming. Rock and sagebrush jewelry and gifts. Rough rock for tumbling and slabs. Specimens. Equipment. 614 E. 3rd St. (307) 276-3448. www.graysrocksandgifts.com. graysrocks@wyoming.com EL10

Central Indiana: Spencer Lapidary. Home of "Spheres by Spencer." Rough rock, slabs, fossils, minerals, specimens, tumblers, cabochons, books, unique jewelry, custom rock cutting. Tuesday to Saturday - Noon to 6 p.m. 9033 W 1000 N, Elwood, IN. (765) 552-0784. Shop on-line at: www.spencerlapidary.com. HG11

Grants Pass Oregon Rock Shop. Full of Beautiful polished rock; Book ends, thunder eggs, obsidian, Petrified wood, jasper, etc. Tumbled Rocks. Tons of rough rock. Lortone Tumblers. www.hopperrockshop.com; email: hopper@budget.net; (541) 479-6343 AL10

Asheville, North Carolina: Area's premier showroom of minerals, jewelry, fossils, lapidary and rockhound equipment. Large selection of beads and jewelry-making supplies. SILVER ARMADILLO INC., 40 Westgate Parkway, Asheville, NC 28806. (828) 253-3020. Web site: www.silverarmadillo.com L10

Worldofrocks.com. Crystals, minerals, fossils, arrowheads, meteorites, specialties of the month, beads and classes. Open every day except Tues. I-94 exit 183 (go N.), 42 N. Huron St., Ypsilanti, MI 48197. (734) 481-9981. BG11

earths.ancient.gifts. http://stores.ebay.com/Earths-Ancient-Gifts. Your eBay online Rock Shop. We have Sikhote Alin meteorites, meteorite display stands and labels, Green River Fish Fossils, Utah Trilobites, Dinosaur Gem Bone, Dinosaur Coprolite, Utah Septarian Nodules, Moqui Marbles and Pop Rocks, Petrified Wood, Fossils and Minerals, Davis Creek Obsidian Rainbow & Tri-Flow rough and slabs, Fossil and Meteorite Jewelry, Geodes, Specimen stands and more. Please email with inquiries and questions clbp@comcast.net. eBay seller ID earths.ancient.gifts LA11

Indianapolis Area (Lawrence). Findings, supplies, minerals, fossils, equipment, rough and finished stones. No list. JOX ROX, 4825 N. Franklin Road, Indianapolis, IN 46226. Hours: 10:00 a.m. to 6:00 p.m., Monday through Saturday. (317) 542-8855. L10

Philadelphia / Delaware Valley. Come See The Largest Complete Rock Shop in the East. Gems, Minerals, Fossils, Equipment, Meteorites, Artifacts, Gifts, Custom Jewelry and Repairs. GARY'S GEM GARDEN. Sawmill Village Center, Route 70 (1 mile west of I-295), Cherry Hill, NJ 08034-2412. (856) 795-5077. Visit us at: garysgemgarden.com L10

Herb's Lapidary Shop — Route 1, Box 29, South 81 Hwy., Comanche, OK 73529. Southwest Oklahoma's largest! Tons of rough agate, fossils, onyx and finished product. Wednesday through Saturday, 9 a.m. to 6 p.m. (580) 439-4186 or (580) 439-5347. DC11

Montrose, Colorado: That-Little-Shop Worldwide selection of minerals and fossils, plus a full line of beads and a gift shop. 17656 Hwy. 550 South of Montrose. 16years. (970) 240-8527. Closed on Mondays. FK10

Ellenwood (Atlanta), Georgia. Great South Gems & Minerals, Inc. Minerals, fossils, eggs, spheres, cutting material, tumblers & grits. Books. 38 Bond Drive, Ellenwood, GA 30294 (770) 507-7113 www.greatsouth.net CL10

Exeter, New Hampshire: Santerre's Stones 'n Stuff. Minerals, fossils, cabbing and faceting rough, carvings, beads, bead supplies, gemstones, jewelry, and gifts. 42 Water St., Exeter, NH 03833, (603) 773-9393 www.SanterresStones.com BA11

Reno, NV area: 59 Year Old Rock Shop! Huge Inventory! See website lists, Pictures! BEADS, Findings, Jewelry Supplies, Gift items, specimens, minerals, fossils, jewelry, crystals, books, equipment, tools, supplies, tons!!! of rough rock; Hwy 50-95 Rock Shop, 4261 Reno Hwy, Fallon, NV 89406; (775) 867-2144; www.fallonrockshop.com C11

Austin, Texas: Tons of Rough Rock, carving and cabbing material starting at \$2 per pound. Huge crystals and minerals, fossils, meteorites, fluorescent rocks, rare crystals, mineral specimens, turquoise and natural stone jewelry/beads, equipment. Three locations catering to lapidary, collector and metaphysical needs. Nature's Treasures. 4103 N. IH35, (512) 472-5015; 2307 Kramer Ln. (512) 833-7760; 4300 S. IH35 Georgetown. (512) 864-7319. L10

ROUGH FOR CABBBING

380 lb Arizona Agate mine boulder some plume, top quality. Call for price. Smaller pieces also available. 928-776-0440 www.bolkanonline.com JL10

Texas / Mexico Agate, Jasper, Wood. Old collection from private ranches and mining areas. Over 25 tons rough and slabs. Pictures/contact information at www.corecraft.net, (432) 687-1631. GL10

Turquoise: Many varieties natural and stabilized all price ranges. Also available: cabochons, coral, fire agate, opal, sugilite, wildhorse and facet rough. Oro Valley Gems. 9755 N. Calle Buena Vista, Oro Valley, AZ (520) 544-0295. www.orovalleygems.com L10

