

EARTH SCIENCE CLUB OF NORTHERN ILLINOIS 2008

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Paleontology	John Good	1891 Windward Lane	Hanover Park, 60133	630-483-2363
Junior	Open			

John Good & Karen Nordquist are delegates to Chicagoland Gems & Minerals Association.
Betsy and Floyd Rogers were Show Chair for 2008

The aim of the **Earth Science Club of Northern Illinois** is to promote an interest in the Earth Sciences. In addition to the regular General Meeting, study group meetings are held monthly. They are held by groups of **ESCONI** members interested in the studies of Archaeology, Mineralogy, Micromounts, Paleontology, and the Lapidary Arts. There are also study sessions for Junior members to help them learn more about the earth sciences. From time to time field trips are arranged. **ESCONI** has a fine library of books on the earth sciences that are available to members.

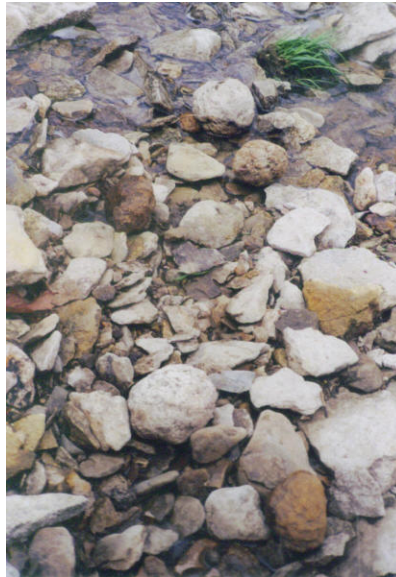
We welcome the attendance of all interested persons at any or all sessions. The schedule is printed on the back page (date, time and place of meeting). Specific information is published in this bulletin.

Membership is \$20.00 (which includes the Bulletin) for family membership. Dues are payable either at the monthly meetings or by mailing to the **Membership Chair** listed above.

Deadline for Bulletin articles to the editor is the 2nd weekend of each month.

Articles in this publication may be reprinted if full credit is given the author and **The Earth Science News**. Exchange bulletins may be mailed directly to the Editor.

ESCONI website is www.esconi.org
Webmaster is John Good

October 2008**President's Message**

See if you can spot the geodes in this Keokuk creek....

Our family has enjoyed the geodes hunting in the Keokuk area. For Halloween treats we used to crack open our buckets of geodes for the kids in our driveway. As always you'll have an opportunity to hunt your own geodes in the spring when we have our annual geode field trip in conjunction with the MAPS show.

Welcome to all our new members. The fall programs at ESCONI have begun so be sure to check your bulletin or our website for your areas of interest at <http://www.esconi.org> . Family dues are \$20 per member family.

The ESCONI Field Trip #7 is October 4, 2008 and will be to the Lone Star Quarry in Olgasby, Illinois. This is always a good trip.

Finally, the next ESCONI General Meeting is **October 10, 2008** at 8:00 PM at College of DuPage: Bldg. K, Room 131 and will be "**The Archaeology of Unconquered Maya Territory and Sacred Geography**" by Joel Palka of UIC. Looking forward to seeing you there!

ESCONI is in need of people to help keep our club viable. Consider spending some of your valuable time where help is needed. We are looking for more people to take board positions! Many of those on the board have been working for us for many, many years, sometimes performing more than 1 job! They do an excellent job! But they could use some help. Or consider leading some Junior Group programs. Right now we have no one to lead the juniors. Please consider taking a more active role in our activities.

Membership dues for 2009 are now being accepted. You can mail your checks to Eileen Mizerk or pay at any of the meetings.

Jim Fairchild, President
jimfairchild@comcast.net

OCTOBER 2008 ESCONI EVENTS

General Meeting 8:00 PM, Friday October 10 College of DuPage K-131	"The Archaeology of Unconquered Maya Territory and Sacred Geography." by Dr. Joel W. Palka, U.I.C. Visitors are welcome; refreshments will be served; parking and admission are free.
Mineral-Micromount 7:30 PM, October 11 College of DuPage K-131	Minerals of Illinois Bring minerals (and rocks) from Illinois. Visitors are welcome; refreshments will be served; parking and admission are free.
Paleontology 7:30 PM, October 18 College of DuPage K-131	Show and Tell Continued Bring your recent (and favorite) fossil. Visitors are welcome; refreshments will be served; parking and admission are free.
Archaeology 7:30 PM, October 25 College of DuPage K-131	Alaska Eskimos/Native Americans of Alaska Visitors are welcome; refreshments will be served; parking and admission are free.
Junior	Subject to reorganization.
ESCONI Field Trips Lone Star Quarry (See Below_	October 4, 2008: Lone Star Quarry See Web Site, www.esconi.org , for more details or below
BOARD MEETING 7:30 PM, October 24 College of DuPage K-131	Board Meeting

ESCONI Field Trip #7 October 4, 2008 9:30 AM
Lone Star Quarry, Oglesby, Illinois

Age limit of 13 and above. Children must be supervised by parent. Hard Hats Required.

Meet at the Lone Star Quarry outside of Oglesby, Illinois at 9:30 A.M.. Take I-80 to Exit 81, South Hy 178. Take South Hy 178 south across the Illinois River. Turn right at Highway 71. Go past East 651st Road. Look for the Lone Star Quarry sign at the next road. Turn there and park along the road. The quarry entrance will be locked. Total distance from Hanover Park to Oglesby is 97 miles.

