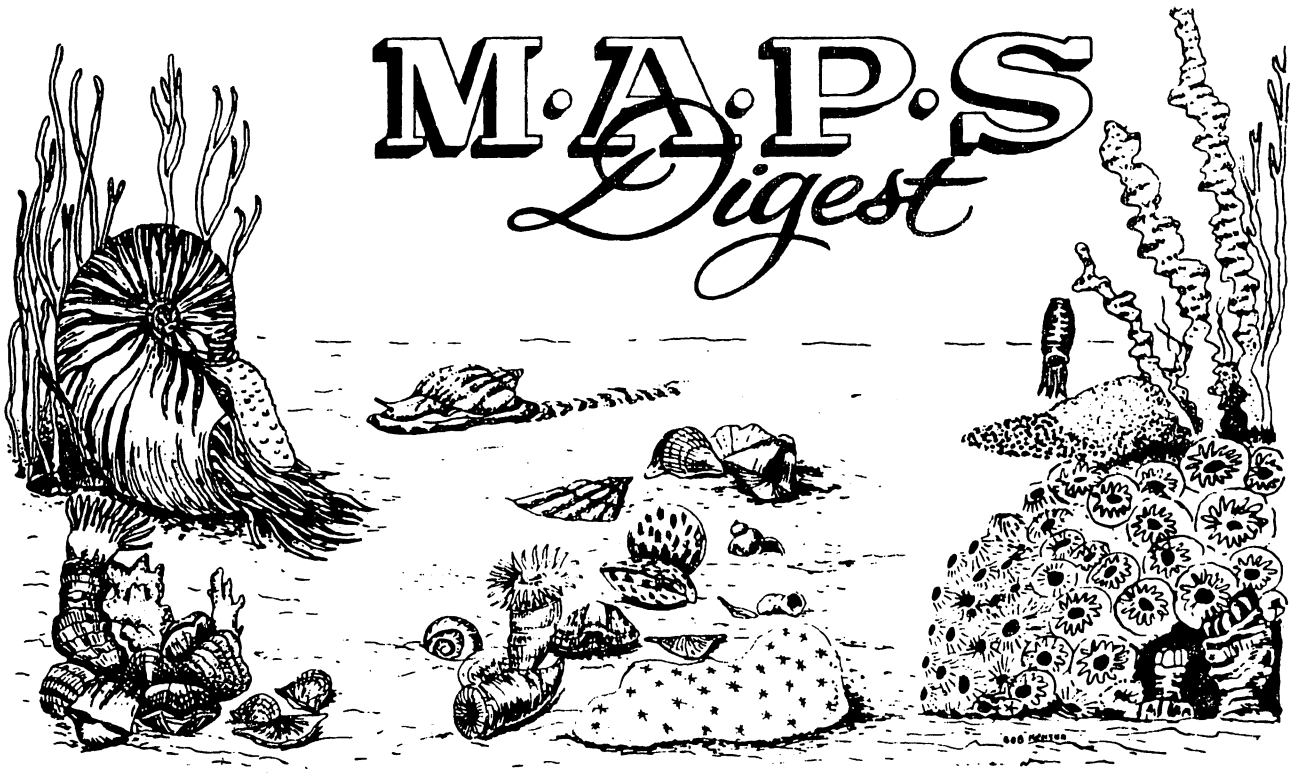
VOLUME 6

M·A·P·S Digest



NUMBER 3

Official Publication of
Mid-America Paleontology Society

March, 1983

A WEE BIT OF MAGIC

The magic number is 5! It's the 5th EXPO! The magic dates are April 15, 16, and 17. All roads lead to Macomb, Illinois. When you get there the magic spot is Western Illinois University, Union Building, Grand Ballroom--friends galore!

What is EXPO like? It's hard to describe. It's most exciting! People come from Canada to Texas, from Maryland to California and from Portugal and Germany. With these people come treasures beyond description. Fossils! Breathtaking, awesome, unbelievable fossils. To pick one up and hold it in one's hand, to know it was once a living life form, frozen in minute detail, and then discovered by man or woman or youth causes one's spine to tingle. There are table after table of these ancient treasures. From the Cambrian to the Recent--all the phyla, bones, skulls, turtle shells to micro-mounts--it's all there. One can swap or buy. Some people have high prices, some people have low prices. What evolves is--whatever your style you'll be at home at EXPO.