Idaho Willow Creek Jasper Rough. \$20.00 per lb., plus postage. No shop. For more info, write LARRY'S ROCK & GEMS, 5810 S. Bogart Lane, Boise, ID 83714. KJ11

Beautiful Wyoming Jadite "Jade" medium green and dark green. \$15 per lb. Jon, Cheyenne, Wyoming. (307) 632-0889. HK09

Slabs, rocks, boulders: Huge inventory including exotics; see website lists; Hwy 50-95 Rock Shop, 4261 Reno Hwy, Fallon, NV 89406; (775) 867-2144; www.fallonrockshop.com CB11

ROUGH FOR FACETING

Free Catalog. The largest and most competitive selection facet or cabochon rough in the industry. "The Source." KNIGHT'S HOUSE OF FINE GEMS, Box 411, Waitsfield, VT 05673. (802) 496-3707. E-mail: knights@madriver.com L10

SERVICES

Lambert Industries, Americans in Bangkok! Superior faceting: \$1.20 per finished carat for most stones, corundum \$2.50 per finished carat, less if smaller. Cabbing is cheaper. Deal with English, German speaking professionals. Skilled Thai cutters, reliable American/Swiss management. Lambert Industries, 807-809 Silom Road, Bangkok 10500, Thailand. Phone (66)2 236 4343. Email Lambertind@gmail.com Web site: www.lambertgems.com ED11

SPHERES

Spherefactor: Your Gemstone and Mineral Sphere Store: Sugilite, Emerald, Ruby, Sapphire, Tourmaline, Lapis, Opal, Marcasite, Turquoise, Aquamarine, Kyanite, Llanolite, Lodolite Quartz, American Jaspers, Jade, Coprolite, Dinosaur, Metaphysical, Australia, Russian, SO MUCH MORE! www.spherefactor.com. E-bay store: SPHEREFACTOR. (210) 257-6070. L10

WANTED TO BUY

AGATES, JASPER, WOODS. Specimens and Fossils for wholesale business, also Rock Shop and Estate Collections. JAYHAWK ROCK SHOP, PO Box 296, Hill City, KS 67642, E-mail peggysue@ruraltel.net, ph. 785-421-2333. LE11

Now you can reach THOUSANDS of READERS WORLDWIDE who want to buy and sell.

1. Write Your Ad On a separate piece of paper, print or type your ad with a minimum of 25 words. Each word, abbreviation or initial counts as one word. Rates are as follows:

No. of Issues	Rates (per issue)
12 (1 year)	.90 per word
6-11	1.00 per word
1	1.10 per word

All-bold type with frame: Add \$15.00 per issue.
Regular type, frame and color: Add \$20.00 per issue.

2. Choose A Category Use the following list to determine under which classification you would like your ad to run:

- Auction
- Beads & Supplies
- Books & Videos
- Business Opportunities
- Cabochons
- Catalogs
- Collections
- Fossils
- Finished Gems
- Gemological Instruments
- Jewelry & Supplies
- Lapidary Equipment
- Lapidary Supplies
- Minerals
- Miscellaneous
- Nuggets
- Opals
- Preforms & Slabs
- Prospecting
- Rock Shops
- Rough For Cabbing
- Rough For Faceting
- Rough For Tumbling
- Services
- Wanted to Buy
- Other

3. Choose Number of Insertions

Decide how many issues you want your ad to run in, and when you want your ad to start and stop. Deadlines for ad copy are as follows:

ISSUE:	ADS IN BY:
February	December 15
March	January 15
April	February 15
May	March 15
June	April 15
July	May 15

4. Fill Out The Form

ALL ADS MUST BE PAID IN FULL, IN ADVANCE.

(Minimum charge of 25 words per ad, per issue.)

Submit your ad and credit card payment to:

ads4miller@jmillermmedia.com

Subject line:

ROCK & GEM CLASSIFIEDS

If you are not paying with a credit card, you may mail your order form, ad and payment to:

Rock & Gem Classifieds

290 Maple Court, Suite 232, Ventura, CA 93003

Fax: (805) 644-3875 Phone: (805) 644-3824 ext.127

Please email your ad along with the following information to: **ads4miller@jmillermmedia.com**

All late ads received after the deadline date will be used in the next issue.

Company Name _____ Contact Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ E-mail _____

Category Heading _____ Number of Words _____ Cents per Word _____

Number of Issues _____ Beginning with the _____ issue. Boxed: Yes NO

Total Enclosed _____ Check (payable to Rock & Gem) MC Visa Color Highlight: Yes NO
(Minimum charge of 25 words per ad, per issue.)

Account Number _____ CW# _____ Exp. Date _____
(last 3 digits of code on back of card)

