

# Friends of Mineralogy



## *Midwest Chapter Newsletter for May – June 2016*

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Newsletter published bi-monthly in January, March, May, July, September and November. Please submit all information for publication in the newsletter by the 15<sup>th</sup> of the previous month.

**Chapter Website:**

[www.indiana.edu/~minerals/](http://www.indiana.edu/~minerals/)

**National Website:**

[www.friendsofmineralogy.org](http://www.friendsofmineralogy.org)

**On the Cover –**

*Fluorite, Calcite and Barite  
Caldwell Stone, Danville, Kentucky  
12.0" x 12.0" Tom Bolka photo*

**Affiliations:**

THE MINERALOGICAL RECORD  
THE MINERALOGICAL SOCIETY OF AMERICA  
AMERICAN GEOLOGICAL INSTITUTE  
ROCKS & MINERALS MAGAZINE

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.



## President's Message

Dear Friends,

As most of you probably know, I have been wearing two hats within FM. I'm president of this chapter, but I was also elected to the office of vice-president of the National organization a little more than a year ago. The president of National unexpectedly resigned recently, midway through his first term. I was hoping to continue as National VP, and have the Board of

Directors find a replacement president. However, most of the board members have not been responding to email or a request for a teleconference. In the absence of any alternative actions, the default is that the Operating Regulations specify that the vice-president become the president. While this isn't completely resolved, it looks like I'm going to be president of the National organization, and will also need to try to fill in some special VP obligations as mentioned below. Thus, for at least awhile, I'm going to be wearing three hats. This is my fourth year as president of the Midwest chapter. It is imperative that someone step forward to replace me during our annual elections in November. Please consider throwing **your** hat into the ring.

Once again, our annual symposium hosted at Miami University, and sponsored by the Karl E. Limper Geology Museum, was a success. We had at least 65 people in attendance. Our thanks go to John Rakovan for coordinating everything at the university, as well as being a presenter. We want to acknowledge Terry Huizing and the CMS for sharing the travel expenses of one of the speakers, Jeff Scovil. I want to thank Randy Marsh especially for all the time he put in to make this happen!

The executive board has discussed what to do about the constitutional requirement of providing all members with a membership list. We are sensitive to the fact that no one wants to receive spam email or telemarketing calls. Yet, one of the reasons for providing a list is that there may be legitimate chapter-related reasons for contacting another member. Just providing a list of names isn't very useful if you want to call someone to ask to share a ride. One solution to the problem would be to provide telephone numbers and email addresses to everyone, with the option to opt out of sharing the information. This is a topic that we should probably discuss at our next meeting; that will be at the GeoFair, the last Saturday of April, at 4:30.

Because FM National was revising their Operating Regulations and Bylaws, and I was on the committee, I had occasion to compare our Constitution and Bylaws and discovered that the Midwest Chapter Executive Board has the power to appoint a vacant officer position. The Board has therefore unanimously agreed to appoint Frank Konieczki, as secretary for the chapter.

FM National has an extensive archive of its own documents and those of the chapters. Mark Jacobson, president of the Colorado chapter, volunteered to go through the archives. The National treasurer, Gloria Staebler, was not receptive to providing financial support to the Midwest Chapter for our recent symposium. She thought that, at one time, we had a treasury of something like \$10,000, and she wondered what we had done with it. I asked Mark Jacobson to be on the

# Friends of Mineralogy

**From the office of the President**

**Clyde Spencer**

lookout for past treasury reports, or newsletters, to see if Gloria's perceptions could be substantiated. He spent a day scanning newsletters and sent me 21 PDF files. We will be putting those historical documents on our new website. Mark estimates that there is at least a couple more days worth of newsletters to scan, but he doesn't have the time. National has agreed to loan them to us; we will scan them here, and then return them to National. If any of the long-time members have a collection of newsletters or other historical documents, I'd appreciate hearing from you with the hope of you either donating them or at least loaning them to us to digitize. Incidentally, after reviewing several newsletters, going back to Vol. 1, Number 2, it appears that the chapter is currently in the best financial condition it has ever been in.

