



Eastern Indiana Gem & Geological Society

ROCK PICKINGS

March 2017

P.O. Box 1724 • Richmond, IN 47375 • eiggs.weebly.com • facebook.com/EasternIndianaGemGeologicalSocietyEIGGS

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Memberships:

Annual dues
\$15 Individuals
\$20 Families

Please send dues to:

EIGGS
PO Box 1724
Richmond, IN 47375

6 Next meeting: Thursday, April 6, 6:30 p.m.

PRESIDENT'S MESSAGE

Hello, Rock Hounds:



Scholarship winner Kylei Klein & scholarship chairperson Charlene Reidenbach

The show is over and it was a success! Thank you to all who volunteered. Our profit this year is the highest it's ever been. Although how we arrived at those numbers has been a bit different compared to previous years.

The children's wheel of fortune did exceptionally well. Admissions was the highest ever. The silent auction dipped from last year's high, but is near the median of the range.

The raffle saw another year of declining sales from the first year we had a raffle. While I would have liked better raffle numbers, I'm not too concerned. Our

grand prize for next year, I think is a show stopper and will bring in more sales.

Our expenses have continued to go down since 2014 which is amazing. A BIG congratulations to Judy Burton, our show chair who pulls all this together and continues to exceed year after year!

Floor repairs to the women's bathroom are ongoing as we speak. This project should be complete soon. The ceiling tile support in the shop room has been repaired by Scott Gibson. No more walking around makeshift support pole. Thanks, Scott!

If you have not paid your dues by now, you have been dropped from the membership roll.

Try the Hot Links

The newsletter now incorporates new hot links, which you can click to go directly to web sites where you can explore further coverage.

Including them has been a learning process, but they have a lot of potential. Look for the blue links in the newsletter.

Try the links and let me know what you think. E-mail EIGGSnews@gmail.com

Mark

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Construction continue



New floor installed in hallway

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Wire-weaving class



Class set for April 15

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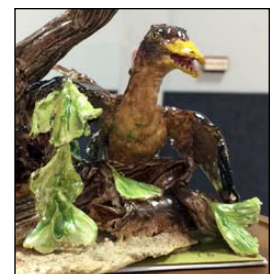
New members



Nikki Merrill is one of five new members.

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Archaeopteryx returns!



Make a donation to bring back this bird!



MEETING MINUTES: MARCH 2, 2017

MARY ANN MORSE, SECRETARY

There was no business meeting. Instead, the members of EIGGS and the show dealers enjoyed a carry-in dinner together.



SHOW REPORT:

DAVE STRAW, TREASURER

INCOME	2017	2016	2015	2014	2013	2012
Admissions	\$5,731	\$5,037	\$4,239	\$4,328	\$4,144	\$4,965
Silent Auction	\$1,574	\$2,027	\$1,666	\$1,187	\$1,401	\$1,657
Kulhman items	\$519	\$438	\$436	\$615	\$1,185	\$0
Wheel	\$624	\$360	\$320	\$239	\$355	\$317
Scholarship	\$0	\$52	\$10	\$7	\$42	\$44
Mining	\$237	\$235	\$120	\$181	\$181	\$165
Magazines & Books	\$119	\$189	\$125	\$75	\$100	\$19
Subtotal	\$8,804	\$8,338	\$6,916	\$6,632	\$7,408	\$7,167
Dealers & Kitchen	\$5,340	\$5,550	\$5,405	\$5,365	\$5,615	\$5,695
Raffle	\$888	\$1,124	\$1,473	\$0	\$0	\$0
TOTAL INCOME	\$15,032	\$15,012	\$13,794	\$11,997	\$13,023	\$12,862

EXPENSES	2017	2016	2015	2014	2013	2012
Kuhlman Rental	\$2,195	\$2,195	\$2,195	\$2,195	\$2,195	\$2,195
Ad-IN brochure	\$0	\$0	\$0	\$0	\$0	\$195
Ad-Pal-Item	\$229	\$151	\$169	\$304	\$301	\$385
Ad-Gad-a-Bout	\$198	\$198	\$198	\$198	\$180	\$180
Ad-Ohio Papers	\$432	\$429	\$495	\$568	\$591	\$0
Ad-Radio	\$102	\$99	\$90	\$0	\$0	\$0
Stamps, flyers, cards	\$400	\$418	\$390	\$393	\$481	\$214
Labor: Set-up	\$100	\$100	\$100	\$100	\$100	\$160
Labor: Security	\$180	\$180	\$180	\$180	\$180	\$0
Misc.: food, auction items, etc.	\$148	\$25	\$206	\$246	\$188	\$241
Special Display/Kids Area	\$162	\$75	\$126	\$500	\$0	\$0
Raffle	\$200	\$356	\$325	\$0	\$0	\$0
TOTAL EXPENSE	\$4,346	\$4,226	\$4,474	\$4,684	\$4,216	\$3,570

PROFIT	2017	2016	2015	2014	2013	2012
Total	\$10,686	\$10,786	\$9,320	\$7,313	\$8,807	\$9,292

Attendance

	Adult	Senior	Child	Passes	TOTAL
2017 Friday	118	139	16	434	707
Saturday	385	212	33	46	676
Sunday	266	132	159	30	587
TOTAL	769	483	208	510	1970

2016 Friday	98	129	17	332	576
Saturday	408	218	164	5	795
Sunday	238	106	81	4	429
TOTAL	744	453	262	341	1800

	Adult	Senior	Child	Passes	TOTAL
2015 Friday	115	81	11	68	275
Saturday	332	179	126	12	649
Sunday	170	73	66	6	315
TOTAL	617	333	203	86	1239

2014 Friday	81	94	11	0	186
Saturday	374	196	139	2	711
Sunday	155	67	57	0	279
TOTAL	610	357	207	11	1185



LINCOLN SENIOR EARNS EIGGS SCHOLARSHIP

Lincoln High School senior Kylei Klein is the recipient of the 2017 STEM scholarship presented by the Eastern Indiana Gem and Geological Society. She accepted the award at the annual Richmond Gem and Mineral Show, Sunday, March 5.

Klein plans to use the \$500 scholarship to pay for expenses at Purdue University where she will study animal science and agriculture education. "My love for agriculture, animal science and education has molded me into the person I am today, and my dream includes being able to educate others on just a fraction of all the amazing aspects that the science field has to offer," Klein said.

The annual award is open to seniors at all Wayne County high schools, as well as National Trail High School, who plan to pursue careers in the STEM fields of science, technology, engineering or math. Students have to have GPAs of 3.0 or higher and a strong record of extracurricular involvement and community service.

In May Kylei will graduate at the top of her class with an Indiana Academic Honors diploma and a Technical Honors diploma.

Klein balanced her academic performance with a full set of extracurricular activities, including 4-H, FFA, National Honor Society, Student Council, Fellowship of Christian Athletes, Business Professionals of America, Key Club, Jazz Band, Choir, and the Math Academic team.

