

WHERE **SCIENCE****HISTORY****AND****ART** CONNECT

To: Raven Hill Friends
From: Cheri
Date: July 15, 2023
Re: froggin' around

Frogs are a diverse group of vertebrates with over 7000 known species. While Raven Hill Discovery Center doesn't have 7000 different frogs, the diversity of the Center's frogs does make for some good pictures and stories—these frogs exemplify facts about frogs and at the same time embody the science, history and art connections that make Raven Hill so very special.

Frogs appeared during the Jurassic Period around 200 million years ago. Before that, frog-like amphibians, known as proto-frogs, had frog-like features, as well as traits of other amphibian groups. In Raven Hill's Jurassic Park outdoor exhibit, a frog sculpture marks that period in time, along with other commercial garden art pieces and one of a kind artworks that illustrate each geologic time period.



If ever there were "Buddha" frogs, this one in the "Exploring Beyond Jurassic Park" walkway would be one!



As part of the 2018 Smithsonian Water/Ways exhibit that Raven Hill hosted, Kelly Boyle led a community mural painting. Three panels are now on display in Raven Hill's Open Space near Deer Creek. Each panel is focused on a different water habitat—lake, pond and river. Frogs are often associated with lily pads!

Adult frogs have very distinctive features. Their large head has a wide mouth and two bulging eyes that are positioned on the sides of the head. They have a streamlined body shape, webbed feet, muscular legs and no tail as adults. This gives them the perfect adaptations for hunting & eating, as well as jumping & swimming.

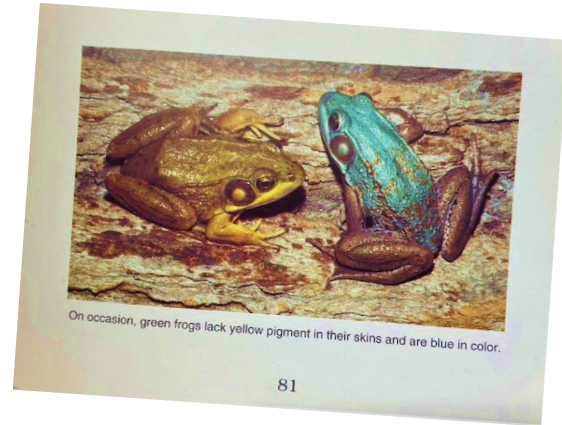


Felting is not traditionally used for making boxes, but this box with its green color and bulging eyes creates the illusion of a frog. The box even has a "built-in" hinge, where the felting was not cut all the way around when separating base and lid!



Green minus yellow equals a blue frog! This frog was found in Raven Hill's pond. When we checked out page 81 in the MICHIGAN FROGS, TOADS AND SALAMANDERS FIELD GUIDE AND POCKET REFERENCE by Harding and Holman, we found a picture of both a blue and a yellow frog! With its blue body and yellow legs, maybe ours is even more unique!

Frogs can be found in a variety of habitats, including fresh water, land and trees. In fact, many species of frogs have sticky pads on their toes for climbing. Other frogs have elongated limbs for leaping. Frogs inhabit a wide range of ecosystems, including tropical rainforests, deserts, high-altitude regions and ponds like the one right here at Raven Hill.



On occasion, green frogs lack yellow pigment in their skins and are blue in color.



Artist John Hubbard of Michigan Technological University's Art Department noticed this drawing on display at Raven Hill and recognized it as his own work! John was actually here teaching a papermaking workshop for teachers and college students planning to go into art. Love the camouflage!



This colorful ceramic wall frog resides at Raven Hill and is a combination of Old World Spanish majolica pottery and New World plant & animal patterns. It looks like it should have sticky pads!



Flower frogs were popular in the 1920s and '30s. They were originally used in Japan back in the 14th century in Ikebana, the Japanese art of flower arranging, where only a few blooms were used. Flower frogs are found in water (in the vase)!



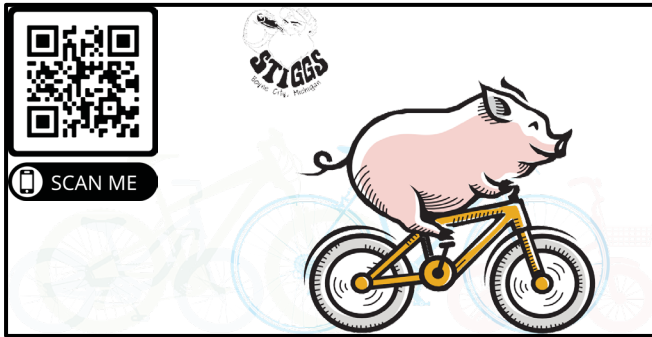
This is what happens when you connect a plasma cutter to a computer and program it to cut out a "one piece" frog.

The eyes are cut partway and the metal is "folded" up. The tongue is a long strip of metal cut out of the frog's back but left attached at the top. The "tongue" is pulled through the mouth and given a bit of a curl. You have to see it to appreciate it!

The field of paleontology is the science that studies fossilized plants and animals. Paleontologists continue to uncover new information about frogs, such as when they appeared and how they have changed over time, just as Raven Hill keeps finding new and different ways to connect science, history and the arts.

Raven Hill is currently open to visitors seven days a week—10am to 4pm on weekdays, noon to 4pm on Saturdays and 2pm to 4pm on Sundays. Call 231.536.3369 or email info@miravenhill.org to make appointments to visit other times, including major holidays.

Classes are available for both children and adults. **Summer Classes for Kids** are held Monday through Thursday from 10:30am-12pm and 12:30pm-2:30pm. Kids can come for a four-day class session or for just one day. Children attending both classes in a day can bring a lunch. Pre-registration is appreciated. Adults have the flexibility of scheduling individual or group art and other classes at their convenience. There is no minimum number of participants for adult classes.



Don't forget to register for the **5th Annual Pedal, Pig and Pint Community Bike Tour** event, which will take place on Sunday, August 6, 2023. Registration the day of the event is at Veterans Park in Boyne City starting at 8am or you can register online at Bikereg.com/ppp at any time. Then finish at Stiggs Brewery for a pig roast lunch and pint between 11:30 am and 2:30 pm. Music will be provided by Peter Jensen. The registration fee is \$55 for adults and \$30 for youth riders 18 and under. The ride, lunch and t-shirt are included with the registration.

And once again, be sure to mark your calendars for August 26 and the opening of the Smithsonian Museum on Main Street traveling exhibit, **Spark! Places of Innovation in Rural America**. The exhibit will be open during Raven Hill's regular hours for six weeks—August 26 to October 7.

Have a great week and we hope to see you soon,

Cheri

