

## DVESScapades

*escapades: interesting, stimulating, exciting activities and adventures*



### Delaware Valley Earth Science Society Newsletter

February 14, 2009



**Program:** Lou Detofsky ( our own  
"Doc Roc" will give us his famous  
"Walking in the footsteps of Charles  
Darwin", lecture and slides

We'll have coffee and snacks waiting for you!



**President's Message** - by AnnLynne Benson, DVESS President and EFMLS Director  
Dedicated volunteers, working tirelessly as a Team in the spirit of community involvement – DVESS has more than a few. This newsletter, for example, is not put together in a snap. Our editor, Carol De Cuzzi, does a great job searching out information, gently nagging me until I submit my President's Message, and with a hundred other small tasks creates an attractive newsletter of which we can be most proud.

Mel LeCompte has spent many hours preparing lessons for the Junior Rockhounds Merit Badge Program. In January we welcomed a new Junior, my 14-year-old grandson Brandon Pinero. Mel gave a one-on-one class which Brandon thoroughly enjoyed. In another week or two, Mel will be taking his show on the road, giving a class to a group of Girl Scouts.

Each and every one of you is important in helping keep the lines of communication, education, and involvement alive, not only our club, but in the Federation as well. One place this teamwork can be seen is in the preparation for the Sterling DIGG, coming up on Saturday, April 25. Many people have taken on tasks which together will make it possible for you to enjoy a collecting experience rockhounds in other parts of the globe can only dream of - night collecting in the Fluorescent Mineral Capital of the World. See [www.uvworld.org](http://www.uvworld.org) for more information.

Being stuck indoors while it's raining or snowing is a great time to write an article for your newsletter. Your fellow club members, as well as your editor, will greatly appreciate your efforts. It doesn't have to be anything elaborate: your take on a field trip, a get-acquainted blurb about a new (or old) member, some thoughts on a mineral or fossil that you found while on vacation, or on research you've done on the internet.

Now is the time to fill out and send your application for the Spring session at Wildacres. More information can be found elsewhere in this newsletter or on the EFMLS website <[www.amfed.org/efmls/wildacres.htm](http://www.amfed.org/efmls/wildacres.htm)>.

Get involved, get active. Invite a friend to a meeting. Attend one of the upcoming shows. You'll get more out of life when you LIVE IT!!



**Delaware Mineralogical Society show  
Saturday March 7, 2009  
and Sunday March 8, 2009**

The **Delaware Mineralogical Society, Inc.** will hold its 46<sup>th</sup> Annual Earth Science Gem and Mineral Show @ Delaware Technical and Community College @ I-95 Exit 4B, Churchmans Road (Rt. 58) Newark (Stanton), DE 19713. Hours Saturday are 10:00 a.m. to 6:00 p.m. and Sunday 11:00 a.m. till 5:00 p.m. The show features educational exhibits of mineral, lapidary and fossil specimens, displays from regional and university museums, an expanded roster of fine dealers of minerals, fossils, gems, jewelry and lapidary supplies, door prizes,

demonstrations of gem cutting and polishing and a children's table, where youngsters may purchase inexpensive mineral and fossil specimens. Admission is \$5.00, \$4.00 for seniors, \$3.00 for youngsters between 12 and 16, and free for children under 12 accompanied by an adult. The Delaware Mineralogical Society is a non-profit organization, affiliated with the Eastern Federation of Mineral Societies, and dedicated to learning and teaching about the earth sciences, rocks, minerals, fossils and the lapidary arts. Membership is open to all who are interested in these areas. Info and Coupons at [www.delminsociety.net](http://www.delminsociety.net) or contact [gene@fossilnut.com](mailto:gene@fossilnut.com)

**Mark your calendar** for the Saturday, April 4<sup>th</sup> and Sunday, April 5<sup>th</sup>. They are the dates of the Philadelphia Mineral Treasures And Fossil Fair 29<sup>th</sup> Annual Show and Sale sponsored by the Delaware Valley Paleontological Society and the Philadelphia Mineralogical Society. New this year – we will have several speakers talk about paleontology, geology and minerals. Dr. Ted Daeschler, Curator of Vertebrate Paleontology at The Academy of Natural Sciences will speak on The Nunavut Paleontology Expeditions: Late Devonian Fossils from the Canadian Arctic. For more information on Dr. Daeschler's research, you can go on the web to [http://clade.ansp.org/vert\\_zoology/people/daeschler/](http://clade.ansp.org/vert_zoology/people/daeschler/) .

Dr. Lauck Ward, Curator Emeritus of the Virginia Museum of Natural History will speak about the stratigraphy and paleontology of the Atlantic Coastal Plain. The Show will be held at the Shriners LuLu Temple 5140 Butler Pike, Plymouth Meeting, PA 19462 For more information on the Show, please go to the DVPS website at <http://dvps.essentrix.net>

**DUES** Hopefully you have been enjoying your participation in our club and would like to continue doing so. Dues are due. Please bring them to a meeting or to Gary at his store or send them to the PO box. Don't miss out on all the great programs, field trips and other wonderful activities we offer. Gary

**PROGRAMS:** April 8th meeting program Mark your calendar for this exciting lecture. We will have the return of the previously popular teacher, Amy Carpinelli. This time her talk will be on the Tambora Volcano. Tell your friends !!! Make plans to attend !!! Bring visitors !!! A number of other speakers are being lined up, including Chet Lemanski (After February 2009 Tucson show). Since we will have meetings at the Centenary United Methodist Church in Berlin, NJ during the summer, Gary will show/plan additional programs.