It's recommended you have a table or a portion of a table to use for your exchange

(continued page 2)

MARK YOUR CALENDARS

5 Mar -- MAPS Meeting -- Augustana College
Rock Island, Illinois
1:00 p.m. Board Meeting, Augustana
2:00 p.m. Slide Program, Augustana

15 Apr -- EXPOSITION V -- Macomb, Illinois
16 Western Illinois University, Union
17 Building, Grand Ballroom. It's Magic

10 June -- Rocky Mountain Federation
12 Oklahoma City, OK

17 June -- California Federation
19 Santa Clara, CA

8 July -- Eastern Federation
10 Charleston, W. VA

14 July -- Midwest Federation
17 Kalamazoo, MI

4 Aug -- Northwest Federation
7 Spokane, WA

28 Oct -- Austin Paleontology Show -- MAPS
29 "FOSSILMANIA" -- Pottsboro, Texas, west
30 of Dennison. (For more see page 2)

11 Nov -- South Central Federation
13 Dallas, TX

A WEE BIT OF MAGIC Continued

material. Exchanging fossils is an intense process. It falls under the category work, but, oh wow all work should be so pleasant.

Recommended also would be a MAPS name tag. We come from such far away places and see each other but once a year. Sometimes one cannot immediately associate face and name, and then, of course, there are new faces every year.

A highlight of EXPO are the display cases. It takes extra energy and a labor of love to put together a display case to share with all who come to EXPO. This year there will be a small reward for that labor of love. The Board will present an identification tag to be placed within the case. Display cases have the choicest of fossils, of course, and reveal something of the owner.

One cannot speak of EXPO without speaking of the people. These have to be some of the greatest people on earth. So much comaradie, so much love, so much warmth, and friendliness. It's 3 very intense days filled with prizes and surprises.

So let's have a date for *a wee bit of magic*--EXPO V! Dust off your fossils, pack your bags, open your hearts--meet you in Macomb, April 15, 16, and 17. Can hardly wait.

Take care and my love,

*****

FOSSILMANIA '83

You were promised this last month and then space disappeared. My apologies to the Austin Paleontological Society.

No official commique has been received but FOSSILMANIA '83 is definitely on it's way. Check your maps to locate Dennison, Texas. Just west is Pottsboro home to FOSSILMANIA '83.

A display case at EXPO V will provide a lure to this show and acquaint MAPS members with Texas fossils. Sounds Good!

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SEDIMENTARY NOTES

LUKE R. SINCLAIR, D.V.M. Prescott, AZ--I am a retired veterinarian and a neophyte amateur paleontologist. As a veterinarian I am accustomed to pronouncing words of Latin and Greek derivation a certain way. However, in the field of paleontology I am hearing Latin and Greek derived prefixes and suffixes pronounced differently. An example is the prefix "brachi-". In veterinary medicine the word "brachial" is pronounced "brake-ial" while in paleontology I am hearing the "a" in brachio-pod pronounced as in "man." There are other examples I could cite.

So I have a question. Can we pronounce paleontological terms as we like, or as the authorities decree? If the latter is true, where do we find these correct pronunciations?

HARRELL STRIMPLE, Iowa City, IA--in answer to the complaint about "too much technical terms." When one refers to a genus one has to use its name (like Homo for present day man) or Homo sapiens for the species. When we refer to a person we do not say "that man" or "that person", we call them by their name. Along this line I do have an idea:

If all members would obtain a copy of Moore, Lalicker, and Fisher, INVERTEBRATE FOSSILS, McGraw-Hill, they would have the basic information to refer to. The only alternative would be to produce a basic primer which would be a terrible task. (Ed. comment--that makes 4 professionals who have recommended this text--Dr. N. Gary Lane, Indiana University, Dr. Merrill Foster, Bradley University, Bob Cooper, Peoria, IL, and now Harrell.)

PHILIP MARCUS, Wheaton, MD--In the NEW YORKER, for Sept. 13, 20 and 27, John McPhee has a long article entitled, Geology. It centers around a field trip he took with a government geologist. It mixes geology and narrative in a very interesting way. Fossils and minerals, time periods etc. are subjects of discussion. The article has been reshaped into a book entitled, IN SUSPECT TERRAIN.

That book is reviewed in the January 31, 1983, issue of TIME.

DR. N. GARY LANE, Bloomington, IN--address requested: Raymond N. Pheifer, Bookseller, Specializing in Geological Literature, 5402 Renwick Apt. 1007, Houston, TX 77081, (713) 661-8975 after 5 p.m. Mon.-Fri.

MADELYNNE LILLYBECK, Moline, IL--someone wrote requesting help locating crinoid stems. Please write again. I love them, also, and I seem to have mislaid your letter. What you've found sounds intriquing and should be passed on.

FOR YOUR READING PLEASURE

FOSSILS OF IOWA: Field Guide to Paleozoic Deposits, Author MAPS member Robert Charles Wolf. This reference, good for all collectors, will be of particular value to people living in Iowa and the surrounding states. It's an explicit field guide to collecting sites including stratigraphy and fossils to be found therein. The last section of the book consists of plates with line drawings and details relating to specifics of size of fossils, formations, and locations.

Author Wolf will be at EXPO to autograph personally copies of this book. Orders may be placed to Publicity Department, Iowa State University Press, 2121 South State Avenue, Ames, IA 50010 Price $9.95 paperback.

