

THE ROCKHOUNDER



THE REGULAR MEETING of the Gem, Lapidary, and Mineral Society of Montgomery County MD., Inc. will next be held on Monday, September 11 in the dining room of the Rockville Senior Center, 1150 Carnation Drive, in Rockville. **THERE ARE NO MEETINGS DURING JULY AND AUGUST.**

THE BOARD OF DIRECTORS Will meet on Monday September 18 at 7:30 PM at the home of David and Nancy Ballard. Any member is welcome to attend but please let Nancy know if you plan to attend.

ROSTER UPDATE Welcome new members:

CULBERSON, John, 3615 N. Albemarle Street, Arlington VA 22207-4335, 202 225 9733,
jac@culbersonforcongress.com
JONES, Bill & Tara, 9505 Emory Grove Road, Gaithersburg MD 20877-3501, 240 631 9436
Tyler 12/03 LS1camaro@comcast.net
BECKER, Larry and Joyce, 17712 Shady Mill Road, Derwood MD 20855-1026, 301 926 2139,
joycedbecker@aol.com

Changes:

LUPULOFF, Harry & Elese, 14005 Gray Birch Way, Rockville MD 20850-5455, 301 309 1801,
Zachary (8/96) Harry: harry.lupuloff@pentagon.af.mil Elese: elupuloff@comcast.net

Other Changes:

RITCHIE, LOIS Delete phone 301 869 5185 disconnected.
WINGARD, Jennifer & King Joshua, 406 E. King St., Gordonsville VA 22942-9126, 540 832 5195,
j.wingard@earthlink.net. Back-up E Mail: XTLRESEARCH@YAHOO.COM

DUES are due by September 1st. Single membership is \$15 per year, Family membership (Which is defined as up to 2 adults and children under 18 years of age) is \$20 per year. We pay \$1.25 dues for EFMLS/AFMS, and about \$3.15 for insurance for each member over 10 years of age so when renewing, list only those interested in taking part in Society activities. Send to Membership Chairperson Frances Gallegos, 4003 Jeffry St., Wheaton MD 20906-4228, 301 949 7238. She will mail your membership card(s) back to you if you send her a self addressed stamped envelope (SASE), otherwise you may pickup your card(s) at the September regular meeting.

HOPE DIAMOND Dr. Richard Kurin of the Smithsonian Institution has authored yet another book about this famous gemstone titled "Hope Diamond, The Legendary History of a Cursed Stone". It is Published by Smithsonian Books/Harper Collins, and was released May 9, 2006. It examines the historic biography of the stone. It is said to be adventuresome, carefully researched, and well written.

Geology produces major changes. Q. What did the oceans say when they hadn't seen each other in years? A. Long time no sea.

DEADLINE for the September Rockhounder is August 28, 2006

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ENJOY!	

HAPPY BIRTHDAY **July** Patricia Carter, Jim Durburow, Heather Felsen, Jonathan Harris, Dave Johnson, Myles Koby, Dayananda Kulathunga, Andrew Mays, Steve McElravy, Christian Michaelis, Tim Morgan, Barry Remer, Julianne Remer, Dee Williams.



August David Ballard, Larry Campbell, Lisa Carp, Michael Ciletti, Jacob Harris, Norma Irby, Harvey Lindenbaum, George Loud, Elese Lupuloff, Zachary Lupuloff, Dale Madden, Marlene O'Callaghan, Joel Rosen, Nancy Shinowara, Cynthia Tihomirov, Zina Tihomirov, Allesandra Winfield