Signature _____

Index to Advertisers

A2Z Corp.....	57	Lapcraft, Inc.....	33, 57
Ackley's Rocks.....	32	Lasco Diamond Products.....	31
Amateur Geologist.....	19, 40	Leed's Lapidary Rock Shop.....	56
Amberwerx.....	65	Lehigh Mineral Auction.....	65
Arizona Fire Agate.....	37	Daniel Lopacki Co.....	71
Arizona Global Gem & Jewelry.....	49	Lortone, Inc.....	45
Arrowhead Lapidary & Supply.....	48	June MacNeil.....	56
Au-Rus Wax Patterns.....	57	Majestic Press, Inc.....	32
AZ Timeless Treasures.....	65	MarZee Lapidary Tutorial DVDs.....	56
B&J Enterprise/Joyce Emerson.....	57	Metalliferous.....	67
Barranca Diamond.....	25	Midland Gems.....	56
Beautiful Agates.....	65	The Mineral Gallery.....	56, 65
John Betts — Fine Minerals.....	45	Mineral of the Month Club.....	40
Cabstar Professional.....	18	Mineralab.....	66
Capistrano Mining.....	65	Mineralman.....	65
CarTopCampers.com.....	56	Minerals Unlimited.....	58
Cloud's Jamboree.....	55, 57	Miner's Keepers.....	64
Collectorscabz.com.....	24	Minertown.....	65
J S Copti.....	57	Minnesota Lapidary Supply Corp.....	36
Covington Engineering.....	49	Nature's Outback.....	65
Craftstones.....	54	New Directions.....	57
C - R.A.M. Associates.....	56	New Era Gems.....	50
Crystal Cave.....	56	Northwest Distributors.....	64
Crystal Grove.....	65	Oakrocks.net.....	65
Crystal Moon Gallery.....	57	On the Rocks Gems, Jewelry & More, Inc.....	57
Deepak Gems.....	65	Optima Gem.....	28, 65
Desert Gardens.....	49	Oxy Rocks.....	56
Diamond Pacific Tool Corp.....	C3	Pacific West Maps.....	36
Dragonsaye Auctions.....	57, 65	Phoenix Orion.....	65
Earthworks.....	24	Pickens Minerals.....	57
Easy Steps Video.....	60	Pioneer Gem Corp.....	60
Bill Egleston.....	40	Polaris Tool & Machine.....	51
Eloxite Corp.....	55	Polymetric Instruments, Inc.....	57
Facet Shoppe.....	32	Pretty Rock.....	57
Fac-Ette Manufacturing, Inc.....	C4	Quartzsite PowWow.....	25
Fall Creek Rock Shop.....	56	Raytech Industries.....	52
Fine Mineral Show.....	57	Blaine Reed.....	56
Fire Mountain Gems.....	15	Research Unlimited.....	56
The Foothills, Inc.....	60	Rockaway Opals.....	65
The Frugal Collector.....	42	Rocks & Minerals.....	65
John E. Garsow Gems & Minerals.....	41	Rockstar Jewelry Design.....	65
Gem & Lapidary Wholesalers, Inc.....	10, 23, 33, 67	Ross Metals.....	3, 5
Gem Center USA Inc.....	11	Carina Rossner.....	41
Gem Faire, Inc.....	26	Sapphire Mining.....	65
Gem-Fare.....	28	Search4Gems.....	57
The Gem Shop.....	40, 65	Shipwreck Beads.....	63
Gemological Institute of America.....	65	South Pacific Wholesale Co.....	58
Gems by John, LLC.....	56	Spencer Opal Mines.....	66
The Geode Gallery.....	22	Joseph P. Stachura Co., Inc.....	28
Gilman's.....	50	Super Agates.....	65
Gitchie Gumees Museum.....	37	Sylmar Displays.....	22
Great South Gem & Minerals, Inc.....	67	Tagit.....	64
William Holland School of Lapidary Arts.....	44	Treasure Chest.....	40
Hughes Associates.....	48	Tru-Square Metal Products.....	52
Imperial Manufacturing.....	56	Tucson Electric Park RV Gem Show.....	63
Indian Jeweler Supply.....	49	Tucson Gem & Mineral Society.....	42
Inland Lapidary.....	53, 71	Twisted Jeweler.....	17
JS Gems Lapidary.....	54, 57	Tyson Wells.....	29, 51
Jarvi Tool Co.....	66	U.S. Geological Supply.....	19
Jeanne's Rock & Jewelry.....	56	Ultra Tec.....	C2
Jesco Products, Inc.....	18	Unique Tool.....	24
Johnson Brothers.....	39	The Universe Collection.....	22
Katy Rock Shop.....	65	VR Gem Cutters.....	53
Kingsley North, Inc.....	7, 44, 48	The Village Smithy Opals, Inc.....	37
Kino Rocks & Minerals.....	56	Whittmore Durgin Glass Co.....	60
Knight's.....	56	World of Rocks.....	65
Kristalle.....	29, 65	Wright's Rock Shop.....	65
Lamberton Rake.....	50	Martin Zinn Expositions, LLC.....	9

ROCK & GEM Customer Service

TO ORDER A SUBSCRIPTION: For faster service, subscribe online using our secure server at www.rockngem.com, or send a check or money order for \$24.00 for 12 monthly issues to Rock & Gem, P.O. Box 469113, Escondido, CA 92046-9113.

WHAT TO DO IF YOU HAVE PAID FOR YOUR SUBSCRIPTION BUT STILL RECEIVE A BILL: The check and the invoice may have crossed in the mail. You can check your order online at www.rockngem.com. It may take up to four weeks to process your check, so if you wrote the check less than four weeks ago, disregard the bill you received. If you paid for your subscription more than four weeks before you received another bill, send a copy of your cancelled check along with your bill to Rock & Gem, P.O. Box 469113, Escondido, CA 92046-9113.

TO SOLVE A SUBSCRIPTION PROBLEM: You can check the status of your subscription online at www.rockngem.com. Remember, it may take up to eight weeks to change an address and 6-8 weeks to start a new subscription. Please give us time to get your magazine to you, and if it still doesn't arrive, please e-mail us at rockngem@pcspublink.com or call 1-760-291-1549. If your subscription has already started, or you receive a damaged copy, please email us, and we will send you a replacement copy.

