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October 21-23, 1992

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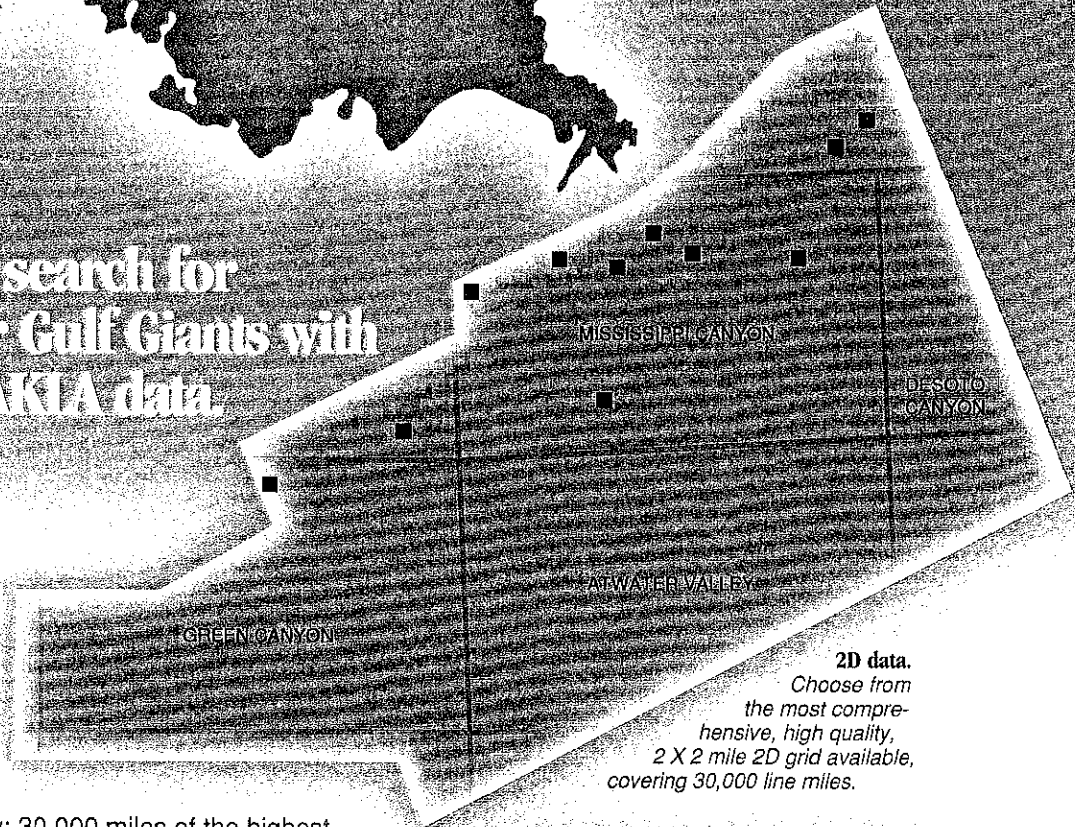
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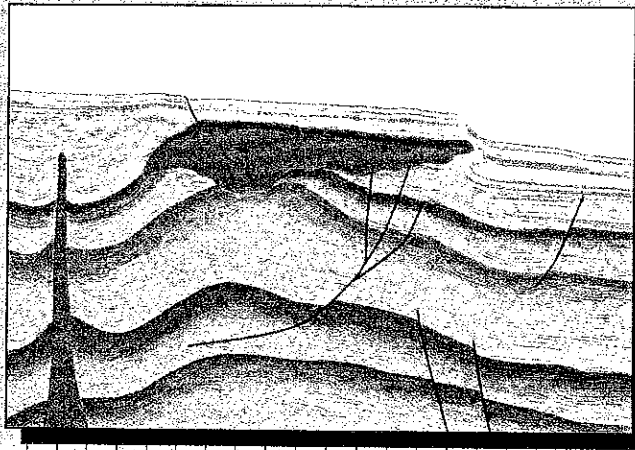
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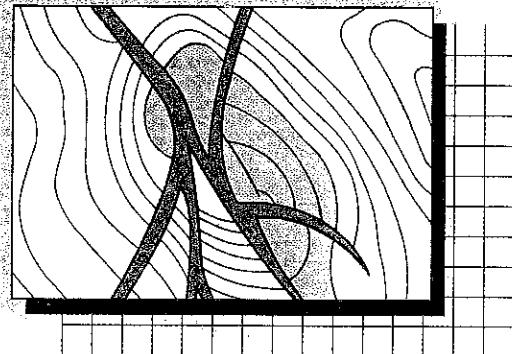
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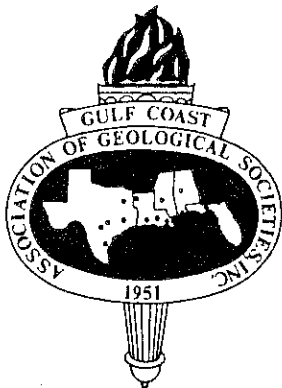
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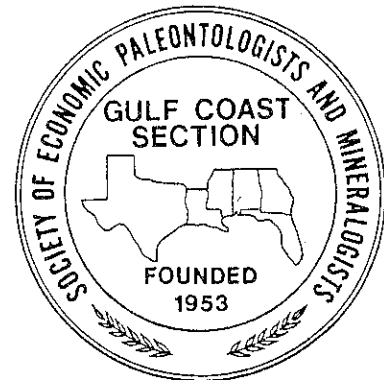
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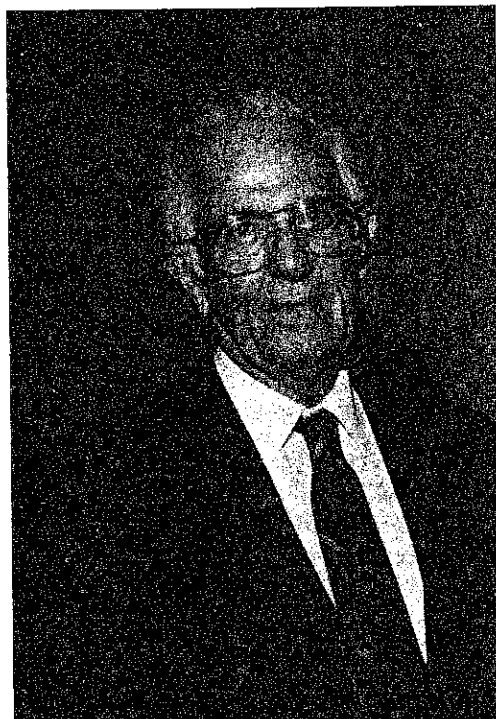
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DEDICATION

of the 1992 Transactions Volume
to the Memory of
Frederic Francis Mellen
(1911-1989)



The Executive Committee of the 1992 G.C.A.G.S. Convention dedicates this volume of the Transactions of the 1992 Convention as a memorial to Fred Mellen, who died on November 6, 1989. His passing has left a large void in the entire geological profession.

Fred Mellen was born on August 21, 1911, on the campus of Mississippi A&M College (now Mississippi State University), spent his childhood days there, and in 1934 received a B.S. degree in geology from Mississippi A&M. Fred's interest in geology was kindled early by the nearby outcrops of the Upper Cretaceous Selma Chalk on campus. Finding that little was known of the geology of the area, Fred set about learning more about it and his interest in geology was nurtured by the dedication of a few faculty and staff.

Upon graduation from Mississippi A&M in 1934, Fred went to work for the Tennessee Valley Authority that same year. Under the supervision of F. E. Vestal, Fred performed mineral resource evaluations and dam site investigations. These evaluations were designed to locate mineral deposits suitable for commercial devel-

opment by industries which would use the electricity generated at newly-completed or planned hydro-electric generating plants on the Tennessee River.

In 1935 Fred discovered a bentonite deposit in Pontotoc County in northeastern Mississippi which led to the opening of the first foundry bonding clay plant in the South. It was operated as Mississippi Minerals Company which later became a part of International Minerals and Chemical Corporation.

In 1937 Fred received his M.S. degree from the University of Mississippi and went to work for the Mississippi Geological Survey. His first work for the Survey was a mineral survey of Winston County, sponsored in part by the county, the Survey, and the W.P.A. The next county surveyed was Yazoo County. As a result of this mapping, Fred recognized the occurrence of the Moody's Branch Marl at an elevation some 250 feet higher than it should have been. The Mississippi Geological Survey issued a press release on the Tinsley structure in mid-April, 1939, and by the end of that month Union Producing had recorded its first lease.

On September 5, 1939, the Union Producing #1 Woodruff well was completed as the discovery well for Tinsley Field, Mississippi's first oil field, which has produced over 220 million barrels of oil so far. On the fiftieth anniversary of this discovery a marker was erected by the Mississippi Geological Society and Fred was honored for his part in the discovery.

From 1940 until 1962, Fred was a consultant to several companies including British American Oil Company, Continental Oil Company, Gulf Oil Company, Eastern Clay Products, Inc., and to several individuals in the oil business. His studies led to the opening of two additional bentonite mining operations in northeast Mississippi, to the establishment of the first agricultural lime plant in Mississippi (located in Clay County) and to the discovery of raw materials for the first lightweight aggregate plant in Mississippi.

Fred became State Geologist and Director of the Mississippi Geological Survey in 1962, a position he held for three years. In 1965, he formed Mellen Geological Associates, Inc. and again was involved in nearly every facet of the geological profession. As a consultant, Fred represented Shell Oil, Texaco, Gulf, Chevron, and others. Additionally, Fred performed regional investigative studies for several other oil companies. Mineral evaluations seeking sand and gravel deposits were performed for railroads and several other corporate clients, as well as a study which led to the location of a new Portland cement plant in northeast Mississippi.

Beginning in 1972, Fred began an eight year stint as consultant to the Mississippi Geological Survey. During this time he performed editorial duties on texts written by the staff for publication as bulletins for the Survey and, as always, lent support and encouragement to the younger staff members.

The next few years found Fred busy on several fronts—he was on contract with the Oak Ridge National Laboratory to study the feasibility of underground storage of radioactive wastes; he consulted with local school boards on site selection for school campuses; he was on contract with the Army Corps of Engineers on the Aliceville Lock and Dam on the Tennessee-Tombigbee Waterway; he was on contract to various oil companies for investigative reports; he continued oil and gas and mineral evaluations; and he continued to manifest his love for Mississippi State University and for geology.

In 1967, Fred established the Frederic F. Mellen Scholarship in Geology solely to help deserving students with expenses related to the required summer geology

field camp. To date, nearly fifty students have benefited from his generosity by way of this scholarship. Fred's contributions to literature in geology were published in the *AAPG Bulletin*, *American Midland Naturalist*, the *British Museum of Natural History, Journal of Paleontology*, *Mississippi Academy of Sciences*, *Mississippi Geological Society*, *Mississippi Geological Survey* (now the Office of Geology), *Oil & Gas Journal*, *Oil Weekly*, *The Petroleum Engineer*, *Rocks and Minerals*, *Southeastern Geology*, and *World Oil*. Fred was a member of several professional societies and had served as committee member or officer in several. He was a Certified Petroleum Geologist (No. 149) in the American Institute of Petroleum Geologists, a member of A.A.P.G., and an honorary lifetime member of the Mississippi Geological Society. Additionally, Fred had been honored in 1976 by receiving the Governor's Outstanding Mississippian Award and in 1989, by being named "Alumnus of the Year" from Mississippi State University.

Fred's contributions to Mississippi and to geology in general truly cannot be done justice in so short a space as this. In addition to the obvious economic impact he made on the state and the development of its mineral resources, Fred had a profound impact on one of this state's richest resources—the fertile ground of young minds. Fred was interested in the individual and in one's ideas and aspirations and gently guided by example and interest. Fred was not one to boast of his achievements, either. When asked about the mapping that led to the discovery of Tinsley Field, Fred simply stated, "I mapped it the best I could."

Possibly one of Fred's greatest legacies left to those who practice geology was his consistent and insistent desire that all geologists conduct themselves in a professional and ethical manner. This was a burning desire of Fred's which is evident throughout his career. His knowledge of the geology of Mississippi was overwhelming. In fact, Bill Moore, who succeeded Fred as State Geologist, said shortly before Fred's death, "I guess if you had to pick out one person that is Mississippi geology, you'd have to say Fred Mellen would be the one."

Fred's passing caused a huge loss in the profession of geology and particularly in Mississippi geology. We are proud to dedicate this volume of Transactions as a Memorial to Fred Mellen—geologist, gentleman, mentor, and friend.

Stanley King

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REPORT OF THE PRESIDENT

Gulf Coast Association of Geological Societies

John C. Marble, President

I would like to welcome each of you to Jackson on behalf of everyone who worked on this convention. Our city last hosted the GCAGS in 1983; I hope that all the progress you see has been positive. This year's convention theme, "Opportunities Unlimited in the Gulf Coast," is very significant because of tremendous changes in the petroleum, environmental, and engineering industries. Our well-being as a group of geoscientists and technicians will depend on how we exploit changes in our respective disciplines. Regardless of the circumstances, we must all be ready to work together, to be as cohesive as possible as a group, and be ready to step through the door and take advantage of these new opportunities.

To say that the petroleum and related industries have been going through some dramatic changes is at best an understatement. Jackson, along with other cities, has been severely impacted by all of the consolidations and streamlining. Our reservoir of volunteers and talent has dwindled somewhat, but the desire of these people to do the best job possible with this convention is remarkable. Nancy Means and Bruce Lemmon of AAPG are to be commended for the excellent job they have done in helping put this convention together. These people, under the able direction of General Chairman Cragin Knox, have arranged a great convention for all of us.

The Awards and Nominations Committee chaired by Gary Lauman has selected three people to receive the Distinguished Service Award, and five for the Outstanding Educator Award. This is the second year the Outstanding Educator Awards have been given, and it is my hope that these awards continue.

Gerald Cooley's Finance Committee has again managed the Association's funds in a most competent manner. We are indeed fortunate to have their talents working for us. Their work has helped to insure adequate funding for the projects and programs that the Association feels could be of benefit to geoscientists and students in the Gulf Coast area.

Acting on the recommendation of Valerie Ewing's Committee on Financial Aid to Students, the Association will grant funds of approximately \$27,000.00. These funds will be distributed to nineteen students in eight Gulf Coast schools.



The Publications Committee chaired by Bob Boyer remains an important and busy group. Sales of publications generated approximately \$24,000.00 in 1991. Total sales for the first quarter of 1992 are, by and large, comparable to the same period in 1991. In addition to the sale of data, the Publications Committee also printed the Bibliography of Gulf Coast Geology, Volume 6. The initial press run should be finished in time for the AAPG Convention in Calgary.

The GCAGS Matching Scholarship Fund established by the Board of Directors in Lafayette has awarded a total of \$45,849.00 to six member societies. Three of those awards were for the maximum of \$10,000.00. We are extremely pleased that those funds have been used by the local societies to foster education in related sciences.

My thanks go out to all the people who have worked for and served the GCAGS in the past year. Special recognition is due to all those who have chaired committees, served as officers, and to those on the Board of Directors. I am grateful to Robert Williamson who served as Vice-President this past year, and wish him well as he takes over next year. Stanley King and Les Aultman have done a great job as Treasurer and Secretary for our Society. In every building there is a cornerstone or a keystone that cannot be done without. Ours is Birdena Schroeder. Birdena in her capacity as Executive Secretary has done a monumental job keeping up with publication sales, maintaining current files of people and offices, and providing a clear-

inghouse for our Society. Her hard work and dedication made my job much easier.

I would like to personally thank all of the oil and gas companies, service companies, and individuals who have supported the Society with their contributions. Without their continued support it would be very difficult to print the Transactions, or have a good convention. We know that times are very difficult, and the sacrifices made by these companies and people are appreciated.