Through these activities and others, she has had the chance to perform numerous hours of community service and has also had the chance to compete at the regional, state and national levels. As a BPA member she was a national finalist. She was also a national finalist for her proposal for world hunger at the Global Youth Institute sponsored by the World Food Prize. As a 4-H member she has been a county and state exhibitor in dairy, dairy steers, sheep, swine, goats and rabbits. She was also chosen to attend the Indiana Dairy Academy to increase her knowledge of the dairy industry.



Surrounded by EIGGS president Mark Lisota, scholarship chairperson Charlene Reidenbach, and parents Rodney and Kelly Klein, Lincoln senior Kylei Klein accepts the EIGGS STEM scholarship at the annual Richmond Gem and Mineral Show, March 5.

In addition to academic and extracurricular activities, Klein participates in multiple sports. She was named a Top Scholar Athlete in four varsity sports: volleyball, basketball, tennis and track. Her Spanish teacher, Rachel Hall, noted, "Kylei has been an invaluable member of many clubs and sports teams in and out of school. Her peers, coaches, and teachers know with certainty the Kylei will plan, prepare, and execute any task with vigor, creativity, and quality. In winning or losing, she is gracious, humble, polite and encouraging to others."



CLUB CONSTRUCTION PROJECTS CONTINUE...

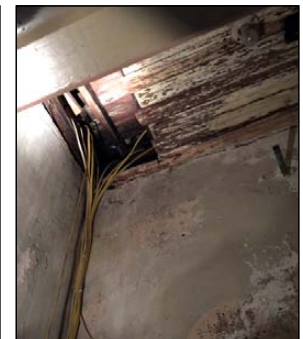
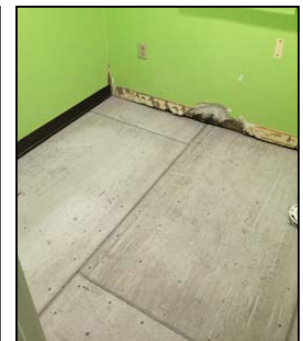
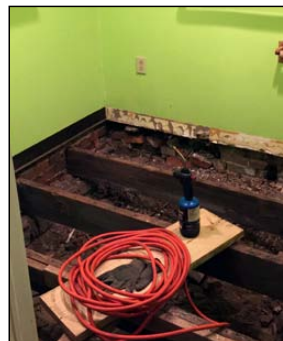
It seems like with each step forward on construction, there is a step backward, too. The meeting room floor work was completed, but has issues to be resolved. The women's bathroom floor was rotting through, so that was replaced.

However, when work was begun on the rest room ceiling, items from the second floor fell through the ceiling. Upon investigation, it was found that a roof leak had drained into a second floor closet, rotting the floor there, and that was what was leaking into the women's rest room ceiling. There is also mold present.

This latest development has put a hold on fixing the bathroom until the roof leak is fixed and repairs are made on the second floor.

As if all that wasn't exciting enough, a bat (referred to affectionately as "Count Dracula") was found "hanging out" in the basement.

That issue, too, is being resolved...





RICHMOND RAFFLE WINNERS



■ Club members Reagan Pierce and Hailee Shaffer share the raffle winners names with club president Mark Lisota. Jannette Wirrig was the winner of the ammolite pendant, Kent Herstad won the celestite crystal and Carol Stocksdale won the address card give-away.



2017 SHOW PHOTOS

To see ALL the photos from the recent EIGGS Gem & Mineral Show, please click on the link below:

<http://eiggs.weebly.com/2017-gem--mineral-show.html>



■ Linda Straw explains the rock cycle to visitors on Student Day.



■ At the silent auction table, Jim and Marty Lucas take a break from setting-up for the show.

Updated EIGGS WEB SITE

Please visit the updated EIGGS web site at EIGGS.weebly.com

It is a work in progress, and not all sections are done yet (including the "member portal").

However, upcoming and past events are posted, with more photos of past events on the way.

Show photos are posted for the last few years, and the 2018 section will be updated as more information becomes available.

The scholarship section is completed, too. Students will now be able to apply online as well as on paper. Soon, we'll post an archive of scholarship winners.

The history section is started, and in the future, more history and photos will be added from the club scrapbooks.

An education section will be added, too, and educational materials will be available in time for the 2018 Student Day.



TROY RAFFLE TIX AVAILABLE

Tickets are on sale now to win the raffle grand prize at the Brukner Gem, Mineral, Fossil and Jewelry show in Troy, Ohio. Weighing in at 25-30 pounds, this huge chunk of carved ocean jasper, is a unique show-stopper. The piece measures about 15" tall at the highest.

You may buy raffle tickets in advance from Judy Burton and Joe Wirrig, or you may buy them at the show, April 22-23.

Tickets are \$1 each or six tickets for \$5.

The winning ticket will be drawn at the end of the day on Sunday. You do not need to be present to win, although you must arrange to pick up the prize. (but since we have at least seven EIGGS members who are Troy members, too, that shouldn't be much of a problem!)



■ This carved piece of ocean jasper will be the raffle grand prize at the Troy (OH) gem and mineral show April 22-23.

NEW WIRE-WEAVING WORKSHOP, APRIL 15

Want to add another skill to your crafting arsenal? Join the club's first-ever wire weaving class, Saturday, April 15, from 10 a.m.-2 p.m. at the EIGGS club house.

Naomi Jones, a skilled wire-weaver, will teach this members-only class. The class will cost \$20 per participant. Enrollment is limited to 15 people, so please register in advance. To register, please e-mail Naomi at blessedmomof6kids@gmail.com or call her at 765-277-6969.

What: Wire-weaving class

When: April 15, 10 a.m.-2 p.m.

Who: Club Members

Instructor: Naomi Jones

Cost: \$20/person

See supply list below

You may pay on the day of the class. For lunch, the group will order pizza. You will need to bring your own supplies (*see list*). Naomi will also have some extra tools available for participants to use.

Naomi suggests purchasing craft wire from www.RioGrande.com or www.Monsterslayer.com. They have low prices and a variety of colors to choose from. She thinks the wire may also be available at Hobby Lobby or JoAnn Fabric. You will need

18 or 20-gauge **soft round wire** for framing your piece

& 26 or 28-gauge **soft round wire** for the weaving

Naomi says any type of wire will work, but she thinks copper is the easiest wire for beginners to work with.

**One more note: Naomi's due date is April 29. If the baby makes an early appearance, the alternate workshop date will be May 20.*



pendants by Naomi Jones; photos by Dakota Jones

Wire- Weaving Supply List: Participants must bring their own supplies

- teardrop shaped cabochon (approx 24x40 mm)
- 18 or 20 gauge round soft base wire
- 26 or 28 gauge round soft weaving wire (see story for details)
- Flat nose pliers (no gator-teeth)
- Round nose pliers (no gator-teeth)
- Cutters
- Small knife or pick to lift wires

The following would be useful, (but not necessary)

- Bail gauge
- Ruler
- Fine tip Sharpie marker
- Painters tape (blue is good)
- Small file (a nail file)

MOWING VOLUNTEERS NEEDED

Please don't make us buy a goat!

Like to work outdoors? Want to help out your rock club?

Now that "spring has sprung," we will soon need a volunteer (or a few volunteers? or a goat?) to mow the yard at the clubhouse.

