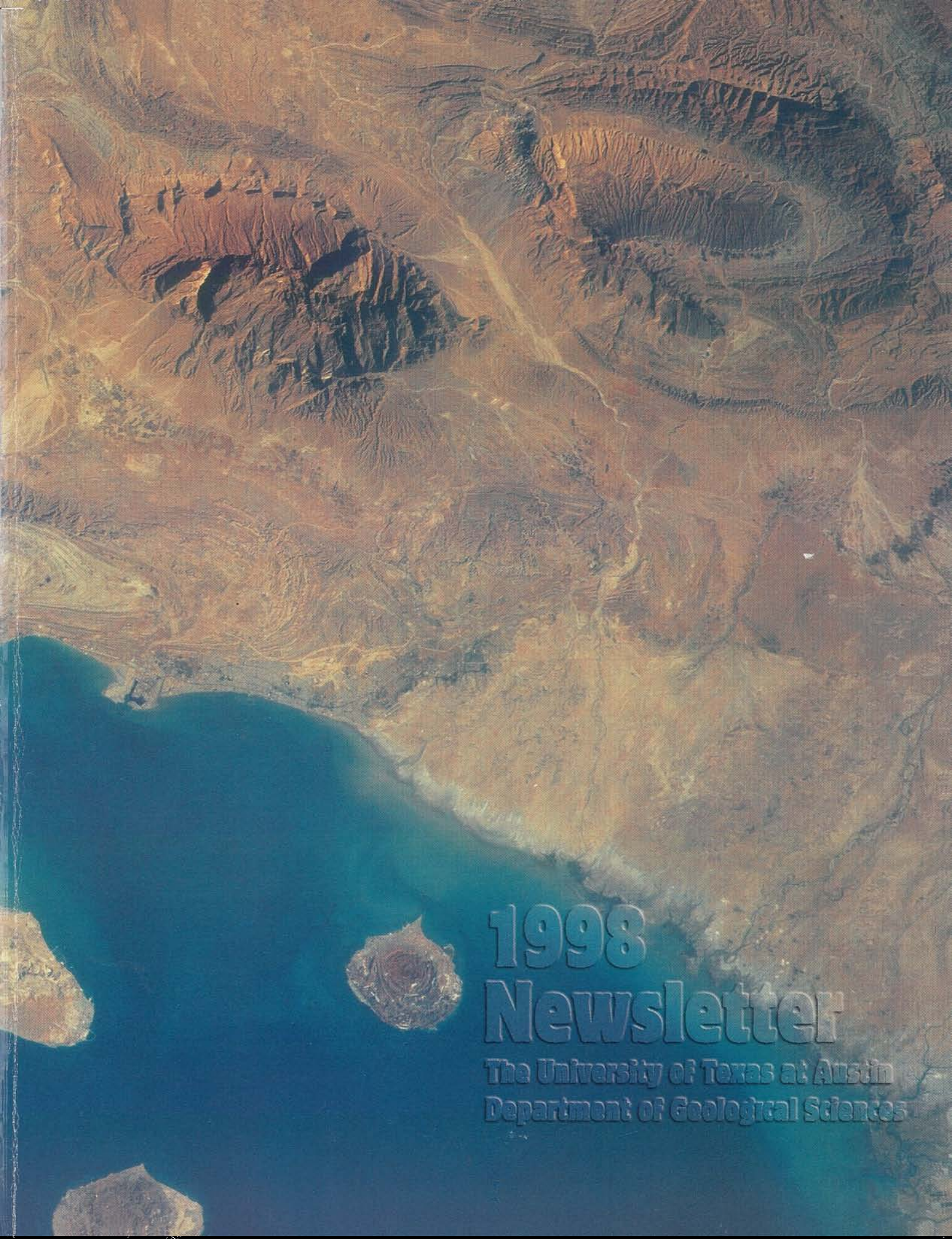

1998 Newsletter

The University of Texas at Austin
Department of Geological Sciences

Mark Cloos, Chairman
Department of Geological Sciences

William L. Fisher, Director
Geology Foundation

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No State-appropriated funds were used to publish this newsletter.

Front and Back Covers:
Southern Zagros Mountains, Iran (north toward the top right). The Strait of Hormuz, the entrance to the Persian Gulf, lies south of Qeshm Island (the large island) and the nearly circular salt dome islands (each about five miles in diameter) Hengam, Larak, and Hormuz (from left to right). Other salt domes are on Qeshm Island and the mainland. All the prominent anticlinal mountains are cored by salt; some have salt flowing toward the valleys where the anticline has been breached.

Coastal harbors (Bandar Abbas is on the right) are easily spotted by their straight-line dock edges.
Marco Polo turned south from northern Iran to the town of Minab (lower right corner) to sail to China. Something changed his mind. He turned around and followed the inland route!

NASA Photograph STS 085-501-007, taken from the Space Shuttle, August 1997. One of a spectacular stereo pair. The other frame is -006.

Photo provided by William R. Muehlberger.

This page:
View west along a 200-mile reach of the Altyn Tagh fault, China. It is a left-slip strike-slip fault that separates the Tibetan block (to the left) from the Taklimakan (Tarim) Basin (to the right). The fault breaks into segments that, in this view, bend to the left (southeast) where they become thrust faults. The main snow-covered range (Tang-Ho-Nan Shan = Humboldt Range) has peaks to 18,540 feet. Snow line throughout the photo is about 14,000 feet. The nearest kink in the fault is where the Su-Lo River cuts through the range and spreads out as a 30-mile-long alluvial fan.