The past year has brought a lot of changes, and I am sure that the future holds the same. We were all saddened by the death of Past-President Clyde Harrison in March of this year. Those who knew him will certainly feel the loss. Those who worked with him will miss a dedicated geologist, scientist, and explorationist.

It has been an honor and privilege to serve as your President. GCAGS will continue to serve our profession in the coming years, and serve it well. I am happy to have been a part of this, and I wish you much success as you take advantage of "Opportunities Unlimited."



VICE PRESIDENT
Robert L. Williamson



SECRETARY
W. Lester Aultman



TREASURER
Stan King

REPORT OF THE PRESIDENT

Gulf Coast Section Society of Economic Paleontologists and Mineralogists

Michael J. Nault, President

Greetings and welcome to Jackson, Mississippi, and the 42nd Annual GCAGS and 39th Annual GCSSEPM Convention. The continued successful association between GCAGS and GCSSEPM is the result of the excellent spirit of cooperation between our society and GCAGS officials, most notably President John Marble and General Chairman Craig Knox. I wish to thank them along with those hard working members of the GCSSEPM Convention Committee who have given so unselfishly of their time and efforts to put this meeting together. David T. Dockery of the Mississippi Office of Geology has pulled double duty on this year's convention serving as Vice Chairman and Technical Program Chairman. Charles Swann and Katherine Walton of the Mississippi Mineral Resources Institute at Ole Miss served as co-editors for the GCSSEPM portion of the GCAGS Transactions. Please thank these individuals when you see them during and after the convention. Without them and many others on the GCAGS side we would not be enjoying ourselves here today.



Dr. James L. Pindell of Dartmouth College in Hanover, New Hampshire, are the Program Co-Chairmen and have gathered an excellent program committee from the academic ranks as well as industry. Geographically, the program will cover the Gulf of Mexico, Central America, Mexico, the Caribbean, Bahamas, Cuba, and Northern South America. The GCSSEPM Foundation has made an effort over the past few years to sponsor conferences that appeal to all earth scientists, not just those working in the U. S. Gulf Coast. This conference continues that tradition. I hope to see many of you in December. Registration forms are available now so sign up today.

Biostratigraphy of East-Central Mississippi and Southern Alabama" field trip before the convention begins. Thanks go to Brian O'Neil of Shell in New Orleans, who is serving as SEPM Vice Chairman for the meeting, for initiating the GCSSEPM participation.

There are many people that I need to thank for all of their hard volunteer work on behalf of the GCSSEPM. First of all are the section officers: Vice President Brian Lock, Secretary Missy Jackson, Treasurer Elaine Collison, Past-President Denise Butler and President-Elect John Armetrout, into whose capable hands I turn over the reigns on January 1st. They have all done a tremendous job. Next to be thanked are the GCSSEPM Foundation Trustees: C. Clarence Albers, Chairman, Art Waterman, and Sheila Barnette. The Foundation Executive Director, Dr. Bob F. Perkins, deserves special thanks because without his leadership and guidance over the past decade, the GCSSEPM Foundation and the Section would not have the world wide reputation for excellence it now enjoys. All of these individuals working together are what make it possible for the Gulf Coast Section of SEPM and its Foundation to function so effectively. Again, thank you so very much. It has been a pleasure working with all of you.

As you are all painfully aware, 1992 has been a very rough year for employment in the oil patch. This year is making the immediate past big downturn of 1985-86 look good by comparison. Nevertheless, the Gulf Coast Section of SEPM has been hard at work preparing for this convention and the GCSSEPM Foundation Research Conference.

The 1992 GCSSEPM Foundation Research Conference will be held December 6-9, 1992, in Houston at the Adam's Mark Hotel. The title of the 13th Annual Research Conference is "Mesozoic and Early Cenozoic Development of the Gulf of Mexico and Caribbean Region - A Context for Hydrocarbon Exploration." Dr. Christopher R. Scotese of the University of Texas at Arlington and

The 1993 AAPG-SEPM Convention will be held in New Orleans in April, so the Gulf Coast Section of SEPM will sponsor a technical session as well as two field trips. Cliff Jordan of Mobil in Dallas will run his "Modern Carbonates Field Seminar" in Belize after the convention and Ernest Mancini of the Geological Survey of Alabama in Tuscaloosa will offer his now classic "Paleogene Lithostratigraphy and

To say that I have enjoyed my year as President of the GCSSEPM would be an understatement. Thank you to the members of the Section for giving me this chance. It has been a genuine honor and privilege to serve this and past years and I hope that I have not disappointed any of you. With your continued support and participation, the Gulf Coast Section of SEPM will be able to continue its tradition of service to the profession long into the future. Best of luck to you all!!



PRESIDENT-ELECT
John Armetrout



VICE-PRESIDENT
Brian E. Lock



PAST PRESIDENT
Denise M. Butler



SECRETARY
Mary (Missy) Jackson



TREASURER
Elaine H. Collison

REPORT OF THE GENERAL CHAIRMAN

Forty-Second Annual Meeting - 1992

S. Cragin Knox, General Chairman

The Mississippi Geological Society and the City of Jackson are delighted to welcome you to the 42nd Annual GCAGS-SEPM Convention. We hope that we have provided you with a full spectrum of activities from core presentations to golf tournaments, field trips to short courses, exhibits to fine dining. There will certainly be something for everyone.

The theme of this year's convention is "Opportunities Unlimited in the Gulf Coast" - and the technical presentations will follow that theme. GCAGS oral presentations are centered around a number of topics, including Eastern



Gulf Coast Jurassic & Cretaceous, salt dynamics, geology of Texas, and a number of reservoir studies in offshore fields. GCS/SEPM topics include sequence stratigraphy of the Northern Gulf & Black Warrior Basins, Quaternary depositional environments, and petrology of the Northern Gulf & Appalachians.

I wish to personally invite you to come and enjoy a town that is noted for its food, music, and culture, located in a state that is noted for its hospitality - Jackson, Mississippi.

REPORT OF THE EDITORS

1992 Transactions



Darrel W. Schmitz
Editor, GCAGS

Having edited many of the GCAGS papers myself, and at least reading the rest, it is clear that the *Transactions* continue to provide important information on the geology of the Gulf Coast. The *Transactions* continue the tradition of being a major source of a broad range of topics for any geologist seeking information on the Gulf Coast.

It takes no small effort for the authors of the papers to organize and submit their work to be shared with the rest of us. Each and every one is to be commended for their time and effort.

This year we were able to obtain all manuscripts for editing in a computerized form, "on disk." There were some problems, based on what word processing package was used for the original manuscript by the authors. But, all in all, the process went very well, saving time and effort, and, I'm sure, some gray hairs. This was extremely fortunate, since our timetable got off-track with the loss of several key officers and committee members to out-of-state job transfers, etc.

I have coordinated with many people in this effort. This year all papers were processed through the Meeting Chairman, Cragin Knox. As GCAGS editor, I received my papers from, and returned the edited (on computer disk) version to the Chairman, as did the GCS/SEPM Co-Editors. The Chairman then dealt with the printer on all papers. Charles Swann, one of the GCS/SEPM Co-Editors, and I communicated in an attempt to make the printed version of the papers as uniform in format as possible.

REPORT OF THE EDITORS

1992 Transactions (continued)

Due to the inadvertently shortened timetable for editing the papers, I am particularly thankful to my committee members, a couple of which were added at the last moment, so that we could meet our deadlines. Original "assistant editors" were Mario Caputo, Associate Professor in the Department of Geology and Geography at Mississippi State University, and Danny Harrelson, Geologist at the U.S. Army Corps of Engineers Waterways Experiment Station. In addition, I coerced Dalton Miller, Instructor in the Department of Geology and Geography at Mississippi State University to help out (he has an English degree) as well as my wife, Donna Schmitz, Office Manager for the Department of Counselor Education at Mississippi State University (her past experience in technical input and editing was invaluable).

Numerous others involved in the overall process are important because each has a key role. Since they are too numerous to list, I would like to sincerely thank: The Chairman, all Officers, all Committee Chairmen, and Committee members for making this year's *Transactions* possible.



Charles T. Swann
Editor, GCS/SEPM

Traditionally, the papers submitted to the GCS/SEPM have reflected a wide range of interests in the field of Gulf Coast geology. This year's papers will carry this tradition of diverse subject matter forward with subjects varying from paleontology and stratigraphy to geomorphology and petrography. A review of the titles should provide an overview of the research going on in the Gulf Coast region and where the research is being conducted. We hope the range of subject matter will continue into the future, as it certainly contributes to making the *Transactions* one of the most widely read publications for Gulf Coast geology.

Since the down-turn in the hydrocarbon industry, the character of geological research has also changed. There seems to be less emphasis on description of producing fields, more emphasis on offshore geology, and more emphasis on computer modeling. This trend emphasizes not only the changes in the field, but the need to form new alliances to produce information for the common good. We hope the papers contained in the *Transactions* and the annual meeting will provide the opportunity for industry and academics to forge these new relationships for their mutual benefit.



Katherine H. Walton
Editor, GCS/SEPM

Editing papers always involves more people than just the editors. We would like to thank David Dockery and Michael Bograd of the Office of Geology for their assistance, as well as Gail Russell of the University of Southern Mississippi. We also appreciate the authors' rapid response to our comments and questions.

REPORT OF THE PROGRAM CHAIRMEN



S. Cragin Knox
GCAGS



David T. Dockery III
GCS/SEPM

We thank all the authors who have chosen this year's convention as a forum for presenting their research. Over one hundred abstracts were submitted in response to the call for papers. Of these, 32 were selected as GCS/SEPM oral presentations, 30 as GCAGS oral presentations, 25 as poster presentations, and 3 as core presentations.

This year's program includes sessions covering such topics as "Eastern Gulf Coast Cretaceous and Jurassic," "Salt," "Sequence Stratigraphy," "Quaternary Depositional Environments," and "Petrology." Study areas include the northern Gulf Coastal Plain, the Black Warrior Basin, and the southwestern Appalachians. The quality and diversity of this year's papers should make the Jackson convention a memorable one.

1992 GCAGS FINANCIAL AID TO STUDENTS

During 1992 GCAGS received a total of twenty-five requests for financial assistance from students enrolled in graduate and (honors program) undergraduate geology programs in eight Gulf Coast colleges and universities. Grants totaling \$26,980.00 are to be awarded to nineteen successful applicants. Twelve of these awards are for the \$1,500.00 maximum. The remaining awards varied from \$500.00 to \$1,496.00.

A committee chaired by Valerie M. Ewing, New Orleans, consisting of David Gross, Columbus, Ohio and Charles Sprague, Mandeville, Louisiana received the proposals and recommended grants to the following students:

Pamela D. Alley-McReynolds	University of Houston
Nina L. Baghai	University of Texas, Austin
Enrique Cabral	University of Miami
Meredith Y. Denton	Texas A & M University
Bill J. Dorrell	University of Southwestern Louisiana
Brian P. Elias	Texas A & M University
Joseph C. Fiduk	University of Texas, Austin
Jonathan E. Grimes	Auburn University
David L. Hicks	University of Texas, Austin
Thomas L. Johnson	University of New Orleans
Zebao Li	University of Southern Mississippi
Thomas E. McKenna	University of Texas, Austin
G. Tom Merrifield, Jr.	Texas A & M University
William F. Precht	University of Miami
James R. Rougvie	University of Texas, Austin
Thomas D. Scheiwe	Auburn University
Andrew Sluyter	University of Texas, Austin
Liangqing Xue	University of Texas, Austin
Wan Yang	University of Texas, Austin

CITATION FOR DISTINGUISHED SERVICE AWARD

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

John H. Hefner

John H. Hefner is a native of Oxford, Ohio. He received a B.A. in Geology from Miami University (Ohio) in 1951; a M.S. in Geology from Michigan State University in 1952. Graduate studies were continued at Northwestern University in 1952-1954.

During John's stay at Northwestern his interest in "quantifying" geology was initiated while studying under Dr. Krumbein, eventually lead to John's initiation into the use of computers as applied to geology.

John served his country from 1954-1956 in the U.S. Army as a Topographic Surveyor. In 1957 John was employed by Exxon and remained with Exxon or one of their affiliates until retirement in 1986. During this period with Exxon, John was instrumental in guiding the company into computer applications in geologic exploration and production.

John is an active member of the AAPG and served for two terms as a member of the House of Delegates, from 1983-1985 and 1990-1992. John was Registration Chairman for the 1988 AAPG Annual Convention in Houston. He is also a member of the SEPM, AGI, IANG, and the Houston Geological



Society. He has been very active in HGS, having served as a member of many committees: Publication, Membership, Directory, Computer Applications, Finance, and Bulletin.

He was elected Treasurer of the HGS in 1978. While serving in this capacity he guided the HGS in the computerizing of the HGS files. He has continued to serve as the "HGS Computer Consultant," being responsible for the application of the computer in HGS daily activities. John was elected HGS Execu-

tive Committeeman for the 1987-1989 term. In 1988 he was awarded the HGS Distinguished Service Award for his many contributions and continuing service to the Society.

In addition to his HGS activities, John served the Gulf Coast Association of Geological Societies as the 1991 Annual Meeting Registration Chairman. Once again, the computer was used extensively.

While John was in Tulsa he married Patricia Schwartz. They have three children: Brenda, David, and Robert. Pat has always been very supportive of John's activities. She has served as President of the Houston Geological Auxiliary and continues to be active in the Auxiliary. During the 1991 GCAGS Convention she worked as hard as though she was the Registration Chairman.

John Hardin Hefner has truly rendered Distinguished Service to the geologic profession and in particular to the Gulf Coast Association of Geological Societies. John continues to serve his profession. All geologists benefit from the computer applications he has initiated into the professional societies.

—J. O. Lewis

CITATION FOR DISTINGUISHED SERVICE AWARD

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

Charles R. "Chuck" Noll, Jr.

It is appropriate that the Gulf Coast Association of Geological Societies recognize **Charles R. "Chuck" Noll, Jr.** with the Distinguished Service Award at this particular time because the award is made at the convention immediately following the highly successful 1991 convention in Houston. Chuck was general Co-chairman of this landmark event, with Dan L. Smith, and brought the convention off on an enthusiastic and positive note, at a time when the oil and gas industry is in the pits of an unprecedented depression. The efforts of Chuck, Dan and all their devoted helpers gave everyone the impression that we are on the way out of the low and that shortly everything will be running high and looking good.

Chuck was born in Pittsburgh, Pennsylvania in 1931. His father worked with Gulf Oil Company in the business aspect of the oil industry but Chuck decided on a career as a geologist after taking a geology course during his sophomore year at Dartmouth College. He graduated with a B.A. degree in geology from Dartmouth in 1953 and earned his MS degree in geology from the University of Oklahoma in 1955. He went to work for Stanolind, later to become Pan American Petroleum Corporation and, more recently, Amoco Production Company, and rose quickly through the ranks to the level of Senior Staff Geologist with diverse assignments at Oklahoma City, Tulsa, Jackson and Houston.

I first met Chuck at Stanolind's office in Oklahoma City where I worked a summer while between terms of my masters degree. Chuck was an "old" hand with one year of experience who befriended this total novice to the oil business and made him feel accepted both professionally and socially in spite of the short term assignment. He took me out well-sitting on my first well and was an excellent instructor. He also was a good guy. He even warned me, surreptitiously, that the other geologists were setting me up to lose the game we



played to see who bought the coffee. With that revelation the luck of the innocent was gone and I started losing.

