

Rocky Reader

The Monthly Newsletter Of The
Toledo Gem And Rockhound Club

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Metalcrafter Silent Auction is Feb 20 at 7PM

February is the **metalcrafter silent auction**. If you have never done this before - here is the protocol:

Donations. Fill out a silent auction slip for each donation. List **your name** as the donor, and set a **minimum price**

and **minimum bid raise** (50¢ below \$10min bid: \$1 above \$10 min bid). If the item does not sell, we will return it to you.

Purchases. Look at everything and **write your name and your bid** on the bid sheet. If you really, really want something, **go back frequently to up your bid OR bid extravagantly**. We will announce the end of bidding (7:45). If you have the highest bid, at the end, take your items to Steve and pay.

The metalcrafter auction finances our tool purchases. We **accept donations of metals, tools, jewelry, gemstones, beads, and other jewelry components** for this auction.

Toledo Gem and Rockhound Club Meeting Minutes January 16, 2008

Monthly meeting started with a program, Dr. James Harrell of U.T., Subject: The recent discovery of Ancient Egyptian Amazonite quarries.

Announcements-January 25, 2008 a lecture on the Hopewell Indian sites at the Toledo Art Museum 7:30 p.m. in the Little Theater. Free admission

Mike Mayers presented a check to Dr. Harrell for endowments for students in geology.

Members recited the pledge of allegiance.

Secretary's report - December minutes were in last Rocky Reader.

Treasurer's report - Steve gave current money report. Motion to accept report was passed.

Gemcrafter - Chet King reported saws in the craft center were cleaned and ready for use. Shop will be open during their normal times on Wednesday and Sunday. A reminder that two members must be present at all times before equipment can be used. No exceptions!

TBG-garden plant sale, mother's day week is the second week in May. This is the time to get the volunteer hours for our club. The ROC voted for the first Sunday in the months of May, June, July, and August for Arts in the Gardens, another opportunity to pick up hours for our club.

Beaders-on vacation

Faceters-Don reported they met at Dick Bowers house and the next meeting will be at his home on the second Thursday in February.

Metalcraft-Debbie reported they will be open during their normal hours. February will be the metalcraft auction.

Rocky Reader is going to be published monthly.

Membership-34 members, one junior.

Sunshine-no report

Show-no report

New business - Pres. Leslie presented plaque to Lin Petersen for 5 yrs as treasurer for our club. Officers meeting will be January 29, 2006 at 7:00 p.m. at the craft center. Steve Shimatzki will be doing the audit for 2007.

Old Business - nothing to report

Meeting ended at 8:30 p.m. submitted by John Capuano

CLASSES

The following schedule is a listing of upcoming classes. To enroll, please **send the fee to the instructor**. Fees must be received, at the latest, **two weeks prior to the class**.

February 23, 2008. 10AM. PMC bottles. Instructor Tonia Wallace. Fee \$80.00. Learn to make small, hollow bottles from metal clay. Limit 8.

March 29, 2008. 10AM. Silver spoon jewelry. Instructor Debra Hoffmaster. Fee \$20.00. Learn to make jewelry from old spoons. **FULL.**

April 26 & 27. 10AM. Wire wrapping. Instructor Debra Hoffmaster. Fee \$40.00. Learn the art of wire wrapping with four beginning projects: earrings, a cross, a bracelet and a cabochon pendant.

May 17, 2008. 10AM. Beez to Butterflies bracelet. Instructor Kathy Petersen. Fee \$60.00. This is a chain maille bracelet, that looks like side to side Byzantine links but is a much less complicated pattern than byzantine. Fees deadline is three weeks before class, but these classes have been selling out 6 MONTHS in advance, so get your money to Kathy, as soon as you know that you want in!

November 15, 2008. 10AM. Vertebrae bracelet. Instructor Kathy Petersen. Fee \$60.00. This is a modified 4 in 1 chain maille bracelet, with an inner ring, also called vertebrae pattern.




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Thelma Postlewaite's Family News

| | | | | | |
|----------------|-----|----------------|------|-------------------|------|
| Tonia Wallace | 2-1 | Ed Reynolds | 2-10 | Kelly Plath | 2-17 |
| Brian Bolander | 2-2 | Josefina Sidiz | 2-10 | Bonnie Jo Wheeler | 2-18 |
| Diane Klich | 2-6 | Lynette Brown | 2-10 | John Kosakowski | 2-25 |
| Ronald Toneff | 2-9 | Scheran Newell | 2-16 | Peggy Jones | 2-26 |
| | | | | Don Ault | 2-26 |

GARDEN NEWS

Volunteer Hours - The **First Sunday Art Days** and **Plant Sale** in May are great opportunities to volunteer with TBG. We are **REQUIRED to give 100 hours** and get a fee rebate for any additional hours we give. If you volunteer, Please **MAKE SURE that you fill out a volunteer form**. These are **available from Chet** and may be turned in to him. Volunteer forms are collected 4 times each year for the months/quarters JanFebMar/ AprMayJune/ JulyAugSept/ OctNovDec/.

