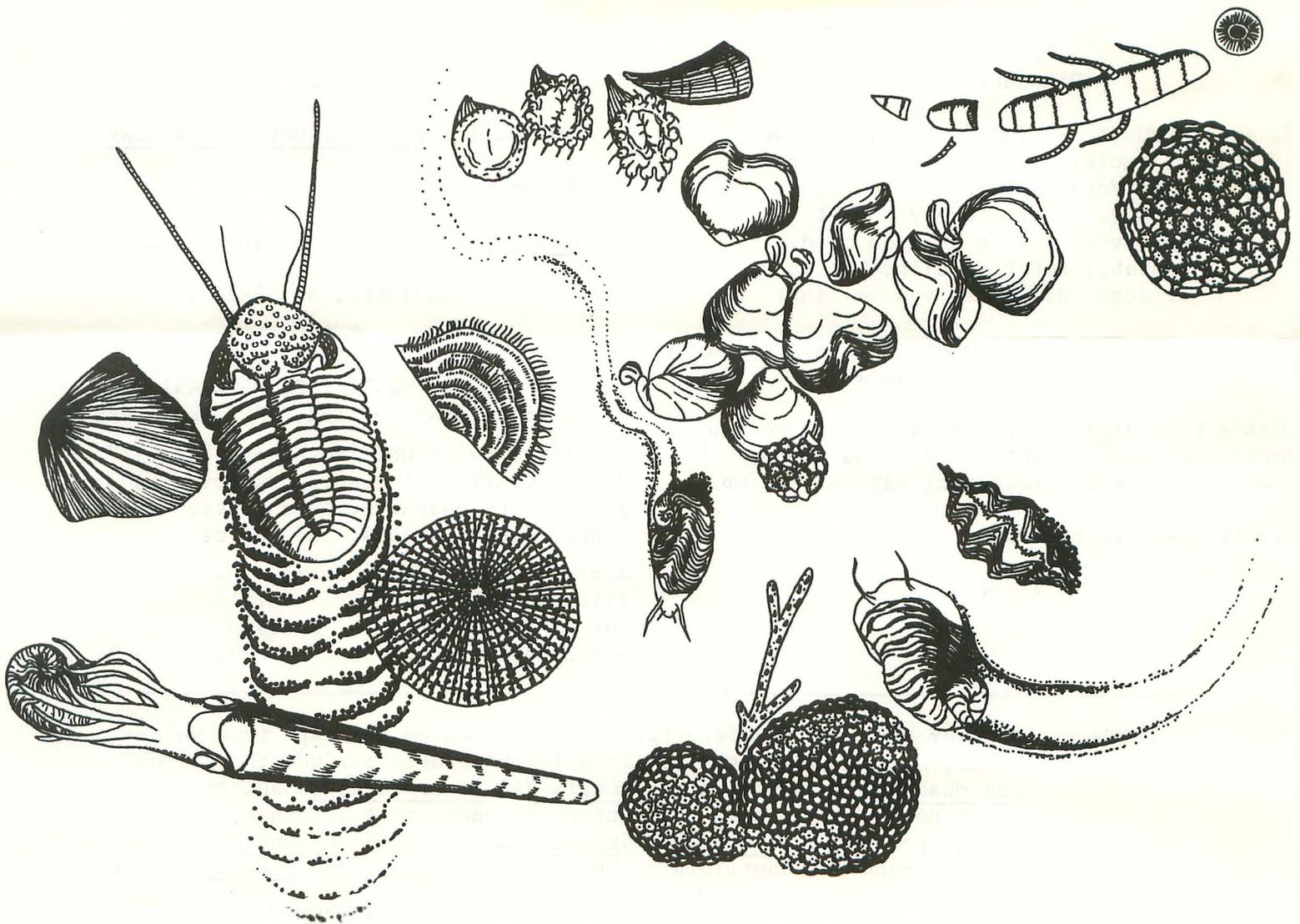


M.A.P.S *Digest*

Official Publication of
Mid-America Paleontology Society

Volume 9 Number 8
November, 1986



A Lower Devonian Seascape
White Mound, Oklahoma
MAPS Member
Mark McKinzie
3535 N. St. Charles #89
Oklahoma City, OK 73122

MARK YOUR CALENDARS

6 Dec MAPS MEETING Fryxell Museum,
Augustana College, Rock Island
Illinois.

1:00 Board Meeting
2:00 New Fossil Reptiles & Am-
phibians From The Mountains
of Antarctica. Dr. William
Hammer of Augustana College
will be guest speaker.

