

Our next chapter meeting will be on May 6^{th} at the Cincinnati Geofair. The meeting time is at 4:30pm in room 101.



Newsletter published bimonthly in January, March, May, July, September and November. Please submit all information for publication in the newsletter by the 15th of the previous month.

Chapter Website:
www.fommidwest.org
National Website:
www.friendsofmineralogy.org

On the Cover – Calcite Group Marblehead Quarry Marblehead, Ohio Frank Konieczki

2017 Officers

President - Ken Bladh, 132 East 2nd St., Springfield, Ohio 45504 (937)390-1742 <u>president@fommidwest.org</u>

Vice President Programs –Randy Marsh, 6152 Old Stone Ct., Hamilton, Ohio 45011 (513)515-7890 vpprograms@fommidwest.org

Vice President Field Trips - Reggie Rose, 4287 Parkmead Dr.
Grove City, Ohio 43123
(614)875-2675 vpfieldtrips@fommidwest.org

Secretary – Frank Konieczki, 50355 W. Huron River Dr.
Belleville, Michigan 48111
(734)-699-3321 secretary@fommidwest.org

Treasurer - **Jeff Spencer**, 4948 Beechwood Road, Cincinnati, Ohio 45244 (513)248-0533 treasurer@fommidwest.org

Liaison Officer – Clyde Spencer, 1858 Robin Hood Dr., Fairborn, Ohio 45324 (937) 878-9988 <u>liaisonofficer@fommidwest.org</u>

Fund Raising (Committee Chair) - Vacant

Newsletter (Committee Chair) Tom Bolka, 2275 Capestrano Dr. Xenia, Ohio 45385 (937)760-6864 newsletter@fommidwest.org

Affiliations:

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Our purpose is to organize and promote interest in and knowledge of mineralogy; to advance mineralogical education; to protect and preserve mineral specimens and promote conservation of mineral localities; to further cooperation between amateur and professional and encourage collection of minerals for educational value; and to support publications about mineralogy and about the programs of kindred organizations.



Friends of Mineralogy

Midwest Chapter President - Ken Bladh

President's Message - Our next chapter meeting is Saturday afternoon (4:30pm) at the Cincinnati *GeoFair* (May 6th) in the same room as last year (Rm 101). Officers are eager to discuss a few options for the coming year, receive input on ideas for the Chapter's future general direction, and share an update on some initiatives at the National FM level. It's not too late to suggest topics for future Symposia. Please send your thoughts to any officer. If you are aware of specific opportunities by which we can advance interest in mineralogy at any level, please share those ideas.

Scott Kell of the Ohio Department of Natural Resources led a couple of Safety training sessions in March and April. The training at Wittenberg served approximately 45 people and included demonstrations of power tools by Randy Marsh and Clyde Spencer (photo below).



Great comments and questions from the audience throughout the training kept the experience at the high level we expect of this event. Subscribers to the *Mineralogical Record* should view the DVD of the 2016 Dallas Mineral Collecting Symposium for additional advice on appropriate tools and precautions when collecting minerals in the field. The presentations by John Medici and John Cornish on disk #2 are particularly good.

A notebook (black Staples-brand steno book) and handout from Scott's presentation was left behind by one of our attendees at Wittenberg. I have the materials and will send them to the owner, once claimed (kbladh@wittenberg.edu), or will have them available for pick-up at the Cincinnati GeoFair.

Ken Bladh



<u>Treasurer's Report</u>

4/15/3

2016 Wrap-up

As I reported earlier this year, The Midwest Chapter began 2016 with \$4,092.81 in our treasury and ended the year with a total year-end balance of \$5,527.89. This included \$740.00 in 2017 dues paid by 37 members in 2016.

2017 Interim Report

Income

An additional 73 members (including 9 new members) have registered in 2017 yielding \$1,460.00. \$220.00 in donations dedicated for the symposium were received and \$170.00 for the general treasury. \$240.00 was raised from the symposium silent auction. \$60.00 was received for three t-shirts. One member paid \$20.00 in advance for 2018 dues (your treasurer does not encourage this). Total income so far in 2017 is \$2,170.00.

Expenses

In case you were not aware of it, we pay dues of \$4.00 per member to the National Friends of Mineralogy. Two dues payments to National made in 2016 were debited in 2017 totaling \$50.00. We have paid \$440 in 2017 National dues for 110 members. As noted in the previous report, we successfully filed our IRS 501(c)(3) exemption request and paid the \$275.00 filing fee. Our liability insurance premium of 650.00 has been paid. Another \$185.31 in miscellaneous expense payments were issued.