FACETEERS

Faceteers meet on the second Thursday of the month at members' houses. Last month's meeting (Jan) featured good cake and conversation. Grace Hessler was missed.

Next month's meeting is at Don Ault's home. Contact Don Ault or Dick Bower for more information.

FIELD TRIPS

In March (25-30) there is a collecting trip to Kentucky. In May (23 & 24) there is a collecting trip to northeast lower Michigan. Contact Harold Bureson for details about these and future field trips. Many quarries now require up to date Mine Safety training for admission.

BEADERS

The Beaders are off for the winter months. See you in March!

Nancy Grove, Moderator

GEMCRAFTERS

The gemcrafters meet on Wednesdays (except the third) at 7PM in the craft center. Chet can give classes on any lapidary topic. If there is something that you are interested in learning, contact him.

Chet King, Jr., moderator

METALCRAFTERS

Please come and support the Metalcrafter auction this month. In addition, we will have three regular meetings and a PMC class this month (no meeting on Valentines Day - Stay home and support your local jeweler!). If you want to take the PMC class, get your registration to Tonia Wallace ASAP. Take advantage of this opportunity and learn to fashion hollow jewelry from PMC.

DEMO Offmaster, moderator

Coming Events from Chetty King's Flyer Table

February 8 (Friday), 2008, 7:30 pm, Regine Schulz, Ph.D., Curator of Ancient Art at the Walters Art Museum in Baltimore, MD. "**Kerma, Kush and Meroe The Kingdoms of Ancient Nubia.**" Toledo Museum of Art, Little Theatre, 2445 Monroe St., Toledo.

March 1 & 2. Roamin Club Special Auction. Visatech Center Building, Schoolcraft College, 18600 Haggerty Rd. Livonia, MI. Saturday 11AM - 6PM, Sunday noon - 6PM. Free Admission & Parking, Food & Drink available on site. Rough, Fossils, Slabs & Crystals, Verbal and silent auctions.

March 9 (Sunday), 2008. 3:00 pm Stephen Lekson, Ph.D., Curator and Associate Professor of Anthropology at the University of Colorado at Boulder, Boulder, CO. "**Mesa Verde's World.**" Toledo Museum of Art, Little Theatre, 2445 Monroe St., Toledo

March 29. 36th Annual Metro Rock Swap. Democratic Club of Taylor, 23400 Wick Rd., Taylor, MI. Saturday 10AM - 5PM. Buy, Sell or Swap. Free admission & parking. Refreshments available. For table reservations (\$15) and information, call 734-525-1684.

July 10 - July 13, 2008. Agate Conference - the largest agates-only event ever held in the US. Weis Earth Science Museum, The University of Wisconsin - Fox Valley, Menasha, Wisconsin Friday -Sunday 10-6; Monday 10-5. Adults \$3.00, children 21 & under Free. For more information see www.weismuseum.org or e-mail fox-wesm@uwc.edu 920-832-2925.

Feldspar

From: U.S. Department of the Interior, U.S. Geological Survey, Minerals Information, 988 National Center, Reston, VA 20192 USA. <http://minerals.usgs.gov/minerals/pubs/commodity/gemstones/sp14-95/feldspar.html> Maintained by: rcallaghan@usgs.gov, Last modification: 17-Jul-2002@10:14

Of all of the minerals in the Earth's crust, the aluminosilicate, feldspar, is the most common. It is a very useful industrial mineral that finds applications in making glass, plumbing fixtures, tile and pottery. These uses in the United States accounted for about 630,000 tons of U.S. produced feldspar valued at about \$27.4 million. It is also a gemstone.

Production of gem-quality feldspar in the United States increased rapidly in the past 5 years, declined slightly in 1993, but should continue to increase significantly in the future. Production was valued at more than \$0.7 million in 1993. In the United States, gem feldspars are found in igneous, metamorphic, and sedimentary deposits from coast to coast and border to border.

The feldspar group has nine species; there are varieties within some of the species, and there are also intergrowth of species resulting from the unmixing of solid solutions. All of these species, varieties, and intergrowths can be gemstones. Additionally, there are feldspars that have general names because of unique optical phenomena; these are sunstones and moonstones. Fine, gem-quality feldspar is very rare and some species and varieties are more common as gems than others.

