

# CHIP & LICK



Official Publication of the Miami Valley Mineral and Gem Club

VOLUME 49, NUMBER 1

50th Year Anniversary

JANUARY, 2003



**MEETINGS:** Second Sunday of the month except June, July and August.

**PLACE:** Small Business Development Center, 300 E. Auburn Ave.,  
Springfield, OH 45505. Phone: 322-7821

**TIME:** 2:00 P.M.  
**Guests are always welcome!**

**EDITOR:** Becky Dobbs  
2792 Greystoke Dr.  
Xenia, OH 45385

**WEB SITE:** [www.mvmgc.org](http://www.mvmgc.org)

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## *Purpose and Memberships*

The objectives of the Miami Valley Mineral and Gem Club are:

To promote interest and increased knowledge in the fields of mineralogy, geology, and the lapidary arts.

To further the art of mounting and setting stones.

To encourage the collecting, identifying and displaying of specimens in these fields.

The annual dues are \$7.50 for an individual membership, \$10 for a couple, or \$12 for a family membership.

This club is a member of the Midwest Federation of Mineralogical and Geological Societies (MWF), which is a member of The American Federation of Mineralogical Societies (AFMS).



The Editor of the MVMGC is a member of S.C.R.I.B.E.

**MIAMI VALLEY MINERAL AND GEM CLUB, INC.****2003 OFFICERS**

President	Hugh Fulton	322-1021
Vice President	Andreas Ruben	390-2081
Corresponding Secretary	Katrin Ruben	390-2081
Recording Secretary	Dick Faux	289-7032
Treasurer	Joyce Perry	372-8228
Editor	Becky Dobbs	dobbsr2001@yahoo.com
Librarian	Joyce Perry	372-8228
Curator-Historian	Becky Dobbs	372-9022
Trustee (2003)	Ginny Bignell	866-8789
Trustee (2004)	Udean Babyak	322-0443
Trustee (2005)	John Mercer	322-1768

**2003 COMMITTEES**

Anti-Litter	All Members	
Canceled Stamps	Kay Faux	289-7032
Chaplain	Udean Babyak	322-0443
Christmas Banquet	Udean Babyak	322-0443
Field Trips/ Safety		
MWF Liaison	Hugh Fulton	322-1021
Photographer	Hugh Fulton	322-1021
Program	Andreas Ruben	390-2081
Refreshment		
Scholarship	Joyce Perry	372-8118
Show Chairman	Hugh Fulton	322-1021
Spring Banquet	Udean Babyak	322-0443
Sunshine	Joyce Perry	372-8118
Swap	Hugh Fulton	322-1021
Webmaster	Katrin Ruben	390-2081

**JANUARY BIRTHDAYS**

Ginny Bignell Jan 6  
 Elsie Smith Jan 23  
 Phillip Ruben Jan 28

**JANUARY ANNIVERSARIES**

None this month



Spring Banquet... April 12, 2003    Swap Date...June 7-8 2003    Show Date...October 4-5, 2003

## President's Message

2003! Wow, can you believe it? Have you set your goals for 2003? Made all your resolutions for the New Year? Me either.

How about the Christmas Party? The MVMGC party, it didn't go as first planned, but it could not have come off any better. It was well attended. The ones who did not attend were missed. Club cooks have not lost their touch. The decorations and the take-home gifts were nice. Thanks to all for making it special.

Did you know Cincinnati has its own city fossil? The Cincinnati Dry Dredgers (who by the way are celebrating their 60<sup>th</sup> year) proposed a city fossil election. Candidates were nominated by Cincinnati Museum Center paleontologists and by the Dry Dredgers. Local collectors, interested citizens and thousands of votes from school children voted and the winner is *Isorophus Cincinnatiensis* beating out four other local fossils. *Isorophus* is an edrioasteroid echinoderm. A distant relative of starfish. It lived in the Cincinnati area during the Ordovician period, 450 million years ago. There are around 10 species of edrioasteroids found in the Ordovician rocks of Cincinnati. All of which I have yet to see. The name is Greek for "seated star."

A well done and congratulations to the Dry Dredgers. Oh, by the way, this information found in *Ohio Geology* 2002 issue #2.