I'm actively soliciting potential speakers for the Tucson 2017 FM symposium on Saturday at the main Tucson Gem and Mineral Show (TGMS). Julian Gray is the actual symposium chairman, but I was volunteered to help him because the 2017 TGMS theme is Midwest Minerals. If you will be in Tucson, I'd appreciate it if you let me know if you have a subject you would like to talk about for 20 minutes. Similarly, if you have a spectacular Midwest mineral in your collection, and would like an opportunity to display it at the main show, FM will be coordinating a display case. I think that I would prefer self-collected specimens, if for no other reason than to make the other chapters jealous about our collecting opportunities. Please let Randy Marsh or me know if you will be willing to bring a specimen for display. We may well have more than we can use, so try not to be disappointed if we run out of room.

In the course of looking on the internet for a picture of a cobbing-hammer, I ran across an interesting piece from the Mineralogical Society of American, circa 1946. It is a short, light read that I think you might find interesting:

[http://www.minsocam.org/msa/collectors\\_corner/arc/geol\\_min.htm](http://www.minsocam.org/msa/collectors_corner/arc/geol_min.htm)



### *Meeting Minutes (3/12/2016)*

Friends of Mineralogy, Inc. Midwest Chapter  
Meeting Minutes- March 12, 2016  
Shideler Hall, Miami University  
Oxford, Ohio

#### **Called to order:**

President Clyde Spencer called the meeting to order at 9:36 am. The following officers were present: Clyde Spencer, President; Randy Marsh, Vice President Programs; Reggie Rose, Vice President Field Trips; Jeff Spencer, Treasurer; Frank Konieczki, Secretary. The meeting was held in conjunction with the Friends of Mineralogy Midwest Chapter 4<sup>th</sup> Annual Mineralogical Symposium. Accordingly, no formal member census was conducted. Approximately 40 members were present; there were approximately another 25 non-members present for the symposium.

President Spencer welcomed all attendees to the symposium.

No formal agenda was presented for review/discussion.



### **Old Business:**

President Spencer asked if any corrections to the January 16, 2016 meeting minutes were needed. No such changes were proposed or adopted.

### **New Business:**

#### **Treasurer's Report:**

Treasurer Jeff Spencer reported that the club treasury had an ending balance of \$4,092.81 for 2015, including \$860 in 2016 dues received from 43 members. Forty four members have paid \$880 for 2016 dues since January 1, 2016, bringing the current member total to 87. This year's projected membership is approximately 110, and if realized, this would yield \$460 in additional dues income. The budgeted expenses thus far this year include the following: insurance- \$625.00; National dues- \$440.00; symposium expenses- \$500.00, and these expenses total \$1,565.00. Website registration and hosting expenses for two years was \$166.42. Currently, the projected balance after expenses is \$3,681.00 + \$450.00 year to year.

Vice President Programs Randy Marsh reminded all present that the symposium is one of a series of events in the next year that emphasize Midwest minerals. These events include a field trip to Hicks Dome in conjunction with Geological Society of America's annual meeting whose theme is Mississippi Valley Type Deposits of the Midwest USA, the upcoming GeoFair in Cincinnati, and next year's Tucson show, with a theme of Midwest Minerals. President Spencer encouraged members who might be willing to be speakers for the National FM symposium in February, or who have suitable specimens for the Tucson show, to contact him. Dr. John Rakovan advised that any who have very good specimens of Midwest minerals should submit photographs of them.

Vice President Field Trips Reggie Rose indicated that the majority of the field trips for the chapter are in Ohio, along with one each in Michigan and Indiana. FM's Midwest Region also includes Illinois, Iowa, Missouri, and Kentucky, and Vice President Rose is interested in expanding the organization's mineral collecting opportunities. He is seeking input from members who may have contacts in the latter states, or at different locations in the former, so that additional field trips can be scheduled.