As you can see in the income report, The Symposium itself generated donations and fund raising income that are dedicated to helping fund that activity. The Chapter has also committed to providing additional funds from the General Treasury to support the Symposium. For the 2017 Symposium, \$845.57 in expenses were paid out for refreshments, speaker reimbursements and honorariums. This is offset by \$370.00 in earmarked donations. We also raised \$240.00 from the silent auction that is dedicated to next year's event. Thanks to all the donors.

Total expenses for this year have been \$2,445.88. Our current treasury balance stands at \$5,252.01. Heather and Randy Marsh have had great success with the Cincinnati Show swap table. If you donate items that sell, I can provide you with a receipt for tax purposes. Please contact Randy if you have items to donate! Our required Federal 2016 990-B has been filed and I have provided the exemption letter and 2016 annual report to the Ohio Attorney General.

If anyone would like a copy of a detailed financial statement please email me at the address below. Chapter by-laws require that the records be audited annually by at least one other chapter member, so I am looking for volunteers to examine the records and complete the check-sheet. Please email me at treasurer@fommidwest.com

Jeff Spencer - Treasurer





April 8th, 2017 Marblehead Quarry Trip

There is nothing like the first field trip of the year, especially on a perfect cool yet sunny day. On Saturday, April 8, a total of 23 Chapter members ventured into Marblehead quarry in search of specimens. Our quarry host was very accommodating and allowed us to spend an extra hour in the pit. Based on the stories and specimens shared in the parking lot at the end of the trip, many people had a great day and found some nice items. As expected, Mike Royal quickly sniffed out some top-notch dark purple fluorite specimens. Several folks showed-off the classic light purple fluorite on calcite with sucrosic barite inside fossil sponges. Tom Bolka and Clyde Spencer found an area with nice barite crystals and, interestingly, yellow-brown fluorite instead of the usual shades of purple. This quarry continues to be an excellent collecting locale for our Chapter. Several folks provided Randy Marsh with specimens for the GeoFair swap table to raise funds for Chapter activities. Many thanks to these generous members.



Mike Royal / Randy Marsh



Alan Dewitt



Frank Konieczki



CONGRATULATIONS TO YOU! As an FM member, you have been appointed to the FM Field Trip Committee. You are now no longer just a member at large, now you are a committee member. Yahoo! Congratulations!

Over at least the last couple of years, President Emeritus Clyde Spencer, Membership Vice President Randy Marsh, newsletter editor Tom Bolka and Indiana member Alan Dewitt have done research and recommended new sites where we could possibly collect. Clyde and Randy have been on a Field Team visiting sites. Tom Bolka and Randy Marsh had a definite hand in getting us into Caldwell Stone in Danville, KY.

So that's five guys, including your field trip chairman out of a membership of over 100. That's less than 5% of our membership trying to expand our schedule. I think it's a pretty fair assumption that someone in our membership has been somewhere where FM has not been. If that's the case, let's go to a new quarry. Some of you may be new collecting and have no idea where we could go. But others in our membership have the ability and knowledge to help.

Now that you are on the trip committee, you officially have the green light to participate and give FM a great collecting season. Right now, our schedule has some holes to be filled. Adding a couple quarries would give us a nice schedule, possibly one trip per month for at least seven months per year. Adding more than two trips would put our schedule in the hyperactive category. Hyperactivity in our case is good. We could, with more trips, spread out more geographically. Since we all, hopefully do other things in life, it would be nice to have more field trips than one could individual conveniently attend.

What is that number? Mathematically it cannot be quantified right now. So rather than 8 or 9 trips, let's just call it the Royal number. If we reach a number where there are too many trips for our resident road warrior Mike Royal to attend, then that's the number we want to reach. When Mike says "no mas", then we're good. An increase in good trips means an increase in fun. An increase in trips means more specimens to collect, and we know that through our various good works, what we collect helps others. Remember, FM does not want to rule the Earth, we just want to bring some chunks of it home with us.

So congratulations again on your lifetime appointment to the FM Field Trip Committee.

