

DVESScapades

escapades: interesting, stimulating, exciting activities and adventures



Delaware Valley Earth Science Society Newsletter **DUES are now due** **Program: December 8th**

7 pm Juniors, 8 pm adults



President's Message - Grant Elliott

This will be my last President's Message for 2010. Come January 2011, there will be a new capable person in this illustrious position. I know who it is, but I will let you find out at the December Holiday party meeting, pursuant to your approval. Bring a gift (\$10.00 or less) and receive a goody in return. Also, bring your secret recipe entree to share with all member celebrants. Remember, a good organization runs on it's belly. We should have lots of surprises in store for you. I look forward to seeing you there.

Exec. Board Meeting on Nov. 17, 2010 By Grant Elliott, Pres.& Subs. Rec. Sec.
Executive Board meeting was held at Phil Betancourt's home and Smithsonian-like repository of mineral splendors. We were treated to a guided tour (Admission was free) before our discussion of business and a wonderful buffet was provided after the meeting (Thank You Mrs. Betancourt).

ATTENDANCE: In addition to Phil, Grant Elliott- President, Lou Detofsky- 1st VP, Gary Weinstein- Treasurer/Program Chair, Terry Wilson- WebMistress, AnnLynne Benson- Special Events Coordinator, and Val Korszniak- Backup Recording Secretary were present. Grant gaveled the proceedings to order at 8:43pm and read the minutes from the October 20th Executive Board meeting. There were no objections to the contents of the reading.

TREASURER \$235.00 for liability insurance and \$134.00 for accident insurance was paid. At the banquet, 9 of 18 specimens and two T-Shirts were sold. 17 people were in attendance + speaker + one child. There was some comments of hucksterism in Henry Kennedy prior to his presentation at the banquet. Discussed bringing 50/50 back at general meetings.

MEMBERSHIP: Carol not present - (due to extreme allergy to dogs) Nothing discussed.

PROGRAMS: December- Holiday party. Val will provide a video on "Faces of the Earth". Gift exchange \$10.00 or less.

Gary is attempting to secure Derek Yoost for a 2011 presentation + Don Miller for a fossil for a 2011 presentation.

Lou Detofsky volunteered to present a program on "Geology of the Caribbean"

WEBSITE: Terry had nothing to report.

FIELD TRIPS: Ann Benson conducting trip to the Mutter Museum on Saturday December 4th

NEXT YEAR'S OFFICERS : The slate of individuals and positions was confirmed:
Terry- President, AnnLynne- 1st VP, Lou Detofsky- 2nd VP, Gary- Treasurer, and Grant-Secretary.

OTHER BUSINESS: Val initiated a discussion on diminished attendance over the years and the reasons why.

Meeting adjourned at 9:32pm

NOTE: all members are welcome to attend and insert their 2¢ for the good of the order!!!

Nov. Jr Rockhouser Meeting:

No one was in attendance. I had a n interactive presentation on bugs and leaves that I will keep for a later date.

Mil will be back for the Dec meeting.

Mil LeCompte, Jr Rock Coord. can be reached
(856)783-0960 Or
RocksAndBadges@yahoo.com

Folks, Click on this link- Grant

From: valparint@aol.com

Date: November 24, 2010 5:22:30 AM EST

To: <meteorite-list@meteoritecentral.com

Subject: [meteorite-list] Auroras and meteors

Check this out. Pay close attention around 1:25 and 2:13

**** <http://antwarp.gsfc.nasa.gov/apod/> *****

Paul Swartz> Visit the Archives at <http://www.meteoritecentral.com/mailling-list-archives.html>

Meteorite-list mailing list

Meteorite-list@meteoritecentral.com

<http://six.pairlist.net/mailman/listinfo/meteorite-list>

This space left blank waiting for your articles and photos !!

MINI MINERS MONTHLY

I subscribe to and have the right to “borrow” articles from the publication as long as I give proper credit, so, here is another article. (Note that it comes out at the end of the month so things are a little behind.) This is one such article.

“Welcome back to another fun-packed issue of Mini Miners Monthly. This issue is dedicated to “things to keep you busy.” To start things off, I wish to say “Thank You” for your participation in Mini Miners Monthly. In January we start our 5th year! Mini Miners is only worth creating because you are interested in reading and using it every month.