President Spencer stated MSHA safety refresher training is scheduled to be conducted by Scott Kell on 3/19/16, without Ohio Department of Natural Resources (ODNR) direct support.

President Spencer indicated that the FM Midwest Chapter website was long managed through Indiana University by Dr. Nelson Shaffer until his retirement. However, maintenance of the website has recently been problematic, so it was decided that our Chapter would develop and maintain its own website. Treasurer Jeff Spencer indicated that considerable progress has been made in developing the website, and he presented an overview of the format and information that is being developed. The site includes an events section, a library, a contact page, space for announcements, and he anticipates the website will be completed in approximately two months. He also said that those who access the soon-to-be obsolete IU address will be transferred automatically to the new site, and that it will be easy to add updates to the new site.

**Meeting adjourned:** 10:00 AM

**Program:** Friends of Mineralogy Midwest Chapter 4th Annual Mineralogical Symposium: Topic - Midwest Fluorites. (See separate program notes).

Respectfully submitted by Frank Konieczki, Secretary pro tem'



## Treasurers Report

### **2015 Wrap-up**

We closed out 2015 with \$4092.81 in our treasury. This included \$860.00 in 2016 dues for 43 members.

The 2015 audit is complete thanks to Alan DeWitt. The sign-off and supporting material was sent to the National Treasurer as required in our by-laws.

### **2016 Activity**

We paid a 2- year domain registration and web hosting fee of \$166.42. The new website is up and running at <http://fommidwest.org>, and we'll be redirecting traffic off of the old site in the next few weeks.

The Annual Symposium continues to grow into a popular, well-attended event. We paid out \$641.50 in expenses for the event and we received \$127.00 in donations. Several new members registered as a result of the symposium. Sales of t-shirts and mugs brought in another \$155.00. There are still a few t-shirts available so if you would like to order, please contact Randy Marsh.

Our 2016 National dues of \$440.00 for our current membership of 110 along with our insurance liability premium payment of \$650.00 have both been paid. Payment of \$37.00 was made to Cincinnati Mineral Society for swap table space at the Cincinnati show.

Since January 1<sup>st</sup>, 67 additional members have paid \$1340.00 in dues.

So, at this point in the year, we have paid all of our budgeted expenses and recorded most of our annual membership revenues. That leaves our current treasury balance at \$3,779.89.

Jeff Spencer - Treasurer



### **April 3<sup>rd</sup> 2016 Marblehead Quarry Trip**

On Sunday, April 3, FM had our third annual early spring field trip to the LaFarge quarry in Marblehead, Ohio. This location is well known for its calcite and fluorite specimens. The trip was originally scheduled for Saturday the 2<sup>nd</sup>, but with the quarry in full operation, the trip had to be postponed by one day. As it turned out, that was a good thing. The weather on Saturday was very bad with cold temperatures, high winds and a snow / rain mix. Sunday was cold, but the sun came out and the winds calmed down to tolerable levels.

Twenty-three collectors attended and were able to peruse through enormous amounts of rock on the quarry floor. Some of it was tough to navigate through because of the amount of water present. I was able to see that several folks did very well when their finds were shown off at the end of the day. Notably, Mike Royal probably found the best material of the day, dissecting an enormous boulder to extract some beautiful calcite plates. Several were in combination with fluorite. A big thanks goes out to LaFarge for letting us collect at this great location.



Marblehead fluorite – Randy Marsh



Marblehead calcite – Mike Royal

### [Quarry Travel / Event Guide](#)

If you don't mind a longer drive and you like good collecting, the Dolomite Group's annual open house is Saturday, May 7, 2016 from 6:45 am to 12:00 pm. Since this is an open house, we do not have sign-ups for the purposes of numbers, but let me know if you are going just so I can communicate with you. Children ages 5 and up are welcome. The quarry is known for dolomite in conjunction with calcite, sphalerite and fluorite (purple and clear to light blue).