Chuck started Davis Oil Company in Houston in 1971 as Division Manager and established Davis' significant position in the Gulf Coast and West Texas areas. In 1982, he embarked on a series of ventures in which he could utilize his entrepreneurial spirit. For the next four years he was Division Manager for Frio Exploration Company followed by five years in the same capacity with New Bremen Corporation. During this last association he also engaged in his own enterprises as C. R. Noll & Associates. In 1991 he joined Neumin Production Company as Exploration Manager, but recently joined Live Oak Reserves, Inc. as Exploration Consultant, his current affiliation.

For the last twenty-two years, Chuck has been almost continually involved in professional activities. He started as Houston Geological Society Personnel Placement Director in 1970. Space constraints prevent listing most of his activities, but some of his positions

should be noted. In 1974 he was National Interview Chairman at AAPG's annual convention in San Antonio, even though he was located in Houston. He was President of the Houston section of AIPG in 1979 and is currently President of the Division of Professional Affairs of AAPG, during the 1992-93 term. He has been very active in the Houston Geological Society, serving in many capacities including being President during the 1986-87 term. He continued his HGS activities as Chairman of the HGS Memorial Scholarship Fund until 1991. Since 1974 he has been an AAPG Delegate for a number of terms, including being Foreman of the Houston delegation in 1984.

In addition to his professional participation he has also given his talents to his community and his church. These activities range from being Chief Advisor of the Amoco sponsored Junior Achievement company which, in 1967, took top honors in Houston and placed in the top fifteen companies, nationally, to fund raising for the University of Houston Excellence Campaign, to serving as a Little League baseball coach and commissioner. He has also served Dartmouth College well in a number of capacities including serving as an elected member of the Dartmouth College Alumni Council.

Chuck has two grown sons, Robby and Randy. JoAnn, his wife, participates with him in many of his professional activities and is as well known as a Real Estate Broker and owner of Househunters, Inc. as Chuck is as a geologist. She has encouraged and aided him in his work for the profession.

With this award, GCAGS has recognized Chuck's long term and substantial contributions to the well-being of the profession and the strength of the individual organizations, which comprise GCAGS. The recognition is well deserved.

—John J. Amoroso

CITATION FOR DISTINGUISHED SERVICE AWARD GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

Joseph G. Samuels

Joseph G. Samuels, a recipient of the 1992 Gulf Coast Association of Geological Societies Distinguished Service Award, was born in Philadelphia, Pennsylvania. He attended Saint Louis University, receiving a B.S. degree in 1968 from The Institute of Technology in Geology. He continued his studies in Geophysics in Saint Louis at George Washington University.

Joe joined the Western Geophysical Company in 1969. While he was with Western he was involved in Geological and Geophysical Analysis Interpretation worldwide; Domestic and Foreign Basin Studies; Research and Development in Reservoir characteristics; Amplitude, Frequency and Velocity Attributes; and Sand-Shale Ratio Studies. He joined the Coastal Corporation in 1978 as Gulf Coast Division Geophysicist. In 1982 Joe became an employee of Hamman Oil and Refining Co. as a prospect generating Geologist, leaving in 1985 to become an exploration consultant.

Joe Samuels is an active member of the AAPG, a Certified Petroleum Geologist, and currently a member



of the AAPG House of Delegates. He is a member of SIPES, having served as Secretary of the Houston Chapter. Joe is a member of the Houston Geological Society.

Throughout his career as a consultant, Joe has served his profession in many capacities. He has served the Houston Chapter of SIPES by preparing in 1990 and

1991 the "Prospect Buyers Guide Service." Currently he is a member of the AAPG-DPA SIPES National Committee for Model Forms. Joe, even though not a member of the Geophysical Society of Houston, has participated in organizing one of their Social Events. Joe has been active in the Houston Geological Society, serving in the registration at the luncheon meetings. He served in the GCAGS 1991 Meeting by serving as "Printing Committee Chairman." In this capacity he contributed in many ways not required by the position he held.

Joe is also active in the Boy Scouts of America and the Civic Association of his neighborhood.

In all of his activities Joe receives the whole-hearted assistance of his wife Wanda. They have two children, Jordan and Laura.

The Distinguished Service Award of the GCAGS is presented to Joseph George Samuels in recognition not only for his contributions to the GCAGS but also for his dedicated service to his profession and his community.

—J. O. Lewis

CITATION FOR OUTSTANDING EDUCATOR AWARD

John B. Anderson

Recognition of **John Anderson** by GCAGS as an Outstanding Educator is highly applauded by his current and former students. His role as an educator is enhanced by his role as a friend and mentor to all students.

John completed his Bachelor of Science degree in Geology at the University of South Alabama in 1968. He earned his Master of Science degree in 1970 from the University of New Mexico in Albuquerque, where he studied the stratigraphy and structure of the western margin of the Nacimiento Uplift in New Mexico. John's Ph.D. project, received in 1972 from Florida State University, concentrated on the marine geology of Weddell Sea, Antarctica. He began teaching that same year as an assistant professor of geology at Hope College in Holland, Michigan. In 1975 John moved to Rice University in Houston, Texas, where he currently is a full professor in the Department of Geology and Geophysics. John is the consummate instructor at both the undergraduate and graduate level. He places equal emphasis on his current research and teaching; provision of the most up-to-date information and application of that information in the classroom and during his field courses has become one of his hallmarks.

Diversity in interests always has characterized John. Presently, he directs two full-time research programs, one in the Gulf of Mexico



and the other in Antarctica. He has lead the study of marine sedimentation on the Antarctic continental margin for two decades. In the past ten years, his research has expanded to include high-resolution sequence stratigraphy of the Antarctic shelf to examine the interrelated nature of ice sheet/ice shelf development and stability with global sea-level change. Since the mid-70's, John has conducted investigations of the sedimentology and stratigraphy of the Gulf of Mexico. His research program in the Gulf of Mexico now includes the operation of a 65' research vessel, and focuses on understanding Quaternary evolution of the Gulf using high-resolution seismic data and sedimentologic tools. Whether in

the Antarctic or Gulf of Mexico, John always has placed a premium on research quality and innovation. He emphasizes understanding both the basic and applied aspects of the field. John holds his students to that standard, and imparts in them a deep respect for the science.

The number of papers authored or co-authored by John in these two realms of geology is indicative of his productivity; 65 refereed publications, 58 other publications, and over one hundred abstracts. The vast majority of these are in conjunction with students. Thirty-eight students have earned, or are working toward their graduate degrees under John's tutelage as major advisor. Former students now work in the oil industry, environmental field, and academics, indicating the strong sense of dedication and interest in geology that John inspires within his students.

Beyond the usual measures of a successful career, however, are the feelings imparted by John to his students. His complete respect for students, their ideas, and their need to follow and express them; his encouragement, patience, energy, and enthusiasm; and his gumbo, barbecue, and campfire jokes, all instill in students a deep feeling of respect for John Anderson and the science of geology.

—Students of John Anderson

CITATION FOR OUTSTANDING EDUCATOR AWARD

Arnold H. Bouma

Arnold H. Bouma has been associated with educational institutions during the major part of his professional career. He was born and educated in the Netherlands, where he studied under Ph. H. Kuenen, D. J. Doeglas, and L. M. J. U. van Straaten. His Ph.D. research, a classic study, led to the formulation of a model for turbidites, which resulted in the famous Bouma Sequence. A Fulbright post-doctoral fellowship in 1962 allowed him to work under Francis P. Shepard at the Scripps Institute of Oceanography. Working with Dr. Shepard and other scientists at Scripps piqued his interest in the study of modern sediments and was the start of an illustrious career in the comparison of modern and ancient sedimentary facies.

In 1963 he returned to the Netherlands as an instructor at the Geological Institute at Utrecht. Three years later, Arnold and his family emigrated to the United States when he accepted a position as associate professor in geological oceanography at Texas A&M University. He trained numerous students at A&M, many of whom now hold outstanding positions in industry, government, and academia. After ten years at Texas A&M, he joined the USGS Marine Geology Unit at Menlo Park, California, to gain a broader knowledge of geology. He joined Gulf Oil Company



in 1981, holding numerous responsible positions before returning to academia in 1988, when he accepted an endowed chair, the McCord Chair in Petroleum-Related Geology, at Louisiana State University.

Arnold is recognized internationally as an authority on submarine fans, both modern and ancient. His list of honors is extensive; it includes receiving the Shepard Award for Excellence in Marine Geology from the SEPM, selection as co-chief scientist on Leg 96 of the Deep Sea Drilling Project on the Mississippi Fan, service as editor-

in-chief of *Geo-Marine Letters*, membership on editorial boards of several professional journals, organizing many short courses and symposia for professional and industrial organizations, and serving as a member of numerous committees and boards of both local and national agencies. He is a member of some ten professional and academic societies and has been named in *Who's Who in America* and *Who's Who in the South*. He has authored two books and edited six, and he has published more than 180 scientific papers.

With all of his honors, however, his love of teaching and respect for students have remained steadfast. I can clearly remember when, in 1958, as a graduate student working on modern sediments, I wrote to him requesting guidance on some of the studies I was conducting. He not only responded through extensive correspondence but took the time to advise me and provide the encouragement that is so valuable to a student. Arnold Bouma has thrived on the educational aspects of his career, and he continues to interest young and old alike in looking into the secrets of sedimentary geology. He is truly worthy of the "Outstanding Educator Award."

—James M. Coleman

CITATION FOR OUTSTANDING EDUCATOR AWARD

Clyde H. Moore

Professor Clyde H. Moore of Louisiana State University is no stranger to those in the GCAGS community and is well known as the director of the LSU Applied Carbonate Research Program. Now he is being recognized as a recipient of the GCAGS "Outstanding Educator Award." WHY? The answer is fairly simple and can be documented by applying the same criteria that the university uses for the evaluation of its faculty. An outstanding professor should excel as a teacher, perform meaningful research, and serve the professional and scientific community. Clyde's credentials clearly demonstrate how these criteria can be satisfied *par excellence*, and his many contributions are well known in regional, national, and international circles of this world. He has even attempted an evaluation of the phytokarst from Hell.

Born in Jacksonville, Florida, but considered by most to be a native Noo Aweleanian, Clyde began his geological career as an undergraduate student at Louisiana State University in Baton Rouge under the tutelage of Clay Durham. After receiving a B.S., he went on to The University of Texas in Austin and earned the M.S. and Ph.D. degrees. At Texas, Bob Folk introduced him to carbonates, the rocks that were to become Clyde's scientific passion. Following an internship at Shell Development (University), Clyde returned to his undergraduate alma mater and began his professorial career as an Assistant Professor of Geology in the spring of 1966. He created the Applied Carbonate Research Program in 1977 and has served as its only Director. He was instrumental in organizing the LSU Basin Research Institute and served as its Director from 1984 to 1988. Today, Professor Moore enjoys his academic responsibilities, research challenges, and service commitments while actively attempting to establish a "branch" campus of LSU in Denver.

The academic accomplishments of Clyde Moore are diverse. He has developed new courses in several areas of sedimentary geology and carbonate petrology, including field courses and seminars for the Organization for Tropical Studies, AAPG, the GCAGS, and most of the companies with carbonate exploration programs. He has taught



courses from Introductory Physical Geology to Advanced Topics in Electron Microprobe Analysis with enthusiasm and a command of the subject matter that has consistently earned him higher than average marks in student and peer evaluations of his teaching ability. Perhaps the most notable record of his academic career is the number of graduate students that he has supervised. Clyde is the "academic father" of more than 46 M.S. theses and 12 Ph.D. dissertations. Most of the graduates of his family are successful exploration geologists.

In research circles, one can not discuss carbonate diagenesis and porosity evolution with regard to hydrocarbon exploration, or the Smackover Formation, without bringing up the work of Clyde Moore and his students. Modern carbonates have also been scrutinized through the bubble of a submersible or the eyepiece of the "Looniescope" by this group and its leader. Clyde's research activities have been documented in more than 50 technical publications, many with co-authors, that have appeared in various periodicals and special publications including the *Transactions of the GCAGS*. Some, such as the Walker Creek study, have been especially stimulating, if not controversial! The book that was published by Elsevier in 1989, *Carbonate Diagenesis and Porosity*, has set the standard for

modern publications on carbonates. The recognition of his contributions to progress in carbonate research has resulted in invitations to speak before geological societies and academic groups throughout the world. His most recent keynote address was delivered at the Geological Society of London's Burial Diagenesis Symposium.

An outstanding educator is also expected to serve the scientific and professional community. Clyde has participated in more academic and professional society committees than you would care to know about! He is an active member of the AAPG, the SEPM, the IAS, and Sigma XI. He was co-convenor of the 3rd Annual GCAGS/SEPM Research Conference on The Jurassic of the Gulf Rim and Program co-chairman for the 1986 GCAGS Annual Meeting in Baton Rouge. He served AAPG as a member of the Education and other committees. In 1983, he toured as the AAPG Distinguished Lecturer.

The crown jewel in Clyde Moore's career as an educator and scientist is the LSU Carbonate Research Program (ACRP, or acrap as it is known). Now in its 15th year of operation, this cooperative effort sponsored by oil and gas companies has served as the major vehicle for the support of seminars, research projects, field excursions, and graduate student training in subjects at the forefront of carbonate research. It forms a very effective bridge between the academic development and the industrial utilization of advances in carbonate petrology. More than 30 graduate students and nine post-doctoral fellows from a number of countries have been brought together with their industrial counterparts in an atmosphere that is noted for its free exchange of thoughts. It, in effect, permits Clyde to demonstrate the teaching, research, and service prowess that has resulted in his selection as an Outstanding Educator.

Professor Clyde Moore's record is one that many educators should emulate. He has devoted his career to education and has accomplished much. Congratulations to him! It is very appropriate that he join the earlier recipients of this honor as one of GCAGS's Outstanding Educators.

CITATION FOR OUTSTANDING EDUCATOR AWARD

Carl E. Norman

Carl Norman is basically a structural geologist who occasionally squeezes rocks until they break, but prefers to help students learn Geology in the classroom, laboratory and especially the field. After four years in the U.S. Air Force he attended the University of Minnesota, where he was elected to Phi Beta Kappa, Sigma Xi and Sigma Gamma Epsilon. Following his graduation (cum laude) in 1957 he attended Ohio State University, where he received the M.S. and Ph.D. in 1959 and 1967. His Dissertation was entitled *Microfractures in brittle rock; their relationship to larger-scale structural features and existing ground stresses*. Except for the period of 1959-1962 when he worked for Humble Oil Company, and summer jobs with Carter Oil and the U.S. Bureau of Mines' Applied Physics Research Laboratory, he has been employed by the University of Houston's Department of Geosciences.

There Dr. Norman has served selflessly since 1965 as a teacher of undergraduates and mentor for a full generation of graduate students. Among other accomplishments he has taught Physical Geology to more than 4,000 students, reestablished and reorganized the six-weeks U.H. Summer Field Course at Silver City, NM in 1970 and directed it thereafter for a total of 12 years and about 270 stu-



dents. Carl has also conducted week-long field trips to the Sierra Madre Orientals in northern Mexico for Senior and Graduate students each year, from 1967 to the present. However, his crowning achievement was to convince about 135 students to take his favorite course in Rock Mechanics! Carl has been the Principal Advisor for 14 completed M.S. Theses and a Committee Member for perhaps 35 others in Geology and Civil Engineering, and for 20 Ph.D. Dissertations. With Margaret Bishop he laid the groundwork (in 1968-69) for what has become the Geoscience Department's outstanding program in Applied Geophysics,

and from 1973-78 was the Administrator of the Department's former two-week industry short course on *Exploration Geology for Geophysicists*.