10 Jan MAPS MEETING Augustana College
Fryxell Museum, Rock Island, Il.

1:00 Board Meeting
2:00 Dick Johannesen, Rock Island
will present the program on
A Dinosaur Dig.

24 Apr EXPO IX -- That's X - 1. Macomb
Illinois. Strange things happen
when Fossil Lovers get together.
Rebudget your grocery budget, or
whatever. Bring an open mind.
Probably not Daffodils, how about
lilacs? Do we see you smiling?

Dr. Hammer brought 50 crates from Antarctica.
At last we'll find out what was in them.

Dick's been digging up dinosaurs, and we can
promise you will be both richer and poorer
when you leave 3 fascinating days at Macomb.

Pretty heady goings on.

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* * *

KEYS TO IDENTIFY PENNSYLVANIAN
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Published by ESCONI 60 pages 8½" x 11".
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plants with characteristic roots, bark,
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ABOUT THE COVER -- A Lower Devonian (Heldergergian) shallow water seascape from White Mound, Oklahoma. Bottom-dwelling invertebrates include the trilobite Paciphacops, colony corals Emmonsia and Pluerodictyum, solitary horn-shell coral Enterolasma, a fenestrate and ramost bryozoan, and the brachiopods Delthyris, Meristina, Leptanea, and Strophonella. A straight-shelled nautiloid has captured the gastropod Platyceras for dinner.

White Mound is a famous collecting area of the Haragan Formation in the Arbuckle mountain region of Oklahoma. Excellent fossils can still be found there today.

Mark McKinzie is a Field Geologist. His major interests are Illinois and Oklahoma Paleozoic invertebrates, especially trilobites and crinoids. His beautiful art illustrations have been used in several issues of MAPS DIGEST.

SEDIMENTARY NOTES

DR. MERRILL W. FOSTER, Bradley University.

Dr. Foster has a classroom lecture which he presents to his classes on form and pattern. It would be a marvelous article for the DIGEST.

"I still intend to write you an article about some aspect of form and pattern in nature. However, as I told you in our last conversation, I won't be able to do so until I complete and send off or get into a holding pattern with my two pending research projects. . . This means I can't tackle this paper for you for from somewhere between four months and two years."

(Ed comment--Dr. Foster has contributed most generously to MAPS DIGEST. It is he whom we often go to for guidance when we need help to be certain something is correct in the work we do with MAPS projects. It is not hard to see how generous people are with their time for MAPS. We are sometimes so casual with our acceptance of what is given.

Thanks, Dr. Foster, and we wait with anticipation your article. Meantime, success with your research projects.)

MRS. MARILYN FRIEDMAN -- 1372 Luddington Rd.
East Meadow, NY 11554

We are planning to go out west with our 11 year old grandson and thought since we are members of MAPS perhaps we could ask you for some help. We plan to go to the National parks in Utah, Arizona, Colorado, and New Mexico and want to combine our trip with fossil collecting.

Can you give us any information on who to contact to collect trilobites in Utah near Delta or any other locations you know of. If there is any charge for any information, please let me know. Also, if you know of any people who act as guides, any information would be greatly appreciated.

(Can anyone help? Not only a good deed, but a potential new fossil lover. Hope you hear from someone, Mrs. Friedman.)

JUDY OWYANG -- 1638 West Washington Boulevard, Venice, California has moved her FOSSILS/ETC. from Sawtell Boulevard, Los Angeles to to Venice. It's too late for Champagne and Hors d'oeuvres but not for Judy's fossils.

WHILE YOU ARE IN CALIFORNIA, be certain to take time to stop at MONTEREY BAY AQUARIUM.

This incredible Aquarium, built into the sea in what was once a cannery, is well worth the time and money. All your fossils will come to life in psychedelic colors. AWESOME is the word. It's hard to leave.

There are, of course, paid workers, but many local volunteers give time for feeding and cleaning giant fish tanks. During the tourist season local people are asked to visit the Aquarium on weekdays in order to accommodate the massive crowds.