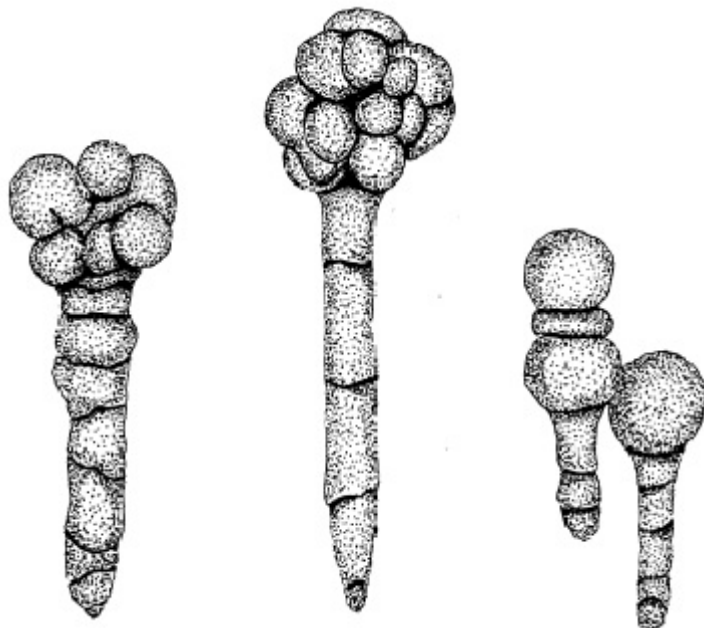
Once again, Thank You!

One of the things that I like best about minerals is that no matter how much I learn, there are always new surprises.

While doing some research for a book on minerals from California, I discovered a really strange mineral formation. Take a look at the picture on the right. These strange looking formations are made of the mineral *calcite*. The calcite grew in sand. The person who found them calls them “Sand Spikes.”

There’s more about these fascinating formations in this issue. Pg 7

It has been brought to our attention that Mini Miners Monthly has had more and more articles to read and less fun stuff to do. So, we dedicate this issue to activities. Word searches, cross word puzzles, a new mineral game sent in by one of our readers, and more items await you on the following pages. If you ever have a game that you have invented, or have any idea that would make Mini Miners a better publication, please send us an email. We’d love to publish your ideas for others to read and share.”



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Another article from the Mini Miner Monthly

Mineral of the Month

GOLD



Chemical Formula: Au

Crystal System: Isometric (Cubic)

Color: Golden Yellow

Luster: Metallic **Hardness:** 2.5 - 3

Specific Gravity: 19.3

Cleavage: None **Special Properties:** Since gold is a metal, it can conduct electricity. It is also *ductile* and *malleable*. "Ductile" means that it can be stretched into long, thin wires without breaking. "Malleable" means that it can be pounded or rolled into very thin sheets without breaking.

Uses: Gold has many uses. It is used in the computer industry to make circuit boards and other computer parts. It is used by dentists to cover broken or weak teeth (ask your relatives if they have any gold teeth!) It is used to make jewelry and special decorative items. It is used to make coins and, therefore, as a form of money. Some very special medicines have been created that contain gold; they are used to fight against some kinds of cancer.

The Golden Bear Nugget

The "Golden Bear Nugget" is a crystallized nugget of native gold that is 2 1/4 inches high and 1 5/16 inches wide. It weighs a little over 1 troy ounce. ("Troy" weight is a special system of weighing gems and precious metals. It is universally used all over the world. For our Mini Miners who know the metric system of measurements, a troy ounce is equal to 31.1 grams.)

The story about this wonderful gold nugget is not exactly clear. The story goes that a 14 year old girl picked it out of a sluice box around 1857 at the Georgia Hills Mine in the California town of Jim. She lived to be 75 years old. When she died her brother became the owner of the nugget. He had some money troubles, though, and had to borrow money from a friend. He promised that if he didn't pay the money back, the friend would get the gold nugget. Guess what? He didn't pay the money back. The friend took the gold nugget and decided to sell it; he wanted or needed the money more than he wanted the gold. In 1937 a man named Mr. C.D. Woodhouse bought this nugget for \$300. He showed it to people in the California Federation of Mineralogical Societies (the CFMS) and they decided to purchase the nugget. They bought it from Mr. Woodhouse for . . . \$300. Today you can see the Golden Bear Nugget at the Los Angeles County Museum of Natural History.