FOSSILS The Key to the Past, Richard Fortey, Published in Association with The British Museum (Natural History) Van Mostrand Reinhold Company, Inc., 135 West 50th St., NY 10020 Price $24.95 hard cover.

The author is a paleontologist at the British Museum (Natural History) where he is an authoritive on trilobites.."After taking his degrees at Cambridge, Dr. Fortey has traveled widely in search of fossils from the high Arctic to the remote desert regions of Australia. The book gives a lively and authoritative picture of how the past is reconstructed from fossils...taking us back to the times when the continents, climates and seas were very different from today. The story is a very dramatic one, punctuated by the break-up and collisions of continents, mass extinctions and Ice Ages. The book explains how animals long dead can be brought back to life to give a vivid picture of ancient environments, and the course of evolution...

Superb color plates show beautiful examples of the kinds of fossils which the reader can find for himself. The text is illustrated with numerous drawings, photographs and maps"

IN SUSPECT TERRAIN, John McPhee, Farrar Straus and Giroux, 19 Union Square West, NY 10003 Price $12.95 hard cover.

(See Sedimentary Notes, page 2, Philip Marcus) Anita G. Harris "has developed an international reputation, mainly as a result of paleontological discoveries that have enhanced the search for oil. She works for the US Geological Survey, and she happens to be--to put it mildy--cool toward a number of aspects of the theory of plate tectonics.

...In counterpoint is her expertise in bygone continental glaciation, which was first assembled as theory about thirteen decades before plate tectonics and is abundantly exemplified almost everywhere along the route followed."

Says Anita Harris, "You've always got to have devil's advocates, and with respect to plate tectonics I am a devil's advocate."

ARIZONA HIGHWAYS, February, 1983, Exclusive--Petrified Forest National Park--An ancient land yields up some of its best kept 200-miooion-year-old secrets. Triassic. Breathtaking photography. The entire issue is captivating. Thanks to MARY O'NEILL, Austin TX

SMITHSONIAN, Befruagy, 1983, Creatures from the Black Lagoon, p. 153. New exhibit on the Burgess Shale--colored plates of dioramas. Superb Thanks to Harrell Strimple, Iowa City, IA

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FOSSILS FROM THE LARKSVILLE MINE FIRE by William F. Klose, II

Excavation of the mine fire in the top and bottom split of the Ross antracite seam northeast of Larksville, Luzerne County, PA has provided a unique opportunity to examine the flora and fauna contained in the roof shales and underclays associated with this classic Pennsylvanian (Upper Carboniferous, Allegheny Series (Upper Westphalian D) coal. The mine fire is believed to have originated in refuse from the June, 1972, flood in the Wyoming Valley that was buried in old strip mines used as emergency land fills during the flood clean-up effort.

...At the mine fire site, the lower split of the Ross seam is 6 to 7 ft. thick and is separated from the underlying Red Ash seam (top split) by 50 ft. Twenty feet of blocky underclay containing lycopod rootlets (Stigmaria sp.), and horsetail pith casts (Calamites sp.) separates tje 3- to 4-foot-thick upper split of the Ross seam from the lower split. Both the upper and lower split were deep mined, leaving pillars of coal for roof support; they were later strip mines along the western edge of the site along the outcrop line. The roof rock above the top split grades gradually upward from very fissile (fine bedded) shale containing lycopod (relatives of the modern ground pine of Pennsylvania) bark impressions and horsetail (Calamites sp.) remains, to sandy shale containing a diverse flora, to sandstone containing occasional seed fern stems.

This roof rock sequence is a fairly typical association of the Allegheny series anthracite coals of northeastern Pennsylvania.

Adjacent to the fire and where hot gasses from the mine fire pass up through fissures in the overburden, the grayish-black matrix turns into an orangish-red porcelain-like material. Fossils are rare in most of the excavation and are usually fragmentary, but careful search has produced an extensive list of species. All of the species are typical of the Pennsylvanian Allegheny Series swamp environment.

The fossil specimens were collected through the courtesy of the contractor, Kaminski Brothers, and will be deposited with the William Penn Memorial Museum in Harrisburg. Mr. Andy Oherko of the Mine Safety and Health Administration provided details on the stratigraphy of the mine fire site. Dr. William Darrah of Gettysburg, Pennsylvania kindly verified the identification of several species.

Thanks to John Rivers, Rochester, NY

PENNSYLVANIA GEOLOGY December, 1982

*****

THE PROFESSIONAL'S CORNER

H. L. Strimple
904 Bowery
Iowa City, IA 52240

Section 9--
THE STEM (STALK, COLUMN)

In Section 4 a sketch of a complete inadunate crinoid was presented (fig 1) which included the stem, cirri and holdfast. (See MAPS Digest February, 1982, and also December, 1982). In that representation the stem was heteromorphic (alternatively expanded columnals) and the holdfast was in the form of a root system.