Reggie Rose



5th Annual Friends of Mineralogy Midwest Chapter Mineralogical Symposium at Miami University March 11, 2017

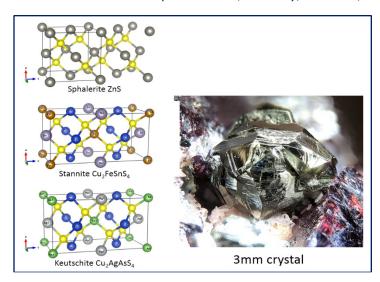
Friends of Mineralogy Midwest Chapter held its annual symposium in Shideler Hall from 10:00 AM to 4:30 PM. This year's program was titled *Sphalerite and Wurtzite- The ZnS Polymorphs*. John Rakovan was the event's host again this year, and he was also one of the day's speakers. This year's attendance was good, with approximately 30 FoM Midwest Chapter members and guests present during the event. We extend our thanks to the university and John for graciously making the facility available, and also to John for donating his time to be both host and speaker.

About 50 specimens of the featured minerals were on display, including some outstanding examples that illustrate the spectrum of crystal habits and color variations that distinguish the localities where they are found.

Seven speakers provided an interesting mix of presentations to those present. John Rakovan welcomed the attendees, and he suggested that the chapter members provide suggestions for upcoming symposia.

The morning's first speaker was Dr. Frank Keutsch, a Stonington Professor of Engineering and Atmospheric Science who is also interested in the conditions surrounding sulfide and sulfosalt formation. His presentation, *The Grey, the Black,*

and the Ugly, focused on rare sulfides and sulfosalts, with an emphasis on two premier collecting sites for these minerals, namely Uchucchacua, Peru and the Pollone Mine in Tuscany, Italy. Both are type locations for numerous minerals, with the Peruvian mine boasting eight type species, including uchucchacuaite and keutschite, Cu₂AgAsS₄, a rare sphalerite derivative. The Pollone Mine is the type location for polloneite and carducciite, among others. Uchucchacua is a dacitic intrusion cutting through limestone in the High Andes, whereas Pollone, a famous site for geocronite crystals, is a Ba and Fe rich deposit in metamorphic rock surrounded by non-metamorphic sedimentary rock. He discussed series of both sphalerite and wurtzite derivatives, primarily those of the former location, and how cation substitution forms a series of derivatives-



sphalerite to stannite, then kesterite, and finally keutschite, with the latter being the first derivative that shows significant distortions in the axial lengths, primarily due to bond angle modifications.

Next, Martin Appold, a professor of Geology at the University of Missouri- Columbia presented *Geochemistry of Sphalerite Precipitation in MVT Deposits*. He and others have studied the geochemical conditions that favor precipitation of the major ores (sphalerite, galena, barite, and fluorite) in Mississippi Valley- type (MVT) deposits. The bulk salinity and temperature of MVT ore fluids have been studied since the 1960s, but the focus of much research in the last 10-15 years has been on the elemental composition of MVT ore fluids, mainly through analysis of fluid inclusions. Martin indicated that the precipitation of sphalerite from sedimentary brines in (MVT) deposits in the U.S. mid-continent appears to occur under relatively consistent conditions, regardless of the size of the deposit. These conditions include salinities between about 18 to 24 equivalent weight percent NaCl, temperatures between about 90 and 130° C, pH typically between about 4 and 5.5, low oxygen fugacities below about 10^{-52} , and depths between about 1 and 3 km. Metal

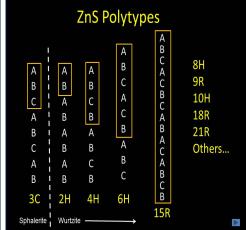


concentrations of MVT fluids have been difficult to quantify, but appear to have been less important in governing MVT deposit growth than the local abundance of sulfide.

The third speaker was host Dr. John Rakovan, whose segment was titled *Crystal Structures of the Zn Polymorphs*. John focused on the atomic structure of sphalerite and wurtzite. Both minerals can be considered polytypes of the same Zn-S unit layer. A mineral is polytypic if it occurs in several structural modifications, each of which can be regarded as built up

by stacking layers of (nearly) identical structure and composition, and if the modifications differ only in their stacking sequence. Although there is only one polytype of sphalerite (3C) there are numerous known polytypes of wurtzite, including 2H, 4H, 6H, and 15R. In addition, these two minerals can be seen as polytypic variants of one another. Stacking sequences can also be used to understand the structure of twinning and sphalerite and sphalerite-wurtzite epitaxy, and





he also observed that wurtzite can exhibit both trigonal and hexagonal polytypes in the same specimen.