**Field Trip Locality:** Dolomite Products Inc.

**Address:** 746 Whalen Road, Penfield, NY 14526

**County:** Monroe

**Date of Trip:** Saturday May 7, 2016

**Time of Field Trip:** 6:45 am – 12:00 pm

**From Grove City, OH:** via toll roads: 411 miles; without toll roads 459 miles

**Travel Time:** From Grove City, OH; exit 100 on 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. Arrive early to get checked in since the group will be large. Any power equipment, including saws are allowed (just no explosives). There isn't a defined limit on how many collectors we can take, so please sign up if interested.

**Quarry Location:** Pick up the following log where it is convenient from your home location:

From Grove City, OH

Leg of Route:	distance (miles):	time:
From exit 100, I 71 Ohio:		
I 71 N from exit 100 to exit 220 (enter I 271N)	120.0 mi.	1:42
I 271 N @ exit 220 of I71 N TO I 90 E	46.3 mi.	0:44
I 271 N ends; begin I 90 E @ mile 190		
I 90 E OH to I 90 E PA	53.0 mi.	0:50
I 90 E PA Line to I 90 E NY Line	46.9 mi.	0:43
I 90 E NY Line to I 390 (Rochester exit 46)	129.6 mi.	2:12
I 390 N (Rochester) to I 590 N (Rochester)	9.0 mi.	0:10
I 590 to exit 7 (286 E/Browncroft Road)	5.7 mi.	0:07
From 286 E turn right/south onto Whalen Road (CR 13)	7.4 mi.	0:11
Proceed S on Whalen Road to quarry entrance on the left	0.9 mi.	0:03
	<hr/>	<hr/>
	418.5 mi.	6:41

Stoneco Auglaize is our second FM field trip of the year. You may sign up as soon as you get this quarry guide in your newsletter. As is standard: (1) you must sign up to attend; (2) sign-ups end at 12:00 am Thursday, May 19, 2016. If you must cancel, do so ASAP so that if there is a waiting list someone can take your spot. If you cancel, barring any last minute illnesses or emergencies, try to do so by 12:00 am Friday, May 20, 2016.

2016 Field Trip Schedule FM:

**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 21, 2016

**Time of Field Trip:** 7:00 am – 11:30 am (check in from 7:00 am to 7:30 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 about 8 miles to State Route 637 just east of Junction. Go east a short distance across the Auglaize River and turn south on Paulding County Road 179. The Quarry office on the east (left) side of the road. From the south, Take I 75 N to exit 130 (Bluelick Road). Travel Bluelick Road 3.5 miles west to route 65. Take Route 65 N/R for 1.6 miles where you will bear left onto Route 115 N. Continue for 7 miles into Kalida and stay on 115 N for another 19.5 miles until its junction with Route 15. Go W/L on Route 15 for 0.5 miles to Route 613. Go W/L on Route 613 for 9 miles passing through Continental, Hartsburg and Oakwood. At the junction of 613W and Route 66 west of Oakwood, take Route 66 N/R. Five miles later, take Route 166 L/W. After 2.6 miles, turn right (N) onto County Road 179. Take 179 N for 1.3 miles to the quarry entrance on your right.