A more primitive type of stem is illustrated here (fig. 5) in which it is demonstrated how it started with polyplated elements which fuse to form single columnals. In Cincinnaticrinus varibrachialus youthful segments are in five parts which are radial in position, they fuse to form a pentagonal outline after which secondarily secreted stereom forms a rounded outline. The holdfast is in the form of a disk which is commonly attached to a hard surface and is composed of multiple tiny plates. For some time they were thought to be individual echinoderms and were given the name "Lichenocrinus." As shown by figure 5 there are five sections of different types and sizes of columnals in this one crinoid. It might be noted that many crinoids exhibit differences between proxisteles (those near the cup), mesistles (the main mid-section of the stem) and dististeles (those near the distal termination). The terms are those proposed by Moore & Jeffords (1968) and bring to mind your need to know that proximal refers to the base of the cup (calyx or theca) and distal is away from the base. The fact that different types of columnals may and often do exist in the same animal has caused me to resist formal classifications based on isolated columnals or pleuricolumnals (several articulated segments). Nevertheless, several Russian investigators have done extensive studies as has Moore & Jeffords (1968).

There is an obvious need for study and identification of individual echinoderm ossicles (plates) because they are prolific in Paleozoic rocks. However, in my opinion, the proper approach is to link them with known articulated forms and, failing in that, to assign them to Collective Groups which is allowed under the existing rules of the International Zoological Commission. A case in point is the "twisted stem" of Platycrinites which many of you are probably aware of. Moore & Jeffords (1968) proposed a new genus for a "twisted stem" with Platyplateium texanum from the Pennsylvanian of Texas as the type species. The formation from which it was obtained is the same as that from which the calyx of Platycrinites remotus Strimple & Watkins was recovered. There is just not any justification for another genus and Broadhead & Strimple (1977) placed Platyplateium into synonomy with Platycrinites. In any event, if any of you have a compulsion to wirk with stem segments, there is a reference available.

Before leaving the subject some observations are in order. Very likely the ancestor of the crinoid did not have a stem but because of intense competition for available food, a stalk was created to lift them above the sea floor where they could filter food carried by the currents or "raining down" from above. As noted above the stem was polyplated but through time became single elements. The American Indian was

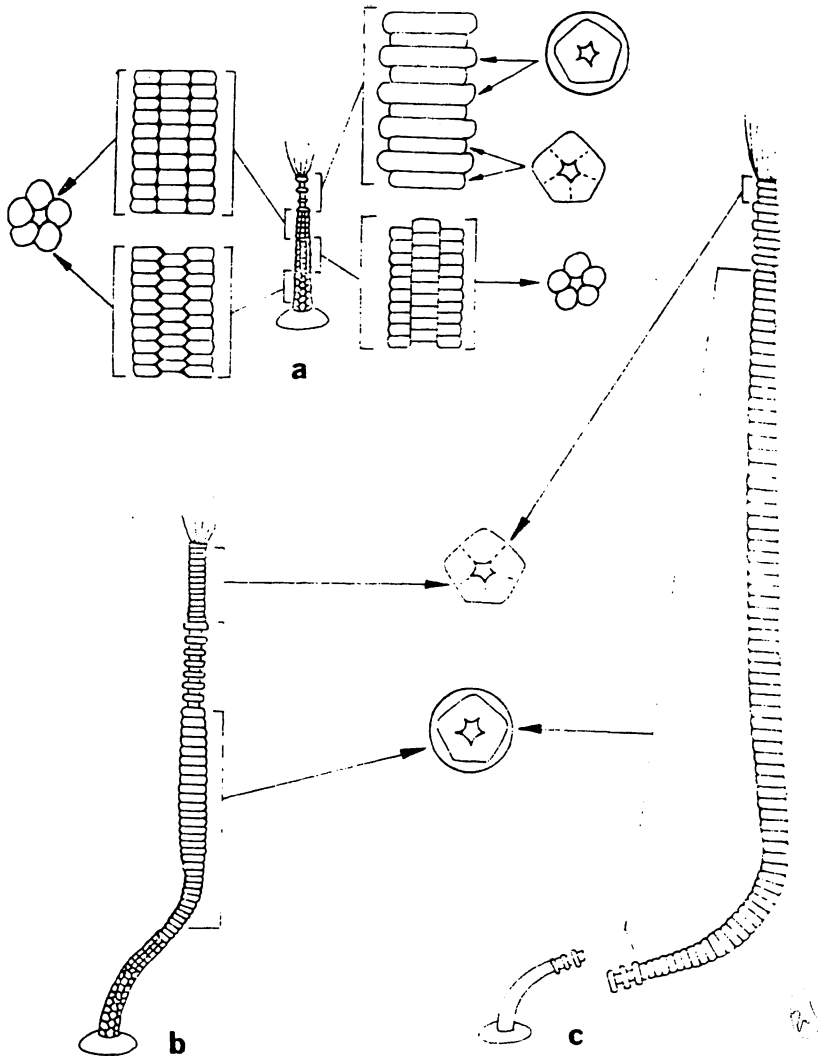

Figure 5. Ontogenetic change in the life habit of Cincinnaticrinus varibrachialus.

