FROM DON'S DESK

I'm delighted to be chosen to preside over MAPS for the next year. I know the other officers and am happy to report that they are the kind of people who will always give 110%. Too, wasn't Madelynne's first issue of the Digest just great. We're so fortunate to have such a talented, positive person serving as bulletin editor.

Some goals and objectives that I would like to see for MAPS during the next year include:

1) Increasing our membership from the present 160 to at least 250.
2) Doubling the size and pleasure of Expo II over Expo I -- WOW!
3) Articles in the Digest from members in foreign countries.
4) 2 or 3 weekend field trips with accompanying swaps in widely scattered parts of the U.S. Any one volunteer to set up the arrangements for such?
5) We need volunteers who will help conduct fossil seminars at the National Show in Lincoln, Nebraska, next summer.

Finally, a big thank you to Gil and the other past officers who served so ably.

*****

MEET OUR NEW PRESIDENT

A native of Illinois, Don Good calls Aledo, IL, home. He is married to JoAnn, our efficient treasurer of last year, and has 6 children ranging in age from 22 to 13. Two weeks ago Don had already been to some 20 odd football games in which one or another of his sons starred.

Don earns his living as a Sales Representative for Metropolitan Life Insurance, a job he has had for a year and a half now. Prior to that he was a science teacher—5 years in high school and sixteen and a half years in elementary school.

(continued page 3)  

*****

MARK YOUR CALENDARS

3 Nov MAPS meeting -- Augustana, 2 pm
22 - 23 NATIONAL FOSSIL EXPO II
Mar Western Illinois University
Macomb, IL
12 - 15 Nation Show, Lincoln, NE June

"A LOVE OF FOSSILS BRINGS US TOGETHER"
MAPS MINUTES -- OCTOBER

The Mid-America Paleontology Society meeting was held at 1:00 p.m. at the Lehigh Quarry near Kankakee, IL, Oct. 6, 1979, with 21 members present from Ohio, Michigan, Indiana, Missouri, Iowa and Illinois.

The meeting was called to order by President Gil Norris.

The minutes of the last meetings were approved as printed in the bulletin.

Treasurer, JoAnn Good, reported a balance on hand of $160.40. JoAnn also reported we have a good supply of the patches with our logo, price $1. as well as the iron-on decals for use on jackets, T-shirts, etc for $4. These are large, 9x12, or thereabouts. Some members have used them on a corner of their tablecovering when entering swaps.

Gil called on Ray Fairbank, Chairman of the nominating committee. Ray reported the following slate of nominees for the several offices and Board of Directors.

President  Don Good
V. Pres.  Wallace Harris
Secretary  Tom Miller
Treasurer  Alberta Cray

Board of Directors:
Gil Norris -- 1 year
Ray Fairbank -- 2 years
Mary Boland -- 3 years

Nominees drew straws to determine the number of years for service as a Director.

Gil went down the list calling for nominations from the floor for each of the several offices. There being no additional nominations, JoAnn Good made a motion that a unanimous ballot be cast for these offices. The motion was seconded and carried.

A rousing "thank you" was extended Chuck Shoemaker, who set up the field trip.

There was discussion on the costs of printing and mailing the bulletins.

Don asked Madelynne to head a committee of her choosing and investigate the costs of bulk mailing, and any other possibilities for cheaper bulletin expense. It was suggested perhaps we might need to raise the dues to cover costs.

Bud Cray reported that two cases had been donated to the Association by Dennis Kingery before he moved to Wyoming. Bud said they are current stored in Cedar Valley Rocks and Mineral Society property shed. They can be used at a show, if needed, however, they cannot be loaned. There was a discussion about these cases. They would be good for out of state people for a show, but they do not "knock down", or fold therefore, they may be a problem to transport. Nothing was decided.

There was a discussion concerning the holding of Expo III in Indiana. The Board will study this further at the November meeting.

Ray Fairbank moved we adjourn. The motion was seconded and carried.

Respectfully submitted
Alberta Cray, Secretary

SAVE OUR COLLECTING PLACES

Midwest State Director for Wisconsin, Bill Parch, has asked all rock hounds to write their Congressmen to support Amendment HR 1603 which will exempt sand, gravel, and stone operations from MSHA (Mine Safety and Health Act) which was designed for underground mines.

This is the act that has closed most quarries to collecting. If we can help lift this burden from the quarry owners' back, we might be able to get in many of the quarries that are now closed.

For the most effect, limit your letters to this subject only and BE POLITE. We saved many collecting areas with letters when RARE II was threatening them and, if we work together, we can reopen the quarries.