Happy hunting.  
Reggie Rose



## Upcoming Events

<b>TITLE:</b> GeoFair 2016 <b>DATE/TIME:</b> April 30 10:00 AM - 6:00 PM and May 1 11:00 AM – 5:00 PM <b>LOCATION:</b> Sharonville Convention Center, 11355 Chester Road, Cincinnati, OH <b>HOST/COORDINATOR:</b> Terry Huizing ( <a href="mailto:tehuizing@fuse.net">tehuizing@fuse.net</a> ) <b>ACTIVITY:</b> Chapter meeting scheduled for 4:30 PM on Saturday April 30	YES	YES	This is our April Chapter meeting
<b>TITLE:</b> Penfield Quarry Field Trip <b>DATE/TIME:</b> May 7 6:45 AM to 12:00 PM <b>LOCATION:</b> Penfield (East of Rochester) New York	N/A	N/A	Open House Field Trip  (Multiple Clubs Participating)
<b>TITLE:</b> Cleveland Area Gem and Mineral Show ROCKaRAMA <b>DATE/TIME:</b> May 14-15, 10:00 AM – 5:00 PM <b>LOCATION:</b> Soccer Sportsplex, North Olmstead, Ohio <b>SPONSORED BY:</b> Parma Lapidary Club	NO	NO	
<b>TITLE:</b> Auglaize Quarry Field Trip <b>DATE/TIME:</b> May 21 7:00 AM – 11:30 AM <b>LOCATION:</b> Junction, Paulding Co., Ohio	N/A	N/A	2 <sup>nd</sup> FM Field Trip
<b>TITLE:</b> Maine Pegmatite Workshop <b>DATE/TIME:</b> May 27 - June 4 <b>LOCATION:</b> Poland Mining Camps, Poland, Maine <b>HOST:</b> Ray Sprague < <a href="mailto:rasprague@mac.com">rasprague@mac.com</a> >	N/A	N/A	
<b>TITLE:</b> Richland Lithic & Lapidary Society Show <b>DATE/TIME:</b> June 4-5 <b>LOCATION:</b> Richland Co. Fairgrounds, Mansfield, Ohio <b>SPONSORED BY:</b> Richland Lithic & Lapidary Society	NO	NO	
<b>TITLE:</b> Field Trip TBD <b>DATE/TIME:</b> June 18 <b>LOCATION:</b> TBD	N/A	N/A	Holding for 3 <sup>rd</sup> FM Field Trip Based on Reggie's Schedule
<b>TITLE:</b> 51 <sup>st</sup> Annual Mineral, Fossil Show and Swap <b>DATE/TIME:</b> June 24-26 <b>LOCATION:</b> Lawrence County Fairgrounds, Bedford, IN <b>HOST/COORDINATOR:</b> Dave Treffinger ( <a href="mailto:djt5766jkft@msn.com">djt5766jkft@msn.com</a> )	NO	NO	

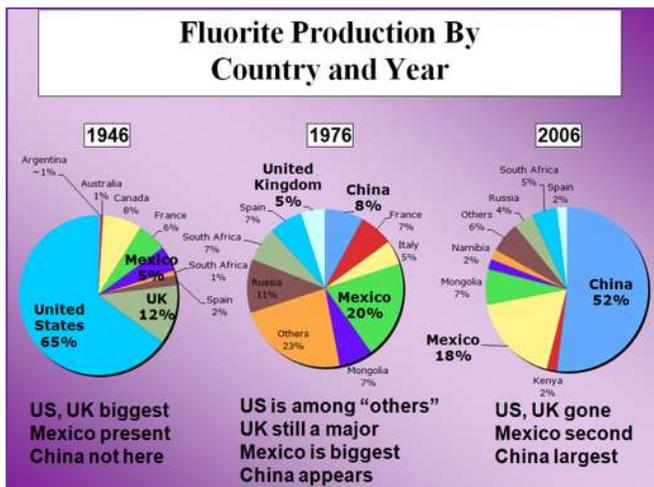


**4<sup>th</sup> Annual Friends of Mineralogy Midwest Chapter  
Mineralogical Symposium at Miami University  
March 12, 2016**

Friends of Mineralogy Midwest Chapter held its annual symposium, themed *Midwest Fluorites*, in newly renovated Shideler Hall from 10:00 AM to 5:30 PM.

Several dozen outstanding Midwest fluorite specimens of FoM members were on display, in the museum showcase, including some outstanding examples that illustrate the spectrum of colors associated with the region, including several that exhibited marked iridescence or zoning.