a. attached juvenile with polyplated (lichenocrinid) column and holdfast. b. attached adult with expanded, "adult" column proximal to the thin, juvenile (lichenocrinid) column. c. adult breaks free (whether because of increased activity or autotomization is unknown) at the attenuated juvenile column and thereafter lives unattached.

aware of them and on occasion used individual segments as "wampum". There is no muscular articulationbetween the columnals or cirrals which caused many investigators to believe they were essentially rigid, however, recent studies of modern stalked crinoids have disclosed the ligamental structures contain elements which have properties which allow for movement. I was personally aware of the ability of cirri to move rapidly from reading an account of a dredging operation where stalked crinoids were brought up and the fastest moving elements were the lower cirri. It appears that when a crinoid is broken free from its attachment element the lower cirri are activated to clasp onto whatever is available. This is borne out by another narrative of finding stalked crinoids in which the lowermost segments of the stem always showed evidence of having previously broken free somewhere else and the cirri were firmly attached to the trans-Atlantic telephone cables. It was also noted that when the stem parts, it was usually just below a cirri bearing nodal. This indicates a deliberate arrangement in anticipation of breaking free (becoming elutherozoic). You will notice that a free state is postulated for mature Cincinnaticrinus varibrachialus (which has no cirri) in Figure 5. In the latter case it is, of course, possible the lower (distal) part of the stem acted like a prehensile tail and wrapped around an upright object, such as another fixed crinoid stem. At least some crinoids are known to take such action. When surface collecting I cannot resist picking up a segment of a stem with another wrapped around it because it tells the story so graphically.

Broadhead, T. W. and H. L. Strimple. 1977. Permian platycrinitid crinoids from Arctic North America: Canadian Journal. Earth Science v. 14, p. 1166-1175.

Moore, R. C. et al., 1968 (Crinoid Columns): University of Kansas Paleontological Contributions, Art. 8 to 10, supplement and one index, total 148 p., 16 text-figs., 27 pls.

*****

Mississippian Burlington Limestone stratification is pure crinoidal near Hannibal, Missouri. This formation, with a total volume of about 300 x 10^{10} cubic meters, contains the skeletal remains of approximately 28 x 10^{16} individual crinoid animals. After death, the skeletons were disarticulated and the fragments dispersed like sand and gravel.

EVOLUTION OF THE EARTH
Robert H. Dott, Jr.
Roger L. Batten

*****

THE PROFESSIONAL'S CORNER -- Continued

Dr. N. Gary Lane
Geology Department
Indiana University
Bloomington, IN 47405

ILLUSTRATING FOSSILS -- No. 2

One of the most important aspects of photographing fossils is the lighting. The cardinal rule is that the main light source should be from the upper left. That is, the primary shadows should be toward the lower right. If you use a single light source in the upper left, then you must provide some back-lighting so that the shadows won't be too dark and hide part of the fossil.

You can soften the shadows by placing a piece of white cardboard or aluminum foil on the lower right of the fossil facing the lamp. Move this back and forth and you will see the shadows become darker and lighter. Alternatively you can use two lights, with the lower right one being dimmer or farther away than the upper left one. You will need to experiment with position and distance to get a highlight and shadowing effect that accentuates the shape, convexity and details of the fossil. Don't have the highlight too close or you will get a glaring white area on the fossil in which all details will be washed out. Good lighting is an art and takes a sharp, experienced eye. For many specimens the lamp or lamps should be at about a 45° angle. If you have the lamps at a very low angle the light will skim across the specimen. This is useful if the specimen is very flat and has surface details that you want to emphasize. If you have the lamps at a high angle, shining almost straight down on the specimen they will blot out the convexity of the fossil and make it appear to be flat even if it is highly rounded.

* *

THE ANATOMY OF LICHENOCRINUS

by Allan Goldstein
3430 Bryan Way
Louisville, KY 40220

Lichenocrinus is one of the most peculiar of the Ordovician fossils. It is described as a basal disk of a crinoid, whose calyx (the normal identifying feature) is not known with certainty. Lichenocrinus are found attached to substrates like brachiopods, pelecypods, bryozoans, and rarely trilobites. Young specimens have been found attached to crinoid columns.

The lack of an identifying calyx makes this genus difficult to break into its various species. (It is similar to identifying trees by their stumps). Lichenocrinus is classified by the arrangement of body plates. For the collector this is rather difficult without a 10x loupe or binocular microscope because the plates are very small--often indistinct or even missing.