The famed "Silk Route" from Xian (capital of China at that time) passed along the base of the mountains, across the alluvial fan where it branched into two routes. One branch stayed at the base of the mountains along the Altyn Tagh fault; the other crossed to the north side of the Tarim Basin and rejoined the southern branch over 800 miles west at the end of basin.

NASA Photograph STS 66-95-086, taken from the Space Shuttle, November 1994.

Photo provided by William R. Muehlberger.

We Need Your Help Page:
Monterrey, Mexico. Cities from space are gray. Monterrey fills all the valley around the frontal folds of the Sierra Madre Oriental, printed so that north is to the right. Triangular mountain northwest of Monterrey is a salt-cored structure, as are the two breached anticlines north of it.

NASA Photograph STS 62-151-376, taken from the Space Shuttle, March 1994.

Photo provided by William R. Muehlberger.

Photos:
Joseph Jaworski

1998 Newsletter

The University of Texas at Austin

Department of Geological Sciences

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At Great Salt Lake, a fencepost standing in the lake brine has expanded at its top. Brine moved up the wood fibers and evaporated at the top. Salt crystals blew the wood apart. Photo provided by Earle F. McBride.

A Report from the Chairman

To our knowledge, we maintain the largest enrollments of both undergraduate majors (160) and graduate students (150) of any geoscience department in the United States. Our alumni, now totaling 17,000, have been successful not only in Texas but also across the United States and into the far reaches of the world. The overall educational experience provided at UT and the scientific know-how obtained while earning a degree from our Department form the basis for employment with the largest corporations and the smallest entrepreneurial enterprises. Historically, we have been the premier source of geoscientists engaged in oil and gas exploration and production. But as the Alumni Notes show, our graduates are successful in many types of businesses, as well as in teaching and government. This year nearly 600 alumni sent news to share about family, work, hobbies, and other activities. Thank you for making this year's *Newsletter* such an exciting record of what our Department means to Texas.

Teaching Science

Besides teaching our majors, an underappreciated, but very significant, role we play at UT is the teaching of science to non-science majors. These students—from majors as varied as business, political science, communications, and drama—are voters and future jurists whose understanding of the ways of advanced science comes largely from the two general elective science courses they are required to take during their UT career. Some will become lawyers and members of government whose judgments can directly impact all of us. Some will become members of the news media who interpret and report technical subjects to the public.

This past year more than 1,600 students were enrolled in our geoscience

courses designed for non-majors. These courses, a combination of formal lecture by a faculty member and lab exercises guided by graduate students working as teaching assistants, attract some of our majors, but each is designed to forever open the eyes of students to the workings of science and the wonders of the planet on which they live. Leon Long, Doug Smith, Steve Grand, Sharon Mosher, Brenda Kirkland George, Gary Kocurek, Randy Marrett, Lynton Land, Time Rowe, and the 53 graduate student Teaching Assistants (TAs) who assisted them are to be commended for exemplary efforts during this and past years. Over the decades, our non-major enrollment probably totals nearly 100,000 students. There is no way to really measure the impact our general science teaching has on society. But it is not uncommon for me to meet UT alumni who fondly recall taking a geology class decades ago. They often mention some lecture topic they found amazing or an incident on a field trip or in lab. Commonly they even remember who taught the class and ask about Professors Ellison, Young, Clabaugh, Folk, Muehlberger, or others on our long list of distinguished teachers.

Our Graduate Program

UT is one of the nation's premier research universities. And we are the flagship of the UT System. Faculty are expected to develop and maintain a research program that attracts and involves the best graduate students from across the nation. Students learn and practice the ways of advanced scientific thinking during the production of Master's theses. Some actually advance and record knowledge during the production of a dissertation.

According to the American Geological Institute, there are more than 700 degree-granting geoscience departments in the United States. More than 180 have Ph.D. programs. Our overall graduate program has been rated in the top 10 of national rankings for the past three decades. Although such rankings are largely academic perception polls based upon the research reputation of the senior faculty, they do provide some insight into how our Department has evolved.

We have established and maintained topical breadth and diversity in our geoscience programs of a nature expected in a flagship public institution. This point is well exemplified by the 1996 *U.S. News & World Report* rankings of graduate programs which placed us #9 for overall reputation. In five of six subdisciplines, we were ranked in the top 10: sedimentology/stratigraphy (#1), hydrogeology (#6), paleontology (#6), tectonics/structure (#7), and geophysics (#9). Although our geochemistry program was less highly ranked (#22), it was ranked, which is meaningful because only 29 programs had enough substance to be ranked at all.

Notably, we were one of only two geoscience departments that had ranked programs in each of the six subdisciplines that most would agree characterize the geosciences. The other institution, the University of Arizona, had only two of its

disciplinary programs ranked in the top 10. One of their programs, hydrogeology, was ranked #1, but they attained this distinction by having a separate department of hydrology with a faculty nearly half the size of our total faculty.