The ten-speaker roster provided a broad array of presentations to the attendees. The morning session



began with Arvid Pasto, who has authored a book on fluorites, and whose personal fluorite collection contains 1,430 specimens. His presentation, *Fluorite*, provided an overview of fluorite’s properties, environments/origins, and worldwide and Midwest U.S.A. occurrences. Arvid also commented on fluorite production over time, with the United States being the world’s leading producer in the 1940s, Mexico taking the lead by the 1970s, and China now dominating the production market.

Next, renowned mineral photographer Jeff Scovil presented a series of stellar fluorite images he has captured over the last eight years, displayed in

alphabetical order by state, then location. Specimens from Illinois (Annabelle Lee, Denton, Hill- Ledford, Mahoning, Minerva), Indiana (Kelly, May), Iowa (Raymond), and Ohio (Auglaize, Clay Center, Lime City) were shown.

The afternoon session’s first speaker was host Dr. John Rakovan, whose program, *Fluorite in MVT Deposits*, emphasized the origin of the mineral in these deposits. The material included fluorite occurrences in zinc and lead sulfide deposits, its epigenesis in limestone and dolostone strata by invasion of low-temperature hydrothermal brines, and commonly associated gangue minerals. He used the KY/IL fluorspar deposits, as well as Hansonburg, NM deposits to illustrate theories of deposition, and to outline differences in their associated geological structures, but also to emphasize their commonality of being adjacent to/underlain by magmatic structures.

**Hansonburg District and other The Rio Grande Rift deposits and their relationship to Mississippi Valley Type deposits.**

**Similarities**

- Ore texture and mineralogy
- Mineralizing fluid chemistry
- Host rock lithology
- Genetic relationship to sedimentary basins

**Differences**

- Fluorite is the dominant mineral
- Highly variable fluid inclusion salinities (0.3-20eq. Wt% NaCl)
- Nature of plumbing systems
- Associated magmatism and extensional tectonics



Brett Denny then presented his segment, *The Significance of Ultramafic Rocks Underlying the Illinois-Kentucky Fluorspar District*. Brett provided an overview of the district, discussed vein and bedding replacement deposits and their relative frequency, and the associated minerals in the deposits. He discussed ore model research conducted between 1959 and 2013, which imply that the deposits' genesis occurred in several periods between 271 MYA to 90 MYA, depending on the radioisotopes used in the various studies.

The next speaker, Stuart Kenderes, is a master's student working with Dr. Martin Appold and his research group at the University of Missouri at Columbia. Stuart presented *Investigating the Nature of Primary Ore-Forming Fluids in the Illinois-Kentucky District*, where he discussed how ore fluid research can be used to

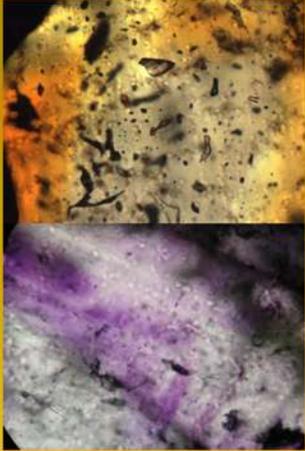
**How do we study ore fluids?**

Fluid Inclusions

- Microthermometry, Ion Chromatography, Mass Spectrometry, and X-Ray Microanalysis