Check the web site for details or contact John Good at 630-483-2363 for confirmation and reservations or e-mail at esconi@hotmail.com

FALL SHOWS

Lincoln Orbit Earth Science Society (LOESS)

Annual Gem, Mineral, and Fossil Show
(Awesome Agates & Fabulous Fossils)
Illinois Building, Illinois State Fairgrounds,
Sangamon Ave. at 9th Street.
Springfield, Illinois

Sat October 4, 2008 10 AM - 6 PM and Sun October 5, 2008 10 AM - 5 PM.

South Suburban Earth Science Club Show October 18-19, 2008

Prairie State College,
202 South Halsted St.,
Chicago Heights,

Sat & Sunday 10 AM - 5 PM.

Show includes demos, dealers, kids educational information.

Check the ESCONI web site for details, www.esconi.org

NEW DATE, TIME AND PLACE FOR THE ESCONI HOLIDAY PARTY



DECEMBER 5, 2008 6:00 PM

Charlie's Ale House
301 East Loop Road
Wheaton, Illinois 60187



FOLLOWED BY

ESCONI General Meeting 8:00

College of Dupage K Building Rm 131

Our Condolences to Don Brazda

Don Brazda, Jr, son of Don Brazda, long-time ESCONI member and former President, passed away September 7 due to a blood clot.

Donations in lieu of flowers may be sent to
Juvenile Diabetes Foundation
500 N. Dearborn, Suite
Suite 305
Chicago IL 60610

“In Search of Thingummyjigosaurus”

Comments by D.C. Cronauer

The above named article was published online on September 17, 2008 in Nature – doi:10.1038/news.2008.1111 by Rex Dalton.

Rex Dalton’s comments are very real to those of us who dabble in the field of Paleontology. Specifically, “One hundred and thirty-five years of questionable judgments, some driven for a lust for headlines, have left dinosaur nomenclature in disarray, according to new studies. The studies find that of 1,401 names given to dinosaur species from 1824 to 2004, about 16 per cent of the names were duplicates, and 32 percent embodied errors of some other sort.”

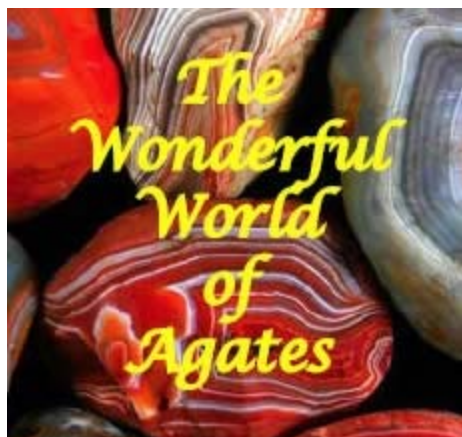
Two references are cited below in which Michael Benton, who carried out the study, discusses the naming of old and new species of dinosaurs. The rate of success of dinosaur namers, in which the names held up over time has ranged from 14 per cent to 64 per cent.

Therefore, when you take out the old reference book, the odds are that the cited species no longer exists as named or described. Interesting!

Benton, M.J. *Biol. Lett.* Doi:10.1098/rsbl.2008.0402 (2008)

Benton, M.J. *Paleobiology*, 34, 4, 516-533 (2008)

Mineral Study Group September 13, 2008



David Bergmann brought in several Agate DVD’s which we displayed on the computer. The Germany agate DVD showed classic and recent agate discoveries. David and Sheila Bergmann talked about the Wonderful World of Agates Show held July 10-13, 2008, at the University of Wisconsin – Fox Valley in Menasha, Wisconsin. They brought agates for display.

Next month’s mineral study group topic will be Illinois Minerals including geodes.

**The Archaeology of Britain:
Discussion of the Program of the ESCONI Meeting of September 2008**
D. C. Cronauer

Introduction:

My wife, Mary Ann, and I have been fortunate to visit Great Britain several times during the last two decades. With the background developed through ESCONI, we have found it fascinating to look at these trips from the standpoint of a study of the archaeology of the people of Britain. In addition to the talk presented in June of 2000, several articles have been presented in ESCONI Newsletters. The following is a summary of the program presented at the September 12, 2008 General Meeting.

Ancient History:

As noted in an excellent reference book, "*A Guide to Ancient Sites in Britain*" by Janet and Colin Bord, Paladin Grafton Books, London, 1978, it is likely that the first men lived in Britain about 500,000 years ago. Early constructions occurred at least 4,000 B.C., and there still exists about: 1,000 megalithic tombs, 30,000 - 40,000 round barrows (in England alone), 900+ stone circles and 3,000+ hillforts. They site that "Once the last Ice Age had left Britain and the climate became more hospitable, the people of the Mesolithic of Middle Stone Age (10,000 to 4,000 B.C.) probably lived the wondering lives of hunter-gathers. It was during the Neolithic or New Stone Age (4,000 to 2,000 B. C.) that the first lasting structures were erected, the earliest being burial chambers of various kinds." These later times overlapped the time of the construction of Stonehenge and other sites of England.

We found the area around Avebury particularly fascinating. Avebury is located about 14 miles (as the crow flies) north of Stonehenge, which is about 8 miles north of Salisbury in Southern England. As stated in "A Brief Guide of Avebury," the village of Avebury lies in and beside the site of a massive prehistoric stone circle. The circle was about 350 meters in diameter, and the stones were about 10 to 15 feet in height.

Mary Ann is shown standing beside one of the stones. By the way, a number of these stones have been broken up during time for the building of local homes. It appeared that this area flourished about 3,000 to 4,000 BC.