All ranking methodologies are fraught with problems. In this case, I note that the top overall program, at California Institution of Technology, was unranked in three of six subdisciplines. The second-ranked overall program, at Massachusetts Institute of Technology, was unranked in two of the six. At both of these private institutions, the number of faculty has long exceeded their number of undergraduate majors. From my perspective, the key indicator of the 1996 *U.S. News & World Report* survey is that faculty hiring and promotion decisions in our Department have generated strong programs in all the subdisciplines of geology—of the kind expected in a flagship public institution.

Research Reputations

Research reputations of a department are almost entirely based upon the faculty's formal publication of results in professional scientific journals. Long-term studies, which generate research papers, is an expected task of a faculty member at an institution like UT. Publications document results for the scrutiny of fellow scientists. It is true that most are mostly mortar or small building blocks in one of the many pyramids of knowledge. But a few workers, such as Lynton Land, Milo Backus, and Bob Folk, laid the foundation for new pyramids or found new ways to relate different parts of science. Some contain concepts that are tested in the marketplace, and a few are proven to have direct benefit for humanity. Indeed it is a rare publication that fundamentally changes our understanding of the world. But long-term programs of intense scientific inquiry do produce the rare gems of pure and applied science that advance civilization and provide an appreciation for complexity of the environment in which we live.

Graduate Students and Research

Our research programs play another critical role. Graduate students from across the nation and around the world are largely attracted by 1) the reputation of specific faculty members; 2) the specific research programs that are currently funded and in need of a student or two; and/or 3) the fact that we have overall faculty strength in one or more geoscience subdisciplines.

Graduate education differs from undergraduate education. Formal instruction and written testing are similar in approach, but more advanced. The difference is the hands-on research experience that is required in the generation of a M.S. thesis or a Ph.D. dissertation. This is done in an environment where one is surrounded by other students, each working on his or her own project (see listing of student talks). Work is actively guided by faculty through their own research, which is published and scrutinized in professional journals. In our Department, numerous first-rate facilities and equipment are available to collect and analyze data (see articles about the world-class Computed Tomography (CT) X-ray Laboratory and the upgrading of the Potassium-Argon and Paleomagnetic labs). Work is stimulated by visiting scientists who present their latest, unpublished studies (see the list of Visiting Speakers). The experience of doing research develops a real understanding of how scientific knowledge is actually gained. The creative thought processes that are learned here remain for life.

Faculty Changes

This year marks a turning point for the Department. Three of our most illustrious faculty are retiring: Ernie Lundelius, Lynton Land, and Milo Backus have formal teaching careers that collectively total nearly 100 years. They have taught thousands of undergraduates and supervised dozens of graduate students. Each is a widely cited and internationally recognized authority in his specialty.

Last year, we added Chris Bell to maintain our strength in Quaternary vertebrate paleontology. This year, we hired Libby Stern to maintain our strength in stable isotope geochemistry. With the encouragement of the Geology Foundation Advisory Council, Dean Mary Ann Rankin has given us permission to search for two new faculty in the area of 3-D reflection seismology not only to maintain our strength in exploration geophysics but also to take it to the highest level of academic prominence.

Competition

Our faculty and programs are viewed with high esteem both nationally and internationally. We maintain the largest undergraduate and graduate student enrollments in the country. Our graduating students are eagerly sought by the 30 or so companies that send recruiters to our building. Nonetheless, we continue to be challenged by major forces within our own institution that make the Dean's choice of approving new faculty for our Department a difficult decision.

We are one of 11 Departments that compose the College of Natural Sciences. Our undergraduate enrollments since 1990 are nearly static and down greatly from the high of the early 1980s. But college-wide undergraduate enrollments have

increased from 5,500 to over 9,000. Explosive student growth has occurred in Computer Sciences, and major increases have also occurred in the various life science departments that make up the Division of Biological Sciences and in the Department of Chemistry and Biochemistry.

A near doubling of science students bodes well for the state, but no increase in the number of faculty is foreseen. Moreover, many science courses require hands-on lab exercises. Stresses on equipment, teaching lab space, and vastly increased Teaching Assistant needs are significant in other departments. Geological Sciences is one piece of the total sum for UT science. This sum is nearly constant except for private contributions and funds raised from industry consortia, research grants, and contracts.

Grants and contracts are highly competitive; the funding rate of geoscience proposals submitted to the National Science Foundation is approximately 20 percent. Industry consortia that support research programs is one area where much more can and should be done. It simply requires an understanding that students take time to finish their degree and results are not guaranteed in the sense that faculty and research scientists are trained and proven professionals. Private contributions for teaching and research have largely come in the form of endowments for Teaching Fellowships, Professorships, and Chairs.

Change, Geology, and the Environment in Texas

Competition must also be viewed within the context of the history of the Texas economy and public perception. Until recently, oil and gas exploration, production, refining, and distribution was the largest single industry in the state. Now it is a smaller piece of the vastly expanded economic pie that makes Texas a great place in which to live. The perception that geology is a profession that used to be important to Texas is, of course, just plain untrue, but it is more widely believed than most of us would want to acknowledge.

All major and many small oil and gas companies headquartered in Texas have international operations. The reach of our profession has long been global. Provided that an unthinkable collapse of civilization does not occur, the world's need for hydrocarbons for portable energy and materials for construction is going to increase well into future millennia. The question is one of present-day economics and the mitigation of long-term environmental impact. The fact that the demand for our students is cyclical is as poorly understood as the intensely complex and competitive nature of energy and minerals exploration and extraction. All citizens must recognize that our role in training geoscience professionals is our most fundamental service to society. Natural resources are the building blocks of civilization. And it is the attributes of advanced civilization found in the United States which provide enough stability for one to not only ponder the long-term future, but to act on it.