R. Peter Richards, an affiliate scholar in the Department of Geology at Oberlin College then presented Zinc Sulfide Polymorphs from Western Pennsylvania and Eastern Ohio. He noted that zinc sulfide deposits in the region, which stretches from near Steubenville and Negley, Ohio to east of Pittsburgh, were known and mapped as early as 1950. The

most prolific of the collecting locations is Donahoe, PA on Donahoe Rd near Integrated Systems. The railroad cut is about ½ mile long, with several concretion zones. The strata consist of limestone, shale, sandstone, and coal. The septarian concretions that contain the crystals are usually a couple of inches in diameter, and they are found at the base of the shale layer. He showed an



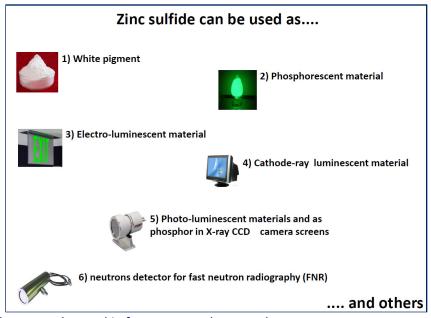
excellent series of photos that showed most of the wurtzite variants, which include 4H (ABCB), 6H (ABCBAB), 15R, 18R, and 21R, and mixed 6H-4H and 6H-15R crystals. Dr. Richards also spoke about the Negley area (south of Youngstown), and he observed that this area exhibits a higher concentration of sphalerite to wurtzite, and there is much more associated pyrite and marcasite in the Ohio locations. He concluded by listing the known types, suggesting that more variants probably exist, and 6H seems to be the first wurtzite crystal structure to be formed.



The next speaker, Sandy Ludlum, is a mineral and fossil collector and former mineral dealer whose collecting focus is sphalerite specimens. He has amassed a substantial collection of sphalerite over several decades. Sandy presented images of sphalerite alone, and also with associated minerals, from throughout the world. The photos included several impressive specimens from Russia, including a fist sized crystal aggregate, sphalerite with calcite, with pyrite, and with clear fluorite. Chinese specimens of red sphalerite with white calcite were followed by some European examples, such as beautiful red Spanish sphalerite, and specimens from Yugoslavia (on quartz, and with galena and rhodochrosite), Bulgaria (green w/ quartz needles), and Ireland (galena on sphalerite). One Mexican specimen was associated with hyaline opal, and domestic examples included one from Missouri that had preferentially oriented chalcopyrite crystals on sphalerite, and several outstanding Tennessee sphalerites with dolomite, on calcite, and with fluorite. He also showed several thumbnail specimens with associated gold.

Wladyslaw Betkowskl, a Miami University graduate student, presented *Material Applications of Zinc Sulfides*. He noted that one of the most concentrated MVT ore regions in Europe is in his home country of Poland, near Krakow. It contains economically important concentrations of galena and sphalerite. Wladyslaw discussed a number of applications/uses

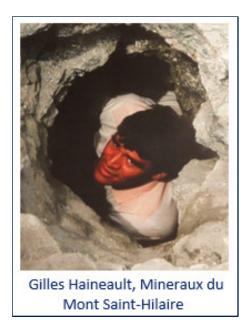
for zinc sulfides. One was ZnS with BaSO₄ as a pigment in white paints and plastics. Zinc sulfides are also used in phosphorescent and fluorescent materials, usually with activators, to produce the luminescent effects. The ZnS structure is suitable as a host for activators because of its wide band gap, and some of the commonly used activators are copper, copper with cobalt, copper with lead, manganese, silver, gold, and chlorine. Zinc sulfides also have been used in electroluminescent materials for clocks, nightlights, watches, and exit signs. A common past use was in cathode ray tubes, where it was used in display screens in concentrations of only a few PPM, because higher concentrations resulted in reduced luminescent effectiveness. They are also used in x-ray detectors because they can convert



the energy to visible light, and zinc sulfide scintillators can be used in fast neutron photography.