The Ireland quartz twin crystals are best if they're from 'Dublin'

Have you visited a good internet site about minerals? There are a lot of really great mineral

websites available from which you can learn a lot.

[www.rockhounds.com](http://www.rockhounds.com) This terrific site is safe and has hundreds of links to interesting information. One of its highlights is an entire section about NASA's Mars Rover Expedition. You can also find information on crystal system, on cutting gemstones, how to wire wrap a crystal, articles on mineral stamps, and much, much more.

[www.mineralofthemothclub.org](http://www.mineralofthemothclub.org) visit the Mineral of the Month Club run by Diamond Dan Publications especially for education.

You may also want to check out these links relating to fossil preservation and conservation sent in newsletter by Grant our Sec.

<http://www.flmnh.ufl.edu/natsci/vertpaleo/resources/prep.htm>

[http://www.paleocurrents.com/docs/fossil\\_preparation.html](http://www.paleocurrents.com/docs/fossil_preparation.html)

<http://paleo.cc/kpaleo/fossprep.htm>

<http://www.mineralogie.uni-wuerzburg.de/palbot/tools/preparation.html>

**February 25**, "Volcanoes in Maryland?", Maryland National Capital Parks and Planning Commission, Black Hill Visitor Center, 301-916-0220, <[BlackHillNature.org](http://BlackHillNature.org)> 11:00 am to 5:30 pm, ages 12 & up, Free. Led by Naturalist Glenn Cumings, you will visit volcanic areas around Catoctin and South Mountains, and Myersville. At Greasey Farm see volcanic fireplace, look at Native American artifacts, and visit ancient Indian quarry. Volcanic rocks may be collected along the route. Get the Montgomery Co. Recreation And Park Program Guide for registration information. (I called about this fantastic trip, but, it was already filled. Maybe we could think about our club doing this as one of our field trips. Ed )

## **SAFETY BE "PATIENT" OR**

**"A PATIENT"** It was about 1:30 a.m. when the Doctor finally came in to look at my smashed finger. It had been almost five hours since I had checked in --- after all --- it was Saturday night and things were pretty hectic in the Emergency Room. "What happened?," the pleasant young doctor asked. "Well ... I guess I was in too much of a hurry. We were on a field trip to collect rocks and minerals in a rock quarry and I decided to turn over a 300 pound rock to get some nice crystals. I could have used my six foot steel pry bar to turn the rock over, but it seemed like a waste of time to walk the 50 yards to get it. So I just rolled the big rock over with my hands. I was wearing the right safety stuff --- steel toed shoes, long jeans and heavy work gloves --- but it rolled right onto my finger! It really hurt, but I didn't make a big deal. I took my glove off and my finger was bleeding, so I wrapped it up with several Band-Aids and put my glove back on. No one knew that I was hurt --- in fact, I used a big sledge hammer to get out some more crystals. About 8 hours later after the drive

home, my wife took one look at my swollen, blue-black finger and sent me straight to the Emergency Room."

"When was your last tetanus immunization?," he questioned. "About 10 years ago," I replied --- knowing that the nurse would soon be giving me another shot. Doc then said, "I will check your X-rays and if nothing is broken, we will dress your finger and get you out of here. We will also give you an antibiotic, because we can't take chances with infection." I recalled that infection in bones can be deadly. Later, some good news from the doctor ---no broken bones. But my earlier decision to not get the pry bar had been a costly mistake --- 5 hours at the Emergency Room, another hour at the drugstore, more hours of follow-up at my regular doctor and the orthopedic doctor --- not to mention pain, money, and the inconvenience of having my hand in a bandage. Lesson learned --- be patient and take the extra time and effort to get and use the proper tools.

**By Dave Lines, ROCK TALK, Southern MD R&M Club, Oct 2008** well worth the retelling

If we name the left twin crystal "Kate" then what do we call the right one? "Duplicate!"

### A FIELD TRIP TRAGEDY

A member of the East Coast Fossil Club was killed by a cave-in on Nov. 30, 2007 while collecting fossils during a private collecting trip in North Carolina. Bob Henderson, a retired Air Force officer from Fayetteville, North Carolina died when the high wall of a

borrow pit in Elizabethtown collapsed on him. Several other fossil collectors located and uncovered him, but he could not be revived. (Old News, but "The Message": **Always** stay away from high walls. Ed of the East Coast Fossil Club, a web group. Via THE ROCKHOUNDER Page 8 January 2009

**Lesson learned!!!** Please stay with our INSURED group on field trips and heed the warnings and information given by our safety director MEL LeCompte (Ed)

**MEMBERSHIP** Thank you to all of those who already renewed your membership for 2009 – this is a good start to the new year. I would like to get filled out renewal forms for all renewals this year to put in a Membership Binder so I have current records for everyone. I have attached a renewal form with this issue of the DVESS Newsletter for that purpose, and I would appreciate all of you renewing, including those of you who have already renewed, but make sure I get a filled out Renewal form with current information. It can be copied and emailed to me at either of the e-mail addresses in the info box Thank you. CDC. Editor, DVESScapades

Joke taken from **THE ROCKHOUNDER** newsletter for February 2009

No minerals down there  
How about up here?