The club has a nice riding mower for you to use, and you will be reimbursed for any gas you put in the mower.

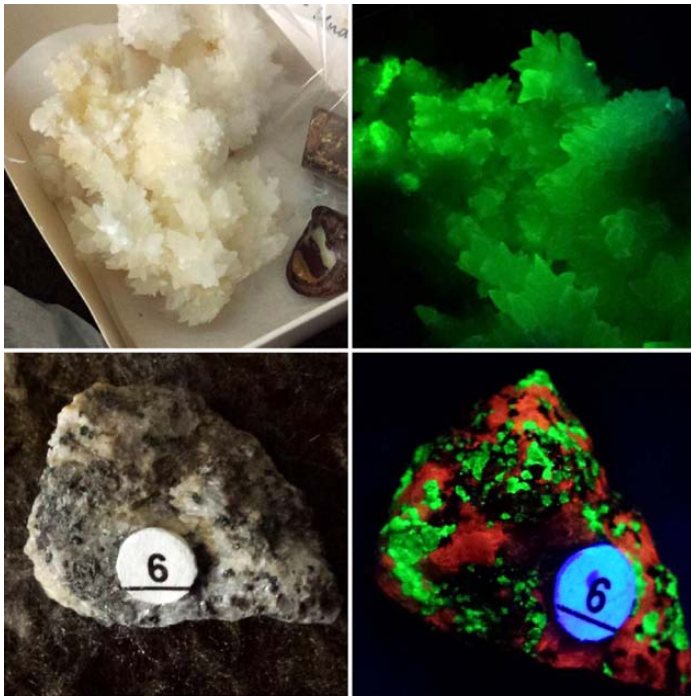
Depending on the weather conditions, once the grass starts growing, it should be

mowed once a week.

We will post a monthly sign-up list to help distribute the workload. If you like to "weed whack," your services would be helpful, too!

If you would like to help out with these yard chores, please contact Dave Straw and he will show you the mower, property lines, and everything else you need to know. Strawdl@aol.com or 765-966-4249.





UPCOMING EVENTS

Add these upcoming events to your calendars:

Thursday, April 6, 6:30 p.m.

April club meeting

Saturday & Sunday, April 8-9

Columbus, Ohio, Gem & Mineral Show, *see page 15*

Saturday, April 15, 10 a.m.-2 p.m.

Wire-weaving class at the club house, *see page 5*

Saturday & Sunday, April 22-23

Troy, Ohio, Gem & Mineral Show, *see page 16*

Thursday, May 4, 6:30 p.m. -- May Club meeting

Topic: Fluorescent Minerals & Gems. Bring any fluorescent minerals that you have and any portable UV lights that you have. We will go exploring with in the garage with our UV lights. There will be more information on fluorescent minerals and gems in the next newsletter.

■ Photos submitted by EIGGS member Bill Wilson



WELCOME, NEW MEMBERS!

A warm welcome goes out to Nikki & Tim Merrill, Eastern Indiana Gem and Geological Society's newest members

Nikki Merrill

Occupation: medical director secretary at Richmond State Hospital

Location: Economy, IN

How did your interest in rocks, gems or minerals develop?

Scott Gibson, Emily, Tim and I are best friends. We went on vacation with them to Arizona and little did we know that we were there to get rocks... And now I have two curio cabinets full of rocks, the area in front of my TV is full of rocks, and my driveway is full of rocks. Then Tim went on vacation with Scott and brought home 7,000 pounds of rocks. They kept saying, "Join the rock club! Join the rock club!" so when we were at the gem and mineral show, we did!

What do you hope to learn?

I want to learn how to make my own jewelry out of the cabs I make. Now that I am working in the office and not on the floor, I can dress professionally and wear jewelry.

What areas interest you most?

Jewelry, rock digging, collecting more stones.

What have you learned so far?

So far I have learned to pick out my slabs, stencil, cut on the trim saw and how to use the grinders and polishers.

What are a few of your other hobbies or interests? I'm a dog trainer and have been in the Whitewater Valley Dog Training Club in Richmond. I like to travel; we travel a lot -- St. Thomas, St. Croix, Florida, Arizona. We like to go places and camp. In June we will go to Canada and New York. We both ride motorcycles. Our farthest motorcycle trip was to North Carolina.

Anything else you want to share? I have two shih-tzus, and they are my babies!

Tim Merrill

Occupation: pressman at Color-Box

Location: Economy, IN

How did your interest in rocks, gems or minerals develop?



Through other people and through my own curiosity. I like the beauty of them, the potential of them. It is amazing to see a "diamond in the rough" and what it can become.

What do you hope to learn?

I hope to learn if I have any creativity or artistic ability. I'll enjoy seeing what I can create.

What areas interest you most? I am the most interested in cutting one open and seeing what is inside it.

What have you learned so far? I've learned that

it takes a lot of patience to make a cabochon!

What are a few of your other hobbies or interests? I collect coins. I was a stamp collector but haven't done that for a long time. I like camping and motorcycle riding. I also like to kayak.



WELCOME, NEW MEMBERS!

A warm welcome to Erin Haskett, Zeb Williams & Jesse Williams, Eastern Indiana Gem and Geological Society's newest members

Erin Haskett

Occupation: substitute teacher

Location: Greens Fork, IN

How did your interest in rocks, gems or minerals develop? Through my son, Jesse.

What do you hope to learn?

Anything and everything I can! Specifically, where to locate geodes and how to make jewelry.

What areas interest you most? Helping my son learn from and enjoy what you all do at the club.

What have you learned so far?

Slicing rocks, cutting rocks, and what cabochons are. :)

What are a few of your other hobbies or interests? Gardening, art, playing cards or other board games.

Anything else you want to share? Lisa has shown us kindness and patience, even before we became members!

Zeb Williams

Occupation: diesel mechanic

Location: Greens Fork, IN

How did your interest in rocks, gems or minerals develop? Because Jesse started talking about them.



■ At the Langsdon Mineral Collections, Erin Haskett, Zeb Williams & Jesse Williams listen to the presentation.

What do you hope to learn? I don't know.

What areas interest you most?

I'm not really interested; just joined the group as a family.

What have you learned so far?

I haven't been able to attend any meetings so far...

What are a few of your other hobbies or interests? RC trucks, trucks, Jeeps.

Jesse Williams

Occupation: student

Location: Greens Fork, IN

How did your interest in rocks, gems or minerals develop?

My friend, Johnathon Terhaar, was talking about rocks and minerals, and it interested me.

What do you hope to learn? How to look at a rock, and know its name.

What areas interest you most? The process of how rocks are formed.

What have you learned so far? How to wrap a rock for jewelry. How to cut, shape, and polish rocks. The little pieces of rock, as they are being shaped are called cabs.

What are a few of your other hobbies or interests? Search and find. Science. Animals.



■ At one of last year's Super Saturday events, 4-H members look at geology exhibits. They discussed topics including fossils, minerals, Indiana specimens, the rock cycle and the lapidary process.