REGULAR MEETING MINUTES: Minutes were not received so these are from notes by your Editor. The June 12, 2006 meeting was called to order by President, Scott Braley, at 7:50 PM. About 36 persons attended. He reported that Juan Proaño, who had to leave due to illness, said the Society accounts are in good shape. Wendell Mohr mentioned that the Kenneth Carter Family were returning members, not first time new members per information from Nancy Ballard. He announced a show of Indian Turquoise at the Indian Craft Shop, Department of the Interior, NW, DC would continue until June 30. He reported a GIA Symposium Aug 27-29 in San Diego CA. and spoke of a June 22nd talk by Richard Kurin at the National Museum of Natural History about the Hope Diamond. Tickets are free but required. He moved that Bill Jones and John Culberson be elected to membership, which was seconded and approved. He reviewed upcoming G&M Shows (See p.9), spoke about Audubon Naturalist Society summer camp August 7-11 for 3rd and 4th graders, Clearwater Nature Center Classes on jewelry making and cabochons in June, July, and August, and called on visitor, Betsy Taylor, Brookside Nature Center naturalist, who spoke about a program July 11-14 titled "Rockin' Geology" for ages 11-14 (Same as the dates!) involving day field trips from Brookside Nature Center. Applications for the September 11-17 Wildacres Workshop are available. Vice President Rod Towers gave a very informative talk and slide show about Pleistocene Vertebrate Fossils which included some from 30 miles N. of Corpus Christi TX and the La Brea deposit and the George C. Page Museum in Los Angeles CA. His knowledge is vast and he spoke without notes of any kind! He responded to many questions. After a short break the meeting reconvened at 9:20 PM. Scott introduced guests Joyce and Larry Becker who applied for and were unanimously elected to membership, John and Marshall Statko, and Betsy Taylor. He announced that field trips are listed in the June Rockhounder and asked if anyone else as going on the planned Mont St. Hilaire trip to the Montreal Quebec area. (None were). He noted that the June 3rd Pinesburg Quarry trip was unsuccessful because no one from the quarry was there to open it for collecting. He said they would try to reschedule the trip. Scott himself will be going to the Poland Mining Camp in ME in mid-July. Dates are not yet firm because of is household move but he invites others to accompany him. George Durland noted that the Franklin NJ show is on the same weekend as the Gem Cutters Guild show at the Howard County Fairgrounds. The Society desperately needs a Show Chair for 2007. PLEASE, someone, volunteer! Specimens were for sale which were donated by Jennie Smith (And Paul), proceeds to the Society. Free specimens for anyone wanting them were courtesy of Scott Braley. The meeting was adjourned at 9:44 PM. Custodian says Thanks!

JUNE SHOW TABLE:

* = Self collected or made

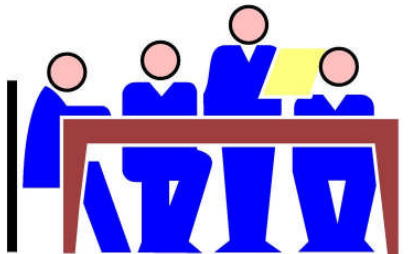
- Scott Braley: Aquamarine*, Mt. Marie, ME, Grossular Garnet*, Pitts-Tanney ME.
- George Durland: Wollastonite (Fl. Orange-Yellow, under short wave) Sterling Hill Mine, Ogdensburg NJ.
- Heather Felsen: Amazonite and Amethyst*, Moorefield Mine, Amelia VA, petrified wood, locality unknown.
- Chris Herbstritt: Stromatolite Fossil*, Knobbly Mountain, WV.
- Zachary Lupuloff: Quartz crystal group, locality unknown.
- Chuck Mason: Quartz crystal*, Wurtenbaker Hill, Frederick County, MD.
- Wendell Mohr: Fluorite, Peru
- Nancy Shinowara: Copper ore, Upper Peninsula, MI.
- Michael Tihomorov: Tochilinite, Hunting Hill Quarry, Rockville MD.



JUNE PRIZES: Junior Prize: Calcite, Marmora, Ontario, Canada, was won by Matthew Hyland. Prize for the Show Table: Calcite from Medford Quarry, Westminster MD (Donated by George Reimherr. Thanks George!), won by Michael Timomirov. General Door Prize: Calcite, Miliken Mine, Sweetwater, Reynolds County, Missouri, won by Zachary Lupuloff. Zachary also won the Junior prize in May, when he was first a new member. How about buying a lottery ticket for me Zach?

BOARD MEETING MINUTES: Minutes were not received so these are from notes by your Editor. The June 19, 2006 Board meeting, held at the home of the Ballards, was called to order at 7:39 PM by President Scott Braley. Board members present were Scott Braley, Frances Gallegos, Wendell Mohr, Juan Proaño, Rod Towers, and Bob Winfield. Members present were Dave and Nancy Ballard. Scott Braley discussed the progress on a Society web site by Jonathan Harris. The board unanimously passed a motion authorizing the expenditure of \$8 per month for web hosting, to be paid for one year in advance, at "Blue Host" and obtaining a domain name.

Attempts to obtain a new Show Chairman have, so far, been unsuccessful. The dates for the 2007 show are not yet resolved. The Fairgrounds assigned our normal date to another group. Juan Proaño contacted the Fairgrounds and the person responsible did not resolve the issue and is going on vacation for a week. Nancy Ballard gave information to Juan for contacting the Chairman of the Board of the Fairgrounds, which Juan will do after contacting the supervisor of the non-responsive employee. Some inquiries will be made to consider other venues. Wendell volunteered to find out information on the GLMSDC new show location.



George Durland reported on the progress of the Society becoming a 501-C-3 private, non-profit organization under IRS regulations and said that 15 pages of narratives are completed but he still needs to get details on past gifts of property. He has not sought legal advice to this point.