The Archaeology of Britain, Continued

About 1 mile south of Avebury is located Silbury Hill. This man-made hill was constructed of chalk. The base covers about 5 acres and it is 132 feet high. Interestingly enough, at least a portion was put together in July and August of about 2,750 BC - based upon the types of trapped insects found and carbon dating. There didn't seem to be an apparent reason for its construction.



Also found in this region is West Kennet Long Barrow, which is dated at about 3,500 BC. It is noted that the remains of several local past leaders were buried here and that most suffered from arthritis. The local display sign is shown below. The picture of the entrance is shown on page 7.

West Kennet Long Barrow

This is one of the longest prehistoric tombs in England and Wales. The stone-lined chambers facing you lie at one end of a mound 100m in length. The tomb was built about 3500 BC, probably to serve a local farming community, and remained in use for more than a thousand years. During this time between forty and fifty people were buried. Clearly, not all the community were buried here. Those who were may have been members of a ruling clan.

They were not allowed to lie in peace. From time to time, skulls and leg bones were removed for use in ceremonies elsewhere, perhaps at the hill-top trading place now called Windmill Hill, 2 miles northwest of here. These ceremonies probably emphasised the importance of long-dead ancestors in order to maintain the authority of the clan.

Originally, the five burial chambers were entered from a semi-circular forecourt in the centre of an impressive facade of upright stones. The large stones were hauled from the nearby downland, but the smaller stones used to fill the gaps between them were brought from 30 miles away to the west. The enormous mound behind the chambers was made of chalk dug from a ditch at each side.

About 2200 BC—the time when the great stone circles of Avebury were erected—the use of the tomb came to an end. The entrance passage was blocked with boulders and the forecourt was closed off by three huge stone slabs.

For further information about this and other prehistoric monuments in this area, visit the Alexander Keiller Museum at Avebury.

The Archaeology of Britain, Continued



There are numerous sites in the vicinity including avenues lined with massive stones and even the White Horse displayed on a local hill side. This horse is believed to be of more recent vintage. The picture is given below. Stonehenge, Woodhenge and Durrington have been discussed in recent ESCONI Newsletters; therefore, they will not be repeated herein.



Comments:

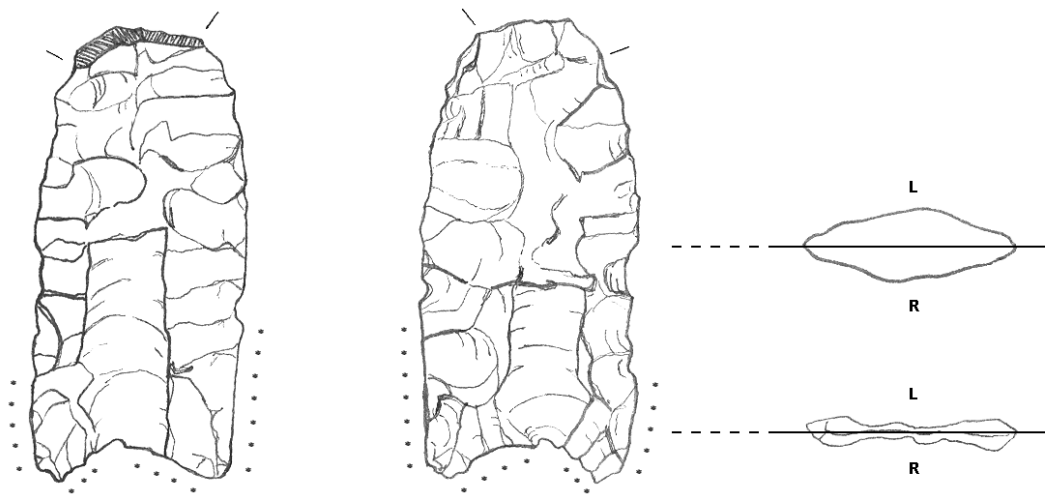
These ancient people had strong organizations to justify building numerous structures including: Stonehenge, Avebury, Silbury Hill, and numerous burial sites, forts, and cities. They were dedicated in their beliefs, and they had planning and the capability of doing heavy work. It's too bad that they didn't leave a written record! Visiting these sites is interesting and rewarding. Access is typically easy, and they are clean and well cared for. Perhaps the best aspect is that visitors show a sense of respect for the sites!

Clovis Site Discovered in Willow Springs, Cook County, Illinois. Brian G. Bardy and Valeria Fike

In 2007 an eight year old boy from Willow Springs made a startling discovery when he discovered a Clovis point on the bank of a tertiary stream leading down to Flagg Creek. Initial analysis of the projectile point's size, fluting technique, basal concavity depth, and basal grinding indicate that it falls within the Gainey Phase (10,000 to 8600 BC), a recognized fluted point tradition within the Great Lakes Region. The Clovis site is located on a proglacial terrace on the north side of the Des Plaines River within the transmorainic valley formed by the Chicago Outlet River. The geological position of this site is unique.

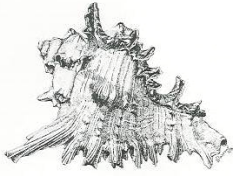
The elevation of the site is 645 feet above sea level, which places it on the edge of the Glenwood Phase of the Chicago Outlet Channel. As the Woodfordian glacier began its retreat northward in the Lake Michigan basin around 12,500 BC, glacial meltwater formed on its backside. The recently formed Tinley and Valparaiso Moraines acted as a dam holding the water back within the basin. Around 12,100 BC the meltwater became too great and spilled over the moraines forming two sluiceways, the Sag and the Des Plaines, of the Chicago Outlet River. In this cataclysmic event, water scoured the moraines forming the valleys' walls, in some places over 150 feet high, and boulder pavements were created throughout the valleys' margins. Torrential volumes of water flowed downstream, in some places obliterating the moraines down to the bedrock, and formed terraces along the Illinois River as far south as Beardstown.