RENEWALS: It can take up to 6-8 weeks to process your renewal, so don't wait! Renew early so you don't miss an issue. You can renew online at www.rockngem.com using the Inet number listed on the address label of your magazine, or just return the renewal form with your check or money order. Please do not send cash! If you renew your subscription before your expiration date, we'll add on the new issues at the beginning of your expiration issue. You won't lose any issues by renewing early, and you'll guarantee you won't miss any!

TO GET ANOTHER COPY OF THE ISSUE: Additional copies are available at the newsstand, or you may order them online at www.rockngem.com.

BACK ISSUES: Back issues are available online at www.rockngem.com.

MOVING? You can change your address online at www.rockngem.com using the Inet number listed on your magazine label, or call 1-760-291-1549. It can take 6-8 weeks to get an address change processed, so make sure you contact your local post office and ask them to forward all of your mail.

HOW TO PLACE AN AD IN Rock & Gem: Please contact Brian Roberts via email at broberts@jmillermmedia.com or call him at 623-327-3525.

HOW TO SELL Rock & Gem IN YOUR STORE: Please contact us at ttrimbach@jmillermmedia.com or call 805-644-3824 Ext. 120.

VISIT US AT www.rockngem.com.

Advertising Pays

Rock & Gem

Contact Brian Roberts, Advertising Director: BRoberts@JMillerMedia.com (623) 327-3525

Show Dates from page 64

door prizes, youth activities, grand prize; contact Gerry Pfeiffer, (509) 924-1927; e-mail: pfeiffer@webband.com

9-10—BELLINGHAM, WASHINGTON: 50th anniversary show, "A Golden Family Affair"; Mt. Baker Rock & Gem Club; Bloedel Donovan Park, 2214 Electric Ave.; Sat. 10-6, Sun. 10-5; free admission; raffle, exhibits, rocks, fossils, gems, jewelry, dealers, door prizes, silent auction, lapidary, gold panning, black light, gem cutting, demonstrations, kids' activities; contact Wes Gannaway, (360) 384-4209; e-mail: debrnws@comcast.net

9-10—DES PLAINES, ILLINOIS: 46th annual show; Des Plaines Valley Geological Society; Des Plaines Park District Leisure Center, 2222 Birch St.; Sat. 9:30-5, Sun. 10-4; adults \$3, seniors \$2, students \$1, children under 12 free; dealers, gems, jewelry, fossils, minerals, Kids' Room, demonstrations, exhibits, door prizes, raffles, silent auction; contact Frank Lavin, 9942 Montrose Ave., Schiller Park, IL 60176, (815) 298-9178; e-mail: nival42@hotmail.com; Web site: www.desplainesgeologyclub.org

9-10—MARION, ILLINOIS: Show; Southern Illinois Earth Science Club; Williamson County Pavilion, 1602 Sioux Dr.; Sat. 10-6, Sun. 10-5; adults \$2, ages 18 and under free; gems, minerals, fossils, lapidary, shells, silent auctions, door prizes, fluorescent demonstrations; contact Mike Chontofalsky, 1019 E. Broadway, Centralia, IL 62801, (618) 532-0455; e-mail: chontofalsky@att.net

15-17—RICKREALL, OREGON: 56th annual show; Willamette Agate Mineral Society; Polk County Fairgrounds, 520 S. Pacific Hwy. W; Fri. 9-6, Sat. 10-6, Sun. 10-4:30; contact Kristi Edwards, (541) 738-6811; e-mail: edwardskk@gmail.com

16-17—WALNUT CREEK, CALIFORNIA: Show, "Contra Costa Crystal Fair"; Pacific Crystal Guild; Civic Park Community Center, 1375 Civic Dr.; Sat. 10-6, Sun. 10-4; adults \$6, ages 12 and under free; 30 dealers, minerals, gems, crystals, beads, metaphysical healing tools; contact Jerry Tomlinson, P.O. Box 1371, Sausalito, CA 94966, (415) 383-7837; e-mail: jerry@crystalfair.com; Web site: www.crystalfair.com

MAY 2011

6-8—McPHERSON, KANSAS: 19th annual sale and swap; McPherson Gem & Mineral Club; McPherson 4-H Bldg., 710 W. Woodside; Fri. 9-7, Sat. 9-6, Sun. 10:30-3; free admission; buy or swap, rocks, gems, minerals, fossils, jewelry, door prizes, displays, collections, free rock identification, fluorescent mineral exhibit, kid's spin-and-win; contact Jim Nutter, 1611 Jody Ln., McPherson, KS 67460, (620) 241-2433; e-mail: mcphersongemmineral@hotmail.com

7-8—WASHINGTON, PENNSYLVANIA: Show, "Greater Pittsburgh Area Jewelry, Gem, Mineral, Bead & Gift Show; FM Minerals; Washington County Fairgrounds, 2151 N. Main St.; Sat. 10-6, Sun. 10-5; adults \$4, children 12 and under free with an adult; invited dealers, beads, minerals, fossils, metaphysical items, jewelry, gemstones, hand-made jewelry, wire wrapping; contact FM Minerals, P.O. Box 252, Farmington, WV 26571, (304) 825-6845; e-mail: frankoz@juno.com

14-15—WAUWATOSA, WISCONSIN: 54th annual show; Wisconsin Geological Society; Mueller Bldg., Hart Park, 72nd and W. State St.; Sat. 10-5, Sun. 10-4; adults \$3 (2 for \$5), children under 16 free with adult; 22 Midwest dealers, lapidary supplies, tools, books, rough material, slabs, finished specimens, cabochons, jewelry, carvings, fossils, children's activities, exhibits, displays, presentations; contact Paul Schmidt, 8213 Red Arrow Ct., Wauwatosa, WI 53213, (414) 771-8668; e-mail: pvs@wi.rr.com