Memories - I've had a few, or was that regrets? Anyway, the program for February will be a slide show of early club field trips, etc. Some members hopefully will share some of their memories.

Hugh Fulton

P.S. Hope you did resolve to attend all meetings, introduce someone to the hobby, write articles for *Chip & Lick*, display at show, make guests feel welcome.

## MIAMI VALLEY MINERAL & GEM CLUB MINUTES - 8 DECEMBER 2002

A very enjoyable Christmas dinner was held in lieu of a formal meeting in December. If you were not there, you were missed.



### January Program: Silent Auction

### February Program: Slide show of early club field trips, etc.



### February Articles   Refreshments   Display Need volunteer(s)



## UPCOMING SHOWS & EVENTS:

- MAY 2-3-4 KALAMAZOO, MI  
KALAMAZOO GEOLOGICAL & MINERAL SOCIETY GEM & MIN SHOW  
PRESENTS THE KING OF THE TYRANT LIZARDS: T-REX. A FULL  
SIZED CAST OF SUE'S SKULL      FRI 4-8   SAT 10-6, SUN 10-5
- JUNE 5 - 8, 2003 VENTURA, CA  
AMERICAN AND CALIFORNIA FEDERATIONS OF  
MINERALOGICAL SOCIETIES - SEASIDE GEMBOREE 2003
- 
- AUGUST 15-17 FLINT, MI  
MIDWEST FACETERS GUILD 14<sup>TH</sup> ANNUAL FACETERS SEMINAR  
MOTT COMMUNITY COLLEGE  
INFORMATION: CONTACT HAROLD "ARIZONA" RICE; 122 LOIS  
LAND, MTL CLEMENS, MI 48043. PACKETS MAILED UPON  
REQUEST AFTER MAY 1, 2003



## FEDERATION NEWS

MWF President Kitty Starbuck writes about the importance of communication. Let's make this a year



of communicating...pass on tips, messages, and other information that would benefit all the clubs and their members.

**ROCKHOUND OF THE YEAR** - Do your club have a member/members that you feel should be honored? This is a chance for you to recognize them for their contribution to your club. It's not hard, just send a brief (50 words) write-up with the name for the person/persons you would like to honor, and send it to: Fran Gutowski, 711 W. Summerdale, Chicago, IL 60656.

New AFMS Rules changes for 2003. New or modified rules and proposals were passed at Port Townsend. They took effect Jan 1, 2003. The supply chairmen will receive new pages for their AFMS Rules Books from Jim Hurlburt, AFMS Supply Chairman. Jim and Mary Hart are working together to update the rules on the AFMS web site.

Jeff Theroux, MWF Insurance Chairman wrote an article in the January issues of the MWF bulletin regarding Insurance coverage. For questions, contact Jeff at home: (952) 294-9904, Cell: 612-597-4635 or brief emails at work: jeffrey.m.theroux@rssmb.com

Donations to the AFMS Endowment Fund are to go directly to AFMS Endowment Fund Treasurer Toby Cozens at 4401 SW Hill St., Seattle, WA 98116-1924.

All American Club Award Program forms are printed in the January issue. Your regional chairman must receive completed entry forms by February 15, 2003. This is not a competition of one club against others. This is an evaluation of quality based on a standard of excellence. Gold, Silver and Bronze awards are granted for achievement of points in the appropriate scoring range.

*Via MWF Newsletter 01/03*



A student comes to the professor's office, closes the door, and kneels pleadingly. "I would do anything to pass this exam." She leans closer and whispers "I would do anything."

The professor returns her glare. "Anything?" he asks. "Yes, anything."

He whispers "Would you.....study??"

*From Al Cowan MVMGC, Via Surrey Rockhounder, via Nickel Basin Rockhound*



### **ELDERLY PATIENT PETRIFIED**

By Dale M. Gnidovec

The computer screen glowed in the darkened hospital room. A ghostly imaged appeared on the screen. It was roundish with indistinct lighter areas inside. In quick succession, images flashed by as the CAT scan machine "sliced" through the patient. There was no chance of saving him (or her), as death had occurred millions of years ago.