Since 1974 Carl has served on the Board of the Houston Geological Society's Warren Calvert Memorial Scholarship fund, which now awards each year four \$2,500 scholarships to Graduate Students in the Geosciences. As interest in Environmental and Engineering Geology has increased in recent years, Dr. Norman has become one of the organizers and leaders on approximately 10 H.G.S. field trips in the Upper Gulf Coast Region. He consults on the active surface faults of this region and has testified as an expert witness in hearings and law suits that involved possible faulting. Carl has also presented numerous talks about these faults to civic and professional groups, including several radio and television talks, and provided newspaper interviews. He has authored a substantial number of published papers, abstracts, and contributions to field-trip guide books, and prepared innumerable proprietary reports. Besides the Houston Geological Society, Carl belongs to the American Institute of Professional Geologists, the Geological Society of America and the International Society for Rock Mechanics.

—DeWitt C. Van Sicken

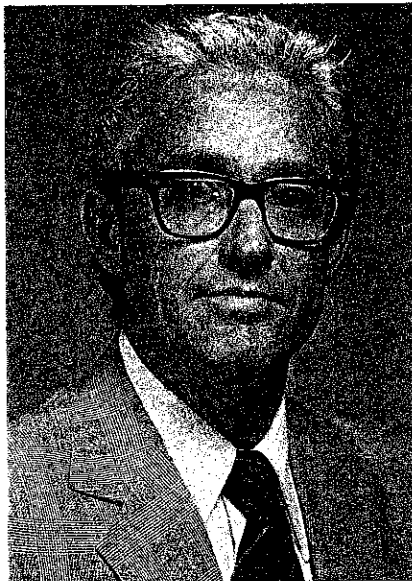
CITATION FOR OUTSTANDING EDUCATOR AWARD

Alfred E. Weidie, Jr.

Alfred E. Weidie, Jr. has inspired the respect and admiration of students and colleagues alike for his many contributions to geologic education in the New Orleans area. During more than 30 years at the University of New Orleans, he has motivated many students to pursue careers in Gulf Coast geology.

After serving in the U.S. Marine Corps during the Korean War, Al began graduate studies at Louisiana State University in 1958. His association with Grover Murray at LSU led him to an avid interest in the geology of the Mexican Gulf Coast and the Sierra Madre Oriental. Al's dissertation research resulted in the pioneer work which defined the Upper Cretaceous delta complexes of the Parras Basin in northeastern Mexico. Not satisfied to confine himself to his dissertation problem, Al made many geologic excursions into remote areas of eastern Mexico, from the Texas border to the Yucatan Peninsula. He soon became an authority on Mesozoic-Cenozoic stratigraphy of that area, as well as on structural styles and salt tectonics in the Sierra Madre Oriental.

When Al finished his Ph.D. work at LSU in 1961, he took a position as Assistant Professor in the two-man Geology unit at the branch of



LSU in New Orleans. Almost single-handedly, Al won approval for a B.S. curriculum in geology and geophysics, and in 1966 the University granted its first B.S. in Geology-Geophysics. During the late 1960's, Al was made Chairman of the new Department of Earth Sciences, he hired several additional faculty, and he began planning a graduate curriculum. Al encouraged research among the faculty, and he led by example. He continued to return to Mexico for field work each summer, usually involving students and colleagues from

other universities in the studies. Al is the author of over 75 publications, many on the geology of northeastern Mexico and Yucatan.

Under Al's leadership and guidance, Earth Sciences at LSUNO (UNO) went on to develop a nationally competitive geology and geophysics program with a large, well-balanced faculty whose research is carried on in many parts of the world. Without Al's early vision, leadership, and persistence, Geology-Geophysics at the University of New Orleans might well be the small service unit it was 30 years ago. In recognition of his outstanding service to UNO and the LSU System, Al received the prestigious H.M. "Hub" Cotton Faculty Excellence Award in 1980.

Outside the University, Al also has given unselfishly of his time to many professional societies and petroleum companies to lead field trips and short courses on the geology of northeastern Mexico, Yucatan, and the Gulf Coast. For many years of dedication to his university and to the Gulf Coast geologic community, it is fitting that Alfred E. Weidie, Jr., receives the Outstanding Educator Award.

—W. C. Ward

1991 BEST PAPER AWARDS AND A.I. LEVORSEN MEMORIAL AWARD

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

**First Place and
A.I. Levorsen Award
awarded to:**

Andrew J. Davidoff

For:

*Evidence for a Deep Mesozoic Basin
in Central East Texas; Implications
for Hydrocarbon Exploration*

Andrew J. Davidoff is currently a Ph.D. candidate at Texas A&M University. He received his B.S. from Western Washington University in 1982 and his M.S. from the University of Houston in 1989. Both degrees are in geology.

Mr. Davidoff has held positions at several companies including Sohio (now B.P. America), Amoco Production, Texas Ranger Oil Co., and Union Pacific Resources Co. with a total of six years industry experience. Areas worked include onshore and offshore Gulf of Mexico as both a geologist and a geophysicist. Areas of specialization include basin analysis and sequence/seismic stratigraphy, with an empha-



sis on the integration of geologic and geophysical data.

Current research projects include 1) Deep basement structure of central east Texas and the effect of initial base architecture on the basement fill process and 2) The sequence stratigraphy of the Paleogene section in central east Texas

using seismic, well log and outcrop data. His work on a third major sedimentary basin in eastern Texas has been reported in *World Oil*, *Gulf Coast World* and the *Oil and Gas Journal*, and has received awards for best poster (Houston Geologic Society Student Poster Session, 1990) and best paper (AAPG Annual Convention, Student Competition, 1991).

Mr. Davidoff has been the author or co-author of 15 publications and abstracts, and has co-lead field trips in central east Texas for both GCAGS and GSA. His work has attracted grants and fellowships from numerous organizations including the AAPG, GSA SIPES, GCAGS, Mobil, ARCO, Shell, Amoco, Union Pacific Resources and GeoGraphix. Membership in professional societies include AAPG, GSA and the Houston Geologic Society. Student activities include president of the Texas A&M AAPG Student Chapter and President of the Gamma Xi Chapter of Sigma Gamma Epsilon (an earth science honor society).

1991 BEST PAPER AWARDS (Continued)

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

Second Place awarded to:

**H. Scott Sumner,
B. A. Robison,
W. K. Dirks,
and
J. C. Holliday**

For:

*Structural Style of Salt/
Mini-Basin Systems: Lower Shelf
and Upper Slope, Central
Offshore Louisiana*

Scott Sumner is presently a Senior Review Geologist working in the Global Geology Section of Shell International Petroleum in The Hague, Netherlands. He received his B.S. in 1979 and M.S. in 1982 in Geology from the University of Missouri - Rolla (Missouri School of Mines and Metallurgy). During completion of his M.S., Sumner was employed as a Staff Geologist at the Missouri Division of Geology and Land Survey where he worked

on Paleozoic structure and stratigraphy in Missouri. Upon employment with Shell in late 1982, Sumner was assigned to the Plio-Pleistocene Trend of central offshore Louisiana. In 1989 he was transferred to the Oligocene and Miocene trends of south Louisiana. He was moved to his current position in the Netherlands in early 1992.

Brad Robison joined Shell Oil Co. in 1979 after earning an M.S. degree in geology from the University of Arizona in Tucson, Arizona. Subsequent to several exploration assignments within the Rocky Mountain Division, he was transferred to Shell Offshore in New Orleans where he has worked on both the Texas and Louisiana shelf and deepwater areas. Presently, he serves as Division Geologist for the Shelf Exploration and Evaluation Group.

Bill Dirks joined Shell Oil Co. in 1981 after earning a B.S. degree in

geology and an M.S. degree in civil engineering from Iowa State University. After assignments in the Mid-Continent and Gulf Coast Onshore Regions, he was transferred to Shell Offshore in 1987 where he has worked in both the Shelf and Deepwater Divisions. He became District Exploration Manager for the Deepwater Area in 1990.

James C. Holliday, geophysicist, has been with Shell Oil and its subsidiary companies since 1967, working primarily as a seismic interpreter in the Mesozoic and Tertiary basins of the Gulf Coast.

He recently held the position of Manager of Exploration Training for Shell Oil and is currently Division Geophysicist for their Onshore Division.

Mr. Holliday graduated from Mercer University with an AB in Physics and from the University of Georgia with an MS in Physics.



H. Scott Sumner



B. A. Robison



W. K. Dirks



James C. Holliday

1991 BEST PAPER AWARDS (Continued)

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

Third Place awarded to:

**Dr. Thomas E. Ewing
and
W. Grant Ferguson**

For:

*Stratigraphic Framework, Structural
Styles and Seismic Signatures
of Downdip Yegua Gas-Condensate
Fields, Central Wharton County,
Texas Gulf Coast*

Dr. Thomas Ewing is a geologist and geophysicist with 12 years experience in research on petroleum-related geology and geophysics. Dr. Ewing was a research geologist for over four years at the Texas Bureau of Economic Geology. While there he was in charge of structural and stratigraphic analysis of Gulf Coast geopressedured reservoirs, worked on the "Atlas of Texas Oil Reservoirs," and served as compiler of the Tectonic Map of Texas. Since 1985 he has been a co-owner of Frontera Exploration Consultants, Inc., a San Antonio-based consulting company. He is currently retained by Venus Oil Company for regional and prospect-generating

geological and geophysical studies in the Downdip Yegua Trend and elsewhere in the Gulf Coast.

He received a B.A. in Geology from the Colorado College in 1975, an M.S. in Geochemistry from New Mexico Institute of Mining and Technology in 1977, and a Ph.D. in Geological Sciences from the University of British Columbia in 1981. Dr. Ewing is a member of various regional and national professional societies. He is a Certified Petroleum Geologist and member of SIPES. He has served as President of the South Texas Geological Society, and is presently a Delegate to the AAPG House of Delegates. He has spoken extensively at local, regional, and national geological meetings and has authored or co-authored over 70 published papers and abstracts. He was awarded the Gulf Coast Section Levorsen award in 1982.

W. Grant Ferguson is a geologist and owner of Ferguson Oil Company, based in Houston, Texas. He received his B.S. in Geology from the University of Texas at Austin in 1978. Prior to forming Ferguson Oil

Company in 1992, he was a partner in Vulcan Exploration, Inc., a Houston-based affiliate of Paramount Petroleum Corporation, from 1990 to 1992. From 1984 to 1990, Mr. Ferguson was Chief Geologist at Venus Oil Company, located in San Antonio, Texas. His prior experience also includes positions as Geologist at Forney Oil Corporation and Texas Oil and Gas, Inc.

Mr. Ferguson has concentrated successfully on exploration for large gas-condensate reserves throughout most of his career. His experience has been predominantly within the Texas and Louisiana areas of the Gulf Coast Basin, much of this within the expanded Yegua (Tertiary-Eocene) trend. His current activities include exploration within the Cretaceous and Tertiary trends and geological consulting in the areas of prospect evaluation and marketing.

Mr. Ferguson has authored or co-authored seven publications published in technical journals. He serves as President, Treasurer and Chairman or member of various committees of the South Texas Geological Society, and was co-editor of *Contributions to the Geology of South Texas, 1986*, published by that organization. As President of the S.T.G.S., he also served on the board of directors of the Gulf Coast Association of Geological Societies. He is an active member of the American Association of Petroleum Geologists, having served as Technical Session Chairman and Entertainment Coordinator for the 1988 National Convention and as a member of the Poster session Committee for the 1984 Convention. He is also a member of the Houston Geological Society.



Dr. Thomas E. Ewing



W. Grant Ferguson

1991 BEST POSTER AWARDS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

**First Place
awarded to:**

***Michael J. DiMarco
and
R. Craig Shipp***

For:

*Stratigraphic Characteristics and
Sandstone Distribution of the
Hackberry Depositional System
(Mid Oligocene), S.E. Texas
and S.W. Louisiana: A Sand-Rich
Slope-Fan Complex*

Michael J. DiMarco received a B.A. in geology from the State University of New York at Buffalo in 1979 and a M.S. in geology from Kansas State University in 1983. Following a brief teaching post at the University of Arkansas at Little Rock, Mike obtained a Ph.D. in geology from L.S.U. in 1986. Subsequently, Mike joined Shell Western E. & P., Inc. where he worked for five years in on-shore Gulf Coast exploration, mainly in clastic depositional systems. Recently, Mike has begun strati-



Michael J. DiMarco



R. Craig Shipp

graphic and exploration studies for Pecten International Co. in the North Africa area. His interests include stratigraphy, clastic sedimentology, and sedimentary petrology.

R. Craig Shipp received a B.S. in biology from Dickinson College (PA) in 1972, and then worked as the diving officer of the West Indies Laboratory of Fairleigh Dickinson University (NJ) in St. Croix, U.S. Virgin Islands. Craig earned his M.S. in geology at the University of South Carolina in 1980 and then worked as a staff geologist for the Marine Systems Laboratory of the Smithsonian Institution for four years. He received a Ph.D. in oceanography from the University of Maine in 1989. Craig joined Shell Development Company as a research geologist in 1988 and has worked in the Gulf Coast Tertiary and the deepwater Gulf of Mexico. Craig is a member of AAPG, SEPM, IAS, GSA, and HGS. His interests include marine geology, seismic stratigraphy, and shallow geologic hazards.

1991 BEST POSTER AWARDS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

**Second Place
awarded to:**

José Ulises Ricoy

For:

*Stratigraphic-Structural
Interpretation and Reservoir
Characterization of Lavaca Bay
Field, Calhoun County, Texas*

José Ulises Ricoy, a native of Guanajuato, Mexico, received a petroleum engineering degree in 1971 from the Universidad Nacional Autónoma de México with the thesis topic "Permeability evaluation through well logs." During his final year of study he was hired by the Formation Evaluation Division of the Instituto Mexicano del Petróleo, where he was awarded a graduate scholarship on the basis of his thesis research.

Ricoy earned a Master's degree in 1976 with the thesis "Depositional systems in the Sparta Formation



José Ulises Ricoy

(Eocene), Gulf Coast Basin of Texas" and completed requirements to become a Ph.D. candidate in geological sciences at the University of Texas at Austin. His dissertation proposal, "Tertiary terrigenous depositional systems in the Mexican Isthmus Basins," was based on the stratigraphic interpretation of seismic sections and well logs.

Ricoy returned to the Instituto Mexicano del Petróleo in 1977,

where he worked on his dissertation research until 1980. From 1981 to 1989 he conducted projects and was author of corresponding papers related to depositional systems, seismic and well-log stratigraphy, and design of well-log and transient pressure digital filters in the context of basin analysis, field development, and reservoir characterization. During this time he completed his dissertation and formally received the Ph.D. in 1989. From 1978 to 1989 he served on the engineering faculty at the Universidad Nacional Autónoma de México, where he taught graduate and undergraduate courses related to subsurface geology and hydrocarbon resources and designed and established a graduate program in Subsurface Energy Resources Exploration.

Since November 1989, he has been a Research Fellow at the Bureau of Economic Geology, the University of Texas at Austin.

1991

BEST CORE PRESENTATION AWARD

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

Awarded to:

Stephen R. Howard
and
David J. Davies

For:

*Ichnofacies of the Late
Jurassic Smackover "C" Sandstone,
Claiborne and Webster Parishes,
Louisiana: Indication of the
Environment of Deposition*

Stephen R. Howard is currently with Energy Development Corporation in Houston, Texas. Howard has been responsible for generating prospects as an exploration geologist in the Mesozoic of the Gulf rim including the Smackover Formation. At present, Howard is working the Siluro-Devonian section of the Permian Basin. Prior to joining Energy Development Corporation, Howard was employed by Wheless Industries in Shreveport, Louisiana.