Geologists appreciate the complexity of the surface and the subsurface—the substrate for the biological world. The environment must be viewed as a combination of the biologic and the geologic world, and an "environmental scientist" without formal training in geology should not be considered a trained environmental scientist. Water is the essence of life, and the study of rock-water interaction is a major field of geology. In addition, it is our science that provides the methods for generating an understanding of the long-term record of climatic evolution. Environmental questions, both long- and short-term, must be studied from a perspective of understanding geologic processes that cause natural variations. Geochemical backgrounds and baselines must be quantified to fully judge the long-term impact of humans on the surface of our planet.

As in the real world, change and competition are upon us. We are responding to the challenge of remaining one of the flagships for geoscience education in the world. This *Newsletter* documents many of our activities during this past year that have been supported by you through the Geology Foundation. It was a good year, and we expect the same in the year ahead. We appreciate your support, encouragement, and understanding. Enjoy the *Newsletter*, and best wishes in all of your endeavors.

Mark Cloos

P.S. To check on programs, talks, and other current events in the Department, see our Web site at www.geo.utexas.edu.

Faculty and Staff Listing

Professors, Associate Professors, Assistant Professors, and Lecturers

Milo M. Backus
Professor and Shell Companies Foundation Distinguished Chair in Geophysics

Jay L. Banner
Associate Professor and Dave P. Carlton Centennial Fellow in Geology

Daniel S. Barker
Professor and Fred M. Bullard Professor in Geological Sciences and The Third Mr. and Mrs. Charles E. Yager Professor

Christopher J. Bell
Assistant Professor

Philip C. Bennett
Associate Professor and John A. and Katherine G. Jackson Centennial Teaching Fellow in Geological Sciences

Robert E. Boyer
Professor and Peter T. Flawn Centennial Chair in Geology

Richard T. Buffler
Professor and Senior Research Scientist, Institute for Geophysics

William D. Carlson
Professor and William Stamps Farish Chair in Geology

Mark P. Cloos
Professor, Getty Oil Company Centennial Chair in Geological Sciences, and Chairman, Department of Geological Sciences

James N. Connelly
Assistant Professor and Dave P. Carlton Centennial Fellow in Geology

Ian W. D. Dalziel
Professor and Senior Research Scientist, Institute for Geophysics

James S. (Jay) Famiglietti
Assistant Professor and Shell Companies Foundation Centennial Fellow in Geophysics

William L. Fisher
Professor, Leonidas T. Barrow Centennial Chair in Mineral Resources, and Director, Geology Foundation

William E. Galloway
Professor and Morgan J. Davis Centennial Chair in Petroleum Geology

Brenda Kirkland George
Assistant Professor and William T. Stokes Centennial Teaching Fellow in Geological Sciences

Stephen P. Grand
Associate Professor and Shell Companies Foundation Centennial Fellow in Geophysics

Mark A. Helper
Lecturer

Gary A. Kocurek
Professor and John E. "Brick" Elliott Centennial Endowed Professor in Geological Sciences

J. Richard Kyle
Professor and Shell Oil Companies Centennial Fellow in Geophysics

Lynton S. Land
Professor and Edwin Allday Centennial Chair in Subsurface Geology

Leon E. Long
Professor and The Second Mr. and Mrs. Charles E. Yager Professor

Ernest L. Lundelius
Professor and John A. Wilson Professor in Vertebrate Paleontology

Randall A. Marrett
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Sharon Mosher
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Douglas Smith
Professor and Albert W. and Alice M. Weeks Centennial Professor in Geological Sciences

James T. Sprinkle
Professor and The First Mr. and Mrs. Charles E. Yager Professor

Paul L. Stoffa
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Noel Tyler
Professor and Director, Bureau of Economic Geology

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Clark R. Wilson
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Virgil E. Barnes (1903-1998)
Leonard F. Brown, Jr.
Stephen E. Clabaugh
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Alexander P. Deussen Professor Emeritus in Energy Resources

Peter T. Flawn
Leonidas T. Barrow Chair Emeritus in Mineral Resources and President Emeritus

Robert L. Folk
Dave P. Carlton Centennial Professor Emeritus in Geology

Claude W. Horton
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Accounting Technician

Renee A. Waters
Student Development Specialist III

William I. Woods
Executive Assistant

Geology Foundation

Mary E. Koch
Senior Administrative Associate

Faculty Personal Notes

Dan Barker taught his graduate course in igneous petrology in the fall, and undergraduate igneous petrology plus geology for engineers in the spring. He and Rosemary look forward to attending the International Volcanological Congress in Cape Town, South Africa, in July. They plan to go on a pre-congress field trip covering the Karoo volcanic rocks of the Lebombo Monocline along the eastern margin of South Africa, then on a post-congress trip to southern Namibia to visit carbonatites, kimberlites, and other spectacular geologic features.

Dan still is trying to finish some research projects of long standing. One concerns the cementation of carbonatite tuffs; it seems that some of these ash layers (including the famous Tanzanian tuff with the hominid footprints) are particularly good at preserving organic structures and imprints because silicate minerals grow in the tuff quickly after it is deposited. These minerals are the same ones that crystallize in freshly poured cement. Another research project concerns the trace element chemistry of the Llano granites, being studied with Doug Smith.