4-H MEMBERS EXPLORE GEOLOGY

Interested club members invited to promote 4-H geology

When we reached out to 4-H two years ago to invite them to the gem and mineral show, Wayne County Purdue Extension secretary Debbie Cates extended an invitation of her own, asking EIGGS members to participate in 4-H Super Saturday events to promote interest the geology projects. She hoped it would be a way to help combat declining enrollment in the geology project areas.

Club members just completed their second year of involvement with the 4-H and we hope the partnership continues to expand.

Club members Naomi Jones and Lisa Morris think it would be a great idea to start a 4-H geology club to work more with area

students interested in geology. If it sounds like something you or your kids would be interested in participating in, please contact Naomi blessedmomof6kids@gmail.com or Lisa EIGGSnews@gmail.com

4-H provides great opportunities for students in grades 3-12 to study geology. To learn more about the geology project categories, please [click here](#).

Special thanks to Patrick, Nicole, Reagan, Emma and Nathan Pierce, Joy Ingerman, Mary Ann Morse, Angie and Hailee Shaffer, and Mark Watson for their commitment to geology education and helping with this year's two Super Saturdays, February 18 and March 18.

Special Thanks to our SILENT AUCTION BUSINESS DONORS

The silent auction is an important fund-raiser for the Eastern Indiana Gem & Geological Society's scholarship program. The following businesses made generous donations to our auction. If you enjoyed the silent auction, we encourage you to visit their shops and websites. If you choose to browse or purchase from any of them, please thank them for their support of the rock club and gem and mineral show in Richmond, Indiana.

Diamond Pacific DiamondPacific.com

Elemental Designs ElementalDesigns.etsy.com

Fire Mountain Gems & Beads FireMountainGems.com

Kacie Schrader

Kingsley North kingsleynorth.com

Moving Rock MovingRock.etsy.com

Natalie's Rock Craft NataliesRockcraft.etsy.com

RyZanStones RyZanStones.etsy.com

SS Jewelry Designs SSjewelrydesigns.etsy.com

Treasures of Earth TreasuresOfEarth.etsy.com

Sasik Gallery XaosArt.etsy.com

SS JEWELRY DESIGNS 10% DISCOUNT

In addition to donating cabochons and specimens for the Silent Auction, Jeff and Sherry at Etsy store SS Jewelry Designs are offering a 10% discount on all club members' orders.

Use the discount code **SHOWDISCOUNT** when checking out.



ADDITIONAL THANKS to Beth Gibbs and Tonia Brady at **Infinite-Print** for printing show signs & educational materials; Characters Printing in Troy for flyers & postcards; the **Wayne County Convention & Visitors Bureau** for fossil passports for Student Day attendees and additional materials for the school packets; and Adam Kruth, the general manager of the Richmond Menards, for donating bags for the mining sluice.

MAY 20 FIELD TRIP: FLINT RIDGE, OHIO

Mike Manning is TENTATIVELY planning to lead a field trip to Flint Ridge, Ohio, Saturday, May 20. Flint Ridge is a nearly eight-mile-long vein of high-quality flint located in eastern Ohio. Below is previous trip info from Mike. Right now he is getting a count of the number of people from our club who plan to go.

Mike says: To go to Flint Ridge, we usually leave from the McDonalds on Rt. 202 (Huber Heights) near I-70 at 8 a.m.. If it is calling for some rain, I will still be going unless it is going to be thunderstorms all day.

We will be travelling to the Nether's farm. The drive time is about two hours from where we are meeting. It is just east of Columbus near Newark, Ohio. Maps can be given out the day of the trip.

The cost is 50 cents a pound plus a \$5 entrance fee. You can make it in any vehicle. You just park the vehicle and get out to collect flint.

I talked to them and there will be some holes open to collect in or good flint can be picked up anywhere in the property. It is easy collecting unless you want to get in the holes and dig on one of the flint ledges. You won't go home empty-handed.

Wear long pants and sturdy shoes. Also, gloves are a must since the flint is sharp. If you have a rock hammer, you can bring it to chip the flint. Some people bring more heavy equipment if they plan to attack the ledge (ie. sledge hammers, chisels, shovel, etc.)

If you plan to chip the flint, **MAKE SURE TO BRING AND WEAR SAFETY GLASSES OR GOGGLES.** Bring a bucket or pack to put your treasures in. Some people like to wrap their good crystals in newspaper or paper towels.

Bring water to drink and a sack lunch. If we have enough people going, we can set up a table and have a shared lunch.

You can leave any time you feel like it. Once you find out how to get there, you can figure out how to return back to the interstate. There is a porta-potty on the premises.

If you have further questions, you can call me 937-681-0264 (cell) 937-552-4705 (home).





ARCHAEOPTERYX: DINOSAUR, BIRD CONNECTION

from Wikipedia, see link at end

Archaopteryx, sometimes referred to by its German name *Urvogel* ("original bird" or "first bird"), is a genus of bird-like dinosaurs that is transitional between non-avian feathered dinosaurs and modern birds. The name derives from the ancient Greek *archaios* meaning "ancient", and *ptéryx*, meaning "feather" or "wing".

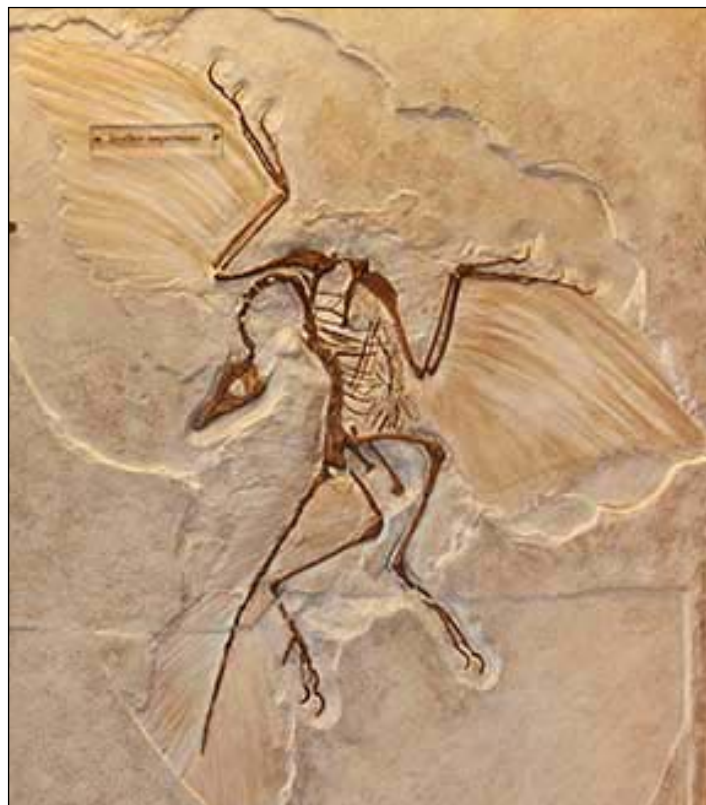
Between the late nineteenth century and the early twenty-first century, *Archaeopteryx* had been generally accepted by palaeontologists and popular reference books as the oldest known bird (member of the group *Avialae*). Older potential avialans have since been identified, including *Anchiornis*, *Xiaotingia*, and *Aurornis*.