This paper shall describe the anatomy of Lichenocrinus, which should provide collectors with sufficient information to identify these features on their own specimens. The basal body of Lichenocrinus is not very complex, but has unique terminology.

Lichenocrinus are apparently restricted to the Ordovician, though there may be some Silurian species. There are 16 species, all described from the Cincinnatian series, except for L. pattersoni from the uppermost Champlainian. This writer has studied specimens at the University of Cincinnati Geology Museum, from the collection of Dr. James E. Conkin at the University of Louisville, and from his personal collection. Most specimens were studied with variable power binocular microscopes. The landmark 1929 paper by Charles L. Faber on Lichenocrinus (see reference at end of paper was used for the terminology.

The Lichenocrinus can be divided as follows:

1. Basal Body (Figures 0,2)
   a. Floor Plate
   b. Radial Lamellae
   c. Node
   d. Arch Plate
   e. Crater
   f. Covering (Body) plates
2. Column (when present)

The basal body is called Lichenocrinus. It consists of a disk with a depressed convex center attached to foreign objects. Using the terminology of Faber (1929), the disk consists of a

floor plate, radial lamellae, arch plate, node, and three types of covering plates.

The floor plate is a single unit on which the lamallae are attached. It is attached to foreign objects and is rarely preserved by itself. Since the basal body does not have mass to hold a supposed calyx, in currents, a glue similar to what barnacles use was probably secreted to hold the individual in place. Adult Lichenocrinus were apparently immobile. I suspect the reason comple (basal, body, column and calyx) Lichenocrinus has not been found is because the strong currents induced by storms separated the clayx from the basal body.

The radial lamellae are the support structure for the basal body. The lamellae are fused to the floor plate. Where the floor plate and radial lamellae have separated, the pattern is still visible on the plate. This pattern is also visible on the attached side of the floor plate. As the basal body grows around the periphery, new lamellae are intercalcated between the primary lamellae. These secondary lamallae do not reach the center. Faber calls the area between lamellae radial canals. He also noted that those highly convex basal bodies have high lamellae and that those with many body plates have more numerous lamallae. Additional study is needed for exact determination of these variations.

The node is the protrusion in the center of the crater. It appears to be formed by the primary lamallae. The node connects the column to the basal body. The node acted as a ball and socket to support the movement of the calyx in currents.

The arch plate rests on the lamellae covering them. It consists of a single plate supporting all covering plates. Faber found it only on L. tuberculatus and L. nodosus, but indicated that it should occur in all species.

The crater is the depressed area surrounding the column. In some forms, the crater is almost filled by the crater plates. The more convex basal bodies have deeper craters.

Crater plates form the depressed area around the column. They are smooth and thinner than body plates and are variable in number.

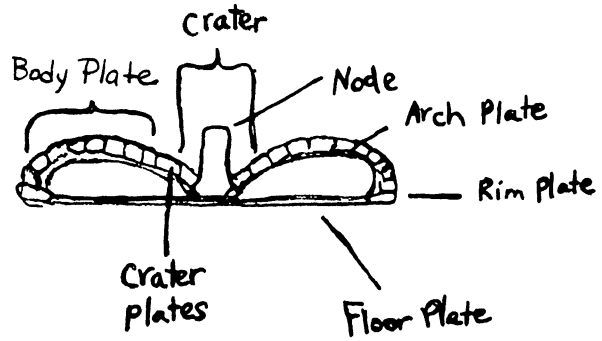

Fig. 0

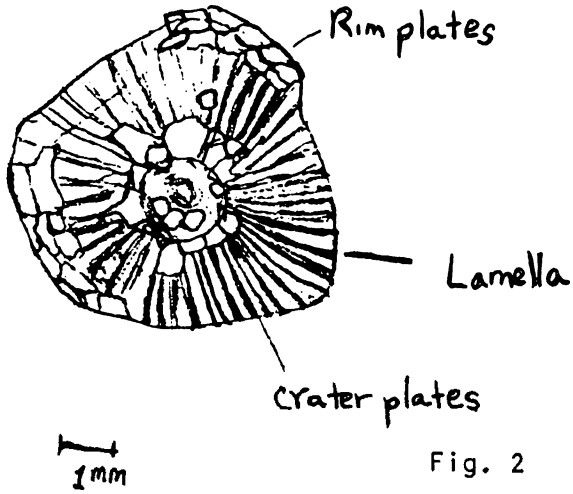

Fig. 2

The body plates lie beyond the crater plates. The number of body plates vary considerably. They are thicker toward the crater. Charactoristics exhibited by body plates form the basis for differentiating species.

Rim plates lie at the margin of the basal body. They are the last to be added as the basal body grows. They may or may not be distinct from body plates.