New Mexico.--The quality of the adularia moonstone from Catron County is comparable to the best material from India and Sri Lanka. The best of the New Mexico material is water clear, nearly colorless, with only a hint of a soft-tan or brown tone, and has a wonderful blue or silver sheen. Unfortunately, only about 10% of the moonstone has the more desirable blue adularescence. The deposit has produced eye-clean, blue sheen, faceted stones as large as 5 carats, silver sheen faceted stones of almost 10 carats, and good-grade cabochons of 15 to 20 carats. The deposit is not currently being worked, but the author knows of material that is available from work done in the late 1960's.

Oregon.--The premier U.S. gem-quality feldspar is the red labradorite, known as sunstone, mined in Oregon. Large quantities of gem-quality labradorite, most of it water-clear, straw yellow, or yellow sunstone, has been produced from deposits in southeastern Oregon for many years. In sunstone, the labradorite contains millions of copper platelets that reflects the light with varying intensities resulting in a golden-red play of color known as schiller. Although the common color of Oregon sunstone is straw-yellow, it also can be pink, peach, red, salmon red-orange, red-green, and blue-green. It also can be bicolored and tricolored in combinations of yellow, red, and green, and a small percentage is di- and tri-chroic.

In 1988, the availability and quality of sunstone, other than the standard yellow Oregon variety, drastically increased with the discovery of the deposit that was to become the Ponderosa Mine. The vivid-red faceted stones and velvety-red cabochons from this mine set a new world standard for beauty, not just for red sunstone, but for any sun-stone. The opening of the mine also increased the supply of peach, salmon red-orange, red- green, green, blue-green, and bicolored and tricolored in combinations of yellow, red, and green. For the first time ever, there was a continuous U.S. supply of the more desirable colors in most of the calibrated sizes up to several carats needed by the jewelry industry. The largest faceted high-quality red sunstone is over 10 carats. The supply from this and other developed deposits will continue to be adequate for many years into the future.

Virginia.--The red Oregon sunstone is not the only gem feldspar produced in the United States that sets the world standard for quality. Amazonite from Amelia County, Virginia, also falls in this category. The deep, blue-green, translucent amazonite from the Morefield and Rutherford Mines is the finest in the world. The Morefield Mine is currently operated both as a commercial gemstone mine and as a fee-for-dig mine. The Morefield Mine ensures an adequate supply of high quality amazonite for cabochons, beads, carvings, and spheres. High- quality material from the Morefield is available in pieces over 0.5 kilogram in weight. The Rutherford Mine is open only a single weekend per year on a fee-for-dig basis. Colorado, California, and Montana also have deposits of amazonite. Of these locations, the mineral specimen-quality amazonite from Colorado is the best known.

Others.--There is production of various gem feldspars from other deposits in the United States. Small to medium-sized pieces of light brown bytownite from Arizona and New Mexico can be faceted into 0.5- to 2-carat, eye-clean stones. In addition to the Oregon deposits of faceting-grade labradorite, gem-quality material has been recovered and cut from deposits in California and Nevada. Pale-yellow to colorless andesine is recovered from deposits in north-eastern Idaho. The

material is found as eroded crystals more than 5 centimeters in length that can cut stones of more than 10 carats. Other states have reported deposits or finds of gem-quality feldspar. Currently, none of these deposits are commercially mined.

The production of gem-quality feldspar in the United States is increasing, as is the use of U.S. gem feldspar. This increased demand will improve prices for rough and thus provide the incentive for people to spend the time and money to mine the high-quality deposits in the United States. It is only a matter of time until additional deposits are mined on a commercial basis.

Tiny Strand of Silk Tells Tale of Millions of Years

By Dale Gnidovec, curator of the Orton Geological Museum at Ohio State University.
ginovec@geology.ohiostate.edu

When I recently renovated a room in our old barn, the hardest part was dealing with the cobwebs. They were everywhere.

Spiders have been making webs for a long time. There was a report in the June 23 issue of the journal *Science* of the oldest known spider silk with prey trapped in it. Contained in a small amber stalactite from Spain were 26 silk strands produced by a spider that lived 110 million years ago, early in the Cretaceous period.

It is not the earliest spider silk known. That honor goes to a single strand with glue droplets found in Lebanese amber from even earlier in the Cretaceous, 130 million years ago.

Spiders have been around for much longer. A spinneret or silk spigot was found in Middle Devonian rocks near Gilboa, N. Y., indicating that spiders have been making silk for at least 380 million years. What made the new find so interesting was the prey ensnared by the web: a fly, a mite and a wasp.