Archaeopteryx lived in the Late Jurassic around 150 million years ago, in what is now southern Germany during a time when Europe was an archipelago of islands in a shallow warm tropical sea, much closer to the equator than it is now.

Similar in size to a Eurasian magpie, with the largest individuals possibly attaining the size of a raven, the largest species of *Archaeopteryx* could grow to about 0.5 m (1 ft 8 in) in length.

Despite their small size, broad wings, and inferred ability to fly or glide, *Archaeopteryx* had more in common with other small Mesozoic dinosaurs than with modern birds. In particular, they shared the following features with the *dromaeosaurids* and *troodontids*: jaws with sharp teeth, three fingers with claws, a long bony tail, hyperextensible second toes ("killing claw"), feathers (which also suggest warm-bloodedness), and various features of the skeleton.

These features make *Archaeopteryx* a clear candidate for a transitional fossil between non-avian dinosaurs and birds. Thus, *Archaeopteryx*



■ Archaeopteryx photo from <http://scienceviews.com/dinosaurs/archaeopteryx.html>

yx plays an important role, not only in the study of the origin of birds, but in the study of dinosaurs.

To read the rest of the Wikipedia article, click here: <https://en.wikipedia.org/wiki/Archaeopteryx>



RETURN OF THE ARCHAEOPTERYX

Let's bring the EIGGS archaeopteryx back to the club

Not only is Barbara Kuhlman a club member, she is also an award-winning, nationally-recognized ceramic and watercolor artist.

Kuhlman's birds and bird nests are always hot items at the rock and gem show silent auction, but in 2013 she wanted to create something special -- something that would combine her unique bird sculptures with her love of history, geology and fossils.

She came up with the perfect item: a sculpture of an *Archaeopteryx*, a bird-like dinosaur that is transitional between non-avian feathered dinosaurs and modern birds. She added the ginkgo leaves, because the ginkgo trees were also diversifying by the mid-Jurassic period.

This bird was sold in the 2013 auction for \$265. Now the club has the chance to purchase it back so that we can display the artwork of one of our talented club members. While museums display a variety of her bird pieces, this "dinosaur bird" is a one of a kind.

There are no plans to purchase it out of club funds that need to be going into to club upkeep and repair, but instead through donations from club members.

Displaying a piece of Kuhlman pottery would be a nice tribute to a club member who has given much to the club over the years. If you would like to make a donation to this cause, please talk to Lisa Morris or e-mail her at EIGGSnews@gmail.com



ON THE ROAD: LANGSDON MINERAL COLLECTION

Want to take a road trip? If so, consider traveling to the Langsdon Rock and Mineral Collection in Celina, Ohio. In 2006 Ron & Ruth Langsdon donated a substantial part of their personal rare mineral collection to the Mercer County Library in Celina, so that future generations could enjoy it and learn about minerals. They felt a public library would be an ideal location for viewing by both present and future generations. The collection consists of more than 900 minerals from all over the world in 21 display cases.



Many of the specimens are newly discovered minerals from recently-opened mines in India, China and Pakistan. Other specimens are from historic mining areas, which are now closed to collectors. The collection contains pyrite, galena, quartz, tourmaline, apophyllite, stibnite and rhodochrosite, among many others. Each sample is labeled with the mineral type and place of origin.

The library offers classes and group tours by prior arrangement with the curator of the collection.

The library is open six days a week with a variation in hours from summer to winter. Saturdays they are open from 9 a.m.-5 p.m. Call ahead for library hours or to request a program or tour.

Information & photos from LangsdonMinerals.org

To see more photos of EIGGS trips to the museum, click below:

- [2017 trip](#)
- [2016 trip](#)



What: Langsdon Mineral Collection
Where: Mercer County District Library
Address: 303 N. Main St.; Celina, OH 45822
Why: Over 900 mineral specimens in 21 cases
Phone: 419-586-4442
E-mail: Minerals@MercerLibrary.org
Online:
LangsdonMinerals.org
facebook.com/LangsdonMinerals



■ Glenn Hux demonstrates the refractive nature of quartz.



■ Tony Rotondo demonstrates conductivity for Zeb and Jesse Williams when they visited the Langsdon Mineral Collection March 28..



■ Beside a citrine cathedral nearly her size, Hailee Shaffer explores the mineral exhibits.



■ Holding a lodestone, Chase Silven demonstrates how magnetic forces influence compasses.



ON THE ROAD: INDIANA STATE MUSEUM



During the last Ice Age, ancient elephants roamed Indiana. Visit the Indiana State Museum in Indianapolis to discover the mastodons and mammoths that were Indiana's last native giants.

See how the remains of these pre-historic beasts are uncovered, and visit Fred, the museum's iconic mastodon skeleton. Ice Age Graveyards is an exciting look at Indiana's chilly past, presented in a cool new way. Perfect for children of all ages.

EXHIBITION – Ice Age Graveyards

Now through September 4, 2017

10 a.m. to 5 p.m. [Mon. -Sat.]

11 a.m. to 5 p.m. [Sun.]

Admission: Included with museum admission

ADULT - \$13; SENIOR* - \$12; CHILD* - \$8.50

COLLEGE STUDENT - \$9.75 (with valid ID from any Indiana college);

CHILDREN UNDER 3 - FREE

*Seniors: Ages 60 and older, Child: Ages 3 through 17

<https://www.indianamuseum.org/ice-age-graveyards>



■ A woolly mammoth skeleton is on display in the Ice Age Graveyards exhibit at the Indiana State Museum in Indianapolis.

■ Two mastodon vertebrae found on the Myron Benedict farm in Porter County, Indiana, in 1949.



ON THE ROAD: GEOFAIR; COLUMBUS, OHIO

GeoFair is Cincinnati's largest non-profit gem, mineral, fossil & jewelry show. The 52nd annual GeoFair will highlight quartz minerals and fossils without backbones. The event will be held May 6 & 7 at Sharonville Convention Center, 11355 Chester Road. Hours will be 10 a.m.-6 p.m. on Saturday and 11 a.m.-5 p.m. on Sunday.

Geofair has scheduled four illustrated lectures by internationally distinguished experts for this year's show.

On Saturday, May 6, at 1 p.m. Dr. Carl A. Francis of the Maine Mineral & Gem Museum will discuss "Quartz: Signature Mineral of Continents."

At 3 p.m. Saturday, May 6, Dr. Glenn Storrs of the Cincinnati Museum Center will discuss "Digging for Dinosaurs."

On Sunday, May 7, at 1 p.m., "Quartz: A Multifaceted Mineral" will be

the topic of Jeff Scovil, professional photographer from Phoenix, AZ.

At 3 p.m. Sunday, May 7, Dr. Brenda Hunda of the Cincinnati Museum Center will discuss "Major Transitions in the History of Life."

Admission to GeoFair is \$9 for adults and \$3 for children. A two-day adult pass is available for \$12.