Rod Towers stated that a September program has not yet been scheduled.

Scott Braley told of going to the Poland Mining Camp in ME this summer, where members are welcome to join him. They can contact him for details.

Treasurer Juan Proaño reported current financial numbers. Details are available to members upon request. Some unused checks for the Montgomery Area Science Fair are yet to be returned to the Treasurer.

Wendell Mohr said that he has turned over show publicity material to George Durland. It is essential for publicity that the exact show date be set. New membership application forms, revised as discussed at the last Board meeting, were copied and given to Frances Gallegos for use. Bob Irby reported by E Mail to several people that there is now an abundance of tumbled stones for use in junior activities at the show, as a result of material from the estate of Mr. Rubin.

George Durland reported that he has called Jeffrey Post, but has not yet heard back, in regard to our Society's donation of money for specimens for the Natural History Museum. George has written up an "Each One Teach One" award recommendation for a Society member, the contents of which will be made public upon announcing the award to the person. Wendell agreed to handle another gift and citation for another Society member for meritorious service, also to be made public later.

Specific arrangements for Alison Post, Science Fair winner, to give a brief talk to our club on her project, are being handled by Jennifer Wingard. Evidently Scott Braley and Anita and John James are the only people known to be going to the field trip to Mont Saint Hilaire on July 1st.

The meeting was adjourned at 8:30 PM.

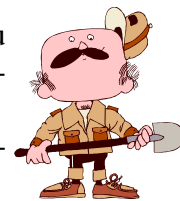
WILDACRES WORKSHOP Registration forms for the September 11-17, 2006 are available from Scott Braley or your Editor

☺ Mineral collector to a long-distance telephone operator: "I'm going to the Denver Gem & Mineral Show. Could you please tell me the time difference between Denver and Rockville MD?" Operator: "Just a minute....." Collector: "Thank you," and with that he hung up.

FIELD TRIPS

There are no trips currently scheduled for July or August. Too hot in the local quarries! If you take a personal field trip this summer, we would like to have you share details about your experiences. Send your write-up to the Editor for publication.

September 24: Open house at Meckley Quarry, Mandata Pennsylvania. Noon to 5 PM. Children permitted only if accompanied by an adult. More details later as they become available.



Here is an interesting sounding article, where you may want to try YOUR luck collecting:

GARNET HILL IN RALEIGH NC The World's Largest Source Of Gem-Quality Garnet Stones, And They're Free! At a location on a main highway public right-of-way at the northern edge of Falls Lake Reservoir, just north of Raleigh, North Carolina, is a road cut which has exposed the world's largest source of gem-quality (Almandine variety) garnets. They are free for the picking by anyone. Literally billions of carats of perfect and near-perfect dodecahedral semi-precious gems are just waiting to be patiently worked by hammer and chisel from the tightly layered mica schist matrix. Or, if you want to wait until after a heavy rain, thousands of carats' worth are routinely exposed after erosion weathers some of them free.

When old NC Highway 98 was moved and the roadbed re-cut because Falls Lake was being built, it exposed this huge vein of garnets. Nearby, there is a road called "Mica Mine Road". This face cut is part of the same huge ore vein which supplies the nearby mica mine.

The garnets' beautiful deep purple color is obvious even in their rough and unpolished state. Their perfect crystalline structure in roundish dodecahedron form is equally obvious. At Garnet Hill, all one has to do is carefully look for the garnets, and literally pick them up off the ground.

Carat sizes of the individual garnets range from 1/100th of carat, pinhead size, to some as big as 30 or 40 carats, small marble size. Most stones are in the 1-to-10 carat range, usually big enough to be polished and mounted in jewelry. Speaking of which, polished garnets are pretty to look at, but have never been expensive to buy. When this site opened up, it drove their wholesale price down to next-to-nothing. Please, don't think you'll find anything more valuable than a free souvenir of the first time you went rock hounding. You can buy cut and polished ones from ads in rock hounding magazines actually cheaper than you can collect some of this site and then pay to have a lapidary polish them for you. But there is a certain satisfaction about having a nice ring or brooch that you can point to and say "I found that stone/those stones myself!"

Here are the two main ways to get to the site:

1. From Highway 70 Business/Glenwood Avenue in Raleigh, take Highway 50 North (Creedmoor Rd.) to the Highway 98 interchange, then go east exactly 6.7 miles on Highway 98 East. You'll cross water from Falls Lake exactly three times, and look for the cut face on your left.