The patient being examined in a second-floor room at University Hospital was a petrified dinosaur egg from China that had recently been acquired by Orton Geological Museum. It is about the size of a grapefruit and is embedded in dark red sandstone. The shell is smooth, gray and about the thickness of a pencil lead. The egg was laid during the later part of the Cretaceous Period, somewhere between 91 million and 75 million years ago.

We don't know why it didn't hatch. Perhaps it was infertile. Maybe it became smothered by a sandstorm. Maybe its mother (or father) was killed, so there was no one around to keep it from overheating by shading it from the noon sun or keep it warm during chilly nights.

We also don't know what kind of dinosaur laid the egg, which is nearly a sphere. Such eggs are usually attributed to sauropods - long-necked, long-tailed four-legged dinosaurs commonly called brontosaurus. The attribution is based on very flimsy evidence, however. If an embryo could be found inside this particular egg, that

would go a long way to solving the mystery of its origin.

That's why it ended up at the hospital where, with technician Brenda Dann at the controls, we took "slices" of the egg in 5 millimeter increments, about like a loaf of bread. The images started out small, as just the edge of the egg was "cut." The images became larger in diameter as we moved toward the center.

We didn't find anything that looked like bones of a baby dinosaur. While that was disappointing, it was not unexpected. The embryo may have died before bones were formed, and embryonic bones are usually made of cartilage, the flexible material in your nose and ears. Cartilage does not fossilize as readily as does bone.

There will be other eggs and other fossils to scrutinize with X-rays and Cat scans. These techniques are opening a new world to archaeologists and paleontologists whose "patients" can be millions of years old.

*Dale M. Gnidovec is curator of Ohio State University's Orton Geological Museum.  
Gnidovec@geology.ohio-state.edu*



### Malachite Lovers Beware

To those of you who have heard of soaking your polished cabs in vinegar to remove epoxy, take heed. You could end up with a pretty pile of powder. Having recently polished two cabs of malachite, I put them in vinegar to remove a little epoxy, noticing a couple of hours later that the stones didn't look as bright (and they weren't). So I took a gander at ye olde rock book and sure enough, Malachite is copper carbonate ( $\text{CuCo}_3(\text{OH}_2)$ ) which as any self-respecting rockhound knows, is subject to a corrosive effect, caused by acid (vinegar) even though it is weak. Carbonate minerals, such as dolomite ( $\text{CaMg}(\text{CO}_3)$ ) or calcite ( $\text{CaCO}_3$ ) are attacked by acids and the carbonate ( $\text{CO}_3$ ) is eaten away leaving a pile of mud where your gem was hours before. So before you clean that stone, check to see if it's attacked by what you're soaking it in or you may not get to wear it.

*From Canadian Rockhound 10/78, via The Rock Collector 5/02 via Mid-Tenn Gem'ers 6/02, via Gr. Cincinnati Lap & Faceting Society 09/02*



### TIPS & HINTS

To bring out the color of chryscolla, place the piece in full strength chlorine bleach. Let it soak for as long as it takes. This works well, and brings out some great colors.

*From Al Cowan MVMGC, via The Rockpile 6/02, via The Nickelbasin Rockhound 12/02*

Lapidary Tips: When shaping and polishing your stone, do not press hard. Let the machine do the work. By pressing hard, all you do is wear out the wheels and yourself. You can also cut deep scratches in your stones that way. You have better control over your work with a light touch. Grind your stones at a high speed, sand on a medium speed, and polish on low speed.. All with a light touch.

*From Glacier Gravel 12/00, via The Show Me Geode 07/02, via Quarry Quips 8/02, via Gr. Cinti Lapidary & Faceting Soc 09/02*

Shop Hint: Having trouble getting your specimens clean to see what you really have? After trying your normal solutions, try a regular automatic dishwasher compound such as Cascade. Soak for a day or so in a concentrated solution. Rinse with clear water.

*Via ACHATES 09/02, via Rock Chip Reporter, via Rock Talk 02/02*



Something to make you laugh:

A woman walked into the kitchen to find her husband stalking around with a flyswatter. "What are you doing?" she asked. "Hunting flies," responded. "Oh, getting any?" she asked. "Yep, 3 males, 2 females," he replied. Intrigued, she asked, "How can you tell?" He responded, "3 were on a beer can, 2 were on the phone!"