Respected, veteran mineral collector John Medici was the final presenter, and his program, *Serendipitous Sphalerite*, noted that sphalerite is often found when searching for other minerals, but when his collecting career began in the 1960s, he specifically sought sphalerite and galena in the Tristate District (OK, KS, MO). One specimen from Treece, Kansas weighed a whopping 6 lbs! He showed a large selection of sphalerite photos, and some notable ones were: green sphalerite on prehnite specimen he found in 1964 at Chimney Rock Quarry, Brook, NJ; sphalerite and fluorite collected in Lime City, OH; sphalerite on dolomite, Duff Quarry, OH; iridescent sphalerite from Standard Slag, Adams Co. OH; a very lustrous sphalerite specimen from Salem, IN; and sphalerite with quartz from Hardin Co., IL. John also had photos two gorgeous, faceted sphalerites, one being a colorless gem from Mont. St. Hilaire, Quebec, Canada, and a rich red Spanish sphalerite of about 57 carats. He shared anecdotes about the several collecting trips, and also tidbits of information about many of the mines and quarries that only a seasoned collector can provide.









Sphalerite on Prehnite, Chimney Rock, NJ

The symposium also included a well-received silent auction of about two dozen mineral items.

2017 Ohio MSHA Classes

The following 2017 MSHA opportunity still exists for members interested in collecting minerals or fossils on quarry field trips in the Midwest region. If anyone hears of classes, send me the details and I will share this new information with our FM membership.

Reggie Rose, FM

Fulton County Fairgrounds Junior Fair Building in Wauseon, OH: Saturday 06-03-17

MSHA training will be offered Saturday June 03, 2017, from 10 am to 3 pm at the Fulton County Fairgrounds in Wauseon, Ohio. The Fair Grounds are located at 1814 SR 108. It is located south of Hwy 20 on Hwy 108, just north of the Ohio Turnpike off Exit 34, west of Toledo, OH and just south of the Michigan State Line. Hours for the June 2-4 show are Friday 12-6, Saturday 10-6, and Sunday 11-4. Admission is \$4 for adults and \$3 seniors and students, and free for children 12 and under. There is a \$30 fee to take this MSHA course taught by Joel Vicary. To register for the course, contact show chairman Sherm Kardatzke at sakardatzke@mcom.com or 517-673-5487.

Quarry Travel / Event Guide

Quarry Travel Guide: Dolomite Products – Penfield, NY

Field Trip Locality: Dolomite Products Inc.

Address: 746 Whalen Road, Penfield, NY 14526

County: Monroe

Date of Trip: Saturday May 06, 2017 **Time of Field Trip**: 6:45 am – 12:00 pm

Travel Distance: (from Grove City, OH; exit 100 on I 71):

From Grove City, OH: via toll roads: 419 miles; without toll roads 459 miles

Travel Time: From Grove City, OH; exit 100/I 71: via toll roads: 6:09; without toll roads: 6:55 **Age of Rock**: Lower Devonian- the rock here is 410 million years old (Devonian 415-355 mya)

Rock Units Exposed: Lockport Dolomite

Training Required: On-site

Specimens Present: calcite, dolomite, fluorite, selenite, sphalerite

Special Considerations: FM will be one of several clubs at this open house; be there early to get checked in since the group there will be large. Any power equipment, including saws, is allowed (just no explosives; there is no defined limit

on how many collectors we can take, but nonetheless, sign up of interested.

Quarry Location: From Grove City, OH

Leg of Route:	distance (miles):
From exit 100, I 71 Ohio:	
I 71 N from exit 100 to exit 220 (enter I 271N)	120.0 mi.
I 271 N @ exit 220 of I71 N TO I 90 E	46.3 mi.
I 271 N ends; begin I 90 E @ mile 190	
I 90 E OH to I 90 E PA	53.0 mi.
I 90 E PA Line to I 90 E NY Line	46.9 mi.
I 90 E NY Line to I 390 (Rochester exit 46)	129.6 mi.
I 390 N (Rochester) to I 590 N (Rochester)	9.0 mi.
I 590 to exit 07 (286 E/Browncroft Road)	5.7 mi.
From 286 E turn right/south onto Whalen Road (CR 13)	7.4 mi.
Proceed S on Whalen Road to quarry entrance on the le	ft 0.9 mi.

Part of the next invitation is from me and part is from the Stoneco superintendent at Auglaize. There will be attached an on-site training form that the Stoneco superintendent wants you to have filled out and in hand when you arrive at the quarry. Our host Todd is a good person, but he is a no-nonsense guy. He wants us lined up to leave at 11:15. So mind your P's and Q's with regards to following directions and safety issues. It would take little for him to morph from cordial host to the guy who says "it's been nice knowing you." So let's look prepared and sharp.