Around 10,500 BC, a corridor opened as the continental glaciers of the Rocky Mountains and the Upper Great Plains began to recede, exposing areas south of the glacial margin. Immediately, hunter-gatherers from Beringia and Siberia entered, moving about in search of food. They adapted to the environment and quickly spread over the entire continent of North America. They brought their stone tool kits and fashioned fluted lanceolate projectile points, which functioned as thrusting and stabbing spear tips. These projectile points became known as Clovis points and are somewhat rare in northeastern Illinois.



cm

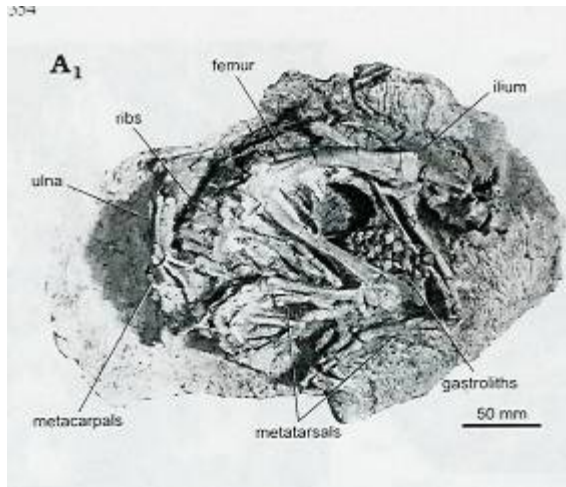
Valeria Fike ©2008



Karen's Komments



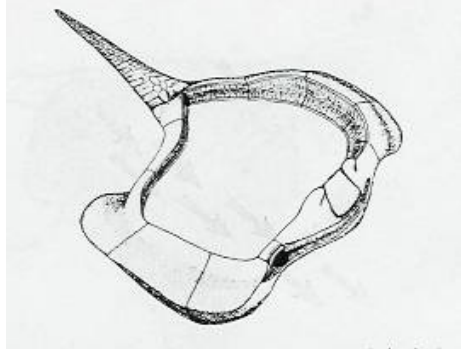
First Gastroliths in Ornithopod Dinosaur – *Gasparinisaura*



Stomach stones have been found in several plant eating dinosaurs and are known in several extant animals, but this is the first case of them being found in an ornithopod dinosaur. In this report there were clusters of small stones found in the stomach areas of three articulated skeletons of *Gasparinisaura cincosaltensis*. They were found in Patagonia, Argentina in the uppermost Nequen Group of the sandstone. The fossils were relatively undisturbed and lacked only the skulls and tails. One is a juvenile based on its smaller size (about 43% the size of the larger). In one of them there were 180 stones found (pictured above) of average size 7.9 mm (0.3 in.) and the largest stone at 17 mm (0.7 in.). The total mass of the

stones was 51.1 grams which is estimated to be about 0.3% of its body mass based on the femur circumference of 71 mm. and a mass of 18 kg. (40 pounds). This percentage is similar to that for extant birds and less than that for sauropod dinosaurs. 47% of the rocks were igneous, 27% were quartz and 24% were sandstone. There were about 40 stones found in the cluster in the abdominal region of the second specimen. And two clusters of stones were found in the third specimen with most of them near the abdomen. The author is a student of Rudolfo Coria. (Cerda in **Acta Pal Polonica** Vol. 53/2 2008)

A New Asymmetric Echinoderm from Spain – *Lignanicystis*



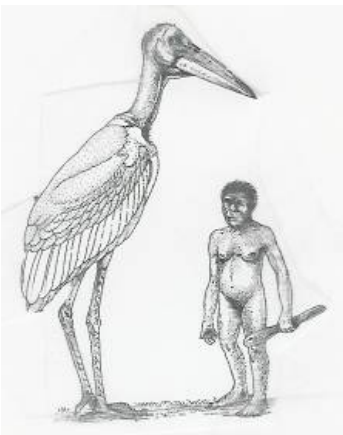
Fossils called carpoids have long been problematic with their multiplated skeleton made of calcite. They are unlike other echinoderms because they lack radial symmetry with their strange anatomy. They also lack the ambulacra that usually define this group. Among the carpoids are the cinctans which are known from the Middle Cambrian. They are shaped like a tennis racquet and are small with a ring of large marginal plates that form a frame around the theca and a posterior stele. There are several openings with a large groove in the anterior margin being interpreted as a mouth. They are believed to have been suspension feeders resting on the bottom of the sea floor with the stele anchoring it in the soft floor. A new species *Lignanicystis barriosensis* has been found in Spain with a highly asymmetrical theca was found with some 34 specimens, some fully articulated.