Gil Norris
NATURE OF GROWTH

The ability to grow is one of the most distinctive properties of living matter. Many invertebrates grow throughout their life history; others cease to grow at some stage.

The marvelous symmetry shown by coiled structures in nature, such as the shells of foraminifers, shells of mollusks, and horns of sheep results from differential growth of the inner and outer sides of these structures. The relative growth rates are generally maintained throughout life, so that the spirals formed are mathematically definable. They belong to the class of logarithmic or equiangular spirals, in which the angle between radius and tangent drawn through any point on the curve is constant.

Equiangular spiral of Nautilus. The spiral shell of the cephalopod Nautilus expands at a constant geometric rate, in such fashion that any radius \( r \) forms an angle of 79° with a tangent \( t \). INVERTEBRATE FOSSILS Moore, Lalicker, Fischer

MEET OUR NEW PRESIDENT, Cont'd.

It was 22 years ago Don became interested in fossils. The Illinois State Geological Society sent out a brochure "Fossils in Illinois" and offered to set up a field trip for participating schools to a quarry at Dallas City, IL. Don accepted the offer and set out on the field trip not knowing much about fossils much less what to look for. He found a shell crushing shark's tooth and voila--fossil sickness set in. He has been hooked ever since.

Don's own major interest is crinoids—he is considered an authority of crinoids, particularly Burlington Limestone crinoids. He also collects all invertebrate fossils but not too many back bone fossils.

When asked how he came to be part of MAPS, he said several area collectors called him to see if he might be interested in a strictly fossil club. They set a meeting for a Saturday in February, 1978, to see if anyone would show up--19 people did just that and MAPS was born.

Don says "MAPS exceeds my wildest expectations already, but you don't quit, oh heavens, no--I'm waiting to see how big it will get."

In addition to being President of MAPS, Don is Paleontology Chairman of the Midwest Federation.

We are pleased to have you at the helm, Mr. President, and look forward to a year even more exciting than last.

OUT OUR FIELD TRIPS

Neither rain, nor cold can stop dedicated fossil fever. That's right! Good old Charlie was waiting at the gate at Lehigh Quarry, Kankakee, when we arrived. The area to which he lead us was already honeycombed with trilobite hunters. Charlie made many trips from gate to quarry bed that Saturday morning. Nice saucy negatives and positives kept popping out of that hard rock. Trilobites were there alright.

(continued next column)
TREASURE CHEST OF KNOWLEDGE

Long before fossils came to be studied systematically, they were collected as curiosities, charms, and medicines. They have been found among the ornaments, grave offerings, and temple relics of many primitive and prehistoric peoples who probably ascribed mystical or magical properties to them without clearly understanding their real origins and meanings.

Fossils intrigued many classical and medieval thinkers. Early explanations of the so-called "figured stones" are strange, fantastic, or ridiculous in the light of our present knowledge, but must be considered in terms of the superstitious setting out of which they came. In the opinion of many ancients, the stony fragments were not remains of living things at all. They were created by obscure "plastic" forces, or were ornaments for the interior of the earth, "jokes" or "sports" of nature, the result of vapors, emanations, or even of spontaneous generations.... Aristotle seems to have believed that the fossils of fish represented individuals who had wandered into crevices in search of food and had there been hardened into stone. Others believed that seeds, spores, and eggs may have filtered downward into the rocks to germinate and achieve a sort of cramped subteranean existence.

During the Middle Ages, when theological matters occupied so much of men's thoughts, fossils were interpreted in terms of the Creation and other religious concepts. Active opposition to the scientific study of fossils was based on strict interpretation of Scripture.

Arguments concerning fossils arose on all sides, public interest was aroused, and the so-called "fossil controversy" became intense. Some men theorized that the Creator had made several preliminary but unsatisfactory models of living things, which were cast aside to become fossils. Others were convinced that fossils were outright works of the Devil created specifically to deceive mankind. The most popular idea to emerge was that fossils are products of Noah's Flood. This catastrophe, it was said, could not only have killed anything and everything but also could have carried the dead remains up the highest mountains or into the deepest caves.

ESSENTIALS OF EARTH HISTORY
William Lee Stokes, 1973

UTAH'S FAVORITE FOSSIL

The allosaurus may join the sego lilly, blue spruce and the California gull in the hearts of Utah residents.

Utah already has an official flower, tree and bird. What it doesn't have is a state fossil, but the Utah Historical Society is out to change that.