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SILICON DIOXIDE ~ SiO₂

"Silicon Dioxide" is the chemical formula for the mineral Quartz. (You knew that, didn't you?) This word search contains words that are related to quartz in one way or another. The words can go from left to right, right to left, top to bottom, bottom to top and diagonally.

C	I	T	R	I	N	E	M	O	M	W	S	C	Q	R
H	H	E	X	A	G	O	N	A	L	A	S	A	W	U
A	C	R	D	A	D	P	W	E	S	T	R	I	U	T
L	N	M	Y	Q	U	A	R	T	Z	C	R	R	I	I
C	M	O	M	S	D	L	S	H	I	H	E	N	L	L
E	W	T	A	L	O	Y	S	D	F	E	P	G	M	A
D	O	N	T	Y	H	P	G	L	A	S	S	O	I	T
O	D	I	S	T	G	H	R	Y	U	O	A	R	L	E
N	V	C	E	E	T	A	G	A	B	U	J	M	K	D
Y	T	M	V	H	O	L	L	Y	S	M	O	K	Y	F
C	A	V	E	N	T	U	R	I	N	E	J	E	S	U
O	W	Q	N	O	D	G	O	A	N	N	A	H	G	Y
L	D	E	D	N	A	B	S	C	E	P	T	E	R	F
D	H	Y	A	L	I	T	E	D	I	A	M	O	N	D
R	O	C	K	C	R	Y	S	T	A	L	D	A	N	P

Quartz, Amethyst, Smoky, Milky, Rose, Cairngorm, Rock Crystal, Citrine, Agate, Sand
Seven, Glass, Watches, Hyalite, Opal, Chalcedony,
Hexagonal, Rutilated, Chrysoprase, Jasper, Banded (a type of agate),
Aventurine, Cold, Scepter

Some of these words may be new or unknown to you. Get a good book or go to the internet and look them up. The more you know, the more you will enjoy your mineral collection.

CRYSTAL SHAPES

How many words about crystals and crystal shapes do you know? Here is another fun, fun, fun word search puzzle. All the words hiding in here have something to do with crystals, crystal forms and the science of crystallography. The words can go from left to right, right to left, top to bottom, bottom to top and diagonally.

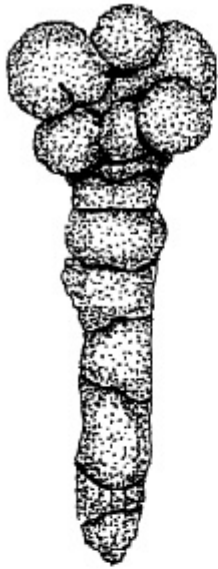
R	T	W	I	N	N	E	D	F	A	B	H	W	E	S
P	H	E	X	A	G	O	N	A	L	L	O	D	I	N
I	S	O	M	E	T	R	I	C	X	T	P	O	F	M
T	O	V	M	P	O	W	E	E	S	R	P	W	A	O
R	R	C	I	B	U	C	U	S	A	I	E	Q	A	N
I	T	F	U	N	O	W	O	W	I	G	R	E	C	O
C	H	R	O	R	T	H	O	R	H	O	M	B	I	C
L	O	O	X	E	G	D	E	B	Y	N	I	H	C	L
I	R	S	S	Z	T	S	A	D	W	A	H	J	U	I
N	H	E	C	B	O	P	L	K	R	L	C	Z	L	N
I	O	T	E	T	R	A	G	O	N	A	L	B	A	I
C	M	T	P	A	S	R	P	L	M	N	L	K	R	C
W	B	E	T	P	H	A	N	T	O	M	E	D	C	V
R	I	Y	E	R	E	T	I	C	U	L	A	T	E	D
P	C	U	R	P	S	E	U	D	O	M	O	R	P	H

Cubic, Isometric, Hexagonal, Rhombohedral, Tetragonal, Triclinic, Trigonal, Monoclinic, Orthorhombic, Scepter, Face, Edge, Spar, Hopper, Acicular, Phantom, Pseudomorph, Rosette, Reticulated, Twinned, Rhomb

Some of these words may be new or unknown to you. Get a good book or go to the internet and look them up. The more you know, the more you will enjoy your mineral collection.