It is an unbelievable life time memory. While you are there, looke for MAPS member CLARENCE SCHUCHMAN's beautiful ammonites from the Cretaceous of California.

You have a rare treat in store.

§ § §

PRIME FOSSILS IN QUARRY IN SE IOWA--A Field Museum paleontologist says rare fossils found in southeastern Iowa should cast new light on the dim period when animals first left the sea and crawled onto dry land.

John Bolt said that between 500 and 1,000 specimens of long-extinct animals called tetrapods have been found at a site near Delta. Bolt said the tetrapods--some as long as five feet--probably looked like large slimy-skinned salamanders.

"They're the best tetrapods found in North America in terms of quality and abundance of specimens." Older amphibian fossils have been discovered in other parts of the world, including Scotland and Greenland, and West Virginia, but on this continent only "scraps" of such fossils have been found.

"The preservation was good to excellent." The site was found in 1985 by two geologists from the Iowa Geological Survey, Robert McKay and Patrick McAdams. McKay and McAdams sent some specimens to Bolt, who got funding from the survey, his museum and the National Geographic Society to direct excavation.

A 340 million year old window into the past.

MAPS ***
Member Peggy Wallace
Des Moines Register

IOWAN FINDS MASTODON TOOTH IN CREEK BED

Steve Nelson of Sabula stumbled on a mastodon tooth glistening in the bed of a creek south of Sabula.

No efforts have been made to conclusively date the tooth. Mastodons were prevalent about 15,000 years ago and became extinct about 8,000 years ago.

The tooth measures about eight inches long, four inches wide, and six inches from the top of the root to the crown. It weighs about six pounds.

... "Mastodons, which resemble a hairier version of modern elephants, fed on woody plants," said Janice Hall, natural history curator of Putnam Museum, Davenport. "The fossil could have been buried several feet below the creek and over time worked its way to the surface, or it could have been redeposited in the creek bed by water. It's possible that some other bones of the skeleton are in the vicinity."

--THE DES MOINES REGISTER

* * *

ROCK RIVER 'goo' A JEWEL TO SCIENTISTS

MOLINE DISPATCH Scientists call it "Jewel of the Sea." Industry touts it as a wonder material used to make things like toothpaste, fish tank filters, bricks and prescription drugs. But to Rock River (Moline, Rock Island) who've puzzled over the oozing stuff floating on the river's surface for the last two or three years, it is nothing but gunk.

The stuff is diatom, an algae. On warm summer mornings, it covers the river, floating en masse and covering everything in its path. . . . Diatom stains boats and makes people think twice about taking a dip in the river. . . . It appears like clockwork, oozing downstream with the sunrise and dissipating through the day.

Diatoms often give river water a brownish color which leads some to believe they are looking at seriously polluted waters. In some areas, under the right conditions, diatoms can even turn the water red, says Dan Sallee, fish biologist with the Department of Conservation.

Green, brown, or red; the experts say it all can be one of the 10,000 known varieties of diatom. Biologists classify diatoms in Bacillariophyceae Class, Phylum Chrysophyta. Some have a golden brown pigment which masks chlorophyll, the substance that gives plants the

green color. It also may have carotenoid pigments, the same stuff that makes a carrot orange. One species lacks chlorophyll entirely and is creamy white in color.

Some can move on their own, some attach to other things and cannot move. Some simply float with the current. Some are zooplankton--food for fish--and some are phytoplankton--algae. Biologists theorize diatom rises with the sun collecting on the surface. The rising sun prompts oxygen production in the microscopic plant, causing them to rise to the surface en masse forming the frothy green layer.

It's hard to believe the organism creating that foul, staining mess is valued in science and industry. Because of the intricate pattern visible under the microscope after diatoms are destroyed by heat or acids, scientists gave diatoms the nickname, "Jewel of the Sea."

Food is stored in diatom cells in the form of oil droplets. When diatoms die, silicon used to make cell walls usually dissolves. Sometimes the cell walls settle and accumulate on the river bottom faster than they dissolve, forming a diatomaceous ooze.

Diatom's first industrial use was to clarify sugar and syrups. It is now used as a filtering agent; an insulator against heat, cold and sound; a mild abrasive ingredient in toothpaste; in the processing of alcoholic and non-alcoholic beverages; antibiotics; solvents and chemicals.