27-29—SALEM, VIRGINIA: 20th annual show, "Roanoke Valley Spring Gem & Mineral Show"; Treasures Of The Earth Gem & Jewelry Shows; Salem Civic Center, 1001 Boulevard; Fri. 10-6, Sat. 10-6, Sun. 11-6; adults \$4 (3-day ticket), children under 16 free; jewelry makers, goldsmiths and silversmiths size, reconstruct, repair, design or make original jewelry from customer-selected gems, stones, opals and crystals, wire wrap, wire sculpture, stone beads, pearls, stone setting, dealers, amber, opal, fossils, minerals, door prizes, grand prize, children's gift; contact Van Wimmer Sr., 5273 Bradshaw Rd., Salem, VA 24153, (540) 384-6047; e-mail: van@toteshows.com; Web site: www.toteshows.com

JUNE 2011

4-5—SAN FRANCISCO, CALIFORNIA: Show, "San Francisco Crystal Fair"; Pacific Crystal Guild; Fort Mason Center, 99 Marina Blvd.; Sat. 10-6, Sun. 10-4; adults \$6, ages 12 and under free; 30 dealers, minerals, gems, crystals, beads, metaphysical healing tools; contact Jerry Tomlinson, P.O. Box 1371, Sausalito, CA 94966, (415) 383-7837; e-mail: jerry@crystalfair.com; Web site: www.crystalfair.com

get HANDS ON

SwapTop™
6" & 8" Flat Lap Machines

Item# 10680 SwapTop™
6" Flat Lap Machine
MSRP: \$329.95

Item# 10880 SwapTop™
8" Flat Lap Machine
MSRP: \$424.95

inland
www.inlandlapidary.com

Makes a Great Holiday Gift!



TIRED OF HIGH TOOL COSTS? ME TO. SO I CALLED.
DANIEL LOPACKI CO.

P. O. BOX 144 CLIFF, N. M. 88028
TOLL FREE 1-888-593-9462 INTERNATIONAL 575-535-2524

DIAMOND SAW BLADES	WE STOCK OVER 200 INDIVIDUAL CARVING BURRS	DIAMOND GRINDING WHEELS
4"X1/2"X.008" \$ 7.95	EASTWIND DIAMOND ABRASIVES BELTS & DISCS & FLEXWHEELS	60 MESH \$162.00
4"X1/2"X.024" \$ 10.50	DIAMOND FILE SETS NEEDLE OR RIFFLER	80 MESH \$144.00
4"X5/8"X.008" \$ 7.95	5 PIECE SET \$10.95	100 MESH \$144.00
6"X1/2"X.012" \$ 10.50	10 PIECE SET \$16.95	180 MESH \$120.00
6"X5/8"X.012" \$ 10.50	DIAMOND POWDER 5CT \$8.50	260 MESH \$120.00
6"X5/8"X.032" \$ 22.00	GREAT ASSORTMENT DIAMOND FILES UP TO 8 1/2"	360 MESH \$120.00
8"X5/8"X.032" \$ 26.50		600 MESH \$108.00
10"X5/8"X.032" \$ 36.00		AVAILABLE ONLY IN 6" X 11/2"
12"X5/8"X.040" \$ 57.00		ZOMM DIAMOND SLITTER \$2.00
14"X3/4"X.040" \$ 64.00		
16"X3/4"X.040" \$ 131.00		
18"X3/4"X.040" \$ 164.00		
20"X1"X.060" \$ 257.00		
	DIAMOND CORE DRILLS 4MM TO 50MM	DIAMOND DRILLS
	DIAMOND POLISHING PASTE 5 GRAM SYRINGE \$5.95	ONE .75 MM \$1.40
	360, 600, 1200, 3000, 14000, 50000 MESH	1 1 MM
		25 PACK 1.25 MM \$30.00
		1 5 MM
		2 2 MM
		100 PACK 2.5 MM \$95.00

WE ARE ONE OF THE FASTEST GROWING DIAMOND TOOL COMPANIES.
THERE HAS TO BE A REASON QUALITY LAPIDARY PRODUCTS AT DISCOUNT PRICES!
VISIT OUR WEB SITE AT WWW.LOPACKI.COM TO SEE OUR COMPLETE PRODUCT LINE

Tucson Hot Spots

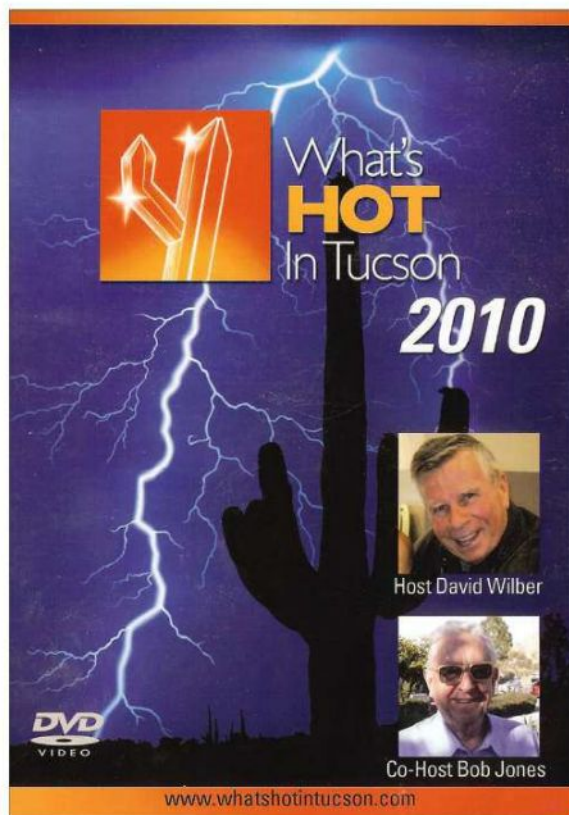
Anyone who visits Tucson, Arizona, during the big January-February mineral show season will readily admit they do not get to see everything the city has to offer! It is virtually impossible for most visitors to stay in Tucson the entire three-week show period, and getting around to all the shows would require an almost frantic schedule! That's just not in the travel plans of most rockhounds. What to do? The very easy answer is to buy a copy of the "What's Hot in Tucson" DVD.