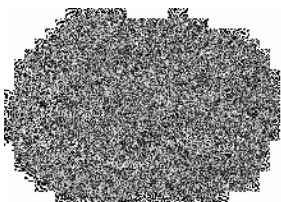
2. From US 1 North in Raleigh (Capitol Blvd.), drive north like you're going to the Town Of Wake Forest, exit right at the Highway 98 interchange, make a left at the bottom of the ramp, and go exactly 1.9 miles, the cut face will be to your right.

At the site, you'll see shallow trenches where many before you have dug into the hillside. The rock face itself is reasonably steep, maybe a 45 degree angle or greater, so do wear hiking boots if you have them. Tennis or boating shoes will also work fine for hiking the few feet up the slope.

You may park on the shoulders on either side of the road. I always park across the road from it, the shoulder is wider there, and isn't as muddy. If you don't have a geologist's hammer and a small, thin, sharp, steel cold chisel to break the garnets free with, an ordinary hammer and a flathead screwdriver will work fine, though you will probably ruin the screwdriver's flat point doing so, so don't use a real expensive one. I would look around for some loose ones first, the "Easy pickings", before I'd start the tedious process of trying to free them from the schist.

No one to my knowledge has ever been hassled by Dept. Of Transportation crews or law enforcement types for collecting these garnets, since the site is on a public right-of way and is very well-known. I wouldn't recommend, though, that you use power tools or dynamite to free the stones from their mica host, since that might get someone's unwanted attention!

By H. Kent Craig From MAGMS Jan 2006



SAFETY FIRST—SUN AND HEAT SAFETY (Excerpted)

By Bill Klose, EFMLS Safety Chair



Now that the warmer weather is with us, so are the dangers associated with sunlight and hot temperatures. Excessive exposure to the sun can cause sunburn, premature aging of the skin making it appear leathery, rough, and wrinkled, and long term risk of developing skin cancer.

Eye exposure to Ultraviolet rays can cause cumulative destructive changes in the structure of the cornea and lens. Visible light, if not too intense, can cause eye strain, headache, and destruction of retina tissue. Infrared radiation transmits heat to the eye causing discomfort and if prolonged can contribute to the development of cataracts. Sunlight reflected from sand, leftover winter snow, or water can also cause damage to the eyes and skin.

To avoid exposure to the skin wear long sleeves and pants (Not shorts) of dense cloth, hats, sun glasses with UV protection, and non-allergenic waterproof sun screen with a Skin Protection Factor (SPF) of at least 15 on the remaining uncovered skin. Re-apply the sun screen every two hours. Protect your skin and eyes even on cloudy days which can be when you receive the worst exposure. UV damage can be more severe at higher elevations where air is thinner and filters less out of the sunlight. In exceptionally hot parts of the country, such as the desert southwest, avoid exposure to the sun between 10 AM and 3 PM when the sun's rays are the most intense. Some newspapers and radio/TV stations forecast a Sun Intensity Index with the weather which tells you how many minutes it takes for unprotected skin to redden. This time is then multiplied by the SPF of your sun screen to give you an estimate of how long you can delay becoming sunburned. If the index is not available and you usually sunburn in 20 minutes, then multiply by the SPF (for example, 15) of your sunscreen and you will obtain the amount of time you should be protected (In this example 300 minutes or 5 hours) from sunburn.

Recent studies have shown that sun screen does not protect against skin melanomas, a serious form of skin cancer, and that sunburns can lead to skin cancer 10 to 30 years later. Do not believe the myth that a sun tan will protect your skin from sunburn.

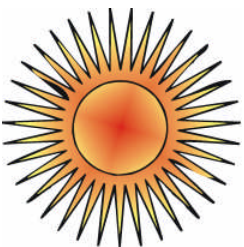
The core of the human body works at an optimum temperature of 98.6° F Plus or minus 1.8° F. (Internal organs and cavities, not skin). Heat cramps, heat exhaustion (Also known as heat prostration), and heat stroke may occur if the core temperature rises above this value. A person's ability to think and reason may also be impaired. Decreasing activity, temperature, the amount of radiated heat, and increasing evaporation rate will all contribute to the decrease of core body temperature. This means that staying out of direct sunlight and heat or taking frequent breaks in a shady, cool, or air conditioned place will decrease the chances of developing heat disorders. The intake of fluids, especially those containing electrolytes, such as sports drinks, will also help the body control core temperatures. In hot humid weather, especially above 97° F., it is best to stay indoors and avoid all strenuous activity, as the body can not sweat enough to properly lower core temperature.



Heat cramps can be caused by muscle exertion during hot weather and are characterized by sudden severe cramping of the skeletal and abdominal muscles, excessive sweating, and thirst. If you should suffer these symptoms, rest in a cool spot, take a drink containing electrolytes, and massage the cramped muscles.