In the form of diatomaceous earth, it is used as a filler or extender in paper, paint, brick, tile, ceramics, linoleum, plastics, soap, detergent, and a large number of other products. It is also used in the insulation of boilers, blast furnaces, and other devices in which high temperatures are maintained--higher than 525C, or about 1,000F.

That brings little comfort to Rock River residents, who hold their noses while the naturally occurring stuff floats by.

* * *

8,000-YEAR-OLD BRAINS OFFER CLUE TO GENES' ROLE IN EVOLUTION -- UPI Science Writer Gayle Young

Tissue taken from the shriveled brains of 8,000-year-old Indian remains found in a Florida swamp has been cloned by scientists seeking to discover the role genes play in the process of evolution.

Biologists at the University of Florida College of Medicine in Gainesville were able to duplicate pieces of DNA, the molecular blueprint of heredity, from cells in the ancient brains.

The brain tissue is believed to be the oldest segment of human tissue ever cloned. University researcher William Hauswirth said scientists last year cloned a single piece of DNA from the brain of an Egyptian mummy estimated to be 4,000 years old.

The ancient Indian remains, buried under layers of peat and held down with wooden stakes, were discovered in 1984 in a Titusville swamp by a construction crew. Archaeologist David Dickel said the brains, shrunken to about one-third their original size, were found intact inside dozens of skulls. They had been preserved by the low-acidic water.

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PALEOECOLOGY OF THE WHITE MOUND COLLECTING AREA, OKLAHOMA -- By MAPS Member Mark McKinzie
Oklahoma City, Oklahoma

The White Mound collecting area is located in sections 17 & 20 T2S-R3E, Murray County, south/central Oklahoma. This outcrop is just part of a well-exposed sequence of Lower Paleozoic rocks in the Arbuckle Mountain region. The formation itself is the Haragan marlstone of the Hunton group (Silurian-Devonian), and is highly fossiliferous. The excellently preserved fossil suite is of Heldergergian Age (Lower Devonian), and belongs to the Eastern American Realm. This fauna can be correlated eastward with the rich finds of the Brownsport shale of Tennessee, and the New Scotland limestones in the Helderberg Mountains of New York.

The Haragan Formation itself is a tan/cream to light gray, calcareous, silty claystone with a nodular appearance on weathered surfaces. At White Mound it is predominately free of chert, and fossil thruout. Of importance to collectors is the fact that the fossils generally weather free of the surrounding matrix or can be extracted with little difficulty. There is little evidence of secondary diagenesis (dolomitization, metamorphism), and minute details of fossil morphology are preserved.

And what fantastic fossils they are. Thirty-eight species of brachiopods of which seven are extremely common. Eighteen species of trilobites dominated by Phacopids and Dalmanitids. Four genera of corals, three of sponges, and over five bryozoans. In the molluscs: five species of gastropods, and two pelecypods. Forty-eight known varieties of ostracodes. The echinoderms are well-represented by the crinoids, the most common being Scyphocrinites.

By far the most abundant fossils at White Mound are the brachiopods, both in numbers and diversity. Almost all brachiopods are found articulated (whole) with little evidence of abrasion or broken valves. The fact that there are so many fossil brachs at this location can mean only two things: a) brachiopods were preferentially preserved over the other fossil groups or b) brachiopods were well-adapted to the living conditions of the time. Let us

assume 'b' for now as there are eight invertebrate phyla represented which seems to indicate most organisms with a calcareous exoskeleton were fossilized.

Brachiopods, like bryozoans, are filter-feeders, and require microscopic food in suspension to feed upon. Therefore, they settle in an area where there are currents enough to circulate nutrients along the bottom, but not enough to carry a sediment load that would lodge in their gills and interfere with filter-feeding. Hence the brachs and bryozoans need to be on a shelf below effective sotrm wave base (deeper than 25 feet), but above the trophic or effective light zone (above 300 feet) where most plankton survives.

The dominant fossil bryozoan Fennestrillina is also indicative of deeper, quiet water conditions. Funnel-shaped to lacy frond bryozoans of today are found in quiet water depths of 50 feet or more) as the colonies are fragile and would be knocked over and buried in more agitated waters.