Dick Buffler's main research interests still involve the study of ocean basins and adjacent margins using geological and geophysical tools, but he is slowly migrating back to doing more studies on land. In late 1996, he helped collect new geophysical data over the large Chicxulub KT impact crater along the north coast of Yucatan. These data reveal details about the structure of the crater, and the first results were recently published in the December 4, 1997, issue of *Nature*. He is also working with Bill Galloway on an industry-funded project to synthesize the Cenozoic depositional systems and depositional history of the entire Gulf of Mexico basin. They are just completing the third year of the project and hope to extend it for an additional two years. They recently had an exhibitor's booth at the AAPG meeting in Salt Lake City, which was a fun and interesting experience. Dick currently has a Ph.D. student, Qunling Liu, working on the late Cenozoic sequence stratigraphy of the northeastern Gulf. He also has two students working on field projects, one on the sequence stratigraphy of Late Cretaceous rocks in the Parras/La Popa basins of northeastern Mexico (Juan Burmudez, Ph.D.), and another looking at late Cenozoic rift sedimentation and tectonics in the Mimbres Valley of southwestern New Mexico (Laura Faulkenberry, M.S.). Another exciting project recently initiated is a study of the late Cenozoic rift sedimentation, volcanism, and tectonism in the southern Red Sea-northern Danakil region of Eritrea, Africa. Here he hopes to provide a geologic framework for early hominid evolution. They received a small NSF grant, which will allow them to continue field work during the winter of 1998-1999. They also hope to have a geologist from Eritrea join the project as a Master's student here at UT this fall. Dick continues to commute between Austin and Berkeley, where his wife, Pat, has a faculty position with the UC Berkeley School of Public Health. She currently serves as Dean, but she soon will be stepping down after seven years and is looking forward to returning to teaching and research.

Jim Connelly spent slightly less time in the field this past year, but he still managed about two months looking at tectonic problems in spatially diverse Precambrian basement complexes of west Greenland, northwest Scotland, and northern Chile. A common objective remains to better understand deep crustal processes, to correlate these belts with other Precambrian terranes, and to link tectonic processes in the lower crust with that in the upper crust. Conferences this year included workshops in Copenhagen and Ottawa, where colleagues gathered to discuss and debate evolving tectonic models for the Precambrian of the North Atlantic region. He started a new project trying to determine the age of carbonates found in the Martian meteorite, ALH 84001, in collaboration with NASA (JSC, Houston) colleagues Larry Nyquist and Lars Borg (UT Austin Ph.D. graduate). In addition to field projects and laboratory work with Kathy Manser, he taught undergraduate Structural Geology, two weeks of summer field camp (GEO 660), and a graduate course in the Applications of Radiogenic Isotopes. Four graduate students currently work with him (Cathy Christoffel graduated and is working in Midland, Texas) in field areas in Antarctica, Chile, Greenland, and Sweden. Jim continues collaboration with other UT graduate students, faculty, and research associates on diverse projects around the globe. Having obtained his Private Pilot license this past year, he and Kathy are now exploring Central Texas from a different vantage point.

Bill Fisher continues to enjoy full-time teaching and research after many years of administrative work. Students are challenging, and it is good to reactivate some different lobes of the brain. Bill continues in several professional and academy activities and maintains an outside speaking schedule of 15 invited lectures during the year.

Peter T. Flawn concluded his assignment as interim President of The University of Texas at Austin on April 13, 1998, and is back in his office in the Geology Building and very glad to be there. Currently, he is Chairman of the Board of Southwest Research Institute and is making frequent trips to San Antonio, Texas. Priscilla and he have extensive non-working travel plans for the summer.

In June, **Bob Folk** and Marge flew up to West Virginia for a Folk family reunion at the ancestral farm at Swan Pond, and Jenny and family drove up from Alabama. The kids enjoyed flying in their nephew's crop-dusting plane.

Then Bob went again to Italy, this time with Ben Pursell, and Janie Hopkins went

along as a visitor. They were met in Rome by a Dutch television crew who were doing a documentary on nannobacteria, so they filmed them riding the dinky little train to Viterbo. There Bob put on an act with Dr. Frances Westall, a British sedimentologist-microbiologist working in Bologna. They filmed them in their bathing suits at the hot springs discussing pros and cons of the controversial little life forms. Like actors, they had to repeat the same arguments as much as ten times over until they got the right "take," and still try to appear spontaneous. The Dutch did a fine job on the finished program. Ben, Janie, and Bob took off for Sicily, where they enjoyed Vulcano and the outer volcanic islands, then Mt. Etna coast and finally the Amalfi area. Where else can one eat marvelous seafood pasta in an outdoor piazza facing a beautiful 14th century mosaic-fronted church containing the bones of Saint Andrew with the town band playing "les Preludes" in the bandstand and enjoying a cap-off drink of Limoncello? No place but Italia! Ben and Bob then did geology on the little volcanic island of Procida (where "Il Postino" was filmed). Finally they spent a week in Bologna with Dr. Westall, watching her do SEM and TEM on Viterbo samples.