The column of Lichenocrinus is very distinct. Faber (1929) says, "The column of Lichenocrinus is perforated throughout; each columnal consists of five thin plates which form an alternating and interlocking system that extends about one and one-half inches above the basal body, beyond which it gradually changes to alternating and abutting and finally abutting only." Some collectors have found stems that taper to a point, which leads one to wonder how a calyx was attached. Faber noted four types of columns:

1. Pentagonal, changing abruptly to a smaller pentagonal form and finally becoming semi-round and tapering. (L. dubius, L. craterformis) 2. Pentagonal becming round and tapering.

THE ANATOMY OF LICHANOCRINUS, Continued

(related to L. craterformis) 3. Round and tapering. (L. dyeri and other forms in Eden and Elkhorn) 4. Round and gradually tapering with unequal plates. (McMicken Fm.)

The basal body of Lichenocrinus, as said, is a holdfast which attaches to a hard substrate. Since muds do not provide a stable surface for attachment, Lichenocrinus will never be found in clays unless somehow deposited there after death. The ample organismic debris in Ordovician shallow seas provided an abundant supply of holding material. No doubt many Lichenocrinus chose living organisms to call home, since they were not apt to be tumbled around in storms. Organisms with smooth surfaces (i.e. Rafinequina brachiopods) are the most common surfaces to find Lichenocrinus. They could contort themselves to attach to the uneven surfaces of pelecypods, trilobites, and cephalopods, although they are only rarely found on such surfaces because they would be quickly freed after death or upon recent weathering. Some individuals wrapped themselves around slender bryozoan fronds and crinoid stems. (See Fig. 1

Like many crinoids, Lichenocrinus often occurs in colonies. Faber found a pocket of Lichenocrinus crateriformis Hall with over 300 specimens in the Waynesville Formation in a creek east of Pekin, Ohio. Another colony in the Elkhorn Formation had about 1,300 specimens, apparently all L. tuberculatus Miller. From Faber's observations, different species of Lichenocrinus do not intermingle. I have found two species at the same outcrop, so I would have to say that different species tend not to intermingle. The stratigraphic column shows the distribution of various species in the Ordovician.

Generic Description of Lichenocrinus Hall
Genotype Lichenocrinus dyeri Hall.
Lichenocrinus Hall, 20th Report NY State Cab. Nat. Hist. (adv. sheets), p. 9, 1866; a reissue of the same pl. 3, fig. 1-6, 1871.
Lichenocrinus Meek, Ann. Mag. Nat. Hist., 4th ser., vol. 8, p. 341, 1871.
Lichenocrinus Meek, Am. Journ. Sci. and Arts, 3rd ser., vol. 2, p. 299, 1871.
Lichenocrinus Hall, 24th Ann. Rept. NY State Mus. Nat. Hist., p. 216, pl. 7, fig. 1-7, 1872.
Lichenocrinus Meek, Am. Journ. Sci. and Arts, 3rd ser., vol. 3, pp. 15 and 261, 1872.

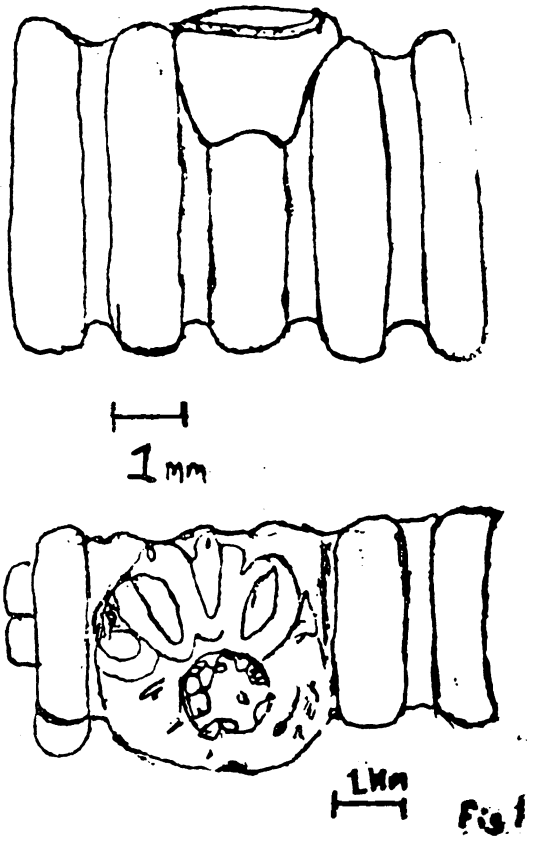

Fig 1

Lichenocrinus Meek, Geol. Surv., Ohio, vol. 1, pt. 2, pp. 44-51, 1873.
Lichenocrinus Sardeson, Am. Geol., vol. 24, p. 275. 1899.
Lichenocrinus Bather, TREATISE ON ZOOL., pt. 3, Echinoderma, p. 77, 1900.
Description--"Bodies parasitic on shells and other foreign substances. From discoid or depressed convex, with a proboscidiform appendage rising from the center. Disc composed of an indefinate number of polygonal plates, and apparently having no distinct mode of arrangement. Probiscus perforate, and in known species formed of five ranges of short plates alternating and interlocking at their margins." (Hall.)
References: Faber, C.L. (1929). A Review of the Genus Lichenocrinus and Description of Two New Genera. The American Midland Naturalist, 11,458-490.