The two dominant corals are Enterolasma, a horn-coral of the ORDER Rugosa, and Pluero-dictym, a colonial coral of the ORDER Tabulata. Neither one of these is considered a fram-work builder, and though both occur in abundance there is no evidence of reef-mound

or reef-patch build-ups. It is interesting to note that the coral Pluerodictyum is commonly found cemented to brachiopods, especially Meristella. Studies have shown that living corals seek out the hardest substrate available to them when pioneering an area. In this case it was usually the brach Meristella which, incidentally, is one of the seven most abundant brachs. We can also infer the life position of the brachiopod by aligning the fossil with the coral facing upward. However this does not apply if the corals only settled on dead brachs which is unlikely. Studies of living corals have also shown that they prefer aerobic-water conditions with a moderate sediment rate.

Finally, the bedrock itself gives clues to the paleoenvironment. The Haragan Formation is a marlstone which means it was originally a lime mud with a fair amount of silt-size particles. The lack of distinct bedding planes indicates continuous, and non-catastrophic deposition.

BIBLIOGRAPHY

- Amsden, T. W. & Boucot, A. J. 1958 "Stratigraphy And Paleontology Of The Hunton Group In The Arbuckle Mountain Region": Oklahoma Geological Survey v. 78, 199 p.
- Oliver, W. A. Jr. & Sorauf, J. E. (ed.) 1983 "Silurian And Devonian Corals And Stromatoporphids of New York": 4th International Symposium On Fossil Cnidaria 180 p.
- Zeigler, B. 1983 Introduction To Paleobiology: General Paleontology 225 p.

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FOSSILS OF THE OZARKS -- MAPS MEMBER Bruce L. Stinchcomb
St. Louis Community College
St. Louis, Missouri 63136

"New" fossil finds are always exciting, particularly fossils which document a life form which is new to science and which may even document a body plan of an organism previously unknown. A recent MAPS article on the Burgess Shale fossils pointed out some of the strange and exciting life forms which can turn up. These and others of great antiquity can give a big "quantum jump" in the understanding of life in the distant geologic past. This article also mentioned the fact that fossils of scientific rarity and significance aren't always, at least superficially, very spectacular looking. This applies to most of the Burgess Shale specimens with the exception of the trilobites which are the least unique forms of the fauna (except in the fact that some preserve the soft appendages).

Another instance of a significant fossil fauna which has made a major step in documenting and understanding just how different Paleozoic life was from that of Mesozoic and later time is the Essex Fauna of Northern Illinois, the Bundenbach Slates of Germany and some of the Lower Cambrian Faunas of the Appalachian and Cordillerian areas of North America. Discovery of new types of fossils and fossil faunas in various parts of the world is an exciting

The lack of reef-building organisms or structures rules out a reef community. And the lack of broken, abraded, or mixed-up fossil debris rules out a high-energy, nearshore environment.

This leaves us with an off-shore, probable outer-shelf assemblage. I would hazard a depth range of 50-300 feet below sea level. (This is just a guess and could be entirely off base!) The sea floor was probably level and featureless with abundant organic activity at the sediment/water interface and in the waters above. We do know from paleomagnetic studies and the theory of continental drift that the seashore was much closer to the equator than today, and the water temperature would have been like that found in the tropics of our era.

* * *

form of planetary exploration still going strong and one which can potentially add significant new information on life of Earth's geologic past.

Sometimes these discoveries are made by utilizing a new technique of cleaning previously collected material--application of the air abrasive machine is a case in point. Sometimes extracting information on previously

known fossils through data processing, through use of X-rays, radiography or other applications of technology can lead to new information. Still another way new information on previously unknown life forms can be garnered is through the examination of newly exposed rocks such as those which led to the discovery of the Essex material.

Other cases where "new" fossil material and also new information on life of the geologic past can be gathered is in the finding of fossil faunas in formations or areas which were previously not investigated. One such area which has been a "sleeper" for possible new paleontological finds is the Ozark Uplift of Missouri and Arkansas. Containing probably one of the largest areas of Cambrian and Lowermost Ordovician outcrops in the world, it wasn't until the 1920's that even the most rudimentary paleontological work was carried out over most of the Ozarks.