Howard received his B.S. Degree in Geology in 1979 from Texas Tech University, Lubbock, Texas. He has

done post-graduate work at Centenary College, Shreveport, Louisiana, where he is nearing completion of degree requirements to receive his M.S. Degree in Geology. Howard was the co-author of the third "Best Paper" Award at the 1984 Gulf Coast Association of Geological Societies meeting entitled "Petroleum Geology of the East Dykesville Field, Smackover "C" Sand, Claiborne and Webster Parishes, Louisiana." Howard formerly served in the capacity of chairman of the Shreveport Geological Society Scholarship Committee and has served on the publication committee in addition to several other S.G.S. Committees.

David J. Davies is a research geologist at the Geological Survey of Alabama currently evaluating the physical processes, environmental problems and Quaternary history of the state's coastal zone and shelf. He graduated with honors with a B.S. in geology and B.A. in Spanish

from Southern Methodist University in 1977. He worked as a petroleum exploration geologist for Southern Union Exploration Co. from 1977-1982 and was appointed to serve on the U.S. Potential Gas Committee from 1978-1984. He obtained his Ph.D. from Texas A&M in 1988 where he developed quantitative sedimentological/paleoecological/geochemical approaches to Gulf of Mexico marine environmental analysis. During 1988, he was a Marine Policy Fellow with the Ocean Studies Board of the National Academy of Sciences in Washington, D.C.; while there, he organized their International "Workshop on Geology of Passive vs. Active Continental Margins." He was Assistant Professor of Geology and Co-Coordinator of the Earth Science Teacher Preparation Program at Centenary College from 1988 through 1991. He has continued his research on sedimentation and ecology of modern sediments from the Gulf of Mexico, the Bahamas, and Phanerozoic analogues. He accepted his appointment at the GSA in 1991.

He is author or co-author of many scientific articles, presentations and in-house reports on coastal and shelf processes, paleoecology, the nature of the fossil record, depositional environments, and science education. He is a present or past member of over two dozen scientific organizations, having served many as officer, director, committee member, or reviewer.



Stephen R. Howard



Dr. David J. Davies

1991
BEST PAPER AWARDS
GULF COAST SECTION
SOCIETY OF ECONOMIC PALEONTOLOGISTS
AND MINERALOGISTS



Dr. Brian E. Lock, Sr. Author
and Cathy E. Bishop, Author

Brian E. Lock is the Robert and Barbara Pettit Endowed Professor of Geology and Head of Department at the University of Southwestern Louisiana. He is chairman of the University's Graduate Council. He completed his degree from the University of Cambridge in 1969 and worked as a consultant to Norske Fina in the European Arctic for a short time before going to South Africa to teach at Rhodes University. He has been at USL since 1977.

Brian has been active in the Lafayette Geological Society and was General Chairman for the 1990 convention of GCAGS. He was one of the first recipients of the new Outstanding Educator award, introduced by the GCAGS last year. He is currently Vice-President of the GCS-SEPM.

Dr. Lock's research is concerned primarily with applications of sedimentology in the petroleum industry.

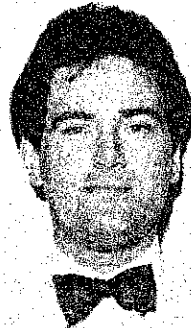
Cathy E. Bishop is a graduate student in Geology at the University of Southwestern Louisiana. She is working on a Master's thesis on Red River point bars.

1991
EXCELLENCE OF PRESENTATION AWARD
GULF COAST SECTION
SOCIETY OF ECONOMIC PALEONTOLOGISTS
AND MINERALOGISTS

**Excellence of
Presentation
Award
awarded to:**

Andy Pulham

Andy Pulham received his B.S. in physical geography and geology from Liverpool University, England, in 1980. He then studied for his Ph.D. at University College Swansea, Wales, from 1980-84, graduating in 1988. In 1984 Andy joined BP Petroleum Development in Aberdeen, Scotland, as a Sedimentologist. His first 4 years with BP were spent working field and re-



Andy Pulham

gional studies in the North Sea. After a brief period in BP's London office, Andy was sent in early 1989 to work for BP America in their Hous-

ton exploration office. His work in Houston has been focused in the deep offshore Gulf of Mexico, particularly in developing regional stratigraphic framework and slope depositional models. In April 1992 Andy transferred to Bogota and is currently working on field appraisal and regional studies for BP Colombia.

Dr. Pulham has presented papers on Gulf of Mexico deepwater sedimentology at recent AAPG, IAS, and GCAGS conferences and has authored and co-authored several papers on ancient deltaic successions.

HONORARY MEMBERS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

<i>D. R. Boyd (1982)</i>	<i>M. O. Turner (1984)</i>
<i>J. Braunstein (1982)</i>	<i>R. R. Berg (1985)</i>
<i>M. T. Halbouty (1982)</i>	<i>W. L. Fisher (1986)</i>
<i>F. W. Harrison, Jr. (1982)</i>	<i>C. L. Sartor (1986)</i>
<i>H. N. Hickey (1982)</i>	<i>J. J. Amoroso (1987)</i>
<i>L. H. Meltzer (1982)</i>	<i>W. L. Stapp (1988)</i>
<i>S. J. Lysinger (1983)</i>	<i>J. A. Gilreath (1989)</i>
<i>J. O. Lewis (1983)</i>	<i>R. E. Boyer (1990)</i>
<i>E. C. Roy, Jr. (1983)</i>	<i>J. A. Hartman (1990)</i>
<i>F. L. Smith, Jr. (1983)</i>	<i>T. H. Philpott (1990)</i>
<i>P. M. Strunk (1983)</i>	<i>none awarded (1991)</i>
<i>R. J. LeBlanc, St. (1984)</i>	<i>none awarded (1992)</i>
<i>W. R. Paine (1984)</i>	

DISTINGUISHED SERVICE AWARDS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

1982	<i>R. E. Boyer</i>	<i>P. B. Sounders</i>	<i>B. C. Tucker</i>
1983	<i>none awarded</i>		
1984	<i>A. T. Green, Jr.</i>	<i>Dewitt C. Van Sicken</i>	
1985	<i>C. E. Harrison</i>		
1986	<i>none awarded</i>		
1987	<i>none awarded</i>		
1988	<i>none awarded</i>		
1989	<i>H. G. Collier, Jr.</i>	<i>R. B. Seigert</i>	
1990	<i>C. J. Corona</i>	<i>R. W. Sabaté</i>	
1991	<i>C. C. Baker</i>	<i>G. A. Jerry Cooley</i>	<i>S. Chuber</i>
1992	<i>C. R. Noll</i>	<i>J. H. Hefner</i>	<i>J. G. Samuels</i>

HONORARY MEMBERSHIP

GULF COAST SECTION SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

James M. Coleman

Dr. James M. Coleman has been a prominent figure in sedimentary geology on both the local Gulf Coast scene and internationally since the late 1960's. Dr. Coleman has established an international reputation as one of the world's foremost authorities on river deltas and on processes of mass movement and slope instability associated with both deltas and continental shelf margins.

He began his career at LSU in the Coastal Studies Institute (CSI) as an undergraduate when Dr. R. J. Russell, the internationally respected physical geographer, was director. Coleman became Assistant Director of the Institute in 1971 and Director in 1975. Upon reestablishment of the School of Geoscience in 1985, he provided the leadership that united the Department of Geology and Geophysics, Coastal Studies Institute, and Basin Research Institute into an education/research organization. The university component of the Louisiana Geological Survey also became a part of the school in 1988. In February 1989 he took on the duties of acting Dean of the College of Basic Sciences and served as chairman of the Chancellor Search Committee that eventually identified LSU's present Chancellor Dr. William E. Davis as the top candidate for the job. In September 1989 Dr. Davis appointed Coleman as Executive Vice-Chancellor, his current position.

In his career Coleman has received many awards. The Society of Economic Paleontologists and Mineralogists awarded him the Shepard Award for Excellence in Marine Geology in 1980; and the A. I. Levorsen Award, presented to the authors of the best paper presented at the Gulf Coast Association of Geological Societies, in 1973; the Boyd Professorship, the highest honor LSU gives its faculty; the LSU Distinguished Research Master Award; and the LSU Foundation Distinguished Faculty Fellow Award. He was chosen as an American Association of Petroleum Geologist Distinguished Lecturer in 1976 and 1977 and has also been named a Shell Oil Company Distinguished Lecturer (1978) and a Sohio Lecturer at the Colorado School of Mines (1983). Most recently, Coleman was elected to the National Academy of Engineers (1990) for work on process of mass movement and sediment instability.

Coleman received the B.S., M.S., and Ph.D. degrees in Geology from Louisiana



State University. During his research career at CSI, Coleman was part of a program to study the worldwide variability of coastal environments and deltas. Jointly with other CSI researchers he conducted field research in Australia, Canada, Malaya, Nicaragua, Pakistan, Romania, Brazil, Spain, Africa, Alaska, Suriname, Egypt, and St. Croix, in addition to the East Coast and Gulf Coast of the United States. As a product of the variability theme which was initiated by the Institute's founder, Dr. R. J. Russell, Coleman produced a landmark study of modern delta variability which provided a new understanding of these depositional systems based on the interplay between fluvial input and strength of physical processes of the receiving basin within constraints imposed by climate and tectonics. After publication of this work Coleman focused on the subject of mass movement and sediment instability on the Mississippi River delta front and adjacent shelf margin. This research was conducted with interest, support, and cooperation from the petroleum industry which needed to develop an understanding of these processes for operational reasons. The body of work on this subject that developed under Coleman's supervision became the cornerstone for the new appreciation of the role that mass movement processes play in deltaic sedimentation and transport of sediment to deepwater slope and deep basin

environments. Before devoting full-time to university administration, Dr. Coleman's last major research thrust was another important one. He functioned as co-chief scientist with Dr. Arnold Bouma of the Deep Sea Drilling Project Leg 96 which collected borings from the deep sea Mississippi Fan. This unique and trend-setting study provided the first "ground truth" concerning the sedimentary architecture of the Mississippi Fan. With others who participated in this project, Coleman helped create an extremely valuable body of understanding concerning deepwater sedimentation that has guided both academic and industrial-sector thought related to styles of basin floor sedimentation and the important modulating role played by sea level.

Over his research career Coleman has produced over 160 scientific publications, many of which set new directions in the field of sedimentary geology. In addition to this exceptional record of research, he has been an outstanding teacher who has guided graduate students and conducted numerous short courses as well as field trips for professional societies and industry groups. Literally thousands of geologists, geophysicists, and engineers have seen the Mississippi delta with Jim Coleman and have benefitted from his easy-going style of sharing his insight into these depositional environments. The "mud-lump field trip" is synonymous with Jim Coleman. Perhaps one of the most important things to say about Jim Coleman is that he is a person with whom all of us have enjoyed working. All of the attention and justifiable notoriety that has focused on him over the years has not changed his friendly and cooperative personality. He has been an outstanding researcher/educator and a driving force in Gulf Coast geology and sedimentology in general. It is entirely appropriate that the Gulf Coast Section of the Society of Economic Paleontologists and Mineralogists recognize Dr. James M. Coleman with Honorary Membership.

—Harry H. Roberts
Charles "Chip" Groat

HONORARY MEMBERS

GULF COAST SECTION SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

Ester Applin (1964)
Alva C. Ellisor (1964)
Marcus A. Hanna (1964)
Henry V. Howe (1964)
Hedwig T. Kniker (1964)
Winnie McGamery (1964)
John R. Sandidge (1964)
J. B. Garrett, Jr. (1965)
E. H. Rainwater (1966)
Henryk Bronislaw Stenzel (1971)
Jules Braunstein (1973)
Grover E. Murray (1973)
Harold V. Anderson (1975)
Lyman D. Toulmin (1975)
Doris M. Curtis (1977)
Stuart A. Levinson (1978)
Fred L. Smith, Jr. (1978)

Charles W. Stuckey (1978)
William R. Paine (1980)
Frank E. Lozo, Jr. (1981)
Gene B. Martin (1984)
Bob F. Perkins (1984)
Edward B. Picou, Jr. (1984)
Claude M. Quigley, Jr. (1986)
William P. S. Ventress (1986)
Donald G. Bebout (1987)
David E. Pope (1987)
Emmett Ray Adams (1989)
Jack O. Colle (1989)
John B. Dunlap (1989)
C. Clarence Albers (1990)
Ben J. Petruske (1990)
Ernest A. Mancini (1991)
James M. Coleman (1992)

DISTINGUISHED HONORARY MEMBER

GULF COAST SECTION SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

Charles G. Ventress (1989)

DISTINGUISHED SERVICE AWARDS

GULF COAST SECTION SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

Michael J. Nault (1988)
Richard P. Zingula (1988)
Thomas H. Fett (1989)

Dennis Joseph Greig (1989)
Bob F. Perkins (1991)
Sheila C. Barnette (1992)

1992 DISTINGUISHED SERVICE AWARD

GULF COAST SECTION SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

Sheila C. Barnette

Sheila C. Barnette has been chosen to be the recipient of the 1992 Distinguished Service Award of the Gulf Coast Section SEPM. Sheila was born and raised in central Ohio and graduated from Ohio State University in 1968 with a B.A. in Geology. In May of 1969, Sheila joined Texaco Inc. in Houston, Texas, as a foram micropaleontologist and while there gained additional expertise in calcareous nannoplankton. In 1976, Sheila left Texaco to join Cities Service, also in Houston, and remained there until she accepted a position with Sohio's Gulf Coast Division in 1980. While at Sohio (now British Petroleum) she set up the micropaleo lab and worked both forams and nannos for their exploration and production groups. Sheila is currently the manager of biostratigraphy for BP's Houston office.

Sheila has been a member of the Gulf Coast Section of SEPM for the past 20 years and has served as Secretary 1980-81, President Elect



1988-89, President 1989-90, and Past President 1990-91. Other positions include program co-chairman of the 1987 Foundation Research Conference on *Innovative Biostratigraphy* and service on four other research conference committees. In 1992 Sheila began a three year ap-

pointment as a GCS-SEPM Foundation Trustee and has recently agreed to be on the program committee for the 1994 Foundation Research Conference on *Submarine Fans and Turbidite Systems*. Sheila is also a member of AAPG, is on the AAPG Distinguished Lecture Committee, and has served on the Publications committee for national SEPM.

This award is being given with appreciation to Sheila Barnette for recognition of her many years of service and involvement with the Gulf Coast Section SEPM.