They

Karen's Komments Continued

they were found in the Orville Formation which is also rich in trilobites, brachiopods and echi-
nodermis. The holotype has a thecal length of 8.5 mm and a width of 12.5 mm (0.3 by 0.5 in.).
The largest one is 14 mm by 19 mm (0.6 by 0.7 in.). The frame consists of 12 stout plates
around the ring with a wedge shaped outer face and a concave inner face. The dorsal integu-
ment is formed from a large number of polygonal plates forming a continuous surface. The
ventral plates are a little larger. The stele is from 1 to 1.5 times the length of the theca and is
stiff for most of its length with some flexibility at the end. (Zamora & Smith in **Acta Pal Polo-
nica** Vol. 53/2 2008)

Giant Stork Found with Hobbit



The remains of a giant stork have been found along with the meter high "hobbit" people, *Homo floresiensis* of Indonesia. Their bones were found in the Liang Bua cave which is where the human bones were found also in the same layers. They were all dated to 18,000 years ago. They have been identified as a new species of extinct giant marabou. They were 1.8 meters tall (5.9 ft.) and they were carnivorous and would have been a top predator on the island. This work is being done by Hanneke Meijer of the National Museum of Natural History in Leiden, the Netherlands, and Rokus Awe Due of the Indonesian Centre for Archaeology in Jakarta, Indonesia. The work was reported at the meeting of the Society of Avian Paleontology and Evolution in Sydney, Australia. (**Science** Vol. 321 8/22/08)

Sahara Desert Had a Green Period

When Paul Sereno goes digging for dinosaurs there is no telling what he will find. In the desert of Niger he found humans and they tell an interesting story. Instead of moving on to find other



dinosaurs he gathered a team of archaeologists to study this fascinating site that tells a story some 5,000 to 10,000 years ago. In essence it is a site of some 200 graves accompanied by pottery and ivory ornaments. One of the most interesting graves was that of a woman with two young children found facing her, all on their sides (left). They may have been buried on flowers as pollen was found in the grave.

The site known as Gobero is now a grave site but was once a home of fisher hunter gatherers who lived there when it was green. They were known as the Kiffian culture and they were followed by the Tenerians a more lightly built people who also

hunted fished and herded cattle. Some of the Kiffians were up to six feet tall and they lived there between 10,000 and 8,000 YA. They were buried in their sides with their arms and legs flexed as if they were napping.

Karen's Komments Continued

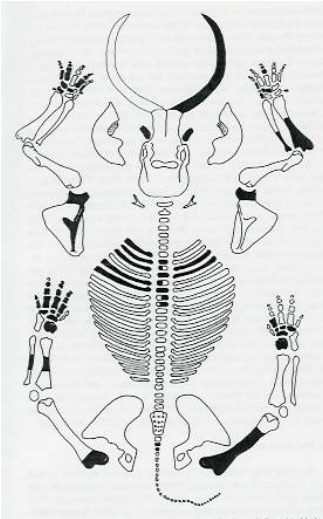
Elena Garcea from the University of Cassino in Italy has identified some of the pottery found as Kiffian because of its zigzag patterns, like that of northern Africa. The pottery of the Tenerians is more pointillistic and is linked to the Tuareg nomads of the Tenere desert of the Sahara. Sereno intends to return to complete the excavation of the cemetery to understand the story of the site. (**New York Times** 8/15/08 and **Nat'l Geographic**)

1600 Peruvian Volcano Affected World Climate

The year without a summer is well known in 1816 after the eruption of Indonesia's Tambora. It triggered famine and cooled the planet causing agricultural failures. The 1991 eruption of Mount Pinatubo in the Philippines caused a global temperature drop of about 0.4 degrees C. Now there is evidence of another connection between an eruption with an effect. An eruption of Huaynaputina a peak in Peru in 1600 lasting some two weeks and spewed out about 12 cubic kilometers of ash, much of it during the first two days. Several local villages were destroyed by the ash and mud flow and agriculture was devastated for two years. Ice records from Greenland show that between 16 and 32 million metric tons of sulfur were spewed into the air. Tree ring data show that 1601 was one of the coldest out of the last 600 years. It was a cold year in Switzerland and in Latvia it was one of the worst winters in the last 480 years. In Sweden they had record amounts of snow that winter. And in Russia there was widespread crop failure and starvation in 1602 and 1603 that caused the death of some 2 million people and may have caused the unrest that led to the overthrow of Czar Boris Godunov. The Volcanic Explosive Index places this volcano at a 6 (greater than 10 cubic kilometers ash ejected) along with Krakatau in 1883 and Mt. Pinatubo in 1991. Mt. Vesuvius in 79 AD and Mt. St. Helens in 1980 were rated at a 5 (less than 1 cubic kilometer) and Tambora in 1815 was rated at a 7 (greater than 100 cubic kilometers). (Perkins in **Science News** 8/30/08)

Mammoth Carcass with Lithic Artifacts in Upper Pleistocene Italy

It is rare to find the remains of elephants and their relatives with evidence of humans and it is also difficult to show whether the sites indicate signs of hunting or scavenging. This is a site in Italy near Asolo, northwest of Venice. It is a carcass of a *Mammuthus primigenius* that was first reported in detail in 1922. It is dated to the Last Glacial. It was a female about 32-35 years old and the bones that were found are in black on the drawing at left. The bones were in good preservation and unabraded and without cut marks. There were also several Levallois points and flake recovered from the site that were made from good quality flint material. These tools fit into Mousterian industries and are found in other caves in the area of Italy. One of the flints has an impact fracture on its tip that compares to other broken spear points at other sites. At one site where such tools were found they found Mammuthus remains and Neanderthal remains with DNA suggesting fair complexion and red hair. Although they do not have the whole picture from this site, it does suggest that there was mammoth-human interaction. The broken point indicates hunting large prey. (Mussi & Villa in **J of Arch Sci** Vol. 35 2008)