Much of the Ozark area is covered with large amounts of flinty rock (chert) which on the surface will now and then exhibit a poor looking fossil; however, in general the area has usually been written off as an area with "poor pickins: for paleontologists. When one, accustomed to collecting in limestones or shales of "normal" Paleozoic strata, is confronted with the hard, often drusy and flinty rocks of the Ozarks they usually take one look and then forget about fossils. If they are a bit more persistent and continue to look, the seemingly apparent continued absence of fossils, except for occasional poorly preserved forms, in most of the rocks, usually reinforces the initial impression with correspondingly diminishing interest. So it is that most geologists, amateur collectors and others with an interest in fossils or with an interest in the Geology of the Ozarks, usually write off its rocks as not favorable for yielding paleontological "treasures".

A few "pioneer" geologists of the not so distant past had a somewhat different view, one of these was the paleontologically and stratigraphically prolific E. O. Ulrich who in the late teens and early twenties using Model-T Fords for initial access, diligently searched Ozark hills for fossils and came up with a surprising wealth and variety of specimens. These along with material collected by J. Bridge of the Missouri School of Mines and later with the USGS, formed the basis of a series of proposed publications on Ozark fossils, some of which were never completed. The most extensive work which was completed was a three volume one on the cephalopods.

One who has access to a fairly extensive geology library might like to take a look at Ozarkian and Canadian Cephalopods, Geol. Soc. Amer. Special Papers Vols. 37, 49, and 58. These and other Ozark fossils formed the bases for a proposal by Ulrich to establish a new geologic period between the Cambrian and Ordovician periods; this was to be called the Ozarkian Period.

The proposal died a premature death in the 1930's. Among various reasons for its demise might have been a somewhat haughty attitude which Ulrich apparently conveyed to his colleagues. At any rate the pioneer work by Ulrich and Bridge established that a considerable variety of distinctive and often well-preserved fossils did indeed occur in the ancient rocks of the Ozarks, although it takes a trained eye to locate them. The diversity and variety of fossils collected was considerable and only a portion of that variety has been described. Ulrich and Bridges specimens reside in the U. S. National Museum and need additional work.

Ulrich sometime in the 1920's made up a series of sets of glass negatives of photographs of Ozark fossils which he had plans for describing and entering into the literature of paleontology. A series of monographic works were contemplated, only the one on the cephalopods completed. The fossils which were to be photographed were brachiopods, trilobites, gastropods, cephalopods and a variety of cornucopia shaped, horn or spoon shaped shells which were then thought to be primitive gastropods. Copies of these glass negatives were sent to various geology departments around the country where persons interested in Cambrian Faunas were located. One of these institutions was the Missouri School of Mines in Rolla Missouri, where as a freshman geology student in the early 1960's while working as a student employee I ran into the negatives. I had a few years earlier on a scout troop camping trip, encountered some highly fossiliferous cherts containing some of the same fossils illustrated in the glass negatives and found all of them quite different from the Mississippian and Pennsylvanian fossils with which I was familiar.

The cone and spoon shaped fossils were not gastropods at all but something quite different, representatives of a new class of molluska, the monoplacophora. This information substantiating a completely new major category of such a well-known phylum as the mollusks

came both from peculiar patterns of symmetrical pits (muscle scars) on internal molds of the fossil shells and from living monoplacophorans discovered in deep sea dredging in the southeast Pacific. The fossil monoplacophorans along with the strange cephalopods, gastropods and other Ozark fossils I encountered, convinced me that here was something well worth putting additional effort into. I fell in love with Ozark fossils!

During the 1940's and 50's other publications in addition to those of Ulrich and Bridge were published on Ozark fossils. One of these documented the Lower Ordovician Jefferson City and Cotter Formations, formations which even though of Ordovician age have many faunal aspects still reminiscent of the Cambrian. The other publication is The Paleontology of the Roubidoux Formation, red sandstone beds of which can be seen outcropping abundantly in many places when crossing the Ozark uplift. This publication on the Roubidoux is still in print, it has beautiful high quality plates of Ozark fossils, is available for \$2.00 from the Missouri Geological Survey, Buehler Park, Rolla, MO 65401.