*Submitted by Al Cowan, MVMGC from a local Seniors Retirement Centre - no credit given.*

## RAINFORESTS OF THE WORLD, ANCIENT AND PRESENT

When it comes to the fossil records of Colorado, many people can't see the forest for the trees. That is, so many people are focused on Colorado's dinosaurs, they miss out on the records of the state's ancient environment.

Dr. Kirk Johnson, a curator of Paleobiology at the Denver Museum of Natural History (DNMH), has spent much of his life collecting evidence of fossil rainforests, and shared his knowledge with Gates Club members at the October (1997) meeting.

Modern rainforests have a shared vocabulary according to Dr. Johnson. Brazil, Zaire (the Congo), Indonesia, and Southeast Asia all have areas of rainforest along the equator, where the temperature is a steady 80 degrees year round. Since the climates are similar, the forests have many common elements. One such element is large trees with buttressed trunks. One kapok tree, photographed on one of Dr. Johnson's trips, had a buttressed base of 93 yards, and was 200 feet tall. The kapok tree is also known as the silk-cotton tree, its fibers used during World War II to stuff life jackets.

Vines are another common element of rainforests. The strangler fig vine will grow in the top of a tall tree, while the vine roots grow 150 feet downward to the ground, strangling the tree trunk, until the tree will rot, and only the vine is left. The rattan palm., from which rattan furniture is made, has no tree at all: just a vine-like root, and fishhook tendrils that dig into the host plant. Rainforests also have unusual plants, such as the Amazon water lily. The lily leaf grows from 5 to 6 feet in diameter, and the flowers open only at night to permit pollination. The cycad plant also grows in the rainforest, although they are rare. There are only 100 kinds left, all characterized by short, stumpy trunks, and long palm-type leaves.

Rainforests have great species diversity, animal and plant. But where species vary, rainforest leaves are all much the same: long oval-shaped, bug with extended drip tips for

drainage. Smooth-edged leaves indicate a warmer forest, while jagged-edged leaves indicate cooler forest. Dr. Johnson says that leaves can be used as thermometers; just gather a large sample of leaves, sort them into piles, separating the jagged edges from the smooth, and calculate the percentages. He can do the same thing with fossil leaves. Dr. Johnson has been to greater than 730 fossil sites, looking for biological evidence to help identify ancient environments.

Fossil leaves are very fragile, and must be gathered very carefully. Unlike bones, leaves will dry up and blow away on exposure, so they must be stored quickly. Fossil leaves are usually found pressed between layers of sediment rock. Once found, they are wrapped quickly in toilet paper, then newspaper, then boxed for transport. How many leaves does Dr. Johnson need to calculate the prehistoric environment? He needs between 300 and 500 in a modern forest, and the same for a fossil forest. These should be well-preserved, full leaves, not just parts. Some leaves from the Eocene epoch (approximately 58 million years ago) are so well preserved that the details of the veins show. A modern 50 foot tree may have as many as 99,254 leaves (as counted by Dr. Johnson in his college days), so an acre of deciduous forest may produce 10 million leaves yearly. While good fossil leaves are necessary, the real prize is a botanical attachment; that is, leaves with flowers attached to a branch. Otherwise it's a jigsaw puzzle deciding what leaf goes with what tree, what flower or pod.

The Eocene fossil rainforests of Wyoming had temperatures of 70 to 75 degrees. Not tropical, due to their distance from the equator, but warm, since the Eocene epoch had no polarized caps. Interestingly, fossil trees from this period rarely have growth rings, similar to current rainforest trees, because there is no growth season, just one continuous growth cycle. The Wyoming Buck Springs site, east of Shoshone, west of Casper, has yielded: 4 and 5 star fruit of the Sloanea, a plant found in modern southeast Asia; turtles; a small primate with

opposable thumbs; crocodile skulls 1 1/2 feet long; and little skulls the size of a nickel, similar to modern bush babies, small nocturnal, arboreal primates. The Wyoming site was used as a model for dioramas in DMNH's Prehistoric Journey.