After Bob got back home, Marge and he went to San Diego for a convention where he spoke of the Mars/Italian connection (via nannobacteria) at a session devoted to extraterrestrial life. Don't laugh. Had it not been for goofing off in Southern Italy, this discovery would never have been made. In September, Marge accompanied him to Southeast France and spent a while in Nice/Monaco while Bob was at a microbial carbonates meeting in a castle in the French Alps near Grenoble. Afterwards, they spent a few days in Milano, Aosta, Genova, and Camogli to realize how much nicer Italy is than France (food is better, too!). In October, Bob talked at GSA in Salt Lake City, Utah, on why Mars is red—nannobacterial oxidation of iron, natch. In March Bob attended a Lunar and Planetary Institute meeting at NASA in Houston, then he went to Charleston, West Virginia, for SE regional GSA—nannobacterial pyrite. Thanks to Leo Lynch and Brenda Kirkland George, progress is being made in the study of these tiny forms, and have even found them in human arterial plaque and human cataract—at least they are being found at the same 0.1 micron balls in all these examples. Bob is glad they finally got some biologists working with them to give some scientific credibility, though the fight over the existence of these tiny creatures is still an uphill battle against 99 percent of the biological community.

Bobby and Mark are now well established in small-group homes in South Austin, are doing much better, and even have simple daily "jobs."

This has been an exciting year for hands-on research. Together with Dick Buffler, Xiang Li, and Patricia Ganey-Curry, of the Institute for Geophysics, **Bill Galloway** is in the third year of the Gulf of Mexico Basin Depositional Synthesis (UT-GBDS for short). The project will produce a comprehensive synthesis of the Gulf basin (Florida to Mexico, Louisiana to Yucatan) that merges the basin-floor succession, understood largely through seismic data, with the coastal plain, shelf, and upper slope successions, defined largely by well data. The database includes well, shot point, and graphic information stored using ARC/INFO (© Environmental Systems Research Institute Inc.), geographic information system software. This year, final maps for the Neogene and Paleogene successions are being assembled. In all, 19 sequences are mapped, providing a foundation for reconstruction of GOM depositional history and paleogeography for the last 65 million years (give or take a few). Support is provided by a consortium of 12 petroleum companies. Preliminary results have been or will be presented at the Houston Geological Society's 75th anniversary symposium, the 1998 GCAGS meeting, and a forthcoming AAPG Hedberg Conference. Meanwhile, his work in the North Sea has been rejuvenated by a grant from the Texas Applied Research Program to examine sequence-stratigraphic attributes common to strike-fed shore-zone, shelf, and basin-floor turbidite systems.

Bill's research that led to the second edition of *Terrigenous Clastic Depositional Systems* has generated several spin-off manuscripts. A paper on the genetic classification of slope and basin-floor depositional systems has just appeared in the *AAPG Bulletin*. As an interesting diversion, the book was condensed into a seven-page *Reader's Digest* version for the "Geologic Column" in *The Leading Edge*. He has joined with Jack Sharp in preparing a pair of papers on the hydrogeology of fluvial systems, just published in an SEPM special volume on environmental applications of sedimentary geology. Dave Hobday and Bill are preparing a summary paper on the importance of groundwater flow in uranium metallogenesis for a special volume of *Hydrogeology Journal*.

Ongoing student projects for Bill include study of fluvial and mixed coastal depositional system architecture of Permian Cutler Group strata, Utah, defining facies attributes of sub-polar, ice-dominated deltas in the Permian coal measures section of the Sydney Basin, and combined well and 3-D seismic characterization of Miocene strata of the southwest Louisiana inner shelf.

Bill comments that he would especially like to express his appreciation to Steve Krause, Mike Ye, John Garber, and the other Texaco UT-exes for helping him gain at least five pounds on each of his visits to New Orleans, and to Mac McGilvery for leading his spring "basins" field trip through the Arkoma and introducing a new group of students to Toad Suck Ferry.

Finally, with approval of his joint appointment with the Institute for Geophysics, Bill thinks he may be the first to

bridge all three UT geoscience organizations (BEG, DOGS, UTIG). This appointment formalizes what has been a very productive association within the GBDS project.

Early in the past year, **Wulf Gose** spent considerable time on customizing the new cryogenic magnetometer, both its hardware as well as its software. The system is now fully operational. At the invitation of Dr. Stephen Johnston from the University of Durban-Westville, South Africa, he collected paleomagnetic samples from Precambrian and Paleozoic rocks complementing samples which he previously collected in Antarctica. The aim of this work is to better constrain and refine the plate reconstructions involving Africa and Antarctica. Together with graduate student Mulugeta Feseha, Wulf joined Finnish and Chinese paleontologists to collect Upper Miocene samples in Lantian for magnetostratigraphic dating of a section that contains abundant large and small mammals as well as fish.

Rich Kyle reports a productive and rewarding year of teaching and research. He taught the undergraduate upper division writing component course on mineral resources and the non-geology majors course on Texas geology and resources. He taught a graduate course with Bill van Rensburg on geologic and financial analysis of precious metal projects, a particularly timely topic considering recent crises in world gold markets and scandals involving gold exploration properties.