What new finds might yet turn up? Who knows, with large areas of cherts and dolomites in the Ozarks having never even been looked at by a paleontologist. The chances are good for additional new and probably exciting finds. The diversity of monoplacophorans in Ozark rocks seems to be particularly great and other peculiar mollusks occur in local concentrations. With some degree of certainty I can say that a new species or genus of monoplacophoran or other shelled "funny mollusk", will usually turn up with one or two hours of looking in suitable fossiliferous beds. The "trick" is in finding and recognizing these fossil bearing rocks. It takes a real knack and perseverance which I cultivated at an early age. Still the fact that a form new to science can be found with relative ease in a part of the world where the general geologic outline has been known for over 50 years makes one wonder just how much of the fossil record, not only in the Ozarks, but in other parts of the world is still waiting there to be discovered.

As a venerable "fossil hound" not only of Ozark fossils but of many other types, one gets the "feeling" that a considerable variety and number of unknown life forms are yet remaining to be discovered as fossils, (new species,

genera and even higher taxa). It takes enthusiasm, effort, sometimes a certain amount of intestinal fortitude and the proverbial element of luck to accomplish this. Unearthing and documenting the fossil record is in some respects, a type of academic, world wide "treasure hunt". It can be quite exciting and if motivation is great enough, almost anyone can play in one form or another.

That is partially what a group like MAPS is about. Here, for all intents and purposes, is a group of individuals who really love fossils and some are going to "go that extra mile" to get "new" fossil material, some of which might just possibly be new to paleontology.

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THERE'S STILL TIME

To get to Washington to the Smithsonian Institution to see the 900-piece fossil collection of MAPS Member, Tom Johnson. Trilobites, of course.

Fred Collier, the Collections Manager of the Museum's Paleobiology Department, sent Johnson a letter congratulating him on the size and quality of the collection.

* * *

FOR YOUR READING PLEASURE

Mineral, Fossil & Rock Exhibits & Where to see them. A directory of museums with earth science exhibits throughout the United States and Canada. \$3.00

Order from American Geological Institute
5205 Leesburg Pike Falls Church, VA 22041

* * *

Natural History November, 86 -- Three articles: 1) "How Dinosaurs Invented Flowers" by Robert T. Bakker. "One hundred million years ago, plants that didn't flower became fodder. 2) "The Anemone Below" by Kenneth P. Sebens. "Colorful contenders battle for territory amidst tidal rock and reef". and 3) A Tale of Two Continents Text by Paul Tapponnier -- Photographs by Kevin King. "India and Asia collided fifty million years ago, creating the Himalayas and the High Plateau of Tibet.

Please Update Your Membership Directory --

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Please Add The Following New Members to Your Directory-- WELCOME ABOARD THE GOOD SHIP MAPS!!

LUELLA E. BOND
1044 State Hwy 261
Boonville, IN 47601
812-925-6612

Office Manager. Will trade Likes all types of fossils.
Wants to learn about fossils

NORMAN S. BROWN
P.O. Box 932
Lakeside, CA 92040

Meat cutter. Collecting 15 years. Will trade. Primary
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lects all macrofossils.

RICK CROSSLIN
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Indianapolis, IN 46234
317-271-7254

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Major interest all plant fossils (Pennsylvanian) trilobites.
Has Egyptian artifacts for trade.

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630 West Dryden St. Suite F
Glendale, CA 91202

ERIC & SANDRA KENDREW
4436 Tevalo Drive
Valrico, FL 33594
813-

Collecting for 30 years. Pres. Bone Valley Fossil Society.
Board of Directors Florida Paleo. Society. Discovered many
Fossil localities throughout the state of Florida. Will
trade. Has Terrestrial, Marine and Invertebra Fossils from
Florida for fossils anywhere in the world.

HAROLD E. KOERNER
Box 3177
Boulder, CO 80307

Thanks, Dennis Kingery. Welcome, Harold.

JOSEPH G & FLORENCE G ROSS
26 East 700 North
Valparaiso, IN 46383
219-462-3685

Joseph is a teacher. Will trade. Major interest trilobites
and crab nodules. Has crab nodules for trade. Interested
in Paleontology.

JAMES L. LYLE
619 8th Place
Hermosa Beach, CA 90254

College Professor (Chemistry). Cannot trade. Interested
in the Green River Shale Eocene deposits & ammonites.

JUNE MAXWELL
3510 E. Hillhaven
W. Covina, CA 91791

JEFFREY SCOT MIDDLETON
130 Silverwood Circle
Cincinnati, OH 45246

Plasma Stream Machinist. Will not trade. Non specific in-
terest. Some interest in trilobites and crinoids. Wants to
share paleontological info and collecting experiences. Also
to learn preparation techniques.