Each year at the great mineral and gem event in Tucson, Bryan Swoboda, of BlueCap Productions in Marina del Rey, California, goes around to the major shows in progress and videotapes a mineral and gem program called "What's Hot in Tucson". If the name Swoboda rings a bell—and it will to old-timers in the hobby—it is because Bryan is the talented son of Ed Swoboda, one of the great miners and sellers of minerals. Ed is well remembered by us old-timers for his work in mining superb minerals down in Brazil at the time of World War II and his later efforts with the pegmatites of San Diego County, California.

In the last several decades, Ed has been directly involved in a couple of the great mineral finds in California: the Himalaya pegmatite deposit in Mesa Grande and the Tourmaline Queen mine in the Pala District. The Himalaya mine, in the last couple of decades, has been an amazing source of bicolored gem tourmaline. For more than a decade, this mine yielded thousands of fine crystals, some loose, some attached to quartz, and some on matrix.

Ed, along with one of his active partners, Bill Larson, was one of the fellows who allowed my son Evan and me to go underground during mining operations at the Himalaya to dig out a pocket of tourmalines. That little effort produced two 5-gallon buckets of loose elbaites!

Ed's reopening of the Tourmaline Queen mine in the 1970s ranks as one of the greatest elbaite finds ever. The tourmalines he discovered here are called "blue caps", after which Bryan named his company. Blue cap tourmalines are lovely pink to red crystals with a thin, blue termination zone.



"What's Hot in Tucson: 2010" highlights the best mineral specimens for sale and on display at the Arizona shows.

David Wilber, one of the better known mineral and gem experts around, has been the regular host of this video series since it began in 2007. On the "What's Hot in Tucson: 2010" DVD, Dave interviews a number of collectors and dealers, including Ed. They talk about Ed's display at the 2010 Tucson Gem & Mineral Show. The display is a lovely selection of pegmatite gem crystals from Ed's personal collection, including Himalaya and Tourmaline Queen crystal specimens. Several other choice mineral displays are also highlighted.

In 2010, I was asked to co-host this remarkable DVD along with David, since the rigors of the two-week-long shoot made it too much work for one person. This was the first time I have been involved in a "What's Hot" DVD and I have to say it was an honor to be asked to help out.

"What's Hot in Tucson" is a remarkable program. Each year, Bryan and Dave interview a host of mineral and gem dealers from all over the world. The purpose is to take a close-up look at as many new minerals that have come out of the ground since the previous year as possible. The

DVD also includes close-ups of choice minerals that are being "recycled"—old classic specimens that were once in private collections and are now back in the marketplace. These are all exceptional specimens that rest at the top of the collecting pyramid: African rhodochrosite, Tsumeb diopside, classic German and Norwegian silvers, rare species from Bolivia, gem minerals from Brazil, and much more.

The process of shooting the video seems simple enough, but that is only because Bryan and Dave do their homework in advance. They go around to the many shows in Tucson and look at what is being displayed and offered for sale. They talk with individual dealers and collectors and note what should be included in the DVD. Only then does Bryan hoist his camera on his shoulder and, with Dave at his side, go from dealer to dealer, room to room, exhibit to exhibit, show after show, to document hundreds of choice new and classic minerals and gems.

One of the important aspects of the "What's Hot in Tucson" DVD is Dave's running commentary on the origin and properties of many of the minerals being filmed. Dave's extensive knowledge makes him the perfect host, as he casually talks in depth about the minerals.

Dealers are interviewed and often tell fascinating behind-the-scenes stories about their minerals, stories you would never hear if it were not for this DVD. As a newcomer, I stood off to the side during most of the filming and, in spite of my decades of involvement in minerals, I learned something about each mineral and each locality. Dave is a font of information.

Along with interviewing dealers, miners, and people directly involved in the hobby and business of minerals, the BlueCap team interviews exhibitors at various shows and films their displays. If you have never attended the major Tucson shows, this DVD gives you an in-depth look at people in the hobby while revealing to you why these shows are so popular and so important to the overall hobby and science. In some cases, new books and other materials like fine mineral paintings are shown and discussed. This illustrates the broader scene of the

mineral hobby, touching on facets we are all interested in knowing about in some way.

With so many shows ongoing in Tucson during an approximately two-week period beginning at the end of January, Bryan and Dave really have quite a task to document so much. Because of this, "What's Hot in Tucson: 2010" is not a single DVD, but a set of three excellent discs with a total run time of about six hours. That's hardly enough time to include everything, but the program is still the most comprehensive documentation of the world's most important gem and mineral event you can obtain. Free bonus footage is available for viewing at www.whatshotintucson.com.

