7. R. ORLANSKY: Significance of palynomorphs as sedimentation indicators in Cretaceous Straight Cliffs Sandstone, Utah 3:00
8. C. F. LOHRENGEL II: Palynology of Kaiparowits Formation, Garfield County, Utah 3:20
9. R. G. SNEAD: New approach to classification of *Azolla* megaspores species 3:40
10. W. H. BERGER: Kummerform Foraminifera as clues to oceanic environments 4:00
11. M. A. BUZAS: Foraminiferal densities and environmental variables: use of statistical models to examine estuarine environment 4:20
12. T. G. GIBSON: Mobility of Atlantic coastal plain and shelf 4:40
13. R. J. ECHOLS, J. S. CREAGER, M. L. HOLMES, D. A. MCMANUS: Holocene oceanography of Chukchi Sea 5:00

SEPM SYMPOSIUM

Shelf Sediments in Rock Record

Arena, Dallas Memorial Auditorium

Presiding: L. F. BROWN, JR., J. C. FERM

1. J. C. CONOLLY, J. C. FERM: Patterns of Permo-Triassic sedimentation, southeastern Australia 1:30
2. D. R. BAKER, W. S. FERGUSON, G. E. CLAYPOOL: Organic geochemistry and petroleum distribution of Cherokee platform, Kansas and Oklahoma 2:15
3. B. B. HANSHAW: Inorganic geochemistry of carbonate shelf rocks 3:00
4. E. G. WERMUND, W. A. JENKINS, JR.: Late Pennsylvanian shelf in north-central Texas 3:45
5. L. L. SLOSS: Shelf sediments in rock record —a summary 4:30

ADDITIONAL PAPERS

(By title)

R. G. BRAY, J. R. BEERBOWER: Paleoecologic analysis of some Middle Devonian fossil aggregations

F. B. CHMELIK, A. H. BOUMA: Structural and textural descriptions of marine sediments

MACKENZIE GORDON, JR., C. G. STONE: New evidence for dating Carboniferous flysch deposits of Ouachita geosyncline, Arkansas and Oklahoma

L. R. HIGH, JR., M. D. PICARD: Sedimentary cycles in Green River Formation (Eocene): modification of Walther's law

W. M. JORDAN: Enigma of Colorado Plateau eolian sandstone

D. H. KRINSLEY: Recognition of pre-Pleistocene glacial environments

J. O. MABERRY: Paleoecologic aspects of trace fossils

A. S. NAIDU: Texture of modern deltaic sediments of Godavari River (India)

D. E. OWEN, R. L. INGRAM: Practical comparison of methods of computing grain-size parameters

J. E. RAPSON-MCGUGAN: Intra-Permian corrosion breccias, southern Canadian Rocky Mountains

B. K. SAHU: Correlation theory between thin-section and loose-grain arithmetic mean sizes on number-frequency basis

J. N. WEBER: Catastrophic destruction of coral reefs by venomous sea star *Acanthaster planci*

W. A. WHITE, I. E. ODOM: Use of radiography in studying textural and structural properties of ancient argillaceous sediments which aid in interpretation of ancient environments

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ABSTRACTS

WAYNE M. AHR, Rice Univ., Houston, Tex.[1]

PALEOENVIRONMENT, ALGAL STRUCTURES, and FOSSIL ALGAE IN UPPER CAMBRIAN OF CENTRAL TEXAS

The presence of algal limestone bodies in the Point Peak and San Saba Members of the Wilberns Formation (late Dresbachian to Early Ordovician) in the Llano uplift region of central Texas has been known for many years, but they have not been studied in detail. The relations between environment, fossil algae, and algal structures are not well understood, and the descriptive terminology is becoming more complicated.

The writer examined algal macrostructures together with their corresponding microfabrics and fossil algal flora from a paleo-oceanographic viewpoint. Several previously unknown microfabrics were found that reflect the growth patterns of various algal taxa in response to different hydrologic conditions. For example, fossil algae with wispy or tufted growth forms are found in nonlaminated algal macrostructures (limited hydrologic stress), whereas laminated macrostructures such as stromatolites exhibit tightly laminated microfabrics (considerable hydrologic stress). The various environmentally produced structures are found commonly in sequences that depict the long-term oceanographic history of the algal limestone buildups (reefs) from their inception (commonly in the sublittoral) to their culmination (commonly in the intertidal). Four genera of fossil algae found in this study were *Girvanella, Epiphyton, Renalcis,* and *Nuia.*

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