A scuba diving geologist has a business to measure the relative sizes of the rises, drops, cavities and undulations of coral formations along the sea coasts. Of course this can only be done in the summer months so he takes the winters off to avoid the frigid air like we have been experiencing recently. You may tag him as a "frost-free reef ridge rater."



The following article was taken with permission from another newsletter see info at end of article:

### February's Birthstone is AMETHYST

Amethyst's top grade, (monetarily) is a deep purple and has no flaws or inclusions in it. It can be mauve or violet and is a form of the mineral quartz. When heated to 550-560 degrees C. amethysts turn dark yellow or reddish-brown and are called citrines. They are more richly colored and more expensive

than natural citrines. The color will also fade if left in the sun too long.

**Split Personality** It is possible for some specimens of quartz to be different colors in different areas. Amethyst and citrine are varieties of quartz which can both occur in the same stone. Such stones are sometimes called ametrines, but we think they could



equally well be called citrysts or citrethysts.

**What's in a Name?** Amethyst gets its name from a Greek word amethystos meaning "not drunken", as it was believed to protect against intoxication by alcohol. (Yet, one source says, if it is to protect one from the effects of wine, it needs to be held under the tongue while drinking. You need to hold your face just right, for it to work!)

**Beautifully Colored Gemstone** Amethyst is one of the most beautiful of the colored gemstones, particularly in its better qualities. The most important attribute should be an attractive color, but varies according to individual taste. The rich deep violet color is generally the favorite and most expensive, but a stone of medium color intensity, with plenty of sparkle, can also be very attractive. Many of the amethysts for sale in stores are only in low to medium quality, being either pale or quite included, and as a result are not particularly attractive.

**Synthetics** It's believed the 70% of amethysts on the world market are now synthetic. This has only been discovered in the last few years. The hardness of real amethyst is 7, and appears on the Moh scale as quartz. Many of the low cost Amethysts are of high quality, and are deeply colored and can be found in inexpensive jewelry. This is often due to the cost of testing the stone being higher than the cost of even the natural stone, so it is not often performed. Therefore, be aware of a cheap amethyst, what looks like a perfect stone.

References: Website: <  
<http://www.24carat.co.uk/a2z.html> >  
(Gemstone Information) and Tim  
McCreights (1991) *The Complete Metalsmith:  
An Illustrated Handbook.*

Courtesy of The Surrey Rockhouser, Via  
the RockVein Winnipeg Rock and Mineral  
Club newsletter April 2004

**Saturday March 7 & Sunday March 8** The **Delaware Mineralogical Society, Inc.** will hold its 46<sup>th</sup> Annual Earth Science Gem and Mineral Show @ Delaware Technical and Community College @ I-95 Exit 4B, Churchmans Road (Rt. 58) Newark (Stanton), DE 19713. Hours Saturday are 10:00 a.m. to 6:00 p.m. and Sunday 11:00 a.m. till 5:00 p.m. The show features educational exhibits of mineral, lapidary and fossil specimens, displays from regional and university museums, an expanded roster of fine dealers of minerals, fossils, gems, jewelry and lapidary supplies, door prizes, demonstrations of gem cutting and polishing and a children's table, where youngsters may purchase inexpensive mineral and fossil specimens. Admission is \$5.00, \$4.00 for seniors, \$3.00 for youngsters between 12 and 16, and free for children under 12 accompanied by an adult. The Delaware Mineralogical Society is a non-profit organization, affiliated with the Eastern Federation of Mineral Societies, and dedicated to learning and teaching about the earth sciences, rocks, minerals, fossils and the lapidary arts. Membership is open to all who are interested in these areas. Info and Coupons at [www.delministry.net](http://www.delministry.net) or contact [gene@fossilnut.com](mailto:gene@fossilnut.com).

**FIELD TRIPS:** April 25, 2009 Sterling Hill Dig, Sterling Hill tour for DVESS will in September 2009.

**EVENTS:** The potluck dinner is on May 17, 2009 at the church and the banquet at Vitarelli's on October 18, 2009.

Schedule of Events Ongoing (Sat – Mon, February 14–16) at Phila Academy of Natural Sciences  
**Academy Fossils** - Check out fossils from our scientific collections, including the "Terminator Pig" (an entelodont from South Dakota), Suuwassea (a Jurassic dinosaur from Montana), as well as fossil fishes, ammonites, trilobites, and turtles.

