



The Monongahela Rockhound News
is a Monthly Publication of the
Monongahela Rockhounds,
Munhall, Pennsylvania

Volume 39, Issue 5
May 2006

Visit us on the Web at:
www.monongahelarockhounds.org

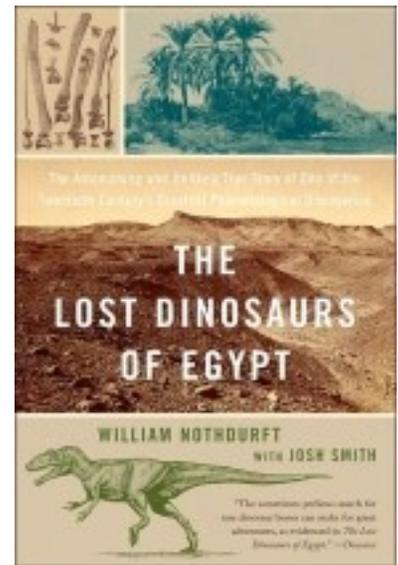
Book Review: Lost Dinosaurs of Egypt [Marian Atkins]

German aristocrats, World War II flying aces and titanic sized dinosaurs. Sounds like the stuff of a blockbuster thriller motion picture, right?

No, this is a true tale of dinosaurs found, dinosaurs lost and dinosaurs found again. *The Lost Dinosaurs of Egypt* is a companion book written for the A & E documentary, of the same title. Matt Lamanna, our scheduled speaker for the May meeting, was on the team of scientists who uncovered fossil dinosaurs in the Bahariya Depression in Egypt. This region was originally discovered as a rich dinosaur fossil field by German Ernst Stromer in 1911. Tragically, the fossilized bones of at least three very large theropods and one titanosaur were destroyed in the bombing of Munich during World War II. In 1998, while sharing a late afternoon six pack, University of

Pennsylvania graduate students Josh Smith and Matt Lamanna agree that it would be a great idea to organize a dig in the Bahariya Depression to recover or replace the lost dinosaur fossils of Ernst Stromer. A little over a year later, Josh, Matt and a team of scientists would do just that, and discover a new dinosaur species as well.

The Lost Dinosaurs of Egypt, written by William Nothdurft, is an educational and entertaining account of a real life adventure. Nothdurft skillfully blends history, geography, geology, climatology, and paleontology as well as human psychology to tell the story of an important scientific discovery. The historical and scientific background information is clear and concise, and the personalities of the large cast of researchers is conveyed through anecdotes and quotations. ❖



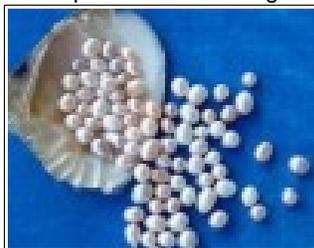
Pearl: The Queen of Gems [Elizabeth Moody]

Few, if any, gemstones have such a rich and far-reaching history as the pearl. Indeed, it is said that "pearls possess a history and allure far beyond what today's wearer may recognize." They were regarded so highly by ancient peoples because they require no cutting or polishing, but came from the shell perfectly formed.

No one will ever know who the earliest people to collect and wear pearls were, but it is believed that that an ancient fish-eating tribe, perhaps along the coast of India, initially appreciated the shape and luster of saltwater pearls that they discovered while opening oysters for food.

Each natural pearl is slightly different, so to have a necklace of matched pearls was a treasure beyond compare. An Old Arabic Legend romantically explains that the pearls formed when moonlight filled dew drops descended down from the sky into to oceans and were swallowed by oysters. To the Ancient Persians, pearls

symbolized the moon and its magical powers. The fragment of oldest known pearl jewelry now displayed at the Museum of Louvre in Paris was found in the sarcophagus of a Persian princess who died in 520 BC. Numerous ancient rulers attempted to make it illegal for non-



nobility to wear pearls, which was largely unnecessary due to the fact that before the process of creating cultured pearls was improved, only the fabulously wealthy could afford them. So great was their worth that the Roman general Vitellius financed an entire military campaign by selling just one of his mother's pearl earrings.

Pearls also played the pivotal role at the most celebrated banquet in literature. In order to convince Rome that Egypt possessed a heritage and wealth that put it above conquest, Cleopatra wagered Marc Antony she could give the most expensive dinner in history. She crushed one large pearl of a pair of earrings, dissolved it in a goblet of wine (or vinegar), and then drank it down. Astonished, Antony declined his dinner - the matching pearl - and admitted she had won. Pliny the Elder wrote in his famous *Natural History* that those two pearls were worth an estimated 60 million sesterces, or 1,875,000 ounces of fine silver.

Contrary to popular belief, it takes more than a grain of sand to cause a pearl. The irritant is more likely a stray food particle that becomes caught inside the shell. The mollusk then proceeds to coat this foreign object with layers of calcium carbonate (CaCO₃) in the form of aragonite, which is

See "Pearl" on page 2...