Karen Nordquist, Paleontology

“Lonestar” Geology and Paleontology

John A. Catalani

The quarries of Buzzi Unicem USA (known to most of us as simply “Lonestar”) expose limestones of the Pennsylvanian Bond and Mattoon Formations. The quarry north of the Vermilion River (Pit #3) displays the very fossiliferous La Salle Member of the Bond Formation in a unique way. The La Salle Anticline has been exposed during quarrying operations uncovering the La Salle Member on its entire exposed surface. The slope allows the rock to weather and release the incredibly abundant fossils contained in the limestones. The “Anticline” is more properly called an “Anticlinorium” due to its complex nature. The quarry is located near Oglesby, Illinois, and exposes the west (dipping) flank of a structural feature known as the Peru Monocline which is the northernmost major segment of the La Salle Anticlinorium. The structural feature that is exposed in Pit #3 is termed a monocline because only one limb dips--the west limb dips to the west. Since it is the east side of the quarry that exposes the Monocline, as collectors walk to the east they climb in elevation but remain at the same stratigraphic level (walking strike in geology speak). This provides us with a large area of fossiliferous limestones that, because of the presence of clay, readily release the body fossils after some weathering. Therefore, one can “climb” (it’s not very steep) the monocline and collect fossils pretty much everywhere--what a cool experience. Two separate areas within Pit #3, a larger northern and a smaller southern, expose the La Salle Member on the sloping Monocline. Several spots on the surface of the Monocline in the northern area that I saw were so chockablock with fossils that a person could spend a good deal of time collecting that single area and come away with a comprehensive sample of the fossils available at the quarry.

The fossils contained in the limestones of the La Salle Member are almost exclusively invertebrates. Brachiopods are by far the most abundant fossils found at Pit #3. The most common brachiopod is the small to medium *Composita argentia*. Other, larger brachiopods include *Linoproductus “cora”* with small bumps on the surface, *Juresania nebrascensis* with many spines (some partially preserved) on the surface, and the ever popular “winged” *Neospirifer cameratus*. *Punctospirifer kentuckyensis*, a much smaller and rarer “winged” brachiopod, is highly prized and much sought after by collectors. Literally hundreds of brachiopods can be collected with determination, if brachiopods are your thing.

Cephalopods are not nearly as common as the brachiopods but are fairly diverse with nautiloids and ammonoids present in the limestones. Most are coiled forms with the straight-shelled *Pseudorthoceras knoxense* actually somewhat rare. Although the Pennsylvanian nautiloid that is listed as most common is *Metacoceras cornutum*, *Tainoceras nebrascense* is actually more commonly found in the rocks of the Bond Formation. They are readily distinguished by the outer surface of the coil. *Metacoceras* has a row of nodes on the edge of the outer surface but the outer surface itself is smooth while *Tainoceras* displays the same row of nodes as *Metacoceras* but has an additional row along the outer surface. A few of the other nautiloids that I have personally collected include *Ephippioceras ferratum* that is easy to identify because its sutures display a very pronounced mid-ventral saddle (bend towards the living chamber), *Solenochilus sp.* With a peculiar mid-ventral notch in the sutures that identifies the position of the siphuncle, and *Domatoceras sp.* which is very compressed and so presents a thin profile. The one ammonoid that I have found is *Eoasianites welleri*.

“Lonestar” Geology and Paleontology—Continued

Other molluscs available for collecting include several types of clams and a variety of gastropods that display several shell forms: low, medium, and high spirals along with the planispiral *Knightites montfortianus*.

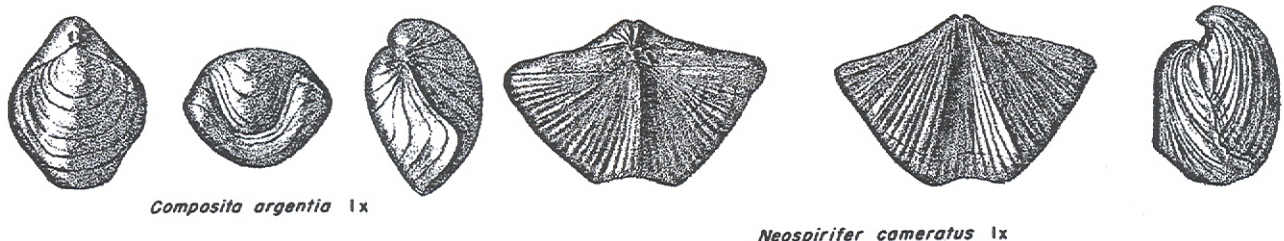
Interestingly, the brachiopods are very well preserved, usually with the shell present, whereas the cephalopods and most of the other molluscs are preserved as steinkerns (internal molds). This is most probably due to the fact that brachiopod shells were made of more durable calcite whereas the mollusc shells were composed of aragonite that dissolves much more readily when the animal dies.

Other invertebrate fossils found include crinoids (stems and cups mostly of the genus *Delocrinus*), several types of bryozoans, a “horn” coral (*Lophophlidium proliferum*), and rare trilobite pieces (*Ameura sangamonensis* and *Ditomopyge parvulus*).

Shark teeth can also be found but are fairly rare in the limestones of the Bond Formation. Most of the teeth found are crusher teeth of the genus *Deltodus* but *Petalodus* (triangular crown), *Cladodus* (pointed cusps), and other forms have been found at Pit #3. A deposit of abundant and diverse shark teeth was made available for a short time as Pit #3 was being expanded for the present phase of quarrying when the mudstones of the overlying Mattoon Formation were exposed. Literally thousands of teeth were collected but, unfortunately, none of these rocks remain. Pit #3 is no longer operating and there are rumors that it might be sold which puts in jeopardy its availability for collecting.