Geochemical Modelling

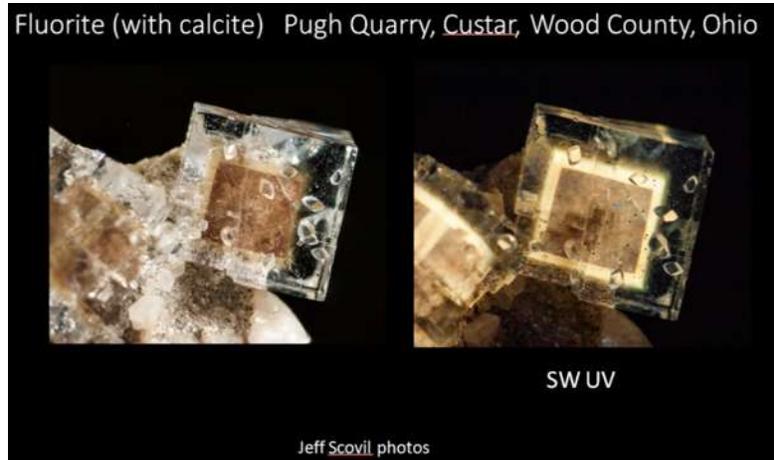
- Speciation calculations, Gibbs Free Energy calculations, and Reaction Path Modelling



determine precipitative mechanisms and formation rates of an ore body. He indicated that his research was attempting to learn why the IL-KY district is a major fluorite deposit, and to learn why it is so different from other MVT deposits. Stuart described earlier research that indicates MVT deposits form at low temperatures (~100°C) and MVT fluids are almost six-times saltier than seawater, resembling modern sedimentary and oil-field brines. Previous research has also suggested that there is a mantle-sourced magmatic signature to fluids in IL-KY, which is unusual for MVT deposits. His group's recent study of ore fluids indicates that the fluids in the IL-KY district are rich in methane and contain the

following metals: Na, Ca, K, Sr, Fe, Cu, Zn, Ba, and Pb. Stuart's master's research has revealed ore fluids in IL-KY are rich in fluorine when compared to sedimentary brines, or zinc-dominated Tri-State deposit. Ore fluids rich in fluorine, consequently, have a very low pH, which increases metal-sulfide solubilities and suppresses their deposition, thereby depositing a world-class fluorite deposit.

Well known, veteran mineral collector John Medici's program, *Findlay Arch Fluorites*, described his 50 years of years collecting fluorites in the region, including good photos of representative samples from Indiana (May Sand & Stone) and Michigan (Holloway Quarry), with an emphasis on Ohio quarries (Marblehead, Bellevue, Clay Center, Lime City, Woodville, Gibsonburg, Duff). John also provided images of many unusual specimens, including fluorite concretions (Holloway), casts after anhydrite (Lime City, Bluffton), fluorite needles, and fluorite cubes with inclusions.

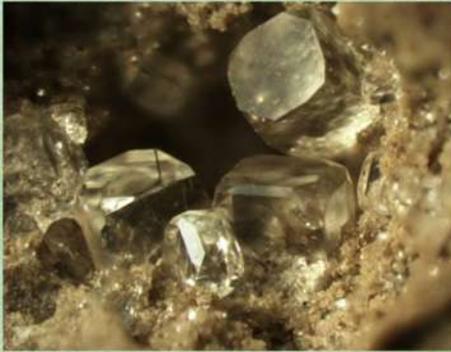


Nelson Shaffer, formerly of Indiana University and a charter Midwest chapter member, presented *Many Faces of Fluorite*, which began with a photo image of a stunning item of Native American art, namely a 3' statue found at Angel Mounds that was carved from solid fluorite. He outlined fluorite distribution in Indiana, noting three major occurrences, specifically deposits in Devonian and Silurian-age strata in the Fort Wayne area and south central region, and in Mississippian strata in southern Indiana.



R. Peter Richards of Oberlin College followed with *The Crystallography of Fluorite*, in which he outlined the basic isometric structure, including more common habits, such as cubic, octahedral and dodecahedral; he then provided illustrations and a narrative of the continuity and complexity of its many habits, and described how combinations of habits are often seen on the same specimen. He also discussed contact and penetration twinning, and he spoke about modification in Ohio fluorites crystals, such as the tendency for trapezohedral modifications over trisoctahedral modifications.