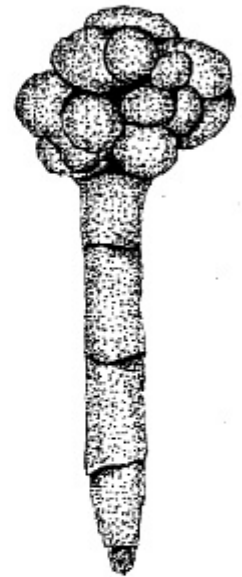
Sand Spikes

by Darryl Powell



Last month you learned a little bit about the famous sand calcite crystals that are found at Rattlesnake Butte in South Dakota. There, the calcite crystals grew in clusters in a bed of sandstone. As the calcite crystals grew, grains of sand were trapped in and on the crystals.

This month we introduce to you another calcite formation that formed in sand. Pictured here are three specimens of calcite that look like strange nails. They are not crystals. They are what geologists call *concretions*. A concretion is sedimentary material (like sand or silt) that is glued together by mineral material like calcite. Concretions are usually round or spherical in shape. They can be flat like discs or round like balls.



These concretions are called "Sand Spikes" because they look a lot like rounded railroad spikes. They were discovered near the Mexican-American border near a place called Mt. Signal, Imperial County, California by H.W. Pierce. The first specimens were found on the surface, eroding out of the sedimentary rock. It was later discovered that there were many more specimens that were anywhere from 3 to 8 feet under the surface in the sediments. In most mineral deposits, the minerals are found in random positions. However, it was reported by collectors who visited the site that most of the Sand Spikes (over 95% of them) were pointing west! Geologists and mineralogists have not been able to explain why this is so. When the sand spikes first came out of the ground,

they were damp and broke apart easily. Collectors would carefully lay them out in the sun and let them dry and harden before handling them and packing them away for the trip home.



The site where these interesting concretions were discovered is now completely picked over and there are no more sand spikes to be found. In the later days of digging, people brought in bulldozers to move the sediments. Unfortunately they destroyed hundreds of specimens in the process. If you are able to find one at a show or through a dealer, you will be obtaining for yourself a unique specimen that is no longer found in nature.

If you can find it, there was an article written by Mr. William Sanborn called "The Sand Spikes from Mt. Signal." This could be a very informative and interesting article for more information.

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.

DVESS Directory 2010	President Grant Elliott 856-728-1731 gle@verizon.net
1st Vice President Lou Detofsky "Doc Rock"	2nd Vice President Jonathan Feigin
Jr. Rockhound Coordinator Mil LeCompte 856-783-0969 works-in-faith@comcast.net Rocksandbadges@yahoo.com	Recording Secretary Richard Murray bearich@snip.net
Website Coordinator Terry Wilson 609-714-1309 terry@dvess.org	Special Events Dir. Ann Lynne Benson 856-783-0969 SeleniteQueen@gmail.com
Treasurer, Program Chair Gary Weinstein 856-795-5077 - work 856-234-0708 - home garyskyrock@hotmail.com	DVESS News Editor, Member Chair Carol De Cuzzi 856-428-0621 - home DVESS@int-pro.com or decuzzic@comcast.net

Membership Form start w/ first family member (**designated as head of family**)

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(on website)?

Okay to share _____

Do NOT share _____

Newsletter Delivery **ONLY** via e-mail

Email _____

Type of membership **Regular Membership:**
\$15.00 for the 1st family member + \$5.00 for
each additional family member
\$10.00 for the 1st Senior (65+) member +
\$5.00 for each additional family member
Dues are collected on a calendar year Jan to
Dec, no pro-rata rates

**additional family members to be registered
w/ above member**

First Name: _____

Last Name (only if different from above)

First Name: _____

Last Name (only if different from above)

First Name: _____

Last Name (only if different from above)

additional family members to be registered w/
above member

First Name: _____

Last Name (only if different from above)

additional members on another paper if needed

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

"Silver" \$50.00 for 1st family member - receive a Geode Specimen

"Gold" \$75.00 for 1st family member - receive a Native Gold Specimen

"Platinum" \$100 for 1st family member - receive a Premium Specimen

Interests: Minerals ____ Fossils ____ Lapidary ____ Collecting ____ Museum Trips ____
Trotter ____ Sterling Hill ____ other, please list _____

What NON-DVESS interests or hobbies do you have? Would you be willing to share with our
members?

Look for new application form new design coming soon.