Plentiful parking is free at the Sharonville Convention Center. Scouts in uniform get free admission, as do teachers with identification when accompanied by a paying adult. A coupon for \$2 off adult admission is offered for download at GeoFair.com or see page 17 of this newsletter.

Since 1965, GeoFair has been introducing families to the pleasures of the earth sciences including collecting minerals and fossils, making jewelry and studying geology.



BARITE ROSES

Geology's flowers of love

by Jessica Hernandez, *Earlham College senior*

With a name coined for its unique appearance, the Desert Rose is a cluster of the minerals gypsum or barite that forms where there is an abundance of sand and marine water. It typically grows on sandstone in arid areas when evaporation is at its highest.

As the marine water evaporates, the concentration of barite or gypsum in the water becomes so high that it'll start to form crystals through precipitation. These crystals will then fan out into circular, flat plates which give the newly formed roses their distinct shape.

More often than not, sand will either encrust the minerals or incorporate itself into the formation, depending on the type of environment it's in. This gives the desert rose a coarser texture, as well as making it harder to break.

To get that ideal rosy-red color, there should be plenty of iron present in the water. The iron will react with the air as the water evaporates, creating iron oxide and giving the roses characteristically reddish hues.

Known as the "Rose Rock Capital of the World", Noble, Oklahoma is never lacking in its beautifully-formed barite roses. In 1968, barite roses officially became the state rock, following a host of other official symbols ranging from the scissor-



Rob Lavinsky, *iRocks.com*

tailed flycatcher (state bird) to mistletoe (state flower).

So if you're looking to give your gal or guy the perfect gift, look no further! Take them on a romantic, nature-filled getaway and give them the gift of a Desert Rose that'll last a lifetime!

Jess Hernandez is an Earlham senior from Durham, North Carolina, majoring in Geology. After graduating, Jess plans to teach in Japan for two years. Afterwards, she would like to work with natural disaster relief organizations.



CLIMATE CHANGE & WATER: *How are they connected?*

by Gabriel Rehm, *Earlham College senior*

It is clear that climate change is going to increase temperatures across the globe, but why does this affect how much it rains? As temperatures increase, evaporation rates of water increase causing more water to become vaporized in the atmosphere.

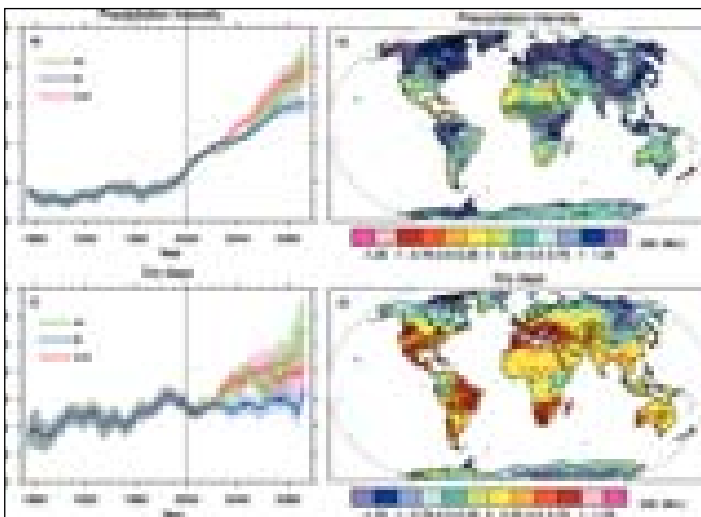


Image taken from IPCC website:

https://www.ipcc.ch/publications_and_data/ar4/wg1/en/figure-10-18.html

Eventually, this atmospheric water vapor will fall as precipitation. This is the phenomenon scientists are referring to as an intensification of the hydrological cycle. As our planet warms, we'll see more evaporation and therefore more precipitation.

But why is this a bad thing? Well, this intensification of the water cycle does not mean the distributions of evaporation and precipitation will be evenly distributed. Generally, climate change will cause us to see dry areas getting drier (increased evaporation), and wet areas getting wetter (increased precipitation). Ironically, this has the potential to increase occurrences of both flooding and drought. This has implications for agricultural yields, water supply, erosion, soil loss, etc.

Extreme weather events are also likely to become more common – increasing damages caused by storms, hurricanes or floods. Developing countries will be particularly affected, as it will be more difficult to adapt to these predicted changes.

Currently, it is debated whether the effects of climate change on precipitation patterns are already being felt. With natural variation in weather patterns (i.e. El Nino) it is difficult to distinguish what variation is climate change induced and what is not. Only time will let us realize how severe these effects will be.

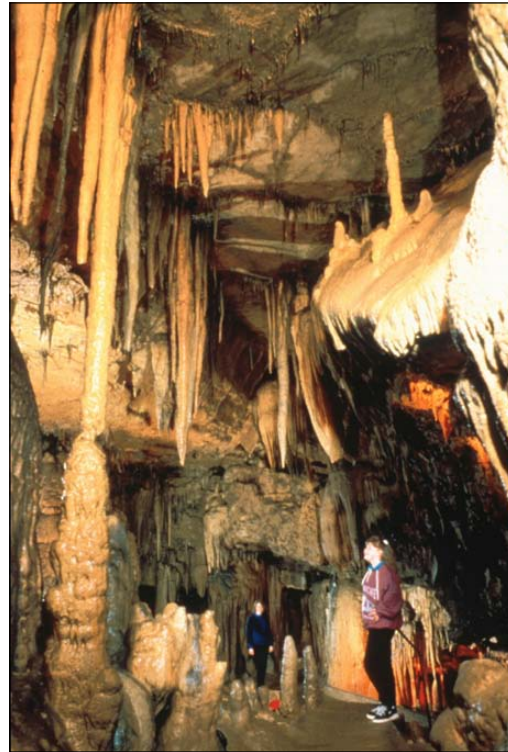
Gabe Rehm is an Earlham senior from Yellow Springs, Ohio, majoring Geology and minoring in Environmental Studies. After graduating, Gabe hopes to work in the National Parks before potentially pursuing a graduate degree.

Marengo Cave: One of Indiana's Most Beautiful Caves

Marengo Cave is a commercial cave located in northeastern Crawford County. The cave was discovered in 1883 by two children playing in a sinkhole. Their discovery was reported to the land owner who enlarged the entrance, built a stairway, and opened the cave to visitors soon afterward. The Crystal Palace Entrance near the gift shop was excavated in 1910 and the Dripstone Trail Entrance was opened in 1979. This part of the cave was designated a National Natural Landmark by the National Park Service in 1984.

The original discovery consisted of approximately 3,900 feet of passages, with later exploration in 1992 extending the total length to 15,480 feet. Subsequent discovery connected the Old Town Spring Cavern for an additional 4,552 feet, bringing the total to 20,392 feet, or about 3.9 miles.

The management offers two tours at the present time, an easy 40-minute tour into the Crystal Palace, which features a large variety of dripstone, flowstone, and rimstone deposits nearly 1,000 feet long, and the Dripstone Trail, which covers about a mile in 70 minutes. Wild cave or "off trail" tours are available for explorers willing to crawl and get wet or muddy.