FM Trips Reggie Rose 614-875-2675

Quarry Travel Guide: STONECO AUGLAIZE - JUNCTION, OH

Field Trip Locality: Stoneco - Auglaize - Junction, OH Address: 13762 Road 179, Oakwood (Junction), OH 45873

Date of Trip: Saturday May 20, 2017 **Time of Field Trip**: 7:00 am – 11:15 am

Travel Time from Designated Point: 2:30 from central Ohio

Age of Rock: Middle Devonian **Rock Units**: The Detroit River Group

Specimens Present: Auglaize Quarry is best known for its crystals of iridescent brown fluorite, along with sphalerite, calcite, pyrite, quartz, and hydrocarbons. The minerals are found in pockets and fractures of quarry dolostones.

Training Required: MSHA

Quarry Location: The Shelly – Stoneco Auglaize Quarry is in Paulding County, Ohio. Take route 111 SW from Defiance for about 8 miles to Ohio State Route 637 just east of Junction. Go east a short distance across the Auglaize River, and turn south on Paulding County Road 179 to the Quarry office on the east (left) side of the road.

From the south, take I-75 North to exit 130 (Bluelick Road). Take Bluelick Road 3.5 miles west to State route 65. Take route 65 North/R for 1.6 miles where you will bear left onto route 115 North. Take this route 7 miles into Kalida and continue in 115 North for 19.5 miles until its junction with state route 15. Proceed west/L on route 15 for 0.5 miles to state route 613. Go west/L on Route 613 for 9 miles passing through Continental, Hartsburg & Oakwood. At the Junction of route 613 and route 66 west of Oakwood, take route 66 North/R. Five miles later, take state route 166 west/L 2.6 miles. Turn right (North) onto County Rd 179. Take 179 North for 1.3 miles to the quarry entrance on your right.

OHIO MSHA CLASSES BREAK ATTENDANCE RECORDS

It is always an uplifting event to work at your local gem and mineral show. There is an afterglow feeling that makes you feel good that you participate or attended. That same afterglow feeling is present after you have had your annual MSHA training. You can learn new things every year.

I cannot speak for the size of the classes in Lexington (03-04) or Toledo (04-08) but in the other three Ohio classes, things are looking up. The 03-30 class in Mansfield was taught by Steve Mckee & Bill Jenkins. The Wittenberg (03-18) and Columbus classes (04-14) were taught by Scott Kell. All three instructors have their roots in Ohio's ODNR or OGS.

In just three Ohio classes alone this year, the Wittenberg class attracted 35 trainees, Mansfield 43 and Columbus 68. That's 146 collectors trained and ready to enjoy the thrill of discovery.

Congratulations! Reggie



	FRIENDS OF MINERALOGY MIDWEST CHAPTER – CALENDAR OF EVENTS FOR MAY TO AUGUST 2017			
Month	Event Details	Field Trip or Other Details		
MAY	TITLE: GeoFair 2017 – Quartz: Crystals & Gems DATE/TIME: Sat, May 6, 2017 10:00 AM - 6:00 PM and Sun, May 7, 2017 11:00 AM – 5:00 PM LOCATION: Sharonville Convention Center, 11355 Chester Road, Cincinnati, OH HOST/COORDINATOR: Terry Huizing (tehuizing@fuse.net) ACTIVITY: Chapter meeting scheduled for 4:30 PM on Saturday May 6 TITLE: Penfield Quarry Field Trip DATE/TIME: Saturday, May 6, 2017 6:45 AM to 12:00 PM LOCATION: Penfield, NY TITLE: New England Mineral Conference DATE/TIME: Fri, May 12, 2017 to Sun, May 14, 2017 LOCATION: Grand Summit Resort Hotel and Conference Center, Sunday River, Newry, ME TITLE: Cleveland Area Gem and Mineral Show ROCKaRAMA DATE/TIME: Sat, May 20 10:00 AM - 5:00 PM and Sun, May 21, 2017 10:00 AM - 5:00 PM LOCATION: Soccer Sportsplex, North Olmstead, OH SPONSORED BY: Parma Lapidary Club TITLE: Auglaize Quarry Field Trip DATE/TIME: Sat, May 20, 2017 7:00 AM - 11:30 AM LOCATION: 13762 Road 179, Oakwood (Junction), OH	Chapter Meeting 4:30 pm On Saturday May 6 Open House Field Trip		
	TITLE: Maine Pegmatite Workshop DATE/TIME: Fri, May 26, 2017 to Sat, Jun 3, 2017 LOCATION: Poland Mining Camps, Poland, Maine HOST: Ray Sprague <rasprague@mac.com></rasprague@mac.com>			
JUNE	TITLE: Richland Lithic & Lapidary Society Show DATE/TIME: Sat, June 3, 2017 10:00 AM – 6:00 PM and Sun, June 4, 2017 11:00 AM – 5:00 PM LOCATION: Richland Co. Fairgrounds, 750 N. Home Road, Mansfield, OH SPONSORED BY: Richland Lithic & Lapidary Society TITLE: Williamsport Field Trip – NOT CONFIRMED DATE/TIME: Sat, June 10, 2017 LOCATION: Williamsport, OH TITLE: 52 nd Annual Gem, Mineral, Fossil Show and Swap DATE/TIME: Fri, June 23, 2017 through Sun, June 25, 2017	Proposed 3 rd Chapter Field Trip NOT CONFIRMED YET		
	LOCATION: Lawrence County Fairgrounds, Bedford, IN HOST/COORDINATOR: Dave Treffinger (djt5766jkft@msn.com) SPONSORED BY: Lawrence Country Rock Club			