The quarry south of the Vermilion River, which does not expose the Monocline, also exposes the Bond Formation and most of the same fossils are available in the older parts of the quarry where weathering has had time to release them. Recent quarrying has exposed the mudstones of the Mattoon Formation with shark teeth once again available. However, although the teeth are basically the same type as were available in Pit #3, they are, as of yet, not as common. Perhaps further weathering will release more, assuming the deposit does not succumb to quarrying operations.

For a complete list of the fossils found at both quarries (and other local sites) as well as a discussion of the Pennsylvanian in Illinois, go to www.isgs.uiuc.edu. From the choices on the left side of the home page, go to Education Outreach and click on “Free for Download”. Then click on “Geonotes Series” and when that page appears click on “Geonote 2: Pennsylvanian Rocks in Illinois” (a pdf version is also available).



Lonestar" Geology and Paleontology—Continued



Fig. 1 Overall view of Pit #3 showing the dipping surface exposed by quarrying of the Peru Monocline. The surface exposes the fossiliferous LaSalle Limestone.



Fig. 2 Dipping rock layers of the west limb of the Peru Monocline looking to the southeast in Pit #3.

Local Calendar of Events

BURPEE MUSEUM EVENTS

Burpee Paleofest will be March 7,8 2009

LIZZADRO MUSEUM Events

October 4 “Korean National Treasures of Gold” Discover the relics of ancient Korea by exploring three exquisitely crafted gold objects from the 5th to 7th centuries. This subtitled DVD explores the Sarira Casket of Gameun Temple, the Gilt Bronze Incense Burner of Baekje and the Gold Crown of Silla. See the areas of archaeological exploration in Korea. Produced by the Korean Spirit & Culture Promotion Project.

DVD - Ages 10 years to Adult - 2 p.m. - 45 min.
Regular Museum Admission

October 25 “Mars, Meteorites and Alien Life” Planetary geologist, Paul Siphera from the Planetary Studies Foundation presents the latest findings from Mars, the search for alien life and meteorite facts. In recent years certain meteorites were thought to contain microbial fossils from other planets. What do scientists think now? Is it possible life can exist on Mars? If you think you have found a meteorite bring it in for identification.

Lecture - Ages 8 years to Adult - 2 p.m. - 60 min.
Reservations Recommended: (630) 833-1616
Regular Museum Admission

November 8 & 9 “Ilya Schar Gallery Talk” Gem artist Ilya Schar presents his artistic technique for creating vibrant compositions called ‘Gem Paintings’. Without the use of paint, each of his pictures contains hundreds of different types of gems, ranging in size from a bean to a grain of sand. Learn more about his life-long inspiration and artistic creations at his exhibit and gallery talk. Light refreshments served.

Adult - Sat. & Sun. at 2 p.m. - 60 minutes
Reservations Recommended: (630) 833-1616
Regular Museum Admission

November 15 “Lapidary Activity Day”

Join members of the West Suburban Lapidary Club and learn more about lapidary art and making jewelry. Club members demonstrate cabochon cutting, silversmithing, wirewrapping, beading and carving. Children can participate in making a rock critter or creating a gemstone picture frame. Free jewelry cleaning! A great way to find out more about lapidary art and learn a new hobby!

Demonstrations/Activities - All Ages
10 a.m. to 4 p.m. - Free Admission

Recommended Reading

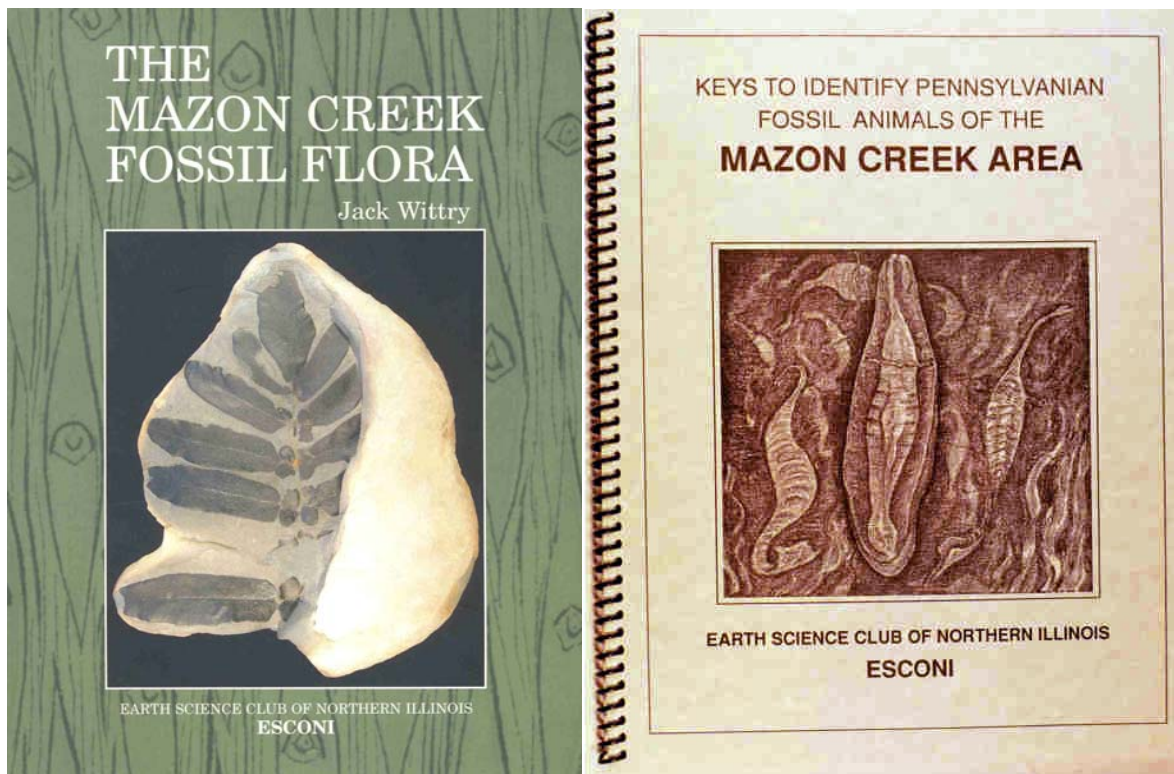
CRUISIN' THE FOSSIL FREEWAY by Kirk Johnson and Ray Troll

A pair of "paleonerds" embark on a road-trip fossil hunt across the western U.S.

YOUR INNER FISH by Neil Shubin

The paleontologist who discovered the missing link between fish and land animals explains how our bodies evolved.

ESCONI Books



The Mazon Creek Fossil Flora by Jack Wittry
 313 color pictures, 113 taxa, 145 drawings
 \$65 hard covers for ESCONI Members
 \$35 soft and \$6 to ship
 Make check out to
 ESCONI Associates

Keys to Identify Pennsylvanian Fossil Animal of the Mazon Creek Area
 125 Pages, 212 Black and White Drawings
 \$12.00, \$5 to Ship

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 2 Langford Ct.
 Bolingbrook, 60440
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2008 ESCONI CALENDAR

Revised 12/02/07

GROUP	GENR'L MGTS.	MICRO Mineral	PALEO	ARCH	BOARD	JUNIOR
January	11	12	19	26	25	
February	8	9	16	23	22	
March	15-16 SHOW	8	X	22	28	
April	11	12	19	26	25	
May	9	10	17	X	30	
June	13	14	X	X	X	
July	X	X	X	X	X	
August	X	X	X	X	22	
September	12	13	20	27	26	
October	10 ?	11	18	25	24	
November	14	8	15	22	X	
December	5 HOLIDAY	13	X	X	X	
DAY	2 nd FRI	2 nd SAT	3 rd SAT	4 th SAT	4 th FRI	2 nd FRI
TIME	8:00	7:30	7:30	7:30	7:30	7:00

Dates are subject to change: see Bulletin.

College of DuPage (COD) Building K, Room #161 for most meetings, but note that the room number is subject to change – there will be a note posted on the entrance door.

ESCONI Show March 15-16 in **Commons Room** of Building K.

The Flea Market is under consideration.

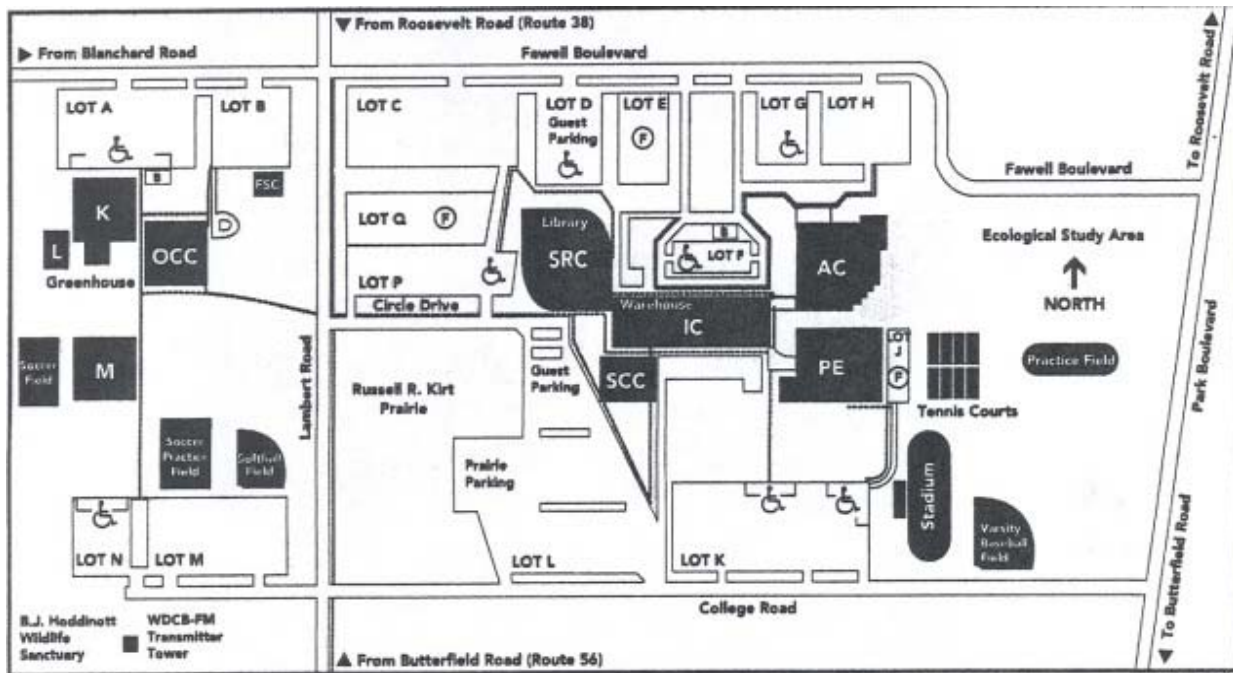
No scheduled meetings for Lapidary; contact Don Cronauer for information. (Lapidary may meet in Room #162, Arts Center if there is sufficient interest)

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**SEND EXCHANGE BULLETINS TO
Don Cronauer; 6S180 Cape Road; Naperville, IL 60540**