UPCOMING SHOWS

April 8-9—COLUMBUS, OH: Columbus Rock & Mineral Society and Licking County Rock & Mineral Society Annual show; Northland Performing Arts Center; 4411 Tamarack Blvd.; Sat. 10 a.m.-6 p.m., Sun. 11 a.m.-5 p.m.; Adults \$7, Seniors \$6, Students \$3, Children under 6 free; Scouts in uniform and teachers with school ID free. Large education area containing exhibits on rocks, minerals and metals. Stocks of minerals, crystals, geodes, agates, opal, turquoise, jewelry, faceted stones, silver findings, rough cutting material, rhodochrosite, cabochons, fossils, beads and dinosaur bone from all over the world. Demonstrations of cabochon making, sphere making, gem tree construction, gold panning, jewelry soldering and faceting. Credit cards accepted by dealers but cash or check must be used for show admission. Contact Craig Kramer, 614-436-4511; e-mail: craig.kramer@wowway.com; Web site: <http://www.columbusrockandmineralsociety.org/index.php/rock-show/2017-rock-show/2017-rock-show-information>

April 22-23—TROY, OH: Annual show; Brukner Gem and Mineral Club, Troy, Ohio; 650 North County Rd. 25A; Sat. 10-6, Sun. 10-4; Adults/Seniors \$2, Students/Children free admission; mineral identification, specimens, fossils, minerals, demonstrations, jewelry, gems, silent auction, gold panning, sluicing, geode cracking, dealers, children's activities; contact Dewey Buck, 160 Windmere Dr., Troy, OH 45373; e-mail: manningsrockshop@gmail.com

May 6-7—CINCINNATI, OH: Annual show; Cincinnati Mineral Society and Cincinnati Dry Dredgers, Sharonville Convention Center; 11355 Chester Road; Sat. 10-7, Sun. 11-5; Adults \$9; contact Terry Huizing, 5341 Thrasher Drive, Cincinnati, OH 45247, (513)-574-7142; e-mail: tehuizing@fuse.net; Web site: www.geofair.com

May 5-7—KALAMAZOO, MI: Annual show; Kalamazoo Geological and Mineral Society, Kalamazoo County Expo Center; 2900 Lake Street; Fri. 4-8, Sat. 10-6, Sun. 10-5; Adults \$4, Children 12 and under free; Occupying 20,000 sq. ft. of show space the show is a fun filled event for the whole family. Explore and discover the world of rocks, minerals, meteorites and fossils; pan for gold, learn about silver smithing, lapidary, faceting, play a game, polish a Petoskey stone, crack open a geode; all this and more can be done at the Show. Learn about geology through the many KGMS members' displays; hands on educational activities provided by Western Michigan University. This year's theme, GemStones A-Z. Breakaway from the stereotypes and discover just what types of "gemstones" tickle your fancy!; contact Jerry VanNocker, (269)-979-3348; e-mail: jervannocker@comcast.net; Web site: KalamazooRockClub.org

May 20-21—ST. JOSEPH, MI: Annual show; Blossomland Gem & Mineral Society, Lake Michigan Catholic Elementary School; 3165 Washington Ave.; Sat. 9-6, Sun. -; Free Admission; This is a non-profit annual gem, mineral and fossil show. There will be children's activities, multiple artisans, demonstrations in polishing, silversmithing, wire-wrapping, located on the beautiful shores of Lake Michigan. Come and make a weekend of it!; contact Pam Kriegsmann, Stevensville, MI, (630)-779-8258; e-mail: kriegsmann@sbcglobal.net

June 23-25—BEDFORD, IN: Annual show; Lawrence County Rock Club, Lawrence County Fairgrounds; Hwy. 50 West; Fri. 10-6:30, Sat. 9-6:30, Sun. 10-4; Free Admission; 52nd Annual Gem, Mineral Fossil Show - Sponsored by the Lawrence County Rock Club. Free demonstrations, variety of gems, jewelry, minerals, fossils, beads, rocks, lapidary, rockhound and prospecting supplies. 4-H and science project materials.; contact Michael Tweedale, (812)-675-6034; e-mail: imettweedy@yahoo.com; Web site: www.lawrencecountyrockclub.org



Sept. 8-10—GREENFIELD, IN: Annual show; 500 Earth Sciences Club, Hancock County 4-H Fairgrounds; 620 N. Apple Street; Fri. 10 a.m-7 p.m, Sat. 10 a.m-7 p.m., Sun. 10 a.m.-4 p.m.; Free admission; Dealers and swappers in fossils, minerals, gems and jewelry and lapidary equipment plus silent auctions, door prizes and much more. Kids activities, demonstrations, educational displays and programs for all. Contact Cheryl Hamilton, 3507 Luewan Dr., Indianapolis, IN 46235, (317)-897-3369; e-mail: chamilton1951@gmail.com

Sept. 29-Oct. 1—INDIANAPOLIS, IN: Annual show; Treasures Of The Earth Gem & Jewelry Shows, Indiana State Fairgrounds - Agriculture/Horticulture Building; 1202 East 38th Street; Fri. 10-6:00 pm, Sat. 10-6, Sun. 11-5; Adults \$5 (Good all 3 days), Children Free under age 16; Jewelry makers, goldsmiths and silversmiths from all over the U.S. who can reconstruct, repair, design or make original jewelry from customer-selected gems, stones, opals and crystals. Wire wrap, wire sculpture, stone beads, pearls, stone setting, amber, opal, mineral and fossil dealers. Hourly door prizes including a Ring with a precious stone that will be given as a Grand Prize. Demonstrations and classes.; contact Van Wimmer - Show Director, 5273 Bradshaw Road, Salem, VA 24153, (540) 384-6047; e-mail: van@toteshows.com; Web site: www.toteshows.com

Sept. 30-Oct. 1—NASHVILLE, IN: Annual show; Brown County Rock & Mineral Club, Brown County History Center; 90 E. Gould Street; Sat. 10-6, Sun. 10-6; Free Admission; The 2nd Annual Brown County Rock & Mineral Show presented by the Brown County Rock & Mineral Club. There will be demonstrations of wire-wrapping, gold-panning, flint-knapping, etc. There will be vendors from all over the Midwest with everything from gems to geodes to fossils to healing stones.; contact Rhonda Dunn, P. O. Box 2023, Nashville, IN 47448-2023, (812)-320-6237; e-mail: radunn1972@aol.com; Web site: <http://browncountyrock.webs.com/>

October 20-22—FORT WAYNE, IN: Annual show; Three Rivers Gem & Mineral Society, Allen County Fairgrounds; 2726 Carroll Rd; Fri. 10-6; Adults \$5, Seniors \$3, Students \$1, Children under 12 free; Theme: "Crinoids: Indiana's Most Famous Fossil" Attractions: gem, fossil, mineral and jewelry dealers, lapidary arts demonstrations, Viking Knit classes, exhibits, geode cracker, gem sluice, kid's games, dinosaur models, door prizes, silent auction, fluorescent room, touch 'n feel table.; contact Russell Greim, 7619 CR 68, Spencerville, IN 46788, (260)-403-0450; e-mail: 3riversshow@gmail.com; Web site: http://3riversgem_mineral.tripod.com/annualshow/

43rd Annual Central Ohio Mineral, Fossil, Gem & Jewelry Show & Sale

April 8-9, 2017: Sat. 10 AM-6 PM & Sun. 11 AM-5 PM

OHIO

Rocks!



with

Minerals



Come experience:

- ◆ Mineral, fossil & gem dealers with treasures for sale from around the world
- ◆ Interesting speakers
- ◆ Special talk for children
- ◆ Lapidary demonstrations
- ◆ Gold panning
- ◆ Educational exhibits
- ◆ Free specimen ID
- ◆ Silent auctions
- ◆ Silent auctions for kids
- ◆ Games & activities for kids
- ◆ Door prizes
- ◆ Free specimen for kids

Northland Performing Arts Center

4411 Tamarack Blvd., Columbus OH 43229

South side of Morse Rd. next to Menards and behind the new Kroger. Access from I-71, I-270, Rt. 23. Look for yellow building with blue scaffold tower.