(Ed. comment--along with this paper came a Stratigraphic Column for Lichenocrinus Distribution which will have to be included in the EXPO ed.)

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You can pick up your EXPO Edition of the Digest and your new MEMBERSHIP DIRECTORY at the Registration desk at EXPO.

Have a safe trip--see you in Macomb!!

Dr. Rudolf Jan Prokop
Donovalska 1758
149 00 Praha 4
Chodov, CZECHOSLOVAKIA

Scientific worker of the National Museum, Praha. Will not trade. Interested in Paleontology of echinoderms, paleoecology, biostratigraphy, Palaeozoic. Will continue in paleontological collaboration with American friends.

Wayne S. Barnett
7803 Smokey Wood Lane
Houston, TX 77086
713-444-4132

Geophysicist. Will grade. Major interest Paleogene gastropods. Have for trade molluscs from Alabama, Florida, Texas, and California. Would like contact with people of similar interests.

Craig Bunting
Bradley University
Williams Hall, Room 212
828 North University
Peoria, IL 61606
309-672-3035

Student. Will not trade. No major area of interest, Studies geology.

Kenneth E. Dominquez
5313 Pate
Houston, TX 77016
713-631-5045

Service man Entex Gas Co. Will trade. Interested in collecting and display.

Frank C. & Rebecca R. Hyne
Rt. 4, Box 466F
Hickory, NC 28601
704-397-5354

Furniture plant workers. Will trade. Major interest vertebrate fossils. Have for trade shark's teeth, sperm whale teeth, squalodon teeth. Wants to increase knowledge.

Ken Karns
3451 Cincinnati Zanesville RD. S.W.
Lancaster, OH 43130
614-653-7510

Respiratory Therapist. Collecting 8 years. Will trade. Major interest trilobites, particularly Pennsylvanian trilobites. Collects all fossils. Has a sincere love for fossils and anything associated with fossils.

Nancy C. Meade
10322 Bridgeland Lane
Houston, TX 77041
713-937-1226

Senior Exploration Geologist. Will trade. Major interest trilobites, brachiopods. Has nothing for trade. Wishes to make contact with other people interested in fossils.

Harry, Mary Pat and Julia Smith
4856 N. Lowell
Chicago, IL 60630
312-282-2879

Collecting 7 years. Will trade. Major interest Cambrian to the Permian eras. Loves fossils and wishes to learn as much as possible. Main collection is Mazon Creek.

Archie O. Thomas
Stall Road Lot 4-A
Charleston Heights, SC 29405
803-572-2873

Machinist. Will trade. Major interest all species of sharks teeth. Have for trade shark teeth of Carocharodon Megalodon species up to 3", larger sizes up to 6" for sale only. Interested in expanding knowledge of paleontology by learning from others. Fascinating hobby.

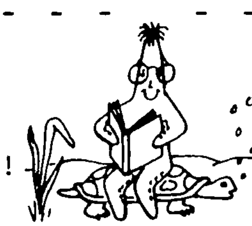
Emmette & Virginia Wallace
105 E. Victory
Temple, TX 76501
817-778-8122

Retired chemist, computer programmer teacher. Will trade. Interested fossils, just for fun. Has Texas fossils and some Wyoming fossils for trade.

- -

Have you made your reservations
For your tables and your beds?
Have you dusted off your fossils
And provided for your peds?

The Union is all ready
For arrival of its guests.
It's 7 weeks--oh my!
Til the magic makes us high!



4th grade right, HS. Well, it's only a star fish.

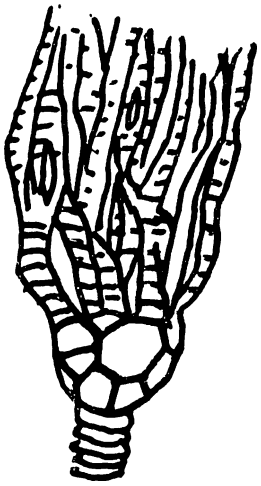
MAPS DIGEST Volume 6 Number 3 March, 1983

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.

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 $7.00; individual membership $7.00; junior membership $5.00 (between ages 8 and 16).

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



CYATHOCRINITES

FIRST CLASS MAIL

MID-AMERICA PALEONTOLOGY SOCIETY

Madelynne M. Lillybeck
MAPS DIGEST Editor
1039 - 33rd St. Ct.
Moline, IL 61265

Dated Material - Meeting Notice