**Delaware Valley Paleontological Society** - This local fossil club presents interactive displays and fossil to see and touch.

**Dino Crafts** - Build a T-rex or make a dino finger puppet to take home.

**Dinosaur CSI** - Be a dinosaur detective and solve a crime that was committed 65 million years

ago.

**Dinosaur Footprints** - Examine 200-million-year-old dinosaur footprints and find out what stories these fossils can tell.

**Drawing Dinosaurs** - Take a class from the Academy's own Paleo-illustrator, Jason Poole. (Classes are offered four times daily: 10:30–11:30; 11:45–12:45; 1:45–2:45, and 3–4.)

**Fossil Casting** - Why do paleontologists often make copies of the fossils they find? Find out as we demonstrate the hows and whys behind fossil reproductions.

**Fossil Fair** - Look for bargains from fossil dealers or get a dinosaur tattoo.

**Fossil Hunt** - Kids can search for—and keep—real fossils.

**DVESS General Meeting (sort of) Minutes** By Ed Jan meeting was held at the organization's new location: Centenary United Methodist Church in Berlin, New Jersey. We watched a program from the EFMLS with success the old fashioned way - slides and screen. Very interesting presentation

### **Other Happenings:**

Hadrosaurus foulkii - THE DINOSAUR THAT CHANGED THE WORLD special exhibit at the Academy of Natural Sciences opens on November 22<sup>nd</sup> and runs thru April 19<sup>th</sup>, 2009, or six months to celebrate the 150<sup>th</sup> anniversary of the discovery of this important fossil. 1868 the Academy became the first museum in the world to display the complete skeleton of a dinosaur. See Hadrosaurus foulkii again, remounted and reinterpreted for the 21<sup>st</sup> century and learn of its fascinating discovery 150 years ago. Academy Of Natural Sciences, Philadelphia

### UPCOMING EVENTS

#### **New Jersey State Museum Sunday Science Lecture Series**

**Feb. 8**        **Dr. Chet Sherwood**, The George Washington University  
"A Natural History of the Human Brain"

**March 8**      **Dr. Ian Burrow**, Hunter Research  
"Secrets of the Ancients: Myths & Mysteries in Archaeology"

**April 5**        **Dr. Chung Shih**, Infineum USA  
"Silent Stories - Fossil Treasures from Liaoning, China"

**May 3**         **Dr. Kenneth Miller**, Rutgers University  
"Sea-level & Climate Change: Should I Sell My Shore House?"

**June 14**      **Robert Denton**, Discoverer and leading paleontologist of the famous Ellisdale Fossil Site

***Space is limited. Reserve your seats early!***

**WHAT YOU NEED TO KNOW Free Admission - Free Parking, Museum Auditorium**

**Each lecture begins at 4pm. Light refreshments will be served.** For more information, or to make reservations, please call (609) 292-8594

**DVESS MEETING LOCATION :** Centenary United Methodist Church, 151 South White Horse Pike, (route 30) in Berlin, 856-767-3881 or 856-767-7453. Located between Estaugh Ave and W Taunton Ave on your left, the church is on the right hand side.

### **MEMBERSHIP INFORMATION**

Regular members are entitled to participate in all DVESS activities. Sponsoring members are entitled to the same plus a specially chosen mineral specimen. Dues are renewable each year in January. Membership rates for the Society:

#### **Regular Membership:**

\$15.00 for the 1<sup>st</sup> family member + \$5.00 for each additional family member

\$10.00 for the 1<sup>st</sup> Senior ( 65+ ) member + \$5.00 for each additional family member

#### **Sponsoring Memberships ( each additional family member - \$5.00 ):**

*"Silver"* \$50.00 for 1<sup>st</sup> family member - receive a Geode Specimen

*"Gold"* \$75.00 for 1<sup>st</sup> family member - receive a Native Gold Specimen

*"Platinum"* \$100 for 1<sup>st</sup> family member - receive a Premium Specimen

#### **SOCIETY INFORMATION**

The Delaware Valley Earth Science Society, Inc., ( DVESS ), a non-profit organization, was founded in 1956 and incorporated in the state of New Jersey in 1957.

The Society:

- \* promotes interest , knowledge and the development of skills in the "earth sciences". These interests include mineralogy, paleontology, lapidary arts, archeology and local preservation.
- \* supports the conservation of natural resources, advocates the availability of collecting sites and maintains close contact with those in the academic field.
- \* is a member club of the Eastern Federation of Mineralogical and Lapidary Societies ( <http://www.AmFed.org/EFMLS> )

### **MEETINGS**

The Society meets the 2<sup>nd</sup> Wednesday of each month throughout the year at Centenary United Methodist Church, 151 South White Horse Pike, (route 30) in Berlin

**Anyone with info for the newsletter please share with me. You can be published!**

Stuff you did in school, on a trip etc., see my info below.

Editor's Notes: Editor is not responsible for authenticity of information in any articles submitted for publication. Nor are the opinions expressed in the "DVESScapades" necessarily those of the officers of the Delaware Valley Earth Science Society, Inc., and/or the editor.