—Denise M. Butler

PAST RECIPIENTS BEST PAPER AWARDS AND A. I. LEVORSEN MEMORIAL AWARDS GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

	First Award	Second Award	Third Award	Levorsen Award*
1959	J. E. Walters	R. L. Oakes	H. A. Bernard C. F. Major, Jr. B. S. Parrott	
1960	D. J. Hughes**	D. I. Andrews**	E. H. Rainwater**	
1961	R. D. Ocamb	D. I. Andrews J. C. Stipe	R. P. Fietz K. R. Scott W. E. Hayes	
1962	D. R. Tucker	R. J. Granberry R. C. Wilshusen	G. C. Glaser (tie)# W. R. Walton (tie)#	
1963	E. H. Rainwater	V. Peppard	S. L. Blanton, Jr.	
1964	E. H. Rainwater	D. R. Boyd B. F. Dyer	J. L. Arps	
1965	C. R. Kolb J. R. van Lopik	G. R. Kellough	Not awarded	
1966	B. J. Sloan, Jr.	W. R. Paine	R. E. Gernant R. V. Kesling	B. J. Sloan, Jr.
1967	H. Yarborough, Jr.	W. A. Price	J. Ewing (tie) J. C. Meyers (tie)	H. Yarborough, Jr.
1968	J. D. Myers	E. H. Rainwater	D. J. Hughes	J. D. Myers
1969	P. O. Roehl	J. K. Rogers	D. F. McNamee (tie) L. F. Brown (tie)	J. K. Rogers
1970	J. J. Amoruso	R. R. Berg	J. F. Harris	J. J. Amoruso
1971	H. Yarborough, Jr.	D. A. Reel (tie) B. M. Griffin B. J. Sloan (tie) J. A. Hartman (tie)	Not awarded	H. Yarborough, Jr.
1972	R. R. Berg	M. T. Halbouty	J. J. Amoruso	R. R. Berg
1973	R. D. Woods J. W. Addington	R. D. Ottman P. L. Keyes M. A. Ziegler	R. R. Berg F. L. Findley	J. M. Coleman L. D. Wright
1974	D. H. Kupfer	J. M. Coleman L. D. Wright J. N. Schyda T. Whelan	C. A. Parker	D. H. Kupfer
1975	W. L. Seal J. A. Gilreath	J. D. Myers	B. P. Baganz J. C. Horne J. C. Ferm	J. D. Myers

	First Award	Second Award	Third Award	Levorsen Award*
1976	J. D. Robinson A. R. Troell	J. W. Becher C. H. Moore	N. Neel	J. D. Robinson A. R. Troell
1977	D. K. Davies W. R. Almon	J. O. Lewis	J. O. Snowden W. B. Simmons E. B. Troughber R. W. Stephens	D. K. Davies W. R. Almon
1978	C. T. Siemers	J. W. Lund J. S. King R. E. Berlitz J. A. Gilreath	E. F. McBride	C. T. Siemers
1979	C. D. Winker	R. R. Berg	C. C. Christina K. G. Martin	R. R. Berg
1980	E. A. Mancini D. J. Benson	F. W. Harrison, Jr.	G. N. Gatenby	E. A. Mancini D. J. Benson
1981	E. C. Roy, Jr. M. Eidelbach N. Trumbly	J. L. Coleman, Jr. C. J. Coleman	G. J. Grabowski, Jr.	E. C. Roy, Jr. M. Eidelbach N. Trumbly
1982	T. E. Ewing S. C. Caran	D. J. Benson E. A. Mancini	R. R. Berg M. F. Habeck	T. E. Ewing S. C. Caran
1983	J. W. Cagle M. A. Khan	W. M. Ahr H. B. Hull, Jr.	T. E. Ewing (tie) C. H. Moore (tie)	J. W. Cagle M. A. Khan
1984	G. Kinsland	S. K. Stewart	C. L. Sartor S. R. Howard	G. Kinsland
1985	C. C. Walters M. R. Cassa	E. A. Mancini R. M. Mink B. L. Bearden	A. L. Workman J. S. Hanor	W. E. Galloway
1986	S. P. Dutton	A. H. Saller B. R. Moore	J. M. Coleman D. P. Prior H. H. Roberts	S. P. Dutton
1987	S. P. Dutton R. Finley K. Herrington	R. Evans	C. Black R. Berg	S. P. Dutton R. Finley K. Herrington
1988	M. P. Prescott	J. J. O'Brien I. Lerche	D. F. Williams I. Lerche	J. J. O'Brien I. Lerche
1989	Peter Hutchinson	N. M. Kuich	William Wade Jeffery Hanor Roger Sassen	Peter Hutchinson
1990	Michael P. Prescott	Philip L. Cook, Jr. John D. Bush John C. Marble Robert D. Schneeflock	Daniel Tearpock Harvey Pousson	Michael P. Prescott
1991	Andrew J. Davidoff	H. S. Sumner B. A. Robison W. K. Dirks J. C. Holliday	Tom Ewing Grant Ferguson	Andrew J. Davidoff

* This award is given by the AAPG to the paper that best exemplifies creative ideas in oil and gas exploration (first award, 1966).

** 1985 through 1990 *Transactions* erroneously shown as not awarded.

Glaser and Walton received First Place in the Paleontology Division for their 1962 paper.

PAST RECIPIENTS BEST PAPER AWARDS

GULF COAST SECTION SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

	Best Published Paper	Excellence of Presentation
1991	Brian E. Lock Catherine E. Bishop	Andrew J. Pulham
1990	George C. Flowers Wayne C. Isphording	Jory A. Pacht
1989	Ron Boyd John Suter Shea Penland	Harry H. Roberts
1988	Ron Boyd Shea Penland	Edward McFarlan, Jr.
1987	Wayne Isphording Dewayne Imsand George Flowers	Rowdy Lemoine (tie) Earle McBride (tie)
1986	Douglas F. Williams Dwight M. Trainor	Robert R. Berg
1985	Paul A. Thayer Harry H. Roberts	Gordon W. Fielder
1984	M. J. Ulrich J. R. Kyle P. E. Price	M. Kontrovitz
1983	E. C. Kosters A. Bailey	D. B. Prior
1982	J. Mazzullo	C. D. Winker
1981*	T. A. Daws A. V. Applegate J. C. Palacas	C. R. Handford

1980	First Place	Second Place	Third Place
1980**	A. W. Cleaves	I. L. Van Heerden H. H. Roberts	T. A. Hansen
1979	L. C. Price J. L. Clayton L. L. Rumen	C. W. Poag R. C. Tresslar	R. E. Casey L. W. Gust R. A. Reynolds D. H. Williams A. Levesley T. Duis J. M. Spaw

	First Place	Second Place	Third Place
1978	A. Thomson	C. W. Poag	J. A. Schiebout
1977	C. D. Winker J. D. Howard	W. C. Isphording	R. M. Looney V. R. Baker
1976	C. J. Stuart C. A. Caughney	R. R. Berg R. R. Powell	C. W. Poag P. C. Valentine
1975	J. L. Wilson	K. F. Wantland M. E. York	W. C. Isphording
1974	G. M. Friedman	W. F. Tanner C. R. Berquist	R. J. Moiola D. Weiser A. B. Spencer
1973	W. F. Tanner	R. J. Moiola A. B. Spencer	P. A. Thayer (tie) W. J. Cleary E. O'Donnell (tie) A. P. Wright
1972	W. F. Tanner	A. E. Weidie J. L. Wolleben E. F. McBride	P. A. Thayer D. A. Textoris
1971	R. W. Maxwell, Jr.	C. W. Poag	E. A. Shinn
1970	W. W. Hay S. W. Wise, Jr. R. D. Stieglitz	J. B. Dunlap, Jr.	W. L. Fisher C. V. Proctor, Jr. W. E. Galloway J. S. Nagle

*—and Best Poster award to E. A. Mancini

**—Before 1981, awards were given for first, second and third place.

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1952	Corpus Christi	W. M. Chaddick, Jr.	W. A. Gorman	W. A. Peterson	T. D. Barber	
1953	Shreveport	R. T. Wade	D. D. Utterback	F. H. Webster	K. Carter	
1954	Houston	W. R. Canada	W. H. Knight	C. W. Holcomb	E. W. Kimball	
1955	Biloxi	A. E. Blanton	L. D. Fraupe	R. A. Davis	C. C. Barber	R. D. Sprague
1956	San Antonio	R. L. Layden	M. W. Beckman	E. T. Musselman	A. F. Scott	G. J. Joyce
1957	New Orleans	H. N. Hickey	P. Montgomery	J. F. Moss	K. C. Anderson	T. H. Philpott
1958	Corpus Christi	E. A. Lohse	R. W. Grayson	W. W. Woolfolk	W. H. Wallace, Jr.	R. C. Wilshusen
1959	Houston	G. C. Hardin, Jr.	L. Harvey	A. W. Wood	J. A. Wheeler	O. G. Bell
1960	Biloxi	M. F. Kirby	D. N. Osburn	H. O. Woodbury	E. G. Jeffreys	A. E. Blanton
1961	San Antonio	D. Dassow	E. P. Roth	W. E. Bancroft	E. L. Ames	L. L. Palmer
1962	New Orleans	T. H. Philpott	J. C. Byrd	R. W. Luker	K. Soule	L. H. Meltzer
1963	Shreveport	J. C. Byrd	E. Knott	K. C. Harkins, Jr.	R. E. Rogers	H. J. Tyler
1964	Corpus Christi	K. Knott	R. E. Fairchild	W. A. Robbins, Jr.	D. A. Pedrotti	B. F. Dryer
1965	Houston	R. E. Fairchild	A. M. Borland	M. L. Frazier, Sr.	J. L. George, Jr.	E. A. Lohse
1966	Lafayette	A. M. Borland	J. H. Hensley	L. G. Hughes	J. S. Schoelen	R. R. Copeland
1967	San Antonio	W. L. Stapp	M. D. Horton	J. W. Yon, Jr.	L. C. Bryant	M. O. Turner
1968	Jackson	M. D. Horton	R. O. Vernon	C. E. Brown	E. D. Minihan	L. E. Warren
1969	Miami	R. O. Vernon	H. J. Tyler	M. L. Dwright	C. W. Hendry, Jr.	H. S. Puri
1970	Shreveport	H. J. Tyler	L. R. Meltzer	M. H. Oakes	B. C. Tucker	J. O. Goffe
1971	New Orleans	L. H. Meltzer	D. R. Boyd	M. E. Hole, Jr.	P. G. Gray	R. G. Williamson
1972	Corpus Christi	D. R. Boyd	F. M. Schall, Jr.	T. J. Eby, Jr.	J. E. Melton	J. M. Sides
1973	Houston	F. M. Schall, Jr.	S. J. Lysinger	W. E. Taylor	P. W. Cawthon, Jr.	C. E. Harrison
1974	Lafayette	S. J. Lysinger	W. H. Moore	J. T. Palmer	J. L. Bellamy	F. W. Harrison, Jr.
1975	Jackson	W. H. Moore	C. L. Sartor	A. E. Bell	H. L. Ladner	C. H. Williams, Jr.
1976	Shreveport	C. L. Sartor	R. E. Boyer	R. M. Swords	C. E. Brown	L. E. Jordan
1977	Austin	R. E. Boyer	P. G. Gray	S. L. Perkins	F. L. Osborne, Jr.	E. G. Wermund, Jr.
1978	New Orleans	R. W. Stephens	E. C. Roy, Jr.	J. W. Shirley	C. J. Corona	J. Braunstein
1979	San Antonio	E. C. Roy, Jr.	F. W. Harrison, Jr.	T. J. Winterrmute	L. C. Bryant	G. His
1980	Lafayette	F. W. Harrison, Jr.	P. M. Strunk	S. A. Beckwith	R. A. Anderson	M. A. Munchrath
1981	Corpus Christi	P. M. Strunk	J. J. Amoruso	C. S. Cook	W. R. Payne	Wilson Humphrey
1982	Houston	J. J. Amoruso	S. C. Childress	R. Everett	C. A. Baird	J. O. Lewis
1983	Jackson	S. C. Childress	J. P. Palmer	B. D. David	P. D. Cate	J. C. Marble
1984	Shreveport	J. T. Palmer	E. G. Wermund	M. T. Tobin	E. W. Saye	J. M. Forgtson, Jr.
1985	Austin	E. G. Wermund	D. E. Pope	R. W. Sabaté	D. C. Ratcliff	L. E. Garner
1986	Baton Rouge	D. E. Pope	R. H. Sams	H. Fielding	F. E. Lindfors-Kearns	H. L. Roland
1987	San Antonio	R. H. Sams	J. A. Hartman	H. W. Kiatta	T. Cooper	D. E. Tobin
1988	New Orleans	J. A. Hartman	W. R. Payne	W. Lester Aultman	J. E. Bailey	C. C. Baker
1989	Corpus Christi	W. R. Payne	P. R. Gray	Robert L. Williamson	T. B. Henderson	G. M. Heinzelmann
1990	Lafayette	P. G. Gray	C. E. Harrison	Stanley King	B. Smart	B. E. Lock
1991	Houston	C. E. Harrison	J. C. Marble	W. Lester Aultman	L. D. Bartell	D. L. Smith
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1955-1956	E. H. Rainwater	Frank S. Westmoreland	Hugh A. Bernard	Eleanor T. Caldwell
1956-1957	Lloyd M. Pyeatt	J. O. Colle	H. Dillinghman, Jr.	Eleanor T. Caldwell
1957-1958	J. O. Colle	Fred L. Smith, Jr.	Harold V. Andersen	William G. Parker
1958-1959	Marcus A. Hanna	Claude M. Quigley	Fred E. Smith	Bernard L. Hill, Jr.
1959-1960	David E. Pope	A. D. Ellis, Jr.	Gordon C. Munsey	H. A. Chun
1960-1961	Claude M. Quigley	Harold V. Andersen	E. Ann Butler	Edward Marks
1961-1962	Harold V. Andersen	Theodore D. Cook	Benjamin J. Petrusek	Albert D. Warren
1962-1963	Albert D. Warren	Ernest H. Horton	Blair S. Parrott	Henry H. Phillips
1963-1964	Lyman D. Toulmin	E. Ann Butler	Charles C. Albers	John E. Kilgore
1964-1965	Howard L. Tipsword	Benjamin J. Petrusek	D. Jeter Smith	Emmett R. Adams
1965-1966	John B. Dunlap, Jr.	John J. W. Rogers	M. Ray Bane	Charles B. Morris
1966-1967	Hubert C. Skinner	Richard P. Zingula	Gene Ross Kellough	Gene B. Martin
1967-1968	Benjamin J. Petrusek	Dan McGregor	Garrett Briggs	Herbert A. Elliot, Jr.
1968-1969	William A. Atlee	Edgar B. O'Quinn	James W. Fowler	William E. Steinkraus
1969-1970	Fred L. Smith, Jr.	Kenneth L. Loep	Robert K. Sylvester	C. Wylie Poag, Jr.
1970-1971	Jules Braunstein	Douglas E. Jones	Walter H. Trenchard	Robert N. Davids
1971-1972	William W. Hay	William E. Steinkraus	Karl J. Koenig	Gerald R. Stude
1972-1973	C. Wylie Poag, Jr.	Emmett R. Adams	Gerald R. Stude	Joan B. Strough
1973-1974	Edward B. Picou, Jr.	Walter H. Trenchard	Lawrence C. Menconi	J. Loyd Tuttle, Jr.
1974-1975	Emmett R. Adams	Clifton A. Couture	Herbert A. Elliott, Jr.	Doris M. Curtis
1975-1976	James L. Lamb	Lawrence C. Menconi	William S. Grubb	John L. Carney
1976-1977	Clifton A. Couture	Eleanor T. Caldwell	Sherwood W. Wise, Jr.	Joseph E. Boudreaux
1977-1978	Gerald R. Stude	William P. S. Ventress	Gary R. Roberson	George C. Esker, III
1978-1979	Willard P. Leutze	Bob F. Perkins	Walter P. Kessinger	Kenneth A. Hodgkinson
1979-1980	Gene B. Martin	John L. Carney	Mary Ann Rafle	Arthur S. Waterman
1980-1981	Bob F. Perkins	Don G. Bebout	Sheila C. Barnette	Ted Karmen
1981-1982	William P. S. Ventress	Kenneth A. Hodgkinson	Brian J. O'Neill	Kurt Geitzenauer
1982-1983	John L. Carney	Ernest A. Mancini	Susan J. Conger Morris	Kevin C. Kilmartin
1983-1984	Don G. Bebout	Michael J. Nault	Susan J. Conger Morris	Nelson B. Yoder
1984-1985	Ernest A. Mancini	J. M. Crosbie	John G. McPherson	John B. Anderson
1985-1986	Susan J. Conger Morris	Arthur S. Waterman	John G. McPherson	Richard E. Constans
1986-1987	Charles L. McNulty	Denise M. Butler	Kurt R. Geitzenauer	Sylvester Q. Breard, Jr.
1987-1988	Arthur S. Waterman	Brian J. O'Neill	Ramil C. Wright	Charles G. Rosato
1988-1989	Samuel P. Miano	Charles C. Smith	Richard H. Fillon	Bethanne Breisacher
1989-1990	Sheila C. Barnette	Michael J. Nault	Nancy Englehardt-Moore	Michael W. Center
1990-1991	Denise M. Butler	Charles C. Smith	Nancy Englehardt-Moore	Kurt Geitzenauer
1991-1992	Michael J. Nault	Brian E. Lock	Missy Jackson	Elaine H. Collison

BYLAWS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES, INC.