Rich and his graduate students continue to conduct research on diverse topics within the broad field of economic geology. The economic geology program has been bolstered this year by the presence of Professor Huan-Zhang Lu, who is on a sabbatical from the University of Quebec at Chicoutimi. Professor Lu and Rich have extended the research on the Ertsberg district giant copper-gold orebodies in Indonesia, which includes the current Master's project of Jeff Harrison on the Grasberg porphyry deposit. Jenna Zampino is working toward a Master's degree on the bacteriogenic calcite-sulfur deposits of the Delaware Basin involving the interaction of meteoric water, formation waters, and petroleum. Ph.D. students David Edgerton and Ning Li completed their projects on world-class zinc-lead orebodies in sedimentary basins in Alaska and China. Former Ph.D. student Jeff Rubin returned to The University as the Assistant Dean for Environmental Health and Safety for the College of Natural Sciences. And speaking of returning to the University, Mark Ulrich, after a 13-year hiatus in the world of petroleum geology, has reenrolled to complete his Master's degree on the Winnfield salt dome.

The early summer included participating in the Industrial Minerals Forum in Oklahoma, the Geological Association of Canada meeting in Quebec, and field work in Arizona. A tentative late summer trip to Australia for field work in the Flinders Range and Broken Hill area is in the planning stage, to be followed by a trip to Nova Scotia for a Ph.D. defense.

Linda's health and fitness articles are continuing to be published in North America, Europe, Africa, and Asia. Brett and Brock completed the first and last year, respectively, of high school with honors. Brett advances to the tenth grade, while Brock prepares to go to UT. Brock is the creator of EveryMac.com and also has designed Web sites for companies and for Rich's courses.

Leon Long continues to be the Department's Undergraduate Advisor, working in that capacity with our undergraduate specialist, Renee Waters, and with the Undergraduate Committee, which hands out lots of scholarship dollars. It is his pleasure frequently to counsel students who are thinking seriously about declaring a geology major, to help them discover in what manner geologists are such special people, what sorts of adventures geologists enjoy in the profession, and whether the student is really a geologist at heart. (Most of the seekers decide that doing geology is just what they were looking for.) Leon notes that years ago the undergraduate majors were chiefly males, but lately the ratio has been approaching the ideal 50:50 and that the female majors are definitely walking off with the academic honors. (See the articles about Christie Rogers, Andria Bilich, and Eleanor Camann.)

In the fall semester, Leon taught the graduate course in isotope geology and teamed with Steve Grand in teaching GEO 303, the introductory course whose labs, taught by TA's, begin at 8:00 a.m. on Monday and rotate every two hours relentlessly through 6:00 p.m. on Friday. That's 25 labs, each with 18 students when filled, for a total of 450 students. GEO 303 in the fall was "maxed out," and in the spring semester, when Leon co-taught with Doug Smith, the course approached maximum capacity with nearly 400 students. Finally, during Intersession (mid-May to early June) Leon taught a field course that is special in being designed for students who are *not* geology majors. They come from all corners of campus, but most are seeking certification to teach earth science in the public schools. It is amazing how these enthusiastic students, with no more than an introductory geology course or two behind them, were soon making maps and interpreting the earth like professionals. They quickly became field hardened with all that hill-climbing and crashing through the brush, and tanned under a sun that was exceptionally hot this year.

Leon gave a paper at the Salt Lake City, Utah, GSA meeting about using Sr isotopes as an environmental indicator of the famously fossiliferous Santana Formation, northeast Brazil; this and his student, Christina Castellana's, isotope-oriented thesis about a pluton in Bahia have continued his long-standing involvement with the geology of Brazil. Other research, with a Ph.D. candidate

in archeology, included using trace elements and Sr isotopes to distinguish different sources of basalt fashioned into artifacts from Israel. Leon spent the summer furiously writing a major revision of his textbook and lab manual.

Last summer's travel adventures for Leon and Mary included a trip through Alaska and western Canada utilizing 10 different modes of transportation, with emphasis on glacier-hopping. During spring break, they buzzed off to Venezuela, where Leon went paragliding in the Andes. Just snap on the harness, take a few running steps, and jump off the cliff. Suddenly you're airborne, and it's way, way down there! This summer, Leon did field work in South India in collaboration with his student, Ayati Ghosh, and a professor from the University of Mysore. India has to be one of the world's more exotic places, and Leon's adventures at times made him feel like he was on another planet.

Last summer, **Ernie Lundelius** attended the CAVEPS (Conference on Australasian Vertebrate Evolution, Paleontology and Systematics) in Perth, Western Australia, where he participated in a symposium on extinction. The field trip that followed gave him the opportunity to learn more about optically stimulated luminescence dating of Quaternary sediments.

Ernie co-taught, with Chris Bell, Geology 405, Life through Time, in the fall semester of 1997. In the 1998 spring semester, he taught a graduate course, Vertebrate Paleontology—Mammals, and co-taught Geology 401, Physical Geology, with Earle McBride. Ernie will retire at the end of August 1998 to spend more time on various research projects and more time with his grandchildren.

Last summer, **Randy Marrett** taught Field Camp for a month, and during the fall, he taught the graduate Advanced Structure course. Randy was on leave from teaching during the spring for research on folding and fractured reservoirs. For two weeks in January, he worked at the University of Colorado with a Big XII Faculty Fellowship.

Randy gave an invited paper this winter at the Rocky Mountain Association of Geologists symposium on fractured reservoirs and another this spring at the Houston Geological Society symposium on thrust tectonics. At the AAPG meeting this spring, he chaired the first meeting of the Reservoir Deformation Research Group, presented a talk, and co-authored a poster with graduate student, Orlando Ortega. Last fall at the annual GSA meeting, Randy presented one talk and co-authored another with graduate student Rion Camerlo.