Plenty of **FREE PARKING** behind the building.



Adults \$7, Seniors \$6, 2-day pass \$12, Youth 6-16 \$3, Under 6 FREE
FREE: Scouts & 4-H in uniform, Teachers with school ID, Military with ID

Please note: Tickets are available at the door; cash or check only. Credit/debit cards cannot be accepted for admission, but our dealer vendors can process credit/debit cards.



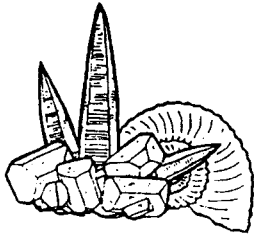
**Sponsored by the Columbus Rock & Mineral Society
with the Licking County Rock & Mineral Society**

We are a non-profit organization and the only family-oriented, educational rock show in Central Ohio that welcomes children. All show proceeds benefit scholarships for Ohio earth science majors. We invite you to come and explore the exciting world of geology as a family. Learn more at www.ColumbusRockAndMineralSociety.org.

Dealer contact: Craig Kramer 614-436-4511 or show-info@columbusrockandmineralsociety.org

Bring in this flyer for \$1 off adult & senior ticket prices. One discount per ticket.

34th ANNUAL BRUKNER GEM, MINERAL, FOSSIL AND JEWELRY SHOW TROY, OHIO



MIAMI COUNTY FAIRGROUNDS
DUKE LUNDGARD BUILDING

North End – Heated & Air Conditioned
COUNTY ROAD 25-A • TROY, OHIO

SATURDAY, APRIL 22, 2017

10:00 a.m. to 6:00 p.m.

**FREE
DOOR
PRIZES**

SUNDAY, APRIL 23, 2017

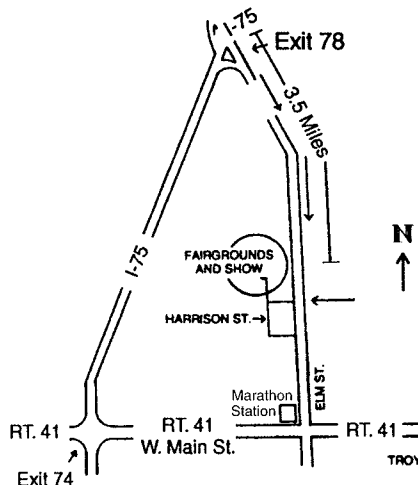
10:00 a.m. to 4:00 p.m.

Admission: Adults \$2.00 ~ Children Free ~ Free Parking

**FOOD
AVAILABLE**

**FREE ROCK
TO EACH
CHILD**

*Mineral Identification
by Club Members and Gary
Getz, an Ohio
Geological Consultant*



*See Gems in the Making
Specimens - Gems
Jewelry - Rough Stone
Demonstrations - Displays
Silent Auction
Dealers
Raffles*

Children's Activities:

Wheel of Fortune - Grab Bags - Sluice - Mystery Rock

North Recommended Route: I-75 to exit 78 south on County Rd. 25-A to Fairgrounds - North Entrance

Alternate Route from Troy: South exit 74 to Rt. 41 to Elm Street to Fairgrounds to North Entrance

SPONSORED BY BRUKNER GEM & MINERAL CLUB • 5995 HORSESHOE BEND RD. • TROY, OH 45373

Show Chairman: Dewey Buck 937-308-3012

Vendor Info: Mike Manning, 937-552-4705

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

2017 SPRING Flint Ridge Knap-In

Friday, May 26th, 9 - 5
Saturday, May 27th 9 - 5
Sunday, May 28th 9 - 2

Held at the
Flint Ridge Ancient Quarries
& Nature Preserve
7091 Brownsville Rd
Glenford, OH 43739



Everyone is Invited!

Come and join us for a fun and educational weekend. Witness craftsmen and artisans demonstrate how to make arrowheads, spears, stone tools, bows, atl-atls, stone pipes, cordage as well as other items from hide and bone. Take a nature walk through the woods on the park trails and see the remains of the ancient quarry pits left behind by the native people. Then take a tour of the museum to learn about the the rich history and geology of Flint Ridge.

Roy Miller 330-473-7041 roy@RoyMillerFlintRidge.com

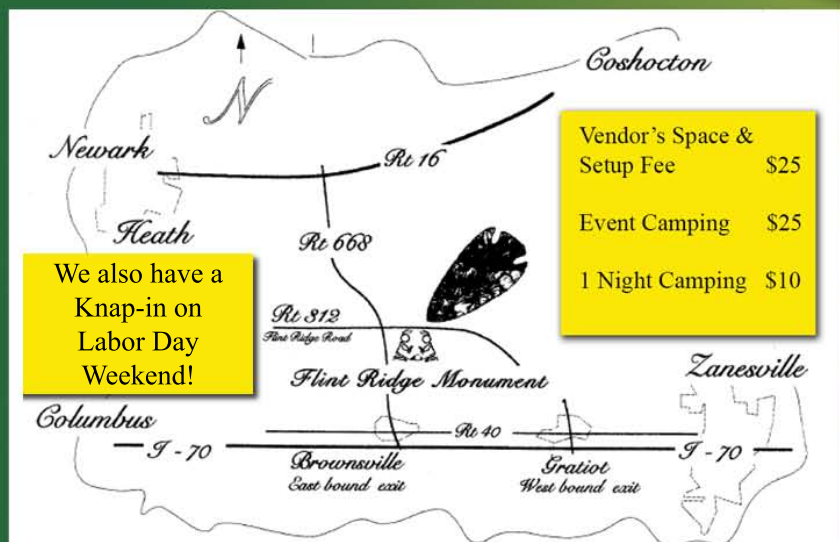
Phil Love 419-683-1024 PHLove@live.com

Glenn Witchey 330-329-7501 glenn_wit@yahoo.com

Carl Smith 330-340-4681 casmith7384@gmail.com

For more
information contact
one of our Board
Members

Admission is \$5.00
per vehicle which
includes free
Museum Admission



Hosted by: The Flint Ridge Lithic Society in conjunction with the Licking Valley Heritage Society.