The society is conducting a poll to see which of the fossils commonly found in Utah is dearest in the hearts of the public.

Allosaurus, a 40-foot dangerous reptile from the Jurassic Age of 160 million years ago, is one nominee. Others suggested by the society include arctodus, a giant bear that lived 12,000 years ago and may have stood 12 feet tall, and camelops, a camel that lived in Salt Lake and Millard counties 14,000 years ago.

DesMoines Register -- 9/15/79

(Ed. Note--A challenge!! How many of the remaining 50 states have a state fossil? Sounds like an excellent project. How about Europe, Japan, India--do you have national fossils?)

There's nothing constant in the universe,
All ebb and flow, and every shape that's born
Bears in its womb the seeds of change.
Ovid
Metamorphoses, XV (Ad 8)
Additional Errant Polychaetes from the Pennsylvanian Essex Fauna of Pit 11 have been classified

Submitted by: John J. Fagan

During the past Spring, the work of Dr. Ida Thompson which was published in PALAEONTOGRAPHICA ABT. A, Stuttgart, Germany, February, 1979, has become available.

In this paper she describes ten new species of polychaetes and states that she is in the process of describing four additional species.

I believe that the following listing of the "worms" of Pit 11 with their popular names will be useful to those who have collected at Pit 11.

<table>
<thead>
<tr>
<th>Phylum</th>
<th>Species</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annelida</td>
<td>Euniceidae</td>
<td>Esconites zelus x</td>
</tr>
<tr>
<td>Aphroditida</td>
<td>Hystriciola delicatula (Baby-tooth)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dryptoscolex matthiesae (Rat)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fastuoscolex gemmatus (Papillae)*</td>
<td></td>
</tr>
<tr>
<td>Palmysidae</td>
<td>Undescribed (Felt)</td>
<td></td>
</tr>
<tr>
<td>Phyllodocidae</td>
<td>Levisettius campylonectus (Riccardo)*</td>
<td></td>
</tr>
<tr>
<td>Hesionidae</td>
<td>Rutellifrons wolfforum (Shovel-nose)*</td>
<td></td>
</tr>
<tr>
<td>Nephthyidae</td>
<td>Astreptoscolex anasillosus (Plaine)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Didontogaster cordylina (Tummy-tooth)*</td>
<td></td>
</tr>
<tr>
<td>Glyceridae</td>
<td>Pieckonia helenae (Fish)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glyceridae</td>
<td></td>
</tr>
<tr>
<td>Fossurdecimidae</td>
<td>Fossurdecimidae konemyl (Simple-jaw)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amphinokidae</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rhipidioedorus hystrix (Oliver Hardy)*</td>
<td></td>
</tr>
<tr>
<td>Opheliidae</td>
<td>Undescribed (Mud)</td>
<td></td>
</tr>
<tr>
<td>Phylum Echiura</td>
<td>Coprinoscolex ellogimus (Leech)*</td>
<td></td>
</tr>
</tbody>
</table>

The earth was at work, as it is always at work, and it moved slowly...it intruded massive granite bodies which, when the mountains covering it were eroded away, would stand as the permanent basement rock. In later times it would be penetrated, wrenched, compressed, eroded and savagely distorted by cataclysmic forces of various kinds. But through three billion, six hundred million years, down to this very day, it would endure. Upon it would be built the subsequent mountains; across it would wander the rivers, high above its rugged surface animals would later roam; and upon its solid foundations homesteads and cities would rest... From time to time, in subsequent events blocks of this basement rock will be pushed upward, where they can be inspected, and tested, and analyzed, and even dated...

It is a poem of existence, this rock, not a lyric but a slow moving epic whose beat has been set by eons of the world's experience.
One aspect of fossil collecting and study that is least considered and at the same time most interesting is that of trace fossils.

The long time definition has been that trace fossils are indirect evidence of the presence of an organism in the geologic past. However, the latest scientific thought on the subject is that trace fossils are direct evidence of the presence or activity of an organism. Included as trace fossils have been molds and casts, tracks, trails, burrows, borings, leaf compressions and impressions, tooth marks, wood riddled by fungus or borers, coprolites, gastroliths, footprints, etc. It should be noted that this definition of direct evidence rules out molds and casts, and they should no longer be considered as trace fossils.

The strata of the Mesozoic and Cenozoic Eras contain evidence of the reptiles and mammals that lived at that time. One such bit of evidence is the coprolites which are excrement left by these creatures.