Heat exhaustion or prostration, is caused by the body running out of electrolytes and/or water. The symptoms may include profuse sweating, with pale moist cool skin, headache, weakness, dizziness, loss of appetite, heat cramps, nausea (With or without vomiting), urge to defecate, chills ("Goose flesh"), rapid breathing, tingling of the hands and/or feet, dehydration, a low grade fever (99 to 102° F.), and confusion.

Heat stroke is caused by profound disturbance of the body's heat regulating mechanism due to prolonged exposure to the sun, high temperature, high or low humidity, and lack of air circulation. Symptoms include red (Flushed) dry skin, headache, dizziness, nausea (Stomach pains), confusion, weakness, loss of consciousness, convulsions, weak and rapid pulse and breathing, a high fever (104 to 106° F.), and low blood pressure due to shock.



To treat heat exhaustion and heat stroke, move the victim to a cool spot (Air conditioned and with a fan if possible), lay on the back with legs elevated, loosen tight clothing, and place cold compresses on the forehead, neck and underarms. Water can be sprinkled on the victim, and if conscious and not vomiting, one teaspoon of salt dissolved in a quart of water can be administered by mouth at the rate of 4 ounces every 15 minutes. If symptoms persist or the victim is unconscious, seek medical attention or transport to a hospital immediately while continuing treatment.

LIBRARY The final Society library contents are listed here for you to see. You can ask the librarian, Jonathan Harris, to check out any of the items listed. Call Jonathan at 301 545 0808 or send him an E Mail at <jgharris7@comcast.net>. If the library is not more extensively used, we will get rid of it!

Geology	The Big Five (Rivers)
	The Geology of Radon (USGS)
	The Great Salt Lake
	The Mineral Industry of Maryland
	Tree Rings: Timekeepers of the Past
	A Brief History of the U. S. Geological Survey
	Denver's Geologic Setting
	Geologic History of Cape Cod, Massachusetts
	Geologic Time
	Geology: Science & Profession
	Pennsylvania Geology
	Plain Geology
	The Exclusive Economic Zone: An Exciting New Frontier
	U.S. Geological Survey: Earth Science in the Public Service
	Glaciers: Clues to Future Climate?
	Glaciers: A Water Resource
	Permafrost
	The Great Ice Age
Gold	Gold (USGS)
	Gold in Maryland
	Prospecting for Gold in the United States (USGS)
	Marking of Jewelry and Novelties of Silver
Marine Geology	Marine Geology (USGS)
	Why is the Ocean Salty?
	Steps to the Moon
Volcanoes	Man Against Volcano: The Eruption on Heimaey, Vestmannaeyjar, Iceland
	Volcanic Hazards at Mount Shasta, CA



APPOINTMENT: Congratulations to Inga Wells, Society member, also belonging to clubs in PA & NY, who has just accepted the Chairperson's position for the Conservation and Legislation Committee of the EFMLS. Member George Loud handled this function for many years. She plans to inform and educate legislators and us on issues involving balance between conservation and preserving the opportunity to collect on Public and private lands

LARGEST TANZANITE ROUGH EVER FOUND. TanzaniteOne Ltd., a British and Australian-funded mining and marketing operation, announced last August the discovery of the world's largest piece of rough tanzanite. The rough was taken from its Merelani Tanzanite Mine in Northern Tanzania and weighs over 3 kilograms (16,839 carats). The discovery was made 270 meters underground at the company's Bravo Shaft, the southernmost shaft of TanzaniteOne's license area. At 16,839 carats and measuring 22x8x7 cm., the rough tanzanite piece is impressive in both size and structure. The piece has been named "The Mawenzi" after Kilimanjaro's second highest peak. Ian Harebottle, TanzaniteOne's President and Chief Operating Officer commented "We were reluctant to name it Uhuru, after Kilimanjaro's highest peak, on the off chance that a larger piece is ever found." No value has as yet been placed on "The Mawenzi". TanzaniteOne's experts plan to carefully analyze and evaluate the piece before any final decision is taken on the possible cutting and polishing of individual tanzanite gems from this crystal. TanzaniteOne is considering putting the stone on show for a period before cutting and polishing begins in earnest. Ami Mpungwe, TanzaniteOne's Deputy Chairman further commented "This really is a sizeable stone, comparable to what the Cullinan Diamond is to the diamond industry. It is only fitting that "The Mawenzi" is cut and polished here in Tanzania. We expect to produce some truly exquisite gems from it, some of which we will put on display at Tanzania's National Museum. From The Vug, September 2005

MORE OF 1998 Continuing through the year's archives I found that at the June meeting Mike Ellwood reported on a field trip he'd made to Aurora NC in May. Despite emphasis that the weather was HOT, Mike said some unusual fossils had been found. He didn't indicate that he was one of the lucky finders but said that a professor from Duke University had found a mastodon tooth with the jaw attached. The specimen later



was donated to the Smithsonian. At the same meeting, among the guests present was Lois Ritchie who, after meeting the stringent requirements for membership (Payment of dues and one meeting attendance), was unanimously voted in.