During the past year, Randy did field work with several students. Last summer, he did field work with graduate student Orlando Ortega, addressing fracture characterization in the Weber Sandstone of the Uinta Mountains. In the fall, graduate student Laura Rico began a study of detachment folding at the San Julian uplift in the Sierra Madre Oriental of Mexico. Undergraduate Brad Reid also worked on the San Julian uplift and studied the mechanism of the uplift itself. Undergraduate Celinda Kelsey has been investigating the scaling of fractures exposed at Pedernales Falls State Park. With Rion Camerlo last fall, Randy also initiated a study of folding in the Carmel Formation at the San Rafael swell, Utah. He also began a new project with colleagues from Potsdam University on structure and tectonics in Patagonia, Argentina.

Numerous activities made the academic year pass quickly says **Earle McBride**. In the fall, he taught Sandstone Petrology and supervised teaching for graduate students (required by state law for all new teaching assistants). In the spring, he co-taught Physical Geology and Introduction to Field Methods. The physical geology course, team-taught with Ernie Lundelius, had 105 students. On an average day, 45 students attended the lecture. Earle reports that this is not the only course to show a drop-off in attendance in the past year. On an optional all-day field trip led by Earle and Ernie, three students from the class of 105 attended.

Earle continued another year as graduate advisor. Most real advising of students is done by mentors (potential supervisors) and student's supervisors, but all other decisions and paperwork are done by Earle and his graduate coordinator, Verta Thompson. Ms. Thompson replaced Ann Page, who, after 17 years, moved to another position in The University. Earle chaired a campus committee that reviewed appeals from people on campus who felt that they received parking or traffic tickets unfairly. He reports that some of the capers reviewed by the committee would make good material for TV sitcoms.

Earle attended the GSA meeting in Salt Lake City in the fall and in the spring, the International Sedimentological Congress of the IAS in Alicante, Spain. He attended a field trip on which it snowed. Earle, along with Smilla, is becoming an expert on snow. Earle completed four years as vice president of the International Association of Sedimentologists at the Alicante meeting.

Summer months provided a welcome respite from desk work for Earle: two weeks on the summer field course (GEO 660) followed by field work in France, Italy, and Iceland. The Iceland trip provided sand samples to help quantify the rate of rounding of basalt sand grains by beach abrasion. Donna and Duke Picard participated in the sampling project.

Sharon Mosher had a very enjoyable time teaching two sections of Earth, Wind, and Fire in the fall and Structural Petrology in the spring. After her break from teaching in the spring and summer of 1997, she came back fresh and full of enthusiasm. She also started three new graduate students on research in the Llano Uplift of Central Texas and worked with Steve Grimes and Rob

Reed, who are finishing their Ph.D.'s. She and her students spent many rainy weekends, spring break, and abnormally hot, dry summer days doing field work! Amazingly enough, she reports that once you start working on the Valley Spring Gneiss in the uplift, the exposure is phenomenal. During the year, she also served on GSA's Annual Program Committee as chairman with the task of revitalizing the annual meeting and on GSA's Strategic Planning Committee, the GRE Geology Board, the USGS EDMAP grant review panel, and the Fulbright Discipline Advisory.

Bill Muehlberger has spent a considerable amount of time this year generating a CD-ROM for use as a reference for Space Station astronauts. It covers the tectonics of the Arabian Plate and vicinity. Picking the pictures, generating captions, and getting them all scanned into the computer and then linked to maps or related pictures turned out to be time consuming—especially for a person whose computer skills in this area were nil at the start (still not too great!). In addition, he still spends an hour with each shuttle crew briefing them on geologic topics and photo sites before they fly. A special treat was briefing the STS-95 crew, scheduled to launch October 29, 1998. John Glenn was part of that crew. Not only was he present, but he was asking good questions! Earlier that same day, he briefed the crew of STS-93 (to launch December 1998), which has the first female commander—Eileen Collins. She missed the briefing because of the death of her father the day before and was supposedly on her way to her parents' home. She showed up as Bill was finishing his hour presentation, apologizing for being late and asking whether he could give her a synopsis of what he had told her crew! Thirty minutes later, Bill was done, and she headed for the airport. What dedication to her job!

Bill spent a week in Egypt on an NSF-Egypt National Authority for Remote Sensing and Space Sciences meeting to discuss priorities of desert studies. Field trips into the Sinai and Fayoum Depression were included. He attended the Salt Lake City meeting of the Geological Society of America. He was a speaker participant for the San Bernardino County Museum field trip to the Garlock fault that stretches along the northern border of the Mojave Desert. That resurrected work he had done in 1950!

Bill and Sally have taken several trips just for the fun of it: driving in the fall through Arkansas, a boat and train trip in the Sea of Cortez and Copper Canyon, Mexico, January in Yosemite valley (gorgeous in the snow!), and a wonderful trip led by Ric Finch (Ph.D. 1972) to Ecuador and the Galapagos!

Amos Salvador's research was concentrated on two main areas: stratigraphy and the estimation of the consumption and possible sources of supply of energy during the 21st century. In stratigraphy, work continued in coordinating the efforts of a working group attempting to clearly define some of the concepts and terminology of sequence stratigraphy. In the energy project, work was completed on the estimation of the contribution that oil and the extra-heavy oil and bitumen in "tar sands" may make to the demand of energy