General Information

Club Officers

President	June Epp (724) 327-8618
1 st Vice-President	Ray Boyer (412) 655-2053
2 nd Vice-President	Greg Lugar (412) 327-7491 glugar@adelphia.net
Treasurer	John Simpson (412) 884-4610
Secretary	Gary VanGelder (412) 655-4304 GaryVG@aol.com
Board of Trustees	Bret Howard (724) 327-8618 Tony Orzano (412) 650-5004 Tony Walker (412) 462-7024
Librarian	Elizabeth Moody
Web Master	Michael Moody
Newsletter Editors	James Moody Marian Atkins (412) 531-4029
Associate Editors	Kate Tuley TuleyKA@gmail.com

Meeting Schedule & Hosts

This month's meeting will be held on Saturday, May 6, 2006, at 7:30 PM in the Munhall Borough Building.

Hosts for this month's meeting are the Van Gelders and the Tuleys.

The next regular meeting will be held at the Munhall Borough Building on Saturday, June 3, 2006 at 7:30 PM.

Disclaimer & Release

To the best of our knowledge, all articles and information presented in this newsletter are true, accurate and free of copyright infringement. The Monongahela Rockhounds is not responsible for the usage of the information contained in the newsletter.

The Monongahela Rockhounds hereby grants other non-profit organizations the right to republish articles in this newsletter for non-commercial usage as long as complete source credit is given unless noted otherwise.

Deadline

Information of articles must be submitted to the newsletter editor 2 weeks prior to the upcoming meeting to be considered for inclusion in that issue.

Meeting Speaker & Topic

Dr. Matt Lamanna, Assistant Curator of Vertebrate Paleontology, Carnegie Museum of Natural History, will be speaking on "Hunting Dinosaurs on Three Continents".

Mission Statement

To promote, among its members and the general public, an interest in collection of minerals, fossils, and associated items.

To promote their use in lapidary work.

To promote the study and classification of minerals, gem stones and other items of such nature.

Affiliations

Member: Eastern Federation of Mineral and Lapidary Societies, Inc.

Member: American Federation of Mineralogical Societies, Inc.

Meeting Location

Munhall Borough Building
20th Ave. & West Street
Munhall, PA 15120

Pearl [continued from Page 1]

arranged in sheets of flat, six-sided crystals. This is held together by an organic compound called conchiolin secreted between the sheets of aragonite. The combination of calcium carbonate and conchiolin is called nacre (mother-of-pearl). How well the crystalline structure of nacre reflects and refracts light determines the luster of the pearl.

At least one species of oyster can secrete nacre over an irritant at a rate of about 0.1mm to 0.2mm per year. ❖

Last Meeting's Minutes [Gary VanGelder]

Program

The program portion of the meeting consisted of a video focusing on the renovated Smithsonian Museum Gem and Mineral Collection. It was produced by Phelps Dodge Corporation.

Show and Tell

Gary VanGelder brought in a backup slideshow program on the Meckley Quarry. He gave an abbreviated presentation of the program.

Troy Lugar brought in a plant fossil specimen he recently collected from a rock slide near the Duquesne / McKeesport Bridge.

Doug Reif showed us some Beryl specimens he self collected in Colorado

Debbie Thompson brought in her collection of faceted beryl. She had one in almost every color available.

Business Meeting

It was mentioned that Marc Wilson would be speaking next Saturday at the Moraine club's meeting

The treasurer's report was accepted as read

The VanGelders and Tullys volunteered to host next month's meeting

We decided to choose Pennsylvania fossils as the focus mineral next month so more kids would have a chance to show off something they collected.

No "o"? Oh, no!

In the March issue of the *Monongahela Rockhounds News* a contributor's name was misspelled. The editorial staff wishes to apologize for this mistake, and to note that Sandra Chmelovsky's name has been corrected in the on-line version of the newsletter.

We would also like to take this opportunity to thank Sandra again for her contribution to our publication. ❖

Mineral of the Month: Pennsylvania Fossils [by Kate Tuley]

When Pennsylvania fossils are mentioned, probably the first thing that comes to mind is coal, built from layers of dead plants. Leaves and ferns are not the most common Pennsylvania fossil, however, brachiopods are. They may not be worth an arm and a leg, but their name is derived from the Latin *brachium* and *pod-*: arm and foot, respectively. Also referred to as



Spirex brachiopod

photo courtesy [University of California Museum of Paleontology](#).

"lamp shells," phyla Brachiopoda is

comprised of sessile (permanently fixed), two-shelled marine animals which outwardly resemble clams. The first bilaterian animals to develop hard external shells, they lost their mobility in the process and are bilaterally symmetric, with either calcitic or phosphatic shells.

30,000 fossil species of brachiopods alone have been found to exist and are often found closely packed together in sediment. 365 million years ago, during the Devonian Period, most of Pennsylvania was submersed, accounting for the large numbers of marine animals like brachiopods, trilobites and crinoids easily found throughout the state. When they first evolved in the Cambrian Period (542—488 million years), brachiopods were inarticulate, or comprised completely of muscle. At the same time articulates (hinged between shells) also evolved beginning with the order



Strophex brachiopod

photo courtesy [University of California Museum of Paleontology](#).