PART A: ORGANIZATION

ARTICLE I — Name

This is a non-profit organization and shall be known as the "Gulf Coast Association of Geological Societies, Inc." It is hereinafter referred to as "This Association."

ARTICLE II — Object

The object of This Association is to provide for discussion and publication of papers on subjects and problems coming within the scope of the Geological profession and with particular emphasis on Gulf Coast geology.

ARTICLE III — Organization

This Association is an organization of AAPG-affiliated Geological Societies in the Gulf Coast area.

Section 1.

The business of This Association shall be transacted by a Board of Directors composed of one representative from each member society and the President, Vice-President, Secretary, Treasurer, and Past President. The Vice-President, Secretary, and Treasurer shall be elected by the Board of Directors at the annual meeting. At the request of the Vice-President's society, however, the Secretary and Treasurer may be elected at a prior Board meeting but they will not take office until after the annual meeting. The Secretary and Treasurer shall be non-voting members of the Board of Directors. The Secretary and Treasurer shall be nominated by the Executive Committee of the local Geological Society next in line to host the annual meeting. The Vice-President shall be nominated by the Executive Committee of the host society for the annual meeting two years hence and shall accede to the Presidency. Thus each year the President, Secretary and Treasurer will be from the host society with the Vice-President providing continuity with the Board of Directors as he assumes the Presidency in the ensuing year. The duties of these officers shall be those customary to their respective offices.

The GCAGS representative to the Advisory Council of American Association of Petroleum Geologists shall be selected by the Board of Directors of GCAGS and shall be an ex-officio, non-voting member of the GCAGS Board of Directors.

Each member society shall designate a representative to the Board of Directors and in the event the chosen representative cannot attend any given Board of Directors meeting, an alternate representative shall be appointed by the member society to attend and vote in the absence of the representative. The representative, when practicable, shall be an officer or past officer of the society he represents.

Each society shall have one vote on actions taken by the Board of Directors with the exception that the host society, the next annual host society and the immediate past host society will be entitled to two votes by virtue of their members holding the offices of President, Vice-President and Past President.

The officers of the Board of Directors shall be elected for a term of one year. They shall be elected and assume their

duties as soon after the annual meeting of This Association as is practicable, except as noted in Paragraph 1 with regard to the Secretary and Treasurer. Any vacancies shall be filled by the Board of Directors as provided above in Paragraph 1.

Section 2.

The business of This Association shall be conducted by the Board of Directors. A simple majority vote of the members present at meetings is required to effect decisions, except in those matters which require a greater majority, as set forth in these Bylaws.

A quorum shall consist of more than one-half of the voting members of the Board of Directors.

The Executive Committee composed of the President, Vice-President, Secretary, Treasurer, Past President, and Finance Committee Chairman shall have the authority to transact business of an emergency nature between meetings. Any business so transacted shall be subject to ratification by the Board of Directors at its next regularly scheduled meeting. A quorum of the Executive Committee shall be three members.

ARTICLE IV — Meetings

There shall be an annual meeting of This Association, the time and place of which shall be determined by the Board of Directors. Additional meetings may be called at the discretion of the Board of Directors.

ARTICLE V — Publications

There shall be an annual *Transactions* published by This Association, which shall contain papers presented at the annual meeting, and such other material as selected by the Board of Directors. The Board of Directors is authorized to have published additional bulletins, and other material which they feel will further the object of This Association.

ARTICLE VI — Funds

The funds of This Association shall be deposited in any national bank or Federally insured Savings and Loan Association selected by the Finance Committee, to the credit of This Association, or invested in U.S. Government Bonds at the discretion of the Finance Committee.

ARTICLE VII — Amendments

Amendments to this PART A and to the Articles of Incorporation may be proposed by the Board of Directors, or by any two member societies. Proposed amendments shall be submitted to each of the member societies in writing. It shall require an affirmative vote of three-fourths of the member societies to ratify such an amendment.

ARTICLE VIII — Later Affiliation

Non-member Geological Societies in the Gulf Coast Area which are affiliated with AAPG may petition the Board of Directors for membership and shall be accepted by an affirmative vote of three-fourths of the Board of Directors.

ARTICLE IX — Resignation

Any member society may resign from This Association at any time by written notice to the Board of Directors. There shall be no obligation to transfer to such resigning society any portion of This Association's funds.

ARTICLE X — Dissolution

This Association shall terminate at such time as a majority of the member societies shall so vote. Upon dissolution all funds and other property shall be divided as mandated by the Articles of Incorporation.

PART B: COMMITTEES, FINANCES**ARTICLE I — Permanent Committees**

The President, with the approval of the Board of Directors, shall appoint the Annual Meeting Chairman, and the Publications Committee Chairman, appointments being for one year.

Section 1. Annual Meeting Chairman

The Annual Meeting Chairman shall direct the staging of the annual meeting, and shall have the authority to appoint such additional committees as he deems necessary.

Section 2. Publications

This committee shall be responsible for publishing all publications of This Association except the *Transactions* which fall under the purview of the Annual Meeting Chairman. Sales and storage of all GCAGS publications, including the *Transactions*, are the responsibility of this committee. The chairman shall provide annually to the Finance Committee an inventory of the GCAGS publications.

Section 3.

The President, with the approval of the Board of Directors, may appoint such additional committees as are necessary to conduct the business of This Association.

ARTICLE II — Treasurer

The Treasurer shall have the authority to issue checks against the Annual Meeting bank account of This Association on his sole signature, but in the event of his absence or incapacity to act, withdrawals or payments by checks may be made on the signature of the President during the continuance of the absence, or incapacity, of the Treasurer. In this event, the identity and authority of the President, and the circumstances relating to the absence or incapacity of the Treasurer shall be certified by the Board of Directors, if so required by the depository. The Treasurer shall submit a financial report on the Annual Meeting at each meeting of the Board of Directors and shall keep a set of books in accordance with good accounting practices. He shall submit the books of the Annual Meeting to the Finance Committee by March 1st following the An-

nual Meeting. The office of Treasurer shall be bonded as directed by the Board of Directors.

ARTICLE III — Finance Committee

The Finance Committee shall be responsible for investing and managing the funds of This Association. They shall be responsible for advancing to the Treasurer the necessary funds for operating the Annual Meeting and shall disburse funds for expenses and projects not related to the Annual Meeting as directed by the President upon approval by the Board of Directors. The Committee shall have authority to invest the funds as outlined in Article VI of PART A hereof. They shall prepare a financial report on the Association's funds and submit it at each meeting of the Board of Directors. They shall also keep an inventory of publications and equipment owned by the Association. They will keep a set of books in accordance with good accounting practices and will submit the books for auditing as requested by the Board of Directors. The Committee will oversee the preparation and submittal of the Association's Annual Income Tax Return. The Committee will also keep a file of these financial reports, as well as the report of the Treasurer for each Annual Meeting, for access by officers and representatives of the annual meetings for future years. The Committee shall consist of five members serving staggered three-year terms, such that each year one to three members will complete their terms and one to three new members will be appointed. The President of the Association, with the approval of the Board of Directors, shall appoint the members of the Finance Committee and select its chairman. Members of the Finance Committee shall be bonded as directed by the Board of Directors. All checks of greater than \$1,000 shall be signed by two of the Finance Committee members.

ARTICLE IV — Amendments

This PART B may be amended by an affirmative vote of three-fourths of the Board of Directors.

ARTICLE V — Dues

There shall be no dues.

BYLAWS

GULF COAST SECTION—SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

ARTICLE 1. — OBJECT

1.01—The object of the Gulf Coast Section of the Society of Economic Paleontologists and Mineralogists is to promote the science of stratigraphy in the Gulf Coast states through research in paleontology and sedimentary petrology, especially as it relates to petroleum geology. The Corporation, herein referred to as the "Section," will be closely associated with the Gulf Coast Association of Geological Societies and will cooperate with it and with the local geological societies of which it is composed for the furtherance of mutual objectives.

ARTICLE 2. — MEMBERS

2.01—The Section shall have members, associate members, charter members, and honorary members.

2.02—Members shall be persons engaged in paleontologic, petrographic or stratigraphic studies that have application to the geology of petroleum, who are members or associate members of the Society of Economic Paleontologists and Mineralogists and who work or reside in the Gulf Coast province of the states of Texas, Louisiana, Mississippi, Alabama, Georgia or Florida, or whose interest or work is principally within these states. Membership, once obtained, shall not be dependent upon continued residence in the aforementioned states.

2.03—Associate members shall be persons engaged in paleontologic, petrographic or stratigraphic studies that have application to the geology of petroleum, who work or reside in the Gulf Coast province of the above mentioned states, and who are not members or associate members of the Society of Economic Paleontologists and Mineralogists. Associates shall enjoy all the privileges of membership, save that they shall not hold office. Election to membership in the Society of Economic Paleontologists and Mineralogists will automatically advance associates to members.

2.04—Charter members are those whose applications for membership were received before the first nomination of officers. They shall enjoy all the privileges of members, and, hereinafter, are included in all references to "members."

2.05—The Council may elect as honorary members persons who have contributed distinguished service to the science of stratigraphy, paleontology or sedimentary petrology, especially as they relate to petroleum geology in the Gulf Coast. Honorary members shall not be required to pay dues.

2.06—Each candidate for membership shall submit to the Secretary an application on a form authorized by the Council for this purpose.

2.07—New members and associates enrolled after September 15 shall be considered as having paid their dues for the next calendar year.

ARTICLE 3. — COUNCIL AND OFFICERS

3.01—Executive authority of the Section is vested in a board of directors known as the "Council" consisting of six members who are duly elected by the members, as follows: President, President-Elect, Vice President, Secretary, Treasurer, and the most recently retired Past President.

3.02—The President shall discharge the usual duties of a president, as well as act as presiding officer at all meetings of the Section and Council. He shall appoint an Editor, Program Chairman, Committee Chairmen and Business Representatives.

3.03—The Vice President shall assume the duties of the President in the case of the absence or disability of the latter. He shall also be Chairman of the Membership Committee and Chairman of the Employment Counseling Committee.

3.04—The Secretary shall keep the records of the proceedings of the Section and a complete list of the membership. He shall attend to the preparation and mailing of notices, membership application blanks and other materials necessary to the business of the Section.

3.05—The Treasurer shall have custody of all funds of the Section. He shall keep account of the receipts and disbursements, and submit his account to the membership at the end of each year.

3.06—The Council shall consider all candidates for membership and pass on the qualifications of the applicants; shall have control and management of the affairs and funds of the Section; shall designate the time and place of the Annual Meeting.

3.07—The President and Vice President shall not serve for more than one (1) year, except that if the Vice President succeeds to the position of Acting President, he may be elected to a full term as President.

3.08—In the event that neither the President nor Vice President is available to serve as presiding officer of the Section, the immediate Past President shall assume the President's duties.

3.09—The President-Elect shall serve for one (1) year as such, and in the following year he shall assume the office of President. He shall have no administrative authority except as a member of the Council. He shall acquaint himself with all the details of the office of President and generally prepare himself to serve as President. He shall be responsible for the preparation of the annual meeting for the ensuing year.

3.10—A vacancy occurring in the offices of Vice President, Secretary or Treasurer shall be filled by Council appointment.

3.11—A vacancy occurring in the office of President-Elect shall be filled by mail ballot by the membership through a special election called by the Council.

3.12—The Secretary and Treasurer shall serve for a term of two (2) years. These offices shall be renewable through election.

ARTICLE 4. — MEETINGS OF MEMBERS

4.01—The Section shall hold at least one stated meeting each year, which shall be known as the Annual Meeting. This meeting will usually be held in conjunction with the Annual Meeting of the Gulf Coast Association of Geological Societies.

4.02—The program for the Annual Meeting shall be arranged by the Program Chairman in conjunction with the Chairman designated by the Gulf Coast Association of Geological Societies to arrange for its own program. In general, it will be desirable that the contributions from members of the Section be included in the main program rather than being allotted to a separate session.

4.03—At the time of the Annual Meeting, a Business Meeting shall be held for the transaction of Section business.

ARTICLE 5. — AMENDMENT OF BYLAWS

5.01—These Bylaws may be amended by two-thirds vote of returned mail ballots received by the Secretary sixty (60) days after proposal of amendments with provision for vote is mailed to the members. Any proposed amendments must have the approval of a majority of the Council before being submitted to the members.

5.02—A petition containing the signatures of twenty (20) active members is considered sufficient to bring before the Council a proposed change in the Bylaws. A majority vote of Council is also considered sufficient to initiate a proposed change.

ARTICLE 6. — DUES

6.01—The fiscal year of the Section shall commence on October 1 and expire on September 30 of the following year.

6.02—The annual dues of the members and associates of the Section shall be eight dollars (\$8.00). Penalty of fifty cents (.50) shall be assessed for late payments. The fifty cents (.50) late penalty shall be waived upon payment of dues for two more years.

6.03—A bill for dues shall be mailed to each member and associate before January 1 of each year. Members and Associates who have not paid their annual dues by April 1 shall be dropped from the membership roles.

6.04—Members and Associates dropped for non-payment of dues may apply to the Council for reinstatement and be reinstated by majority vote of the Council.

6.05—Members or Associates may, at their discretion, pay their annual dues in advance for periods of up to five (5) years.

ARTICLE 7. — FINANCIAL PROCEDURE

7.01—No officer or member shall enter into contract or disburse any of the Section's funds, without the co-signature of a member of the Council. Disbursal of a sum in excess of Five Hundred Dollars (\$500.00) must be approved by a majority of the Council.

ARTICLE 8. — ELECTIONS

8.01—The President shall appoint two (2) nominating committees, instructing each committee to submit nominations for President-Elect, Vice President, Secretary, and Treasurer. These nominations shall be in the Secretary's hands before July 15. If desired, the same person may be nominated by the two committees for the offices of Secretary and Treasurer, but the nominations for President-Elect and Vice President shall not include the names of the same person on the two slates. The nominations of the first committee to file its report will have precedence in case of overlapping nominations, and the

other committee shall then be requested to change its nomination. A candidate for office must be an active member and reside in the Gulf Coast at the time of his nomination.

8.02—Ballots containing the nominations for officers, arranged alphabetically under each office, shall be prepared by the Secretary and mailed to each member of the Section on or before July 15. The ballots received by the Secretary before September 15 shall be counted by him. Receipt of a plurality of the votes cast for any office shall constitute election. In case of a tie vote, members of the Council shall cast one additional deciding vote.

8.03—Results of balloting shall be announced at the Annual Meeting each October and the new officers shall enter upon duty on January 1 of the next calendar year.

ARTICLE 9. — PUBLICATIONS

9.01—The Section Editor, appointed by the President, shall actively solicit papers from the Section membership for presentation at the Annual Meeting. He shall cooperate with the editor of the Gulf Coast Association of Geological Societies' *Transactions* volume in preparing papers delivered at the meeting for publication in this volume. He shall cooperate with the editors of the Society of Paleontologists and Mineralogists' journals by helping to arrange for publication in these periodicals of suitable papers which come to his attention.

9.02—Members of the Section may purchase one copy of each Section publication at a discount rate of 20 percent off the advertised price.