To submit an article for publication in the DVESScapades contact the Newsletter Editor. [decuzzic@comcast.net](mailto:decuzzic@comcast.net), or Delaware Valley Earth Science Society Inc., DVESS, P O Box 372 Maple Shade, New Jersey 08052 or DVESS Website: <http://www.dvess.org> [garyskyrock@comcast.net](mailto:garyskyrock@comcast.net)

Three more pages available for this newsletter by e-mail or at the web site

There was an old miner who loved to paint. Sadly, he could not afford canvases. But he found a solution. He would paint on the interior walls of his house. They soon became covered with his paintings. One day, a group of wayward youths broke in and defaced the paintings. The youths were soon apprehended and arrested for corrupting the murals of a miner.

**AFMS CODE OF ETHICS (American Federation of Mineralogical Societies)**

- I will respect both private and public property and will do no collecting on privately owned land without the owner's permission.
- I will keep informed on all laws, regulations of rules governing collecting on public lands and will observe them.
- I will to the best of my ability, ascertain the boundary lines of property on which I plan to collect.
- I will use no firearms or blasting material in collecting areas.
- I will cause no willful damage to property of any kind - fences, signs, buildings.
- I will leave all gates as found.
- I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.
- I will discard no burning material - matches, cigarettes, etc.
- I will fill all excavation holes which may be dangerous to livestock.
- I will not contaminate wells, creeks or other water supply.
- I will cause no willful damage to collecting material and will take home only what I can reasonably use.
- I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.
- I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.
- I will cooperate with field trip leaders and those in designated authority in all collecting areas.
- I will report to my club or Federation officers, Bureau of Land management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.
- I will appreciate and protect our heritage of natural resources.
- I will observe the "Golden Rule", will use "Good Outdoor Manners" and will at all times conduct myself in a manner which will add to the stature and Public "image" of rockhounds everywhere.

<i>DVESS Directory 2008</i>	President Ann Lynne Benson 856-783-0969 <a href="mailto:SeleniteQueen@gmail.com">SeleniteQueen@gmail.com</a>
1 <sup>st</sup> Vice President Gerald Feigin <a href="mailto:gfeigin@co.gloucester.nj.us">gfeigin@co.gloucester.nj.us</a>	2 <sup>nd</sup> Vice President Richard Murray <a href="mailto:bearich@snip.net">bearich@snip.net</a>
Jr. Rockhound Coordinator Mel LeCompte 856-783-0969 <a href="mailto:works-in-faith@comcast.net">works-in-faith@comcast.net</a>	Recording Secretary Grant Elliott 856-728-1731 <a href="mailto:gle@verizon.net">gle@verizon.net</a>
Website Coordinator Terry Wilson 609-714-1309 <a href="mailto:terry@dveess.org">terry@dveess.org</a>	Special Events Coordinator Ann Lynne Benson 856-783-0969 <a href="mailto:SeleniteQueen@gmail.com">SeleniteQueen@gmail.com</a>
Treasurer, Program Chair, Membership Chair Gary Weinstein 856-234-0708 - home 856-795-5077 - work <a href="mailto:garyskyrock@hotmail.com">garyskyrock@hotmail.com</a>	DVESS Newsletter Editor Carol De Cuzzi 856-428-0621 - home <a href="mailto:decuzzic@comcast.net">decuzzic@comcast.net</a> or <a href="mailto:DVESS@int-pro.com">DVESS@int-pro.com</a>

\*\* NOTE E-MAIL ADDRESS CHANGES \*\*  
DUE TO COMCAST'S MESSING AROUND WITH THEIR E-MAIL ACCOUNTS

to Mel: many apologies for misspelling your name last month - it is now correct, I hope, sorry . ed

If we name the left twin crystal "Kate" then what do we call the right one? "Duplicate!"



Membership Form

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

ZIP+4: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Cell Phone: \_\_\_\_\_

Profession, School or Major Work  
\_\_\_\_\_

Okay to let other members see your email and other orange-starred information?

Okay to share \_\_\_\_\_  
Do NOT share \_\_\_\_\_

Newsletter Delivery via

Email \_\_\_\_\_  
Postal Mail \_\_\_\_\_

Type of membership **Regular Membership:**

\$15.00 for the 1<sup>st</sup> family member + \$5.00 for each additional family member

\$10.00 for the 1<sup>st</sup> Senior ( 65+ ) member + \$5.00 for each additional family member

First Name: \_\_\_\_\_

Last Name (if different)  
\_\_\_\_\_

First Name: \_\_\_\_\_

Last Name (if different)  
\_\_\_\_\_

First Name: \_\_\_\_\_

Last Name (if different)  
\_\_\_\_\_

**Sponsoring Memberships ( each additional family member - \$5.00 ):**

*"Silver"* \$50.00 for 1<sup>st</sup> family member - receive a Geode Specimen

*"Gold"* \$75.00 for 1<sup>st</sup> family member - receive a Native Gold Specimen