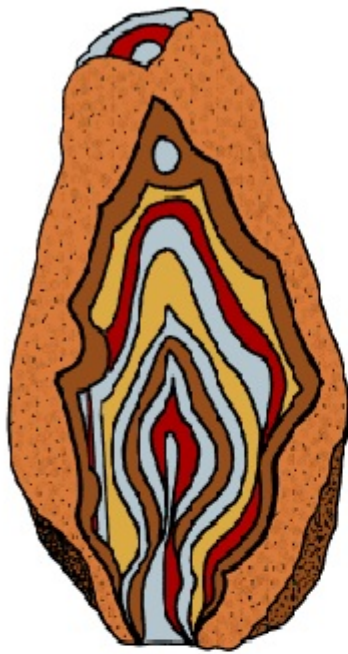
Q: What do you call a dinosaur curse? A: A Tyrannosaurus hex! From Richard Jaeger, RMFMS



**Christmas is the time when
kids tell Santa what they want
and adults pay for it. Deficits
are when adults tell
government what they want
and their kids pay for it. -**

Richard Lamm

MINERAL "PICTIONARY"™



"Pictionary" is a great game that was created by Robert Angel. A board game by this name was sold by a company called Seattle Games Inc. Here is how it works: A group of players breaks into two or more teams. Each team takes a turn selecting a card from the game. One player from that team has to draw a picture or pictures and the rest of the team members have to figure out what the drawing or drawings are telling them. Each team gets only so much time (a minute or two) to figure out the pictures.

CREATE YOUR OWN "MINERAL PICTONARY" GAME

1. Write the names of 25 different minerals onto index cards (only one name per card).
2. Place the cards in a box or hat.
3. Break your group into two or more teams.
4. Take turns reaching into the hat or box. One selected team member pulls out a card and starts drawing. The rest of the team members have to figure out what the mineral is.
5. After two minutes, or after the mineral names is correctly guessed, pass the hat to the next team for its turn.
6. The team that figures out the most mineral names wins.



WHAT YOU WILL NEED: Large sheet of paper, felt pens, a timer or stop watch, index cards, a hat or box.

Jasper in Bucks County, Pennsylvania

By Thomas Pallanta, Jr.

Bucks County is known to produce three gemstone materials. Several locations have yielded almandine garnets and zircons; however no gem quality examples of these minerals have been found here. On the other hand, Bucks County has produced quite a bit of good quality jasper.

Jasper in Bucks County ranges in color from a dark to light brown through shades of pale cream and even pink. Usually the colors of these jaspers are not uniform, but exist as a jumbled patchwork with the cream colored material predominating. In some specimens, veins of pale gray chalcedony are to be found within the jaspers. The chalcedony often fills small vugs with minute mammillary crystals. In other vugs, one can find tiny drusy quartz crystals.

Some jaspers appear yellow when first brought out of the earth, but that is usually surface discoloration due to iron oxide staining. The more rare Bucks County jasper is a bluish-green material which is quite attractive.

Thanks to Eric Brosius, Lee Tori and my own efforts I have been able to collect a small assortment of Bucks County jaspers for study. Jasper is a mineral that has a long history. In prehistoric times, it was considered to be a prime material for tool-making, because of its ability to achieve and maintain a sharp edge.

At Point Pleasant, PA on the Delaware, a combination of good fishing and a big deposit of jasper turned that location into an early American industrial site. Here, a tribe of early Delaware Indians established a permanent settlement devoted to the mining of jasper, which they turned into high-quality tools. The tools were widely traded throughout the Delaware valley.

On the northern side of Buckingham Mountain in central Bucks County, limestone quarriers found ancient pits where the local Indians dug for pale cream jasper, and nodules of black chert, which they worked for tools. The same thing happened at the VanArtsdalen Quarry in Lower Southampton Township on the Neshaminy Creek. Here, another jasper location seems to have been worked by the local Indian tribes for tools.

During my own collecting trips along local streams, I have found water worn fragments of jasper and black chert in creek gravels. These bits of jasper show signs of having been broken off from larger chunks. They are possibly the left-over scraps of ancient tool-making practices.

Although jasper is a familiar material, there is still some confusion associated with it. Jasper is a microcrystalline variety of the quartz family. As such, it has a lot of near

cousins, like chalcedony, agate, onyx, chert, and flint. Add to this, the fact that they all share the same basic physical characteristics and the confusion is all the greater.