Because of other commitments, I was not able to participate in the entire shooting of the program. Before the Tucson Gem & Mineral Show™, also called the Main Show, started the second Thursday in February, I had plenty of time to participate in the DVD shooting, but during the Main Show, I'm far too involved to do much hosting. This is one reason I only appear in some of the dealer interviews.

One segment of filming that I particularly enjoyed was watching my son Evan being interviewed by Dave at the Westward Look Hotel. I was careful not to take part in that interview. I wanted Dave to do the interview so viewers would hear his objective comments on the specimens Evan was showing. On the DVD, Evan shows three specimens, all from the Milpillas copper mine in Sonora, Mexico. Two were azurites and the third was a malachite pseudomorph after azurite that, at the time, was probably the best such malachite ever to come from that border country and perhaps the world. Since that filming, several azurites from the same locality have surfaced that rank as the best ever from Mexico and certainly rival or exceed azurites from other more famous localities.

The Milpillas mine is just a few miles south of America's premier copper mine at Bisbee, Arizona, which produced so many species, including superb azurite and malachite pseudomorphs. Today, the Milpillas mine is producing quantities of specimens reminiscent of that great Arizona deposit!

When you do as I did and visit so many mineral dealers to see so many new and exceptional specimens, you get a real picture of the availability of exceptional specimens. I can tell you that the supply of choice minerals has never been better, and if you view the DVD, I'm sure you will agree.



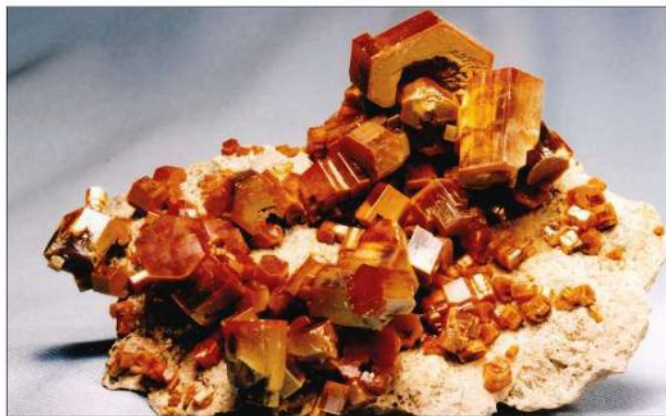
EVAN JONES SPECIMEN

The 2010 "What's Hot in Tucson" DVD set includes footage of this superb malachite pseudomorph, the best ever found in Mexico.

The mines of Pakistan and Afghanistan are now yielding exceptional specimens, including a number of quite rare and new species. Remarkable pegmatite gem crystals are still pouring forth in spite of the prolonged tensions in these countries. Morganite, aquamarine and kunzite are in good supply, along with species like epidote, polucite and emerald.

From Africa, we saw a considerable number of tanzanites, now that a Tanzanian government-controlled mining consortium is actively pulling specimens. Some of the tanzanites rank among the best around.

The supply and variety of Chinese minerals at Tucson just about eclipses that from every other mineral source in the world! The world's best scheelite, superb fluorite, amazing bournonite, good pyromorphite,



Long off the market, Moroccan vanadinite specimens from old collections were seen for sale at Tucson in 2010.

quartz, calcite, garnet and stibnite are just a few of the prominent species now available in quantity from China.

As an old-time collector, I was particularly thrilled to see a couple of great German wire silvers and several choice Kongsberg, Norway, silvers, great ghosts of the past when specimens from such sources were well in evidence at shows.

South America's mineral sources are far from dormant. Dealers are getting excellent minerals from Peru, Bolivia, Brazil, and even Colombia, source of great emeralds. Rivaling the Colombian emeralds are the amazing emerald-in-matrix specimens coming from the Kagen mine in Africa.

Of course, the Main Show in the Convention Center is the highlight of any visit to Tucson during the show season. It is here that you can see a bevy of special displays from a couple dozen museums and many more private collections. Dave and Bryan prefer to put emphasis on the private collections, since these displays have come together because of the owners' collecting interests. These collections emphasize special interests

like gem crystals, specimens from one locality, individual species, and the like. The 2010 Main Show theme was gem crystals. Some of the personal display cases shown on the "What's Hot" DVD are co-operative efforts by members of a group, with each member contributing one or two of his best specimens to the overall display.

If you get these well-done DVDs each year, you will be able to catch up on and stay abreast of what's going on in the world of minerals and gems with far more ease than you could by visiting in person. You will also accumulate an annual record of some of the great minerals available at that time. These DVDs are not only topical and current, but are great references for the future when you have a chance to pick up an example of a species formerly featured on a "What's Hot" program.

The bonus of all this is the fascinating stories dealers and interviewers relate as they talk about specimens and localities. They make the subjects on the DVDs come alive, as they entertain and inform you about things you probably won't hear anywhere else.

Christmas is coming and this DVD set, priced at \$39.99 (shipping extra), would make a great present for a rockhound or mineral collector. For more information on these wonderful annual Tucson "reports", visit www.whatshotintucson.com or contact BlueCap Productions, 578 Wash-

ington Blvd., Suite 307, Marina Del Rey, CA 90292. You can also pick up "What's Hot in Tucson: 2010" at major mineral and gem shows. It is well worth it, especially if you don't have the time or money to travel to Tucson each year.💎

Bob Jones holds the Carnegie Mineralogical Award, is a member of the Rockhound Hall of Fame, and has been writing for *Rock & Gem* since its inception. He lectures about minerals, and has written several books and video scripts.