Nancy Ballard reported that the world's largest faceted gemstone, a golden topaz named The American Golden, had been placed on display in the Smithsonian's Hall of Gems among the other gem giants. The stone had been donated by various members of the AFMS who had raised \$40,000 to cover its cost. Subsequent to a month's showing in DC, the stone was to make a circuit of the major shows during the ensuing year. Taking into consideration the rate of inflation during the past 18 years, I wonder what its worth would now be? An article about the topaz appeared in the August issue of the Smithsonian Magazine, and Fred Schaefermeyer wrote one that was included in the September issue of Rocks and Minerals Magazine.

Dian Beckman reported she and 13 others went to Rockville quarry July 17th with good results despite so much heat that no one stayed until the 4:00 PM deadline. Temperature outside "The Hole" was close to 100° F. in the shade, so one can only guess what it was inside. I bet more water was imbibed than was used to wash specimens, an advisable thing to do. Perhaps rock hounds should be added to the old song about mad dogs and Englishmen going out in the mid-day sun.

The major Society activity of the summer was the acquisition of a new trailer to house our show equipment. Dave Ballard, Larry Harrison, and Morse Kretzing spent the morning of July 30th transferring the stuff from the old to the new trailer, completing the job before the heat of the day hit them.

Normal routine returned with the meeting September 19th. Dave Ballard described a visit made to Harvard University's Mineral Museum exhibits (Good specimens but nothing spectacular), and Jerry Hecht told of a very large trilobite he and Anabel had found in Newfoundland. New junior member Berlin Ritchie Jr. had won First Premium for a rock and mineral display in the 4-H section of the Montgomery County Fair in August. The evening's speaker was Dr. Gene Tolbert, at the time, an independent consultant involved in exploration in Brazil. He had led a team that found the largest iron deposit in the world (Six miles long, one mile wide), and told of the difficulties encountered. In addition to the iron, an estimated billion ton deposit of copper had been found, plus large quantities of other minerals. The meeting had been preceded September 17th by a field trip to Taylor-Middlecreek Quarry in Winfield PA. Skip Hughes displayed minerals and fossils he'd found there.

At October's meeting "Prez" Mike Ellwood reported on a field trip he and Kathy had made out west, in the course of which they had purchased or collected a sizable amount of petrified wood. They decided to visit Petrified Forest National Park, and upon arrival there were informed that before they could enter they had to mark and register all the wood they had! As much of it was buried deep in their van they felt they could not meet this requirement, thus bypassing the Park. Mike cautioned all members that should they want to visit the Park, they should hold off buying or collecting until afterward. (I assume this regulation still is in effect).

Nominating Chair Dave Ballard announced the following slate of officers proposed for 1989: President, Juan Proaño, VP, Gordon Austin, and Treasurer Gladys Fuller. As yet no one had agreed to take the Secretary job (Sound familiar?), but the Committee was working on it and hoped to have a nominee by the November meeting.

The evening's speaker, introduced by Juan, was Fernando Arias, a Peruvian mining engineer. Mr. Arias, a 3rd generation member of a mining family, pointed out the Andean Corridor, a rich mineral area that extends through Chili, Bolivia, and Peru. Of the three countries, Peru is the richest in minerals including gold, copper, zinc, lead, silver, tungsten, tin and molybdenum. He showed a video of an actual mining operation that illustrated the terrain, a tropical jungle on the eastern slope of the Andes, and a gigantic auger-screw machine used to scrape the ore from mine walls. The machine can scrape out 1000 tons of ore per day. A most interesting program, according to the report.

Dian Beckman prepared a case of mineral specimens she'd collected and entered it in the Gem Cutter's Guild's Pikesville Show (Currently staged at the Howard County Fairgrounds) as our Society's exhibit. Continuing her good deeds, Dian went to Stedwick Elementary School in Gaithersburg where she spoke about minerals to two groups (About 20 in each group) of parents and children. She said she received several requests from schools for speakers to talk about rocks, minerals, and fossils.