*"Platinum"* \$100 for 1<sup>st</sup> family member - receive a Premium Specimen

Interests Minerals \_\_\_ Fossils \_\_\_ Lapidary \_\_\_ Collecting \_\_\_ Museum Trips \_\_\_  
Trotter \_\_\_ Sterling Hill \_\_\_ other, list \_\_\_\_\_

How did you learn of DVESS? \_\_\_\_\_

Other clubs you belong to \_\_\_\_\_

Comments \_\_\_\_\_

What NON-DVESS interests or hobbies do you have? \_\_\_\_\_

Why did the space rock come to earth? The food out there was good, but the place lacked atmosphere. Ha, Ha, Ha

Delaware Valley Earth Science Society, Inc. ( DVESS )  
P.O. Box 372  
Maple Shade, N.J. 08052  
DVESS Website : <http://www.dvess.org>

**RETURN SERVICE REQUESTED**



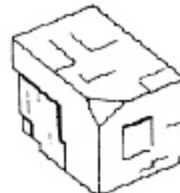
How many minerals are in your flat screen, plasma television?  
5? 10? 25? 35? 40? 45? 50?



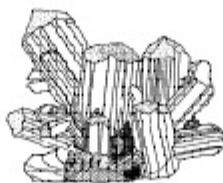
Glass from Quartz.

It takes almost 50 minerals to make your plasma screen TV. Here are a few of them.

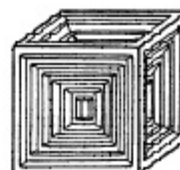
Lead from galena, cerussite, anglesite.



Zinc Sulfide from zincite, franklinite, sulfur, smithsonite, hemimorphite.



Silver from native silver, pyrargyrite and cerargyrite.



Chlorine from halite.

Aluminum from bauxite.

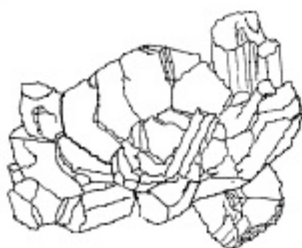


Copper from chalcopyrite, malachite, azurite, chalcocite, cuprite.

Two very rare elements called Yttrium and Europium from the rare mineral euxenite.

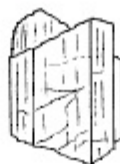


Gold from native gold.



Zinc silicate and arsenic from realgar, orpiment, cobaltite, arsenopyrite, tetrahedrite.

The very rare elements gadolinium, terbium, yttrium from monazite. →



Potassium fluoride and manganese fluoride from feldspar, fluorite, biotite mica, dolomite, olivine, magnesite, lepidolite, epsomite.

**The Klotschtein Diamond** A businessman boarded a plane to find, sitting next to him, an elegant woman wearing the largest, most stunning diamond ring he had ever seen. Being a rockhound, he asked her about it. "This is the Klotschtein diamond," she said. "It is beautiful but there is a terrible curse that goes with it." "What's the curse?" the man asked. "Mr. Klotschtein," she answered. The joke recirculates, this time contributed by Bob Livingston, in the newsletter of Gem & Mineral Society of Syracuse,

## **THE GARNET GROUP** By Mary Fraser

The garnet group is made up of silicate minerals with similar crystal structure. They have a hardness of 6.5 to 7.5, streak white, a luster vitreous, greasy, or resinous, and are transparent to opaque, coming in all colors except blue. They occur in gneiss mica schists, dolomitic metamorphic rocks, and frequently in sands. They are rare in igneous rocks. The occurrence is worldwide. Garnets are used as grinding and polishing agents and as gemstones.

The garnet groups are divided into two series of minerals: pyrope series named after its three members pyrope, almandine, spessartite and ugrandite series named after uvarovite, grossularite, and andradite. (They all have the same general chemical formula,  $[A]_3[B]_2(SiO_4)_3$ , where A can be calcium, magnesium, ferrous iron, or manganese, and B can be aluminum, ferric iron, or chromium, or in rare instances, titanium. Editor The Tidewater Prospector 3/07..)

**Almandine:** (iron-aluminum) common garnet. Forms in schist in areas of regional metamorphism. Colors are brown, red-violet, and almost black.

**Andradite:** (calcium-iron) occurs in metamorphic rocks. Colors are brown-black (**melanite**), colorless, green (**demantoid**), and yellow.

**Grossularite:** (calcium-aluminum) found in metamorphosed impure limestones and limey shales where aluminum is high and iron is low. Colors include colorless, green (**tsavorite** variety), yellowish, brown, red, and brown-orange (**hessonite** variety).

**Pyrope:** (magnesium-aluminum) also known

as carbuncle, bohemian garnet, and cape ruby. Pyrope occurs in silica poor rocks such as kimberlites. Colors are red, brown-red, and the rose-red (**rhodolite** variety).

**Spessartite:** (manganese-aluminum) associated with manganese ores of metamorphic origins. Colors are yellow, orange, and red-brown.

