

# FOSSIL FINDERS 2ND SATURDAY OF EACH MONTH FROM 10:00 TO 12:00

For hands-on help with your fossil identification, join our fun and casual monthly meeting of Fossil Finders. A geologist will be on hand to answer questions, give on-site guidance and direct you to more fossil collection areas.

# FOSSILS @ the FORT

## Fossil Identification Chart and History

Tennessee limestone, including the limestone used to build Fort Negley, was created hundreds of millions of years ago from the remains of ancient sea creatures. Today, fossils of colonial corals can be found throughout the quarry site located north of the flag pole. A large quarry in Parsons, Tennessee, owned and operated by Vulcan Materials Company, is also home to some of the most amazing marine fossils in the United States. In order to reach the limestone needed for construction projects, Vulcan excavates layers of fossil-rich shale and limestone. While these layers are not suitable for constructing buildings and roads, they are perfect for fossil hunting. Vulcan's commitment to community outreach and education resulted in the donation of more than 23 tons of limestone and shale and the creation of a hands-on outdoor experience at Fort Negley Park. Explore *Fossils at the Fort* and discover Tennessee's ancient marine past!

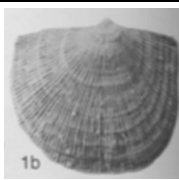


### Brachiopods: Phylum Brachiopoda

- Brachiopods were animals with two shells that superficially resembled clams
- Brachiopods efficiently filtered food using an internal ring of tentacles
- Brachiopods could not move and often were attached to the sea floor
- Brachiopods, although not common today, were dominant 450 million to 250 million years ago



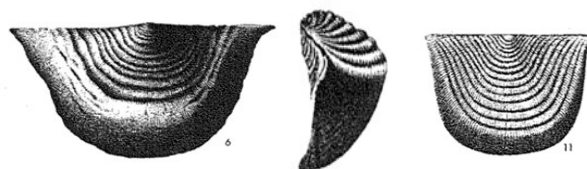
*Atrypa*  
~ 1 - 1.5" across  
The most common brachiopod!



*Schuchertella*, > .5" across



*Discomyorthis*  
1" across



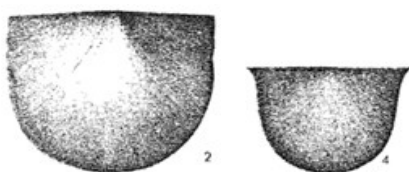
*Leptaena*, ~ 1 - 1.5" across, very flat



*Sphaerirhynchia*  
.5" across



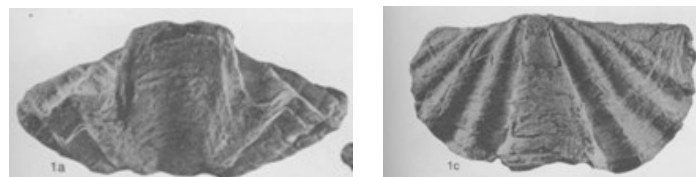
*Rensselaerina*  
~1" across



*Leptostrophia*  
> 2" across  
Large and very flat



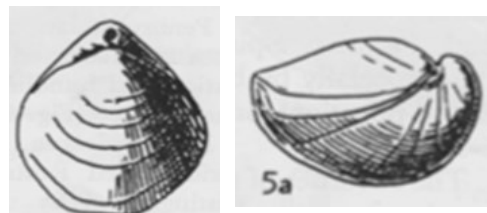
*Kozlowskiellina*  
1" across



*Macroleura*  
> 1.5" across, very large



*Rhynchospirina*  
0.25" across



*Meristella*  
~ 1" across

Didn't find your fossil on the sheet? Sketch it here.

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Fort Negley



VANDERBILT UNIVERSITY

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## Bryozoans: Phylum Bryozoa

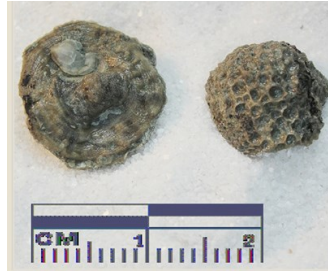
- Bryozoans are the world's smallest complex animals
- Bryozoans form colonies
- Although bryozoans live today, they were very abundant 450 million to 250 million years ago
- Ancient bryozoan colonies are typically preserved as calcite fragments



## Corals: Phylum Cnidaria

- Corals, made up of small animals called zooids, are solitary or colonial
- Like modern corals, ancient corals formed large reefs in shallow tropical seas
- Corals obtain food through filter feeding
- The oldest corals lived 500 million years ago, these corals died out about 225 million years ago

*Solitary Rugose Coral*



*Favosites conicus*



## Trilobites: Phylum Arthropoda

- More than 20,000 species of trilobite fossils have been found
- Like 95% of marine species, Trilobites died out during the mass extinction at the end of the Permian Period
- Trilobites lived in many different habitats from shallow tropical seas to icy polar waters
- Depending on the particular species, trilobites were predators, scavengers, and filter feeders
- Spiders and lobsters are modern Arthropods

Whole trilobite discovered



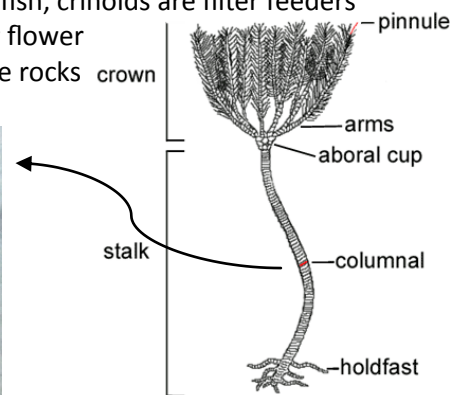
Rear portion of a trilobite,



## Crinoids: Phylum Echinodermata

- Like their modern relatives sea urchins, sand dollars, and starfish, crinoids are filter feeders
- Crinoids, commonly called sea lilies, resemble an underwater flower
- Fragments of crinoid stalks are abundant in Middle Tennessee rocks
- Species of crinoids still exist today

Fossilized stalks of various sizes



## Orthoceras: Phylum Molluska

- Like their modern relatives the chambered nautilus, squid and octopus, orthoceras was a predator
- Orthoceras fossils have been found ranging in size from one centimeter to more than 14 feet long
- Although orthoceras roamed the seas for about 300 million years, from the early Ordovician Period up to the Triassic Period, they were most abundant during the Ordovician and Devonian Periods
- Orthoceras is extinct



Fossilized molds of the chambered