The Early Cretaceous was a time of great changes in land communities. Most land plants had been things such as ferns and conifers. Then the angiosperms, or flowering plants, took over. Now, angiosperms account for practically all of the plants we use for food. Insects had been around since the Devonian period, but with the diversification of flowering plants, the insects also underwent a huge expansion.

A paper published on Oct. 27 in *Science* reported the oldest known bee. From early in the Cretaceous, the 100-million-year-old fossil, found in amber from Myanmar, is at least 40 million years older than other bee fossils. It is a wonderful transitional form between pollen-eating bees and their carnivorous wasp ancestors. It is about one-tenth of an inch long. That is in sharp contrast to other fossil insects, which reached nightmarish dimensions. Reprinted from: *The Rockfinder*, January 2008

KEEP WATCHING THE GROUND

In the Nevada silver rush, treasure lay right at your feet! The Nevada silver rush may be the truest example of a gold rush. In the California gold rush, like those before and after, the Forty-Niners swarmed into the land and panned the easy nuggets from the stream placers. Then the geologic pros moved in to finish the job. The mining corporations and hydraulic syndicates thrived on the deep veins and low-pay ores that the panners couldn't touch. Mining camps like Grass Valley had a chance to grow into mining towns, then into stable communities with farms and merchants and libraries.

Not in Nevada. Silver there formed strictly on the surface. Over millions of years of desert conditions, silver sulfide minerals weathered out of their volcanic host rocks and slowly turned, under the influence of rainwater, to silver chloride. The climate of Nevada concentrated this silver ore in supergene enrichments. These heavy gray crusts were often polished by dust and wind to the dull luster of a cow horn-horn silver. You could shovel it right off the ground, and you didn't need a Ph.D. to find it. And once it was gone, there was nothing left beneath for the hard-rock miner.

A big silver bed could be tens of meters wide and more than a kilometer long, and that crust on the ground was worth up to \$27,000 a ton in 1860's dollars. The territory of Nevada, along with the states around it, was picked clean in a few decades. The miners would have done it faster, but there were dozens of remote ranges to prospect on foot, and the climate was so damnably harsh.

In anyone place, these "surface bonanzas" lasted only a few seasons, long enough to put up saloons and not much else. The rough, violent life of so many Western movies reached its purest state in the Nevada silver camps, and the economy and politics of the state have been deeply marked ever since.

Nevada horn-silver, unlike Las Vegas silver, seems to be gone forever. The Nevada silver rush fed its own federal mint in Carson City, which made silver dollars with the "CC" mint mark. The rush also produced lots of ghost towns. Ghosttowns.com collects them all, including Silver Peak, Nevada.

Reprinted from: *The Rockfinder*, January 2008

FRA Merit Badge Program for Youth Is Up-and-Running: Enroll Your Club's Kids Today!

by Jim Brace-Thompson, AFMS Jr. Activities Chair

It's official! Thanks to the generosity of the AFMS board, which has approved funding, we now have a merit badge program for our clubs with youth members enrolled in the AFMS Future Rockhounds of America (FRA). I've placed an order with a badge manufacturer, and by September, we should have a supply of badges to begin awarding to kids. To enroll your club's kids, contact me (call 805-659-3577 or email jbraceth@roadrunner.com). All you need is a group of kids (up to the age of 18), a sponsor, a name, and an application to FRA. Your group must be a member of your regional Federation, either through a sponsoring club or through an independent application into your local Federation. The number of youth is not important: you can have as few as 1 or 2 and as many as you can handle.

The new program consists of an FRA membership badge, 9 merit badges, and a "Rockhound Badge" that will go to youth members who earn 6 of the 9 merit badges. A 100- page guidebook describes and outlines requirements for each of the 9 badges. There are 52 activities, in all, to choose from, or about a half dozen activities per badge, with kids required to complete only 3 activities to earn any particular badge. Checklists in the guidebook make it easy for youth leaders to sign off on activities as a junior member completes them. In addition, brief back-up pages and suggestions help leaders guide their kids through each activity. The guidebook is available in both hardcopy format (photocopied) and on the AFMS web site (www.amfed.org). To save on costs to the program, which is being provided entirely free to members, we encourage you to download a copy from the web. If this is not possible, contact me for a copy.