**Uvarovite:** (calcium-chromium) origin is metamorphic. Its color is emerald green from chromium.

Garnets are among the commonest minerals. They crystallize in the cubic system as 12-sided dodecahedrons or 24-sided trapezohedrons or a combination of both. In ancient times garnets were called carbuncles. Ancient Egyptians valued them as ornamental stones and they were considered to be the bearers of well being and family harmony. Greek and Roman citizens believed the bearer to be favored with inheritance. Garnets are found on the Breastplate of Aaron. It is said these "stones of health" extract negative energy from the chakras and transmit it to the beneficial state. Also known as the "stone of commitment" garnets monitor and adjust the flow of energy around the physical body and align the emotional and intellectual bodies. Garnet is also reported to enhance the assimilation of iodine, calcium, magnesium, and vitamins A, D, and E into the body. Supposedly garnet jewelry takes people's minds off their wrinkles.

Article from Rockin' Around, March 05 via The Tidewater Prospector 3/07. Via **THE ROCK-HOUNDER Page 6 January 2009**

## **STAR STONES** by Mary Prosek

The optical phenomena of some gem materials to display a single ray of light on their surface is called chatoyancy, a French word meaning cat or cat's-eye. Gems displaying this characteristic exhibit a single undulating narrow band of white light with a changeable luster. Another optical effect is shown when some gem materials exhibit more than one ray of light. These rays will cross or intersect each other at some central point or points on the surface of a cut and polished gem. This phenomena is called asterism or is more commonly known as a star. The cause of asterism or chatoyancy is attributed to tubes, or needlelike inclusions within the gem. When these foreign inclusions are highly uniform in alignment within the gem, they will be capable of concentrating and reflecting or transmitting the light which enters the gem. However, this potential will not be effectual in the form of a ray or rays if the gem does not have the optical shape necessary for focus and magnification of the light. When the foreign inclusions are aligned only in one direction with the gem, a single ray of light will be possible. If the alignment is in two directions, then the gem will have the potential of emitting two rays of light which will intersect each other at a central point or points on the

gem creating a star with four legs. When the alignment is in three directions, three intersecting rays can be emitted which will produce a six legged star. Gem materials which are capable of displaying a ray or rays of concentrated light will usually show some indication of this phenomenon in the form of a satin sheen or silkish luster while in the rough state and when exposed to an incandescent type of light. The area in which the sheen or silk is most intense will usually yield a star or cat's-eye effect. This area should be tested with a testing fluid such as STP motor oil and marked prior to shaping. The gem is shaped so that this area will become the approximate apex of the gem's dome or curved surface. Approximate is mentioned because the ray or rays will tend to shift their location slightly as shaping progresses. This shifting is attributed to the relationship between the gem's physical shape and optical properties. Any change in the physical shape of the gem will also exert a change in directions, focus and magnification of the ray or rays. Special care and star-making cups must be used when lapping the stones in order to achieve the desired effects.

Read up on this technique before attempting to cut a star stone. Source: "Star Gems" - author Douglas L. Hoffman, copyright 1967 From The Opal, 10/07, Via the Rochester Lapidary Society Rock Collector Dec 2007

**March 21-22** OUR largest annual event is the GEM-MINERAL-FOSSIL SHOW at the Montgomery County Fairgrounds, our 45<sup>th</sup> We take pride in the many exhibits which YOU and friends put into the show, a feature not seen in commercial shows.

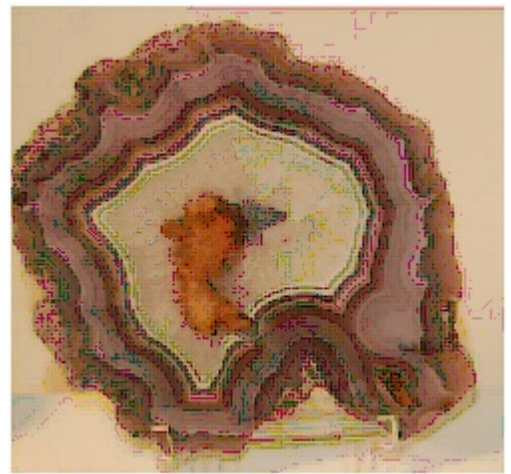
## **WEB SITES** By Wendell Mohr

**Meteorites**, <<http://geology.com/meteorites/>> is an outstanding series of articles by Geoffrey Notkin of AZ. Although I previously featured the home page for [Geology.com](http://geology.com), I thought this sub section was particularly timely in light of the meteorite fall near the Alberta-Saskatchewan border in Canada on Nov. 20 caused by a roughly 10-ton asteroid fragment coming in at about 60 degrees from horizontal. Several fragments have already been found. There also was a fall in Colorado December 5th. There are 4 main sections: "What are Meteorites", "Meteorite Classification", "Meteorite Identification", and "How Much Are Meteorites Worth?" Other links may be pursued. Enjoy!

**The Quartz Page**, <<http://www.quartzpage.de/index.html>> is by Amir Akhavan in Germany. This site is well done and is a compendium of information about all varieties of quartz. Learn about the



mineralogy of Quartz, its properties, crystals, and varieties. The section on growth forms is fascinating. Learn something about faden and gwindel quartz, for example. Nicely illustrated, you will note the European viewpoint. Do not overlook the enlargements which are activated by clicking the pixel sizes under the photographs. References include not only a bibliography but also useful links. An index offers quick shortcuts to site content. Amir did a very nice job! Quartz and Amethyst photos used with permission. (Photos above by site author, A. Akhavan.)