**Crystal modifications: dodecahedron**



Alan Goldstein's presentation, *Fluorite Deposits in Kentucky*, provided information about both the IL/KY District and the state's other most notable occurrence in the Central Kentucky Mineral District. He noted that the oldest mine in the western district, Columbia Mine, opened in 1835, and soon-to-be President Andrew Jackson was a co-owner. The largest producer was the Lafayette Mine, which produced 2 million tons during operation, and the most famous specimen location was the Babb Mine. Alan also provided photographs and discussion of the central district that encompasses all or parts of a dozen counties.



The last speaker of the day was Jim Gebel, an avid mineral collector who specializes in Midwest Fluorites, and whose presentation was titled *Selecting Fluorite Specimens & Building a Fluorite Collection: A Mineral Collector's Perspective*. Jim began by making a case for fluorite's enduring popularity as a collector mineral – it is relatively common and affordable, it comes in many colors and habits, and it often exhibits zoning. He also indicated that locality, provenance, form, and quality are some factors that determine what is considered to be a good specimen. He showed images of fluorites from his collection. They encompassed a broad array of colors and unusual forms. He concluded by stressing that one can easily specialize their fluorite collection by size range, mining districts, structural diversity, and a number of other criteria.

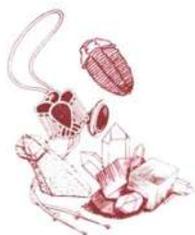
## PHANTOMS "ALIEN EYE"



## FROM INDIVIDUAL SPECIMENS TO A FLUORITE COLLECTION

- Many potential goals of collecting
  - ◆ One or more mining districts
  - ◆ Maximum crystal structure diversity
  - ◆ Maximum locality diversity
  - ◆ Maximum phantom diversity
  - ◆ Aesthetics
  - ◆ Perfection
  - ◆ Size range (thumbnails, cabinet, micromounts)

The symposium concluded with a tour of the building, including the Limper Geology Museum (currently in the final stages of construction), and lab equipment, which was led by John Rakovan.



# GeoFair 2016

February 15, 2016

Contact: Greg Hand  
GeoFairPublicity@Gmail.com  
513-662-9171

For Immediate Release

**Cincinnati's Largest Non-Profit Gem, Mineral, Fossil & Jewelry Show**  
**Saturday, April 30, and Sunday, May 1**  
**Sharonville Convention Center**

GeoFair, Cincinnati's Largest Non-Profit Gem, Mineral, Fossil & Jewelry Show, will dazzle visitors from 10:00 a.m. to 6:00 p.m. Saturday, April 30, and 11:00 a.m. to 5:00 p.m. Sunday, May 1, at the Sharonville Convention Center 11355 Chester Road. The 51st annual GeoFair will highlight "Mineral and Fossil Collections in the American Midwest."

Admission to GeoFair is \$9 for adults and \$3 for children (uniformed Scouts enter at no charge). A two-day adult pass is available for \$12. (A coupon for \$2 off adult admission is offered for download at GeoFair.Com ) Plentiful free parking is available at the Sharonville Convention Center.

More than 50 commercial vendors from as far away as Florida and Nevada offer stunning items for sale, ranging from curiosities costing mere pennies to museum-quality specimens costing thousands of dollars.

Family-friendly activities at this year's GeoFair. will include merit badge assistance for scouts, earth science games, gold panning, free mineral collections (for kids under 12), free fossils (for kids under 12), and free identification of your fossils, meteorites, minerals and gemstones.

Since 1965, GeoFair has introduced thousands of families to the pleasures of the earth sciences including collecting minerals and fossils, making jewelry and studying geology. Experts at GeoFair will identify any fossil or mineral specimens or any items of jewelry.. Dozens of displays showcase the rare "finds" of amateur collectors. GeoFair is produced by the Cincinnati Mineral Society and the Cincinnati Dry Dredgers, an association of amateur paleontologists.

For more information on GeoFair 2016, see our website at [GeoFair.com](http://GeoFair.com)