Orthida.

However, brachiopods were most prolific during the Paleozoic era (543—248 million years ago), especially the Devonian, and are particularly useful to paleontologists because of their abundance.

Brachiopods can be found in Beltzville State Park (Carbon County), Ames Limestone (New Kensington), and Sylvania, Ohio ❖

Carnegie Gem Show Volunteer Meeting [Jim Moody]

The first Carnegie Museum Gem & Mineral Show Volunteer Meeting was held on April 18, 2006.

The right to select the theme for the show had been reserved by the Museum directorship. This right has been exercised, and it was revealed that the theme for this year's show will be

"Pearl". The Museum wishes to attract more jewelry vendors to the show.

The Preview Party will be organized in-house this year. Suggestions for this important event are welcome.

Ideas are also needed for the Children's Activities. Egg cartons may be retired for

this year, and it would be nice to introduce a pearl-related activity as a tie-in to the main Show theme. Jewelry-making was proposed, as was pearl harvesting from oysters.

The next Gem Show Volunteer Meeting is scheduled for Tuesday, May 30, in the Blue Classroom ❖

Upcoming Regional Shows

May 5-7, Washington, PA - Fair & Balanced Promotions. Greater Pittsburgh Area Jewelry, Gem, and Mineral Show. Washington County Fairgrounds. 5th & 6th, 10-6; 7th, 11-5. F.M. Zambrotto, 304-825-6845, frankowrap@juno.com.

Note: the organizers of this show have once again graciously offered a table for our Club's promotional use. Please consider volunteering an hour or two to spread the word about the Monongahela Rockhounds! - JM.

May 6-7, Cincinnati, OH - Cincinnati Mineral Society and Cincinnati Dry Dredgers. Geofair 2006: 41st Annual Gem, Mineral, Fossil, and Jewelry Show/Sale. Cincinnati Convention Center, 525 Elm St. Dan Cooper, dancooper@cinci.rr.com, www.geofair.com.

May 12-14, Columbus, OH - International Gem & Jewelry Show, Inc. Veterans Memorial. 301-294-1640, fax 301-294-0034, info@intergem.net, www.intergem.com.

May 13-14, Berea, OH - Parma Lapidary Club. 38th Annual Cleveland Area Gem and Mineral Show. Cuyahoga County Fairgrounds, Bagley Rd. 13th, 10-7; 14th, 11-5. John Zaborowski, 440-949-8242, jjzabor@adelphia.net, www.parmalapidary.com. ❖



Dinos in PA? [by Marian Atkins]

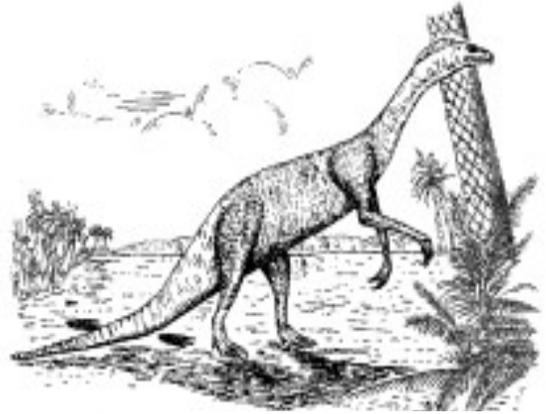
An ichnofossil is a trace fossil. A trace fossil is any imprint created by a living organism. This could be an animal track or burrow. The word ichno means footprint in Greek. In Pennsylvania, the only evidence we have of dinosaurs is through ichnofossils. Footprints of a dinosaur ichnogenus named *atreipus* have been found in eastern Pennsylvania, in York County. By studying the size and spacing of the footprints paleontologists have determined that this dinosaur walked on four legs, its back legs were much larger and longer than its front legs. The dinosaur was bird hipped and was about 6 feet long.

All of these fossils have been dated to within a 10 million year period in the late Triassic Period. It is feasible for this size creature to have lived in Pennsylvania during that time period. During the Triassic the climate and vegetation available could have supported small to medium sized dinosaurs.

So why don't we find more dinosaur fossils in Pennsylvania? The Triassic was before the Jurassic Period when the dinosaurs really dominated the landscape. Unfortunately, in Pennsylvania the soil and rock strata of the Jurassic Period have eroded away, so we don't have any fossil bones of the dinosaurs that surely roamed Pennsylvania. ❖

Sources:

- ◆ www.susq-town.org
- ◆ enchantedlearning.com
- ◆ John Harper at www.pittsburghgeologicalsociety.org



Source *Common fossils of Pennsylvania* (2nd ed.), Pennsylvania Geological Survey.



Newsletter Editor
Jim Moody
482 Old Farm Road
Pittsburgh, PA 15228