ARTICLE 10. — BUSINESS REPRESENTATIVES

10.1—The President shall appoint one representative from each group of members in each local geological society affiliated with the Gulf Coast Association of Geological Societies and in other localities as needed. Each representative shall have an up-to-date list of the members residing in his vicinity. He will notify these members concerning any matter of Section policy which may be relayed to him by the President and shall have the authority to convene a meeting of those members to determine their views concerning Section affairs. He will report the results of such meetings to the President of the Section. He will cooperate with the Section Editor in the soliciting of papers to be presented at the Annual Meeting and with the Chairman of the Membership Committee in recruiting new members for the Section.

ARTICLE 11. — AUDIT

11.01—The President shall appoint an Auditing Committee which shall review the accounts presented by the Treasurer. The approval of the Treasurer's books by the committee shall be required before his final report will be accepted. The Treasurer shall submit a provisional report at the Annual Meeting, and his final audit shall be accomplished no later than 30 days thereafter.

The Constitution of the GCS/SEPM was originally adopted in 1954 and was amended in 1960, 1962, 1966, 1969, 1971, 1972, 1974, and 1981. The Section was incorporated under the laws of the State of Texas in 1981, and these Bylaws were adopted at that time in place of the original Constitution and its amendments. They were amended in 1984, 1990, and 1991. These Bylaws embody all of the provisions of the original Constitution and its amendments.

PUBLICATIONS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

GCAGS TRANSACTIONS

Each October, at the GCAGS Convention, a new volume of the Transactions is released. All GCAGS Transactions beginning with Volume 1 (1951) are available.

Volume 1 (1951) New Orleans GCAGS 001	\$15.00	Volume 26 (1976) Shreveport GCAGS 026	\$17.50
Volume 2 (1952) Corpus Christi GCAGS 002	\$10.00	Volume 27 (1977) Austin GCAGS 027	\$25.00
Volume 3 (1953) Shreveport GCAGS 003	\$10.00	Volume 28 (1978) New Orleans GCAGS 028	\$30.00
Volume 4 (1954) Houston GCAGS 004	\$10.00	Volume 29 (1979) San Antonio GCAGS 029	\$25.00
Volume 5 (1955) Biloxi GCAGS 005	\$15.00	Volume 30 (1980) Lafayette GCAGS 030	\$30.00
Volume 6 (1956) San Antonio GCAGS 006	\$20.00	Volume 31 with Supplement (combination) GCAGS 031C	\$20.00
Volume 7 (1957) New Orleans GCAGS 007	\$20.00	Supplement to Volume 31 GCAGS 031S	\$ 5.00
Volume 8 (1958) Corpus Christi GCAGS 008	\$20.00	Volume 32 (1982) Houston GCAGS 032	\$20.00
Volume 9 (1959) Houston GCAGS 009	\$20.00	Volume 33 (1983) Jackson GCAGS 033	\$20.00
Volume 10 (1960) Biloxi GCAGS 010	\$10.00	Volume 34 (1984) Shreveport GCAGS 034	\$20.00
Volume 11 (1961) San Antonio GCAGS 011	\$10.00	Volume 35 (1985) Austin GCAGS 035	\$20.00
Volume 12 (1962) New Orleans GCAGS 012	\$25.00	Volume 36 (1986) Baton Rouge GCAGS 036	\$20.00
Volume 13 (1963) Shreveport GCAGS 013	\$15.00	Volume 37 (1987) San Antonio GCAGS 037	\$20.00
Volume 14 (1964) Corpus Christi GCAGS 014	\$20.00	Volume 38 (1988) New Orleans GCAGS 038	\$30.00
Volume 15 (1965) Houston GCAGS 015	\$15.00	Volume 39 (1989) Corpus Christi GCAGS 039	\$30.00
Volume 16 (1966) Lafayette GCAGS 016	\$20.00	Volume 40 (1990) Lafayette GCAGS 040	\$30.00
Volume 17 (1967) San Antonio GCAGS 017	\$10.00	Volume 41 (1991) Houston GCAGS 041	\$40.00
Volume 18 (1968) Jackson GCAGS 018	\$10.00	Volume 42 (1992) Jackson GCAGS 042	\$40.00
Volume 19 (1969) Miami GCAGS 019	\$10.00	Complete Set of Transactions Volume 1 (1951) - Volume 40 (1992) GCAGS 099	\$820.00
Volume 20 (1970) Shreveport GCAGS 020	\$10.00	COMPREHENSIVE INDEX OF GCAGS PUBLICATIONS Each volume is cross-indexed by author, title, locality, and subject material (rock names, geologic structures, etc.)	
Volume 21 (1971) New Orleans GCAGS 021	\$15.00	Volume 1. Covers the GCAGS Transactions Volume 1 (1951) through Volume 15 (1965) and other GCAGS publications during that time interval. Compiled by Douglas E. Masten and Eugene J. Prochasta, 84 p., 1966.	
Volume 22 (1972) Corpus Christi GCAGS 022	\$15.00	GCAGS 201 IN	\$ 2.50
Volume 23 (1973) Houston GCAGS 023	\$20.00	Volume 2. Covers the GCAGS Transactions Volume 16 (1966) through Volume 31 (1981) and other GCAGS publications during that time interval. Compiled by Jules Braunstein, 151 p., 1983.	
Volume 24 (1974) Lafayette GCAGS 024	\$20.00	GCAGS 202 IN	\$ 5.00
Volume 25 (1975) Jackson GCAGS 025	\$17.50		

SPECIAL GCAGS PUBLICATION SERIES

Readings in Gulf Coast Geology

Volume 1. "Depositional Systems in the Gulf Coast." Compiled by Edward C. Roy, Jr. Eleven papers excerpted from GCAGS Transactions on this subject. (December, 1980).

GCAGS 101R\$10.00

Volume 2. "Petroleum Geology of the Cenozoic of the Central Gulf Coast, with Special Emphasis on the Miocene." Compiled by Raymond W. Stephens. Ten papers excerpted from GCAGS Transactions on this subject. (September, 1981).

GCAGS 102R\$10.00

Volume 3. "Biostratigraphy and Paleocology of Gulf Coast Cenozoic Foraminifera." Compiled by Samuel P. Ellison, Jr. Fourteen papers excerpted from GCAGS Transactions on this subject. (May, 1982).

GCAGS 103R\$10.00

Volume 4. "Origin and History of the Gulf of Mexico: Sedimentation, Plate Tectonics, Hydrocarbon Accumulation." Compiled by Robert E. Boyer. Sixteen papers excerpted from GCAGS Transactions on this subject. (September, 1984).

GCAGS 104R\$12.00

Volume 5. "Holocene Sediments of the Gulf of Mexico." Compiled by Edward C. Roy, Jr. Fifteen papers excerpted from GCAGS Transactions on this subject. (October, 1984).

GCAGS 105R\$12.00

Volume 6. "The Stratigraphic Factor in Hydrocarbon Reservoirs of the Gulf Coast." Compiled by Lee H. Meltzer. Twenty-one papers excerpted from GCAGS Transactions on this subject. (September, 1985).

GCAGS 106R\$15.00

Volume 7. "Production and Reservoir Geology of Selected Gulf Coast Oil and Gas Fields." Compiled by James A. Hartman. Sixteen papers excerpted from GCAGS Transactions on this subject. (October, 1985).

GCAGS 107R\$15.00

Complete Set of Readings Series - Volume 1 - 7

GCAGS 117RC\$50.00

BIBLIOGRAPHY OF GULF COAST GEOLOGY

Volumes 1 and 2 cover the literature from pre-1900 to 1968. Volume 1 is the author index; Volume 2 is the subject index. Sold as a two-volume set. (1970).

GCAGS 301B\$ 6.00

Volume 3 covers the literature for 1969-1974. (1976).

GCAGS 303B\$ 4.00

Volume 4 covers the literature for 1975-1979. (1982).

GCAGS 304B\$10.00

Volume 5 covers the literature for 1980-1984. (1986).

GCAGS 305B\$10.00

Complete Set, Volumes 1-5

GCAGS 315BC\$20.00

GCAGS MAPS

Fault and Salt Map of South Louisiana, 52" x 106", W. E. Wallace, Jr. (1966), Rolled.

GCAGS 401M\$20.00

Faults of South and Central Texas, Map compiled by Delos R. Tucker (1967).

GCAGS 402M\$ 2.00

Bathymetry of the Gulf of Mexico, Map of Elazar Uchupi (1967).

GCAGS 403M\$ 2.00

Lower Wilcox Map, Reprinted from GCAGS Transactions, Volume 17 (1967).

GCAGS 404M\$ 2.00

SPECIAL PUBLICATIONS

Field Trip Guide. Guide to four field trips for the 36th Annual GCAGS Convention. Rod E. Emmer and Joseph C. Holmes, Jr., Field Trip Committee. 46 p., September, 1986.

GCAGS 501SV\$10.00

Montgomery Landing Site, Marine Eocene (Jackson) of Central Louisiana. Proceedings of a symposium, 36th Annual GCAGS Convention. Judith A. Schiebout and William van den Bold, Editors. 238 p., September, 1986.

GCAGS 502SV\$10.00

Paleogene Stratigraphy and Biostratigraphy of Southern Alabama, by Ernest A. Mancini and Berry H. Tew. Field Trip Guidebook for the GCAGS/GCS-SEPM 38th Annual Convention, 63 p., October, 1988.

GCAGS 503SV\$ 8.00

Geology of the Sierra Catorce Uplift, Kay Greier and Joseph Kowalski, Editors. Thirteen articles about the Sierra Catorce Uplift. Field Trip Guidebook for the 39th Annual GCAGS Convention, 82 p., 1989.

GCAGS 504SV\$15.00

South Texas Clastic Depositional Environments, Jon A. Baskin and Jennifer Smith Prouty, Editors. Six articles and road log for two days. Field Trip Guidebook for the 39th Annual GCAGS Convention, 86 p., 1989.

GCAGS 505SV\$12.00

Paleogene Sequence Stratigraphy and Lithostratigraphy in the Brazos River Valley, Texas, by Thomas E. Yancey and Andrew J. Davidoff. Field Trip Guidebook for the 41st Annual Convention, 112 p., 1991.

GCAGS 506SV\$20.00

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GULF COAST SECTION

SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

**RESEARCH CONFERENCE
PROCEEDINGS AND
ABSTRACTS AND OTHER
COLLECTIONS OF PAPERS**

Proceedings of Symposium of Calcareous Nannofossils, Lee A. Smith and Jan Hardenbol, Editors, 151 p., 1973. SEPM 001 \$3.00.

Geology of the Woodbine and Tuscaloosa Formations, Programs and expanded abstracts with illustrations, First Annual Research Conference, 38 p., 1980. SEPM 002 \$6.00.

Recognition of Shallow-Water Versus Deep-Water Sedimentary Facies in Growth-Structure Affected Formations of the Gulf Coast Basin, Program and expanded abstracts with illustrations, Second Annual Research Conference, 85 p., 1981. SEPM 003 \$10.00.

Deltaic Sedimentation on the Louisiana Coast, Dag Nummedal, Ed. 103 p., 1982. SEPM 101F \$10.00.

The Jurassic of the Gulf Rim, Proceedings of the Third Annual Research Conference, Edited by William P. S. Ventress, Don Bebout, Bob F. Perkins, and Clyde H. Moore, 408 p., 300 illus., 1984 SEPM 103F \$30.00.

Habitat of Oil and Gas in the Gulf Coast, Proceedings of the Fourth Annual Research Conference, Edited by Bob F. Perkins and Gene B. Martin. Softbound Book, 338 p., 274 illustrations, 1985. SEPM 105F \$30.00.

Upper Cretaceous Lithostratigraphy and Biostratigraphy in Northeast Mississippi, Southwest Tennessee and Northwest Alabama, Shelf Chalks and Coastal Clastics, Spring Field Trip, by Ernest E. Russell, Donald M. Keady, Ernest A. Mancini, and Charles C. Smith. 72 p., 1983. SEPM 106F \$10.00.

Characteristics of the Gulf Basin Deep-Water Sediments and Their Exploration Potential, Program and abstracts, Fifth Annual Research Conference, 120 p., 1984. SEPM 107F \$18.00.

Lower Cretaceous Carbonate Strata in the Moffat Mound Area near Lake Belton, Bell Co., Texas, (A Field Guide), by D. L. Amsbury, T. A. Bay, Jr., and F. E. Lozo. 19 p., 1984. SEPM 108F \$6.50.

Upper Jurassic and Lower Cretaceous Platform and Basin Systems, Monterey-Salttillo Area, Northeast Mexico, (A Field Guide), by James Lee Wilson, William C. Ward, and Joseph M. Finneran. 76 p., 1984. SEPM 109F \$15.00.

Lower Cretaceous Depositional Environments from Shoreline to Slope - A Core Workshop, Edited by Don G. Bebout and Doug Ratcliff. 145 p., 1985. SEPM 110F \$20.00.

Timing of Siliciclastic Diagenesis: Relationship to Hydrocarbon Migration, Program and abstracts, Sixth Annual Research Conference, 36 p., 1985. SEPM 111F \$14.00.

Middle Eocene Coastal Plain and Nearshore Deposits of East Texas: A Field Guide to the Queen City Formation and Related Papers, Bob F. Perkins and David K. Hobday, Eds., 94p., 1980. SEPM 113G \$10.00.

Innovative Biostratigraphic Approaches to Sequence Analysis: New Exploration Opportunities, Selected papers and illustrated Abstracts, Eighth Annual Research Conference, 7 tabs., 119 figs., 170 p., 1987. SEPM 114F \$24.00.

Shelf Sedimentation, Shelf Sequences and Related Hydrocarbon Accumulation, Proceedings of the Seventh Annual Research Conference, Robert A. Morton and Dag Nummedal, Eds. Softbound, 220 p., 165 illus., 1989. SEPM 116F \$26.00.

Gulf of Mexico Salt Tectonics, Associated Processes and Exploration Potential, Program and extended and illustrated abstracts, Tenth Annual Research Conference, 175 p., 123 illustrations, 1989. SEPM 117F \$25.00.

Gulf Coast Oils and Gases: Their Characteristics, Origin, Distribution, and Exploration and Production Significance, Proceedings of the Ninth Annual Research

Conference. Edited by Dietmar Schumacher and Bob F. Perkins, 382 p., 349 figures, 66 tables, 1990. SEPM 118F \$38.00.

Sequence Stratigraphy As An Exploration Tool: Concepts and Practices in the Gulf Coast, Program and extended and illustrated abstracts, Eleventh Annual Research Conference, revised with addenda for 1991 Midyear Research Conference, John M. Armentrout and Bob F. Perkins, Eds., 428 p., 283 illus., 8 tables, \$40.00.

Coastal Depositional Systems in the Gulf of Mexico: Quaternary Framework and Environmental Issues, Program and extended illustrated abstracts, Twelfth Annual Research Conference, 296 p., 181 illus., 22 tables, 1991, \$35.00.

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Middle Eocene of Houston Co., Texas, 45 p., 1961. SEPM 201G \$5.00.

Stratigraphic Study of Pleistocene to Middle Eocene, Houston, Texas, 42 p., 1963. SEPM 202G \$5.00.

Geological Field Guide to Neogene Sections in Jamaica, West Indies, 24 p., 1969. SEPM 203G \$4.00.

Guatemala (including maps of Mayan ruins), Articles and road log, H. Hugh Wilson and W. P. Leutze, Field Trip Leaders. 41 p., 1974. SEPM 204G \$6.50.

Sequence Stratigraphy and Cyclostratigraphy of the Mesozoic of the Sierra Madre Oriental, Northeast Mexico, A Field Guidebook, by R. K. Goldhammer, P. J. Lehmann, R.G. Todd, J. L. Wilson, W. C. Ward, and C. R. Johnson. 91 p., 60 illustrations, 1991. SEPM 205G \$25.00.

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