Field Notes submissions are subject to editing. Address questions to "Editor" for a private response or to "Readers" and provide the contact information you'd like published. Send to Field Notes, *Rock & Gem* magazine, 290 Maple Ct., Ste. 232, Ventura, CA 93003.

Special Specimen

I call this my "E.T. face" (ignore the spare pair of eyes). It is a 7-inch-wide slice of an unusual Brazilian agate. The spaces in the slab were not internal spaces of the original geode, but external surfaces, although they are smoother than a typical geode's outside rim. You will note that the slab has been broken and repaired. Unfortunately, after slabbing, I dropped it and had to mount it to keep it together. I recently bought this nearly whole Brazilian geode near Aberdeen, Scotland, from someone who had imported them from Brazil during the 1970s and "lost" the oil drum full in an almost unused storage room.

—Brett Fraser
Larkhall, Scotland



BRETT FRASER PHOTO

Back Issue

I have been searching for the April 2004 issue of *Rock & Gem* and have seen that it is not available for purchase on the magazine's Web site. I was looking for the article on "How to Build a Sphere Machine". Any help or information on possible places to find this would be appreciated.

—Samuel Greene
Kingsport, TN
greene1564@embarqmail.com

Lapidary Losses

The lapidary world has lost several outstanding contributors in 2010. They were subjects of articles I have written for *Rock & Gem*. "The Life of a Lapidary", a tribute to Rock Pioneer Edwin Gueck, appeared in the April 2008 issue. He was well known by rock club members in Nebraska and Arizona. On Dec. 31, 1996, Ed was inducted

into the Lapidary Hall of Fame. Barbara Silverman contacted me to say her father had passed away Mar. 15. Harrison Yocum (December 2008 issue) of Tucson, Arizona, passed away Aug. 31. He was happy to share his knowledge with others, for example, by leading almost 900 field trips in 33 years.

While visiting Margaret Norman in Lander, Wyoming, I began "My Quest for Keswick Agate" (April 2010) when seeing the cabochons in her bracelet and earrings. I was sad to learn she had passed away a short time before that issue arrived. Margaret's mother had taken her hunting for Sweetwater agates southeast of Jeffrey City, Wyoming, at age 7. Their field trips were the beginning of Margaret's love of finding good quality rock and cutting and polishing cabochons.

Several subjects to whom I paid tribute in my articles are having health problems; friends and family wish them a speedy recovery. There are many who thank all "rock pioneers" for their contributions to the lapidary world.

—Barbara L. Miller
Longmont, CO

Bagdad Mine Field Trip

On Thursday, Sep. 16, 13 members and friends of the Daisy Mountain Rock & Mineral Club escaped the heat of Northern Phoenix and drove 100 miles to Bagdad, Arizona, for a tour of the Freeport McMoran copper, molybdenum and gold mine. The mine is one of the largest in Arizona, with a daily output of over 95,000 pounds of copper from the 2,000-foot-deep open-pit mine. The mine runs two-hour tours starting at 10 a.m. for tourists and rockhounds, as well as visitors from other Freeport McMoran facilities. The tours are by appointment.

Bagdad is a company town in every sense. It is owned by McMoran and has company housing, a clinic, a fire department, two restaurants, seven churches, and one bar. We met our guide, Bob Delgado, a retired mill worker at the mine, at the museum on Palo Verde Street, next to the Bagdad library. We signed in on the guest sheet and were issued fluorescent orange safety vests, hard hats, and safety glasses, which are required dress for all employees and guests at the mine. After a short talk on safety procedures, the history of the mine, and what we could expect to see at the mine, we piled into a 12-passenger van, and traveled the three miles to the mine.

The 820 employees work 12-hour rotating shifts, keeping the mine operating seven days a week, 52 weeks a year. Oxide ore is processed by a system of hoses dripping sulfuric acid on enormous piles of material spread on the ground. The acid leaches out the minerals and the solution is collected in a holding pond [then] pumped to vats in a building where the copper is collected by electrolysis on thin sheets of copper that are placed in vats of ore-rich liquid and are removed after six days. At that point, they are 150-pound sheets of pure copper.

After viewing the mill in which the sulfides are processed and copper and molybdenum are extracted, we went to the tailings area. Tailings are mixed with water and moved through a five-mile system of pipes



into holding areas. After settling, the water is drawn off and recycled, leaving a vast, two-square-mile area of white sand with isolated green patches of salt cedar, testifying to nature's ability to establish life wherever there is moisture.

We thanked our guide for an educational and enjoyable time and took his suggestion to eat lunch at the diner on Main Street. It turned out his recommendation was a good one and we enjoyed our meal in Bagdad and toasted club member Herb Jacobson for arranging our tour.

The Daisy Mountain Rock & Mineral Club is open to all residents of the Daisy Mountain area, including Anthem, New River, and Desert Hills. We meet at the North Valley Library at 6:45 p.m. on the first Thursday of each month. New members and anyone interested in rocks or geology are welcome.

—Ed Winbourne
via e-mail



Contact us for more information
or to request a **FREE** catalog.

Toll Free (800) 253-2954

(760) 255-1030

Fax (760) 255-1077

e-mail: diamondpacific@aol.com

2620 W Main St. Barstow, CA 92311



*The DL-18
Double Deck
Vibratory Lap*

GemMaster^{II}



... *And thoughts of
GemMaster^{II}
danced in their heads!*

*Merry
Christmas*
from



Fac-ETTE[®]
MANUFACTURING, INC.

www.fac-ette.com



9545 Ploof Road, Leland, NC 28451 • 910.371.3776 • 800.336.9248