DR. ALLAN P. RUSSELL
Mechanic St.
Barrem MA 01005
617-355-2021

College Professor. Will trade. Major interest arthropods
and vertebrate. Has trilobites, crinoids, eurypterid, dino
saur tracks, and lots of brachiopods. Wants to develop con-
tacts with other collectors.

LESTER W. (BILL) SCHEUNEMAN
P.O. Box 670744
Chugiak, AK 99567
907-688-4034

Electrical Power Controller/High Voltage Electrician. Will
trade. Major interest 1) invertebrate fossils--fossil/pet-
rified wood,leaves 2) contemporary vertebrate skulls,
3) minerals. Has Eocene, Oligocene, Miocene mollusks &
gastropods; Astoria & Blakeley Formations, Clallam Co. Wash.
state/petrified wood rounds & limbs & pieces--Ariz., Oregon,
Wash, Utah, Texas--some rough some cut & polished. (Rounds
up to 24" dia.) Wants to trade fossils for my sons' col-
lection/trade to obtain specimens to trade for local fossils;
knowledge/obtain non local fossils to sell to purchase other
fossils. (Ed comment--welcome, you are the first from Alaska)

MICHEL DI VERGILIO
11505 Roland
Montreal, Quebec,
CANADA H1G 3V1

PIERE GONIN
40 Boucher
Hull, Quebec
CANADA J8Y 6G3
819-770-0568

Teacher, Earth Science. Will trade. Trilobite collector
Has for trade fossils from France.

FLAVIO BACCHIA
V. Sara Davis 20
Trieste, ITALY 34135
40/43496

Geologist. Will trade. Major interest trilobites, fish, but
generally top quality museum-like items. Has mor or less
everything from Italy, Germany, France, U.K., Morocco. Wants
the Membership Directory.

MARTIN IAN SIMPSON
4 Undermount
Bonchurch Ventnor
Isle of Wight
ENGLAND PO38 1RG
0983 853066

Research Paleontologist/Bookseller. Will trade Major interest
Mesozoic crustacians, especially lobsters. Has for trade
Cretaceous lobsters, ammonites; Tertiary fish, fossils from
the Isle of Wight. Wants to communicate with other collectors.

Southern California Paleontological Society Special Publi-
cation No. 5, "List Of The Silurian Trilobites Of The United
States, Canada and Greenland." by Joseph Emielity and David
Bradbury. Species names, formations, locations of occur-
rence, and line drawings of various genera are featured in
this publication. This work will be an excellent reference
for researchers, because they won't have to search through
the numerous articles on individual Silurian trilobites.
It also gives the collector an idea of the sites, counties,
and states in which a particular trilobite has been found.

Initially, twenty-nine copies of the Special Publication No.5
were sent to researchers as a gift from the Society. The
publication and mailing were privately funded. The last
list containing all of the North American trilobites of the
Silurian was compiled 71 years ago, by Dr. Bassler at the
Smithsonian. The number of known species has tripled
since that time.

For more information please contact Jim Erjavec, 38927
Sage Tree St., Palmdale, CA 93551

* * *

DUES ARE DUE

Checks Payable To MAPS -- Send To

Marvin Houg
330 44th St., N.E.
Cedar Rapids, IA 52402

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 material; 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.

Membership in MAPS is open to anyone, anywhere who is sincerely interested in fossils and the aims of the Society.

Membership fee: January 1 through December 31 is \$ 10.00 per household.

MAPS meetings are held on the 1st Saturday of each month (2nd Saturday if inclement weather). September, October, May, June, and July meetings are scheduled field trips. The August meeting is in conjunction with the Bedford, Indiana, Swap sponsored by the Indiana Society of Paleontology, the Indiana Chapter of MAPS. November through April meetings are scheduled for 2 p.m. in the Science Building, Augustana College, Rock Island, Illinois. MAPS Annual International Fossil Exposition is held in the Spring, and a second show in the Fall, Fossilmania, is sponsored by Austin Paleontological Society, a MAPS Affiliate.

MAPS official publication, MAPS DIGEST, is published 9 months of the year--October through June.

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