A few words of advice to anyone implementing this program with your club's kids. First, don't feel obliged to do each activity precisely as described in the guidebook. You should adapt each activity and adjust its level to best match the ages and abilities of the kids within your club. For instance, Activities 1.1 and 1.2 are on learning how to identify minerals using various characteristics and tests, such as color, streak, hardness, luster, crystal shape, cleavage, fracture, etc. If you have very young children, you may wish to focus on just a handful of easily identifiable minerals, using only a couple characteristics (for instance, color, hardness, and crystal shape). The older the kids, the more characteristics you should expect them to learn. Again, the main message: be flexible and adaptable in how you implement the recommended activities.

Second, try to do as many of the activities as possible as group projects. Many were designed with the thought in mind that they could be done during a club meeting or as a group outing. It makes it more fun for the kids and easier to set up and to monitor for the youth leader.

Third, involve your adult club members in helping to oversee activities and to provide supplies and materials, and involve your kids in selecting the activities they want to try. Make this a true club project! Kids should have choices about which activities they participate in, and they should have a chance to help shape those activities. It's through youth voice and participation that we engender empowerment and a social commitment and sense of belonging. It's often said that our clubs and societies are declining and, therefore, that we need to attract more young people in order to keep our clubs alive. But saying it this way puts the cart before the horse. Instead, the focus needs to be on what is best for our youth. Only then will we fire the interest of kids in ways that engender a sense of belonging, with meaningful opportunities from which a lifelong interest and commitment will emerge naturally. Let's not put our clubs first let's put kids first! If we can find ways to make youth responsible and fully engaged participants, not just recipients, the long-term health of our clubs will follow as a natural result.

It's my hope that this program proves useful and successful. To help ensure its success, I welcome feedback from youth leaders and kids alike on the existing activities and suggestions for creating new activities that will help us all learn and grow while as always having fun!

Ed note: Currently, we do not have a juniors group running. Perhaps someone would like to take this on. If so, contact the President, Jim Leslie.

HOW DO WE KNOW THE AGE OF THE EARTH?

The Earth is a constantly changing planet. Its crust is continually being created, modified, and destroyed. As a result, rocks that record its earliest history have not been found and probably no longer exist. Nevertheless, there is substantial evidence that the Earth and the other bodies of the Solar System are 4.5 to 4.6 billion years old, and the Milky Way Galaxy and the Universe are older still. The principal evidence for the antiquity of Earth and its cosmic surroundings is:

The oldest rocks on Earth, found in western Greenland, have been dated by four independent radiometric dating methods at 3.7 to 3.8 billion years. Rocks 3.4 to 3.6 billions years in age have been found in southern Africa, western Australia, and the Great Lakes region of North America. These oldest rocks are metamorphic rocks, but they originated as lava flows and sedimentary rocks. The debris from which the sedimentary rocks formed must have come from even older crustal rocks. The oldest dated materials (4.0 to 4.2 billion years) are zircon crystals found in sedimentary rocks in western Australia.

The oldest Moon rocks are from the lunar highlands and were formed when the early lunar crust was partially or entirely molten. These rocks, of which only a few were returned by Apollo missions, have been dated by two methods at between 4.4 to 4.5 billion years in age.

The majority of the 70 wen-dated meteorites have ages of 4.4 to 4.6 billion years. These meteorites, which are fragments of asteroids and represent some of the most primitive material in the Solar System, have been dated by five independent radiometric dating methods.

The "best" age for Earth is based on the time required for lead isotopes in four very old lead ores (galena) to have evolved from the composition of lead at the time the Solar System formed, as recorded in the Canyon Diablo iron meteorite. This "model lead age" is 4.54 billion years.

The evidence for the antiquity of the Earth and Solar System is consistent with evidence for an even greater age for the Universe and Milky Way Galaxy: (a) the age of the Universe can be estimated from the velocity and distance of galaxies as the universe expands, 7 to 20 billion years; and (b) the age of the Galaxy is estimated to be 14 to 18 billion years from the rate of evolution of stars in globular clusters.

(from USGS: wrgis.wr.usgs.gov/docs/parks/gtime/ageofearth.html, via The Pegmatite 9/07 & The Glacial Drifter 4/06)

FEBRUARY

2008

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|----------------------|--------|---------|--|--|--------|--------------------------|
| | | | | | 1 | 2 |
| 3 Metalcraft @ 1:30 | 4 | 5 | 6 Gemcraft @ 7 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 Gemcraft @ 7 | 14 NO Metalcraft Faceteers @ 7 | 15 | 16 |
| 17 Metalcraft @ 1:30 | 18 | 19 | 20 Club Meeting & Metalcraft Auction @ 7 | 21 | 22 | 23 PMC bottle class @ 10 |
| 24 | 25 | 26 | 27 Gemcraft @ 7 | 28 Metalcraft @ 6:30 | 29 | |

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