- When building Denver International Airport, workmen found fossil palm leaves. Current construction in the Denver Basin has prompted many calls to the museum reporting finds. Several years ago one of the best fossil rainforest sites in the world was discovered in Castle Rock. The site is an outcrop of cycad and leaf-bearing mudstone. Dr. Johnson has been digging there since 1994, and so far has found greater than 40 brand new species. The leaves are actually still there, and great care is taken to preserve them. He has also uncovered a fossil plant: a new species of cycad, complete with trunk, leaves, roots and seedlings. This is the only known cycad seedling fossil in North America. Thanks to Dr. Johnson's efforts, the DMNH has one of the best fossil leaf collections in the world.

- One of Dr. Johnson's goals is to reconstruct the Parker forest. Parker wood has never been studied scientifically, but the fossilized wood appears to be that of a flowering plant, not a conifer. For a scientific study, he needs a fist-sized chunk of wood, with strong cell structure, not agatized.

- *Written by Marty Parks Frey, for The Gates Rockhound Bulletin 11/97, via Glacial Drifter 05/99 and The Lithnics 7/00, via The Chiseler 12/02*

## MOUNTAINS, ROCKS SAND AND SILT

The processes of weathering and erosion are constantly wearing bedrock, uplifted by geologic forces, away. Rock fragments are transported by gravity, wind and especially by water and are continually shaped into smaller and more rounded particles. Boulders, cobbles and large pebbles are found in swift-flowing streams close to the mountains, which are the source of both the rivers and the rocks. Smaller pebbles, sand

and silt are found in swift-flowing streams close to the mountains, which are the source of both the rivers and the rocks. Smaller pebbles, sand and silt are found progressively farther away from their sources.

### ROCK TYPES:

**Granite:** Igneous rock, composed of the mineral quartz, feldspar and mica. Look for coarse, intergrown, light-colored mineral grains. Can be pink, gray or white.

**Lava:** Igneous rock erupted from volcanoes. It can range from black (basalt) to dark gray (andesite) to light gray or white (rhyolite). Look for fine-grained gray to brown to black rock, which may contain small crystals or gas bubbles, or both.

**Gneiss:** Metamorphic rock, which is layered or banded, sometimes folded. Formed from mixtures of sand, shale and other types or rock; its layers can be gray, white, pink, or black in color.

**Sandstone:** A sedimentary rock, composed of sand grains. It feels rough, like sandpaper, and can vary in color from white to gray, yellow, red and brown.

**Petrified Wood:** A fossil, found in sediments or sedimentary rocks. It often shows the grain structure of wood, but is very hard because it has been replaced by silica (quartz). Often colored brown, yellow, or red by iron oxide.

**Quartz and Quartzite:** Quartz is a mineral, and quartzite is a hard metamorphic rock composed of nearly pure quartz, produced from sandstone by heat and pressure. Quartzite can be white, gray or mottled with darker colors.

The rocks found in a streambed are representative of the hardest rock types in the stream's drainage basin. As the rocks are transported downstream, they become smaller and more rounded, until they ultimately become worn down into particles of sand, silt or clay. Rocks such as sandstone, limestone, lava, although they appear hard, are easily abraded and broken apart and are found only in streams

very close to a bedrock source. Most streams contain cobbles and pebbles of only the hardest rock types exposed in the mountains, such as granite, gneiss and quartzite.

#### SIZE CHART OF SEDIMENT PARTICLES

NAME	SIZE (metric)	SIZE (inches)
Boulders	>256 mm	>10 inches
Cobbles	64-256mm	2.5-10 inches
Pebbles	2-64 mm	.080-2.5 inches
Sand	1/16 - 2 mm	.0025-.08 inch
Silt	1/256-1/16 mm	.00015-.0025 in.
Clay	<1/256mm	<.00015 inch

Cobbles + pebbles = gravel

Silt +clay = mud

*Via CSF Natural & Cultural Resources 09/00,  
via Rock Pickings, 10/02*

BECKY DOBBS - EDITOR  
2792 GREYSTOKE DR.  
XENIA, OH 45385

SAVE COMMEMORATIVE STAMPS