Hope all of you are having an enjoyable summer, and that you have good luck in your hunting. Just don't be like the rockhouser who went up a steep hill in Maine where he found a beautiful crystal. Trouble is, on the way back he stumbled while crossing a deep ravine and dropped his find. That night he couldn't sleep because he had lost his appetite. Submitted by Jack Busch

BIG BANG IN ANTARCTICA -Killer Crater Found Under Ice.

Planetary scientists have found evidence of a meteor impact larger and earlier than the one that killed the dinosaurs, an impact that they believe caused the biggest mass extinction in Earth's history. The 300-mile-wide crater lies hidden more than a mile beneath the East Antarctic Ice Sheet, and the gravity measurements that reveal its existence suggest that it could date back about 250 million years, the time of the Permian-Triassic extinction, when almost all animal life on Earth died out. Its size and location, in the Wilkes Land region of East Antarctica, south of Australia, also suggest that it could have begun the breakup of the Gondwana super continent by creating the tectonic rift that pushed Australia northward. Scientists believe that the Permian-Triassic extinction paved the way for the dinosaurs to rise to prominence. The Wilkes Land crater is more than twice the size of the Chicxulub crater in the Yucatan peninsula, which marks the impact that may have ultimately killed the dinosaurs 65 million years ago. The Chicxulub meteor is thought to have been 6 miles wide, while the Wilkes Land meteor could have been up to 30 miles wide, four or five times wider.

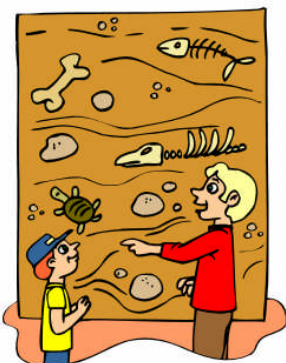


"This Wilkes Land impact is much bigger than the impact that killed the dinosaurs and probably would have caused catastrophic damage at the time," said Ralph von Frese, a professor of geological sciences at Ohio State University. He and Laramie Potts, a postdoctoral researcher in geological sciences, led the team that discovered the crater. They collaborated with other Ohio State and NASA scientists, as well as international partners from Russia and Korea. They reported their preliminary results in a recent poster session at the American Geophysical Union Joint Assembly meeting in Baltimore.

The scientists used gravity fluctuations measured by NASA's GRACE satellites to peer beneath Antarctica's icy surface, and found a 200 mile wide plug of mantle material, a mass concentration, or "Mascon" in geological parlance, that had risen up into the Earth's crust. Mascons are the planetary equivalent of a bump on the head. They form where large objects slam into a planet's surface. Upon impact, the denser mantle layer bounces up into the overlying crust, which holds it in place beneath the crater. When the scientists overlaid their gravity image with airborne radar images of the ground beneath the ice, they found the mascon perfectly centered inside a circular ridge some 300 miles wide, a crater easily large enough to hold the state of Ohio. Von Frese and Potts admitted that such signals are open to interpretation. Even with radar and gravity measurements, scientists are only just beginning to understand what's happening inside the planet. Still, von Frese said that the circumstances of the radar and mascon signals support their interpretation. "We compared two completely different data sets taken under different conditions, and they matched up," he said.

To estimate when the impact took place, the scientists took a clue from the fact that the mascon is still visible. "On the moon, you can look at craters, and the mascons are still there," von Frese said. "But on earth, it's unusual to find mascons, because the planet is geologically active. The interior eventually recovers and the mascon goes away." He cited the very large and much older Vredefort crater in South Africa that must have once had a mascon, but no evidence of it can be seen now. "Based on what we know about the geologic history of the region, the Wilkes Land mascon formed recently by geologic standards, probably just 250 million years ago," he said. "In another half a billion years, the Wilkes Land mascon will probably disappear, too."

Approximately 100 million years ago, Australia split from the ancient Gondwana super continent and began drifting north, pushed away by the expansion of a rift valley into the eastern Indian Ocean. The rift cuts directly through the crater, so the impact may have helped the rift to form, von Frese said. But the more immediate effects of the impact would have devastated life on Earth. "All the environmental changes that would have resulted from the impact would have created a highly caustic environment that was really hard to endure. So it makes sense that a lot of life went extinct at that time," he said.