Laguna Agate Mexico Chuck Mason Specimen W. Mohr Photo

**Utah Geological Survey**, <<http://geology.utah.gov/>> offers lots of learning possibilities. On the main page work through the subheadings at the left. I suggest that you click “open all” for a multitude of topics among which are Geology, Dinosaurs and Fossils, Rocks & Minerals, and Great Salt Lake. Geosights allows you to vicariously visit some outstanding spots. I found information on far ranging subjects of bixbite, Bingham Canyon copper mine, Dugway geodes, Great Salt Lake and its predecessor, Lake Bonneville, and trilobites of the House Range in Millard County to be informative. Books and other materials may be purchase from the site. The 1995 book, A Collector's Guide to Rock, Mineral and Fossil Localities in Utah by J. R. Wilson, Utah Geological Survey, Miscellaneous Publication 95-4, might be attractive for you to order after you spend a long, cold winter's night on the web site. From there, perhaps a visit to the state in the warmer months?

The Utah geologist said, “I live right next to the Great Salt Lake. Drop in sometime.” Not with the concept: One Utah miner went to the Great Salt Lake and said to a store owner there, “Gimme 15 pounds of halite, please.” The owner said, “What for?” “I want to salt my gold mine,” he replied.

This is printed info about a recent episode on the history channel. Check it out it will be repeated.

**DIG THIS!** \_\_\_\_\_ Mammoth Tusk Discovered On Santa Cruz Island  
from *Press Release - The Nature Conservancy 1/14/2009*  
*Submitted by Don Miller th the DVPS newsletter*

As a startling reminder of just how ancient the island is, a fully intact tusk, most likely belonging to a mammoth, was discovered on Santa Cruz Island in January 2009. Several other bones, including ribs and possibly a femur, were found near the four-foot-long tusk. “This is a very rare and exciting discovery. It’s not yet known whether these are the bones of a Columbian mammoth or a pygmy mammoth, but in either case this is a remarkable find,” says Dr. Lotus Vermeer, the Conservancy’s Santa Cruz Island project director in the northern Channel Islands.

The northern Channel Islands are the only known island home for the pygmy mammoth. It is thought that this dwarf species of the Columbian mammoth evolved due to a limited food supply. The pygmy mammoth stood close to eight feet high at the shoulder and weighed 2,000 pounds, compared with the Columbian species, which stood 14 feet tall and weighed in at 20,000 pounds. Pygmy mammoth remains date from more than 47,000 years ago, beyond the limits of radiocarbon chronology.

The pygmy mammoth may have survived until the early colonization of the Channel Islands by the ancestral Chumash Indians approximately 11,000 – 12,000 years ago. This discovery underscores the importance of protecting unique landscapes like Santa Cruz Island,” explains Dr.

Vermeer, “not only to preserve its plants and animals, but to keep alive the amazing cultural history of the island’s Chumash Indians, who lived in an era when mammoths roamed these islands.”

The Conservancy has actively protected Santa Cruz Island since 1978. The Nature Conservancy, the National Park Service and U.S. Fish & Wildlife Service pooled their resources, engaging in an intensive, sciencebased restoration program to save the island fox and revitalize the natural communities of Santa Cruz Island. After three decades of work, Santa Cruz Island has emerged as a model for island restoration and conservation. This latest discovery was made



by Kristina Gill, an archaeology graduate student from the University of California, Santa Barbara who was working at a Chumash site at the university’s field research center, which is hosted by the Conservancy. The Conservancy has invited mammoth expert Dr. Larry D. Agenbroad, director of the Mammoth Site of Hot Springs, South Dakota, to lead the excavation of the mammoth bones, starting in late January. Once excavation begins, Dr. Agenbroad will confirm which species of mammoth it is. Following excavation, the bones will be turned over to the Santa Barbara Natural History Museum. How Did Mammoths Get to the Island? During the late Pleistocene era, the Channel Islands were part of one vast island called the Santarosae, which was located five miles from the mainland. Scientists believe that large mainland mammoths, attracted by the smell of the Santarosae island grasses, swam across the then-shallow Santa Barbara Channel to reach the large island. Centuries later the sea level began to rise to contemporary levels, isolating what are today’s Channel Islands from the mainland and stranding the mammoths. This discovery of a fully

intact mammoth tusk is extremely rare, and only a few other fossils have been found on Santa Cruz Island over the last 150 years. The last great discoveries on the island include a tusk unearthed in 1985 and a portion of a femur and a humerus found in 2005; each of these bones was from a Columbian mammoth. There have been more substantial finds on neighboring Santa Rosa Island, including a whole pygmy mammoth skeleton that was found and excavated in 1994 and the Arlington Springs man—the earliest human remains discovered in the Americas, which date back about 13,000 years.