Another source of confusion is the factor that all of these materials form under the same two basic conditions. These minerals can form in limy oceanic sediments where silica is leached out and it collects into gelatinous masses. Compression eventually turns these masses into hard nodules. The other situation occurs during the last stages of hydrothermal processes where quartz is present. Here, hot silica-rich waters fill cavities and fissures with gelatinous masses which solidify. This second process seems to have been responsible for the formation of jaspers in Bucks County.

Somewhere back during the Permian Period 250,000,000 to 290,000,000 years ago, the continent of West Africa slowly collided with Eastern North America. Back then, Bucks County was made up of sedimentary layers of shale and arkoses. The later were sands and gravels derived from the erosion of earlier igneous rocks. These arkose sediments contain hornblendes and feldspars with a predominance of quartz.

As the continents slowly ground together, the collision zone was slowly compressed into a range of mountains that stretched from pole to pole. Our area underwent powerful regional metamorphism. The shales were gradually compressed into phyllites, mica schists, gneiss, and granite gneiss, depending on the regional pressures. The arkose sediments were converted first to sandstone, and then to massive quartzites. The Baltimore Gneiss region was later intruded with bodies of igneous gabbro which was later altered into hornblende-rich mafic gneiss.

These mountain building processes created considerable hydrothermal activity with hot mineral laden waters. However, the indications are that this hydrothermal period was brief. Afterwards, cooler conditions prevailed.

It was during this latter period that the jaspers of Bucks County formed within the country rocks. My examination of the available specimens indicates that the deep brown materials formed first. Then the lighter brown materials crystallized, followed by the creamy colored jasper which is predominant. In the final phase, the pale gray to white chalcedony formed last.

As for the blue-green jaspers, I don't know enough about them and their distribution at this time to venture a comment. It is possible that the blue-green jasper is not native to Bucks County. The latter may have come here as a trade product, for I know of no specimens which were found insitu.

The change in color during formation is a classic example of the mineral leaching process. During crystallization, the higher temperature minerals (dark brown jasper) form first. This apparently leached iron out of the mix creating progressively lighter

colored jaspers resulting in predominantly pale cream jasper. In the final phase, the chalcedony had no minerals in the mix to color it.

So there is the story of Bucks County jasper. It is the by-product of massive geological forces over long periods of geologic time. As a decorative cabochon material, it may prove a challenge to the amateur lapidary.

December 16, 2010 – Fairless Hills, PA – Leidy Microscopical Society Regular Meeting at the Northminster Presbyterian Church 7:30 PM. The program will be a swap and sell and silent auction. Members are encouraged to bring in holiday dishes (see the Leidy Microscopical report) as well as items for the silent auction. Everyone is welcome.

January 29, 2011 – New Brunswick, NJ – Rutgers University Geology Department open house – mineral sales and lectures. Details will be in the January Rock Chatter.

February 19, 2011 - Upper Marlboro, MD - 21st Annual Mineral, Jewelry & Fossil Show sponsored by the So. Maryland Rock & Mineral Club. The Show Place Arena, Upper Marlboro, MD.

March 5-6, 2011 - Newark, DE - 48th Annual Earth Science Gem & Mineral Show sponsored by the Delaware Mineralogical Society. Delaware Technical & Community College, Newark, DE.

Permission is hereby granted to reproduce any of the articles in this Newsletter, so long as (1) the article is reproduced in its entirety, (2) the author of the article is credited, and (3) the source Rock Chatter is credited.

Attached is a file with an original puzzle by our esteemed puzzle maker Mr. Ed Loveland.

The newsletter is filled with lots of doing things this month for you all to enjoy.