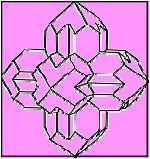


He and Potts would like to go to Antarctica to confirm the finding. The best evidence would come from the rocks within the crater. Since the cost of drilling through more than a mile of ice to reach these rocks directly is prohibitive, they want to hunt for them at the base of the ice along the coast where the ice streams are pushing scoured rock into the sea. Airborne gravity and magnetic surveys would also be very useful for testing their interpretation of the satellite data, they said. The National Science Foundation (NSF) and National Aeronautics and Space Administration (NASA) funded this work. Collaborators included Stuart Wells and Orlando Hernandez, graduate students in geological sciences at Ohio State, Luis Gaya-Piqu and Jyung Rae Kim, both of NASA's Goddard Space Flight Center, Alexander Golynsky of the All-Russia Research Institute for Geology and Mineral Resources of the World Ocean, Jeong Woo Kim and Jong Sun Hwang, both of Sejong University in Korea. Source: Ohio State University



Terragalleria, Pictures of Geology, <<http://www.terrageria.com/pictures-subjects/geology/>> by QT Luong, a professional photographer, of San Jose CA, is the place for you if you liked the old Life Magazine, preferring pictures over text. This one “Blew my socks away”. Many restrictions and conditions govern use of the copyrighted pictures. Surf the pages for 13 categories of geological subjects. Click additional page numbers or, better yet, "All" when viewing pictures of a given subject. There are many more pictures if you search from the home page than going to subject headings. If you go to the home page, plan to spend hours being a voyeur and see everything, over 14,000 pictures! With tall peaks and beautiful valleys, we have our hills and loess. Jeopardy answer: Water is for drinking. Question: What is aquifer?

MineralTown, <<http://www.minertown.com/>>, has all kinds of information related to mineral collecting and minerals. “About me” reveals a biography of Carles Carol Pla, the webmaster, from Sabadell, Spain. Many of the pages about mineralogy, collecting, equipment etc. are elementary but there are some excellent articles on field trips, minerals, fossils, gems and localities, (One by Chris Tucker, son of Tom Tucker, our May speaker). The mineral gallery is appealing. The Mineral-Town shop provides funds to maintain the web site. All the specimens in my collection are very old.....Precambrian, in fact. How do I know that? They are basement rocks.



Fossils in Death Valley National Park, <<http://members.aol.com/waucoba5/dv/dvfossils.htm>> is somewhat of a paradox. You cannot legally collect fossils from DVNP, and many of the field trips are to other parts of CA and some to NV. Nonetheless it is remarkable in its scope, and does have some Death Valley fossils. The scenic images of DVNP are beautiful. Too many subjects are covered to list all here so check them for yourself. Do not miss the links to DVNP and to selected paleontology and geological sites. Bad boys, Bad boys, Watcha gonna do when they come for you? (Collecting fossils in the DVNM.) He is an avid fossil collector. Personally I have never seen an avid, what kind of fossil is that?



UPCOMING SHOWS:

August 5-6. Sat., 10 AM-6 PM, Sun., 10 AM-5 PM, the 57th Annual Gem Show, hosted by The Gem, Lapidary & Mineral Society of Washington, DC. Note new location: Stone Ridge School of the Sacred Heart, 9101 Rockville Pike. Adults \$6, Seniors \$5, Children under 16 free with a paid admission. Free Parking. See website for directions to show <<http://www.GLMSDC.com>>.

August 18-20, AFMS Convention and show, Nashville, TN, billed as “Rockin’ in Music City”. AFMS meetings are scheduled for Tuesday, Aug. 15th (Uniform Rules Comm.) and 16th (AFMS Annual Meeting). Field trips and other activities are also being planned. Complete information, including schedule, registration and exhibitor forms are in the May AFMS Newsletter, <<http://www.amfed.org>>.

September 16-17, 41st Annual Gem & Mineral Show, Central Pennsylvania Rock & Mineral Club. <www.rockandmineral.org>. Note new location: Central Dauphin Middle School, Locust Lane and South Houcks Road, Harrisburg PA.



September 23-24, 42nd Annual Atlantic Coast Gem, Mineral, and Jewelry Show hosted by the Gem Cutter’s Guild of Baltimore, Howard County Fairgrounds, MD Route 32 at I-70, West Friendship MD. Free Parking. Web Site; <<http://www.gemcuttersguild.com/>>.

November 18-19, Sat., 10 AM-6 PM, Sun., 10 AM-4 PM, Northern Virginia Mineral Club Annual Show, George Mason University, Fairfax VA. Adults \$4, Seniors (65+) \$2, Teens (Ages 13-17) \$2, Under 12 free.

November 18-19, Sat., 9 AM-6 PM, Sun., 10 AM-5 PM, 40th Annual Gem & Mineral Show and the 56th EFMLS Convention sponsored by the Gem & Mineral Society of the Palm Beaches. Southern Florida Fairgrounds, West Palm Beach FL. EFMLS Annual



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All Society correspondence is to be sent to this address except that which is intended for the Rockhounder and its editor. Such items are to be sent to the editor's home address.



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