JULY	TITLE: South Rockwood Field Trip	4 th Chapter Field Trip
	DATE/TIME: Sat, Jul 15, 2017	
	LOCATION: South Rockwood, MI	
	TITLE: Keweenaw Mineral Days	
	DATE/TIME: Tue, July 18, 2017 through Sat, July 22, 2017	
	LOCATION: Michigan Technical University, Houghton, MI	
	HOST: Ted Bornhorst (tjb@mtu.edu)	
AUGUST	TITLE: Michiana Annual Jewelry, Gem and Mineral Show and Sale	
	DATE/TIME: Fri, August 18, 2017 through Sun, August 20, 2017	
	LOCATION: St. Joseph County 4-H Fairgrounds, South Bend, IN	
	SPONSORED BY: Michiana Gem and Mineral Society	
	TITLE: Dallas Mineral Collecting Symposium	
	DATE/TIME: Fri, August 25, 2017 through Sun, August 27, 2017	
	LOCATION: Eisemann Performing Arts Center, Dallas, TX	
	TITLE: Clay Center Field Trip – NOT CONFIRMED	Proposed 5 th Chapter Field Trip
	DATE/TIME: Sat, August 26, 2017	NOT CONFIRMED YET
	LOCATION: Clay Center, OH	

Cincinnati GeoFair 2017

52nd Annual Gem, Mineral, Fossil & Jewelry Show of Greater Cincinnati www.geofair.com

> May 6 Saturday 10 am to 6 pm



May 7 Sunday 11 am to 5 pm

Featuring:

Quartz – Crystals & Gems Invertebrate Fossils

Illustrated Earth Science Programs Saturday, May 6

Quartz: Signature Mineral of Continents
Digging for Dinosaurs
Sunday, May 7

Quartz: A Multifaceted Mineral Major Transitions in the History of Life

> Sharonville Convention Center 11355 Chester Road Sharonville, Ohio 45246 www.geofair.com for directions

FREE PARKING

Cincinnati GeoFair 2017

Adults......\$9 Two-day pass......\$12 Children...\$3 Uniformed Scouts free Scout leaders pay adult rates Teachers free with ID and paid adult companion

\$2 OFF ONE ADULT ADMISSION GeoFair 2017 May 6 & May 7

Sharonville Convention Center 11355 Chester Road Sharonville, Ohio 45246

FREE PARKING 2017.3

Gem, Mineral, Fossil, & Jewelry Dealers
50+ Retail • 4 Wholesale • 3 Publications
www.geofair.com for list

Educational Earth Science Programs

Dr. Carl Francis • Dr. Glenn Storrs Mr. Jeff Scovil • Dr. Brenda Hunda

Gem, Mineral, Fossil & Jewelry Displays 70 museum, university, and private collections

Family Activities ◆Education Center ◆ Games
Geode cracking ◆ Demonstrations ◆ Swap area
Free mineral, meteorite, fossil & gem
identification ◆ Scout merit badge assistance
Free mineral or fossil collection - kids under 12

GeoFair 2017 is produced by the nonprofit

Dry Dredgers – an organization of amateur
paleontologists & fossil collectors.
www.drydredgers.org, and the

Cincinnati Mineral Society – an organization
of amateur mineralogists & mineral collectors.
www.mineralsociety.org