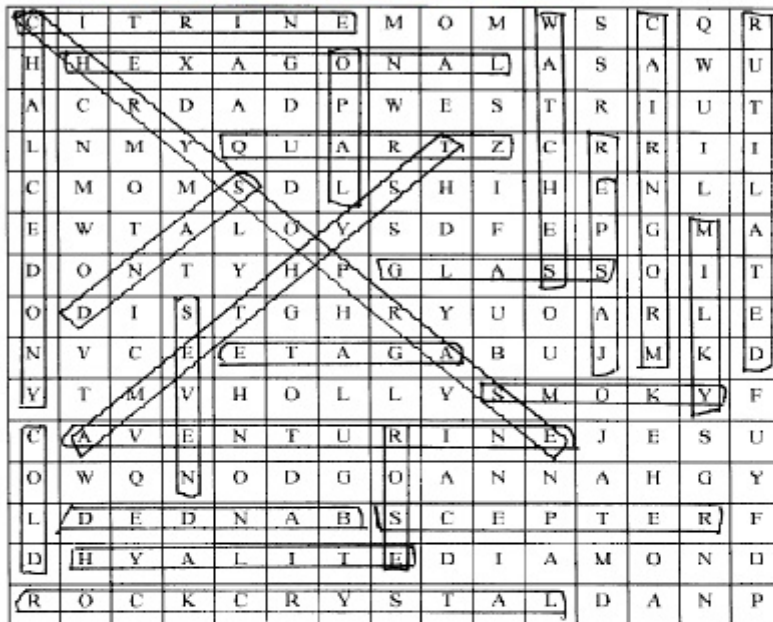
SOLUTIONS

Here are the answers to the puzzles and questions in this issue of Mini Miners Monthly.

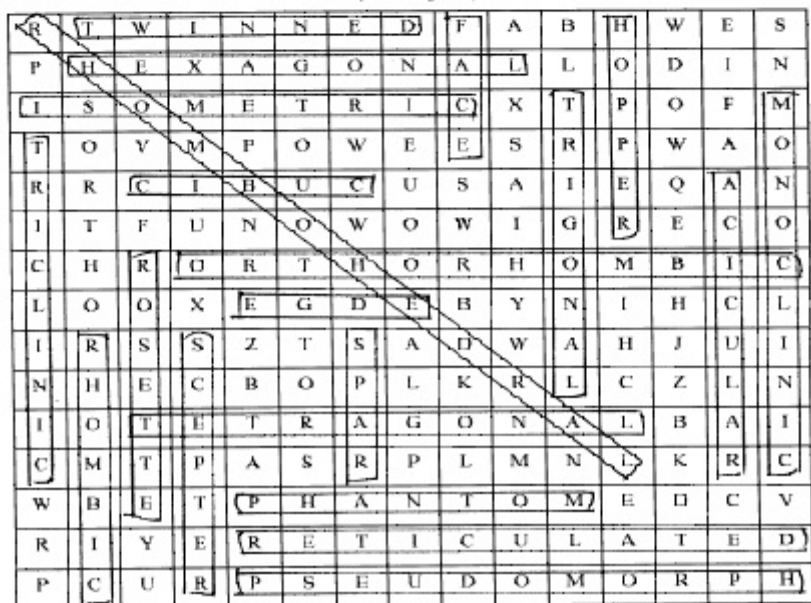
Who Am I? (from page 1) . . . Ulexite

Guess the Mineral Collector (from page 6) . . . Roy Rogers

SILICON DIOXIDE PUZZLE



CRYSTAL SHAPES PUZZLE



MINERALS FOR THANKSGIVING

This is the month for Thanksgiving here in the United States. We give thanks for the harvest, for life, for friends and family and . . . for minerals! (OK, only we mineral collecting nuts give thanks for minerals.) Here are some mixed-up mineral names. Straighten them out and then place the letters with a number under them on the line on the bottom.

Can you unscramble the "Mystery Word"?

LNAEGA

1 2

NITKYE A

3 4

VISLER

5 6

TGEANR

7 8

TLIEHA

9

ZAURTIE

10

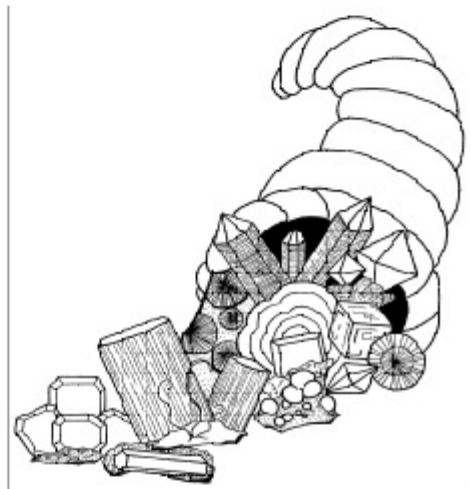
MUCODNRU

11

DDAMINO

12

1 2 3 4 5 6 7 8 9 10 11 12



Happy Thanksgiving!!

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