The dinosaurs had a digestive system that utilized a gizzard for partly digesting the food. Grit or rocks were ingested and served to grind up the food eaten. Our modern birds eat grit for the same purpose. The gastroliths or gizzard stones are large rocks up to three inches across and have a certain waxy feel. They must be found in close proximity to a dinosaur skeleton. Some even contain fossils.

Many members of MAPS are interested in trilobites and should not overlook the interesting trace fossils associated with them.

In considering trilobite traces, remember that trilobites were aquatic bottom dwelling animals who either crawled across the sediment or swam near it. They dug into the sediment as they walked and this hollow was later covered over with sediment. It is this filling or the reverse that is found.

A trace known as Rusophycus was made by the digging of the trilobite into the sea floor to rest temporarily. Well preserved specimens may show impressions of the segments, head shields, appendages, etc. A trilobite "nest" is a prized find. They were dug deeper than the resting trace and were made for shelter. Both are found as rounded elongate lobes more or less parallel.

Cruziana is the term applied to the walking trace. These can be deep furrows where the trilobite ingested the sediment as he went along. Many show the ridge made by dragging the genal spines as they went along. There is also a light walking trace which is narrow and shows that the indentations in the sand were shallow.

Footprints and tracks are another type of trace fossil. The dinosaur tracks of the Connecticut Valley and West are well known to all. Bird tracks are a fine addition to any collection. When a bird or animal walks across soft mud after a rainy spell his foot sinks in and leaves a print. In due course it may turn to rock and finding such a trace can reveal the size and shape of foot so that an identification can be made of some long ago animal.

There are many kinds of borings found as trace fossils. Most were constructed for shelter and some for food. They are found in hard sediments, organic matter like shells of mollusks, bones, teeth, wood, etc. The boring organisms (continued next page)
TRACE FOSSILS, by Elvere Brown, Continued

can be fungus, algae, lichens, bryozoa, snails, annelids, insects, and cephalopods. This produces many different kinds of traces whether it be a hole in a shell, tunnels in wood, or deep shelter in sediment, and all are interesting.

There are many kinds of trails both more or less straight or looping over a previous course, made by as yet unknown organisms. In the past many of these and other unexplained "problematica" have been put into the classification of fuscioids or sea weed. One modern author believes that there is no such thing as fuscioids, and that eventually these problems will be solved as research continues.

Many beautiful leaf prints are found both from the Carboniferous Coal Measures and from the later periods of the Western United States. After a leaf falls into the water it sinks to the bottom and may be covered with sediment. The pressure becomes great and forces the moisture out of the leaf leaving the mineral content as a leaf print. The positive therefore is a compression and the negative an impression.

Most books on fossils offer no more than a paragraph or two about trace fossils. There are some excellent books available at a geological library. They are well worth the extra effort involved and make very interesting study.

Of necessity, due to space limitations, this discussion has been brief, and it is hoped that it has sparked an interest and curiosity that can lead to pleasant pursuits in your study of paleontology.

BIBLIOGRAPHY


Hantzachel, W. "Trace Fossils and Problematica." R. C. Moore, Editor, Treatise on Invertebrate Paleontology. Part W, Miscellanea Geol. Soc. of America and University of Kansas Press, 1962.


NEXT ISSUE --

Please look forward to:

Hunting Texas Trilobites -- Judy Owyang and David Bradbury
Mostly About Crinoids of Ordovician Age -- Harrell L. Strimple

page 7
Please add the following to your list of new members:

Eric Achterberg
602 Lake Drive
Columbus, IN 47201
812-342-4548
Collecting 3 years. Student. Will trade. Interested in trilobites, fossils of silurian age. Wants to learn more about fossils and how to collect them.

Allyn Adams
612 W. 51st St.
Davenport, IA 52806
319-391-5443
Collecting 16 years. Parts man. Will trade. Interested in field trips, educational displays, learn more, and increase collection.

John & Janel Anderson
48 N. Edgewood Avenue
LaGrange, IL 60525
312-482-8297
Collecting 6 years. Computer programmer. Will trade. Interested in Pennsylvanian age fossils from Mazon Creek, Pit 11. Wants to learn more about midwest fossils.

C. Andrew Arnold
717 Fifth Avenue
Ottumwa, IA 52501
322-6057
Collecting 2 years. Will trade. Student. Interested in all fossils. Fine hobby and fine people to be with.

Miguel Barboja
Ave. Goao Crisostomo 91-2
Lisbon, Portugal 1000
40793
Collecting 5 years. Will trade. Writer and painter. Miguel and wife love fossils and nature. Collects around Lisbon.

Paul & Sherry Caponera
2330 Collins Street
Blue Island, IL 60406
Please send information that we may get to know you a little. Thank you.

Jerry Carter
747 18th Avenue
East Moline, IL
Collecting 10 years. Will trade. Teacher. Interested in Pennsylvania plant fossils, some marine life. Wants to share interest in fossils.

Xavier Chaix
3 Avenue Faidherbe
Asnieres, France 92600
791-18-46

Franklin E. Hadley
839 Chapel Hill, East Drive
Indianapolis, IN 46224
244-7781
Collecting 10 years. Retired Mech. Engr. Will trade. Likes brachiopods, but collects, trades, buys as many different species as possible. Interested in fossils.

Paul Harris
874 Circle Drive
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501-425-4450

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Kumar Karyalaya, Central Road
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24693

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Nagpur, India

Mr. & Mrs. M. Staley  
Post Office  
Farmington, IL 61531

William Schafer  
1544 41st Street  
Rock Island, IL 61201  
309-786-3712

Robert Charles Wold  
3521 10th Avenue North  
Ft. Dodge, IA 50501  
515-523-7295

Collecting 10 years. Secretary. Cannot trade yet. Interested in trilobites, Mississippi Valley specimens, and fossils. Would like to learn more exchange ideas.

Collecting 8-10 years. Will trade. Interested in Deccan Intertrapps; Jurassic, Permian. Would like to learn, associate with other interested in fossils, and trade.

Collecting 7 years. Quality control. Will trade. Interested in all fossils. Wants to increase stratigraphic collection and meet other collectors.

Collecting 30 years. Educator. Will exchange specimens. Interested in Deccan intertrappeans, Jurassic, Permian. Interested in fossils, would like exchange.

Collecting 10 years. Education. Will trade. Interested in Eocene, Intertrappeans, Permian beds. Is interested in fossils, exchange of fossils, and study.

Please send information to pass on to others. Thank you.

Collecting 10 years. Supervisor. Is not interested in trading. Interested in all fossils, Interested in belonging to a fossil club.

Collecting 13 years. Animal caretaker. Will trade. Interested in paleozoic of Iowa and nearby states. Would like to compare local specimens with others.

ABOUT OUR FIELD TRIPS Cont'd.

Ovid says, "There's nothing constant in the universe..." so be it that we say goodbye to our first officers. But they deserve many thanks for a fast paced year, interesting, educational meetings, a growing, exciting club, a most successful Expo I, just operating in the black at the end of the year.

A special thanks to Gil for being an aggressive, dependable President—he's a man who gets things accomplished! At the end of his realm MAPS has grown from the 19 people at the very first meeting to:

158 households in 25 states  
15 households in 9 foreign countries  
7 honorary members. Enough said.  

before many more issues pass. That head is amazing—had Jules Verne seen anything like it he would have had the subject matter for an all time science fiction best seller.

Generous, patient man, Charlie. Thank you very much.

Next morning it was Pit 11 and concretions. Shrimp were the order of the day. Later in the day a second spot where pyrotized gastropods, shark teeth and other small fossils were found.

Don's right, we should set up more field trips.  

*****
The Mid-America Paleontology Society (MAPS) was formed to promote popular interest in the subject of paleontology, to encourage the proper collecting, study, preparation, and display of fossil materials; and to assist other individuals, groups, and institutions interested in the various aspects of paleontology. It is a non-profit society incorporated under the laws of the State of Iowa.

MAPS is affiliated with the Midwest Federation of Mineralogical and Geological Societies, and with the American Federation of Mineralogical Societies. Membership in MAPS is open to anyone, anywhere who is sincerely interested in fossils and the aims of the Society.

Family membership $6.00; individual membership $5.00; junior membership $3.00 (between ages 8 and 16); dealer membership (non-voting) $20.00.

MAPS meetings are held on the 1st Saturday of each month (2nd Saturday if inclement weather) October thru May at 2 PM in the Science Building Augustana College, Rock Island, Illinois.

President: Don Good, 410 NW 3rd Street, Aledo, IL 61231
Vice President: Wallace Harris, 325 E. Franklin, McComb, IL 61455
Secretary: Tom Miller, 3219 West Locust St., Davenport, IA 52804
Treasurer: Alberta Cray, 1126 J Avenue, NW, Cedar Rapids, IA 52405
DIGEST Editor: Madelynne Lillybeck, 1039-33rd St. Ct., Moline, IL 61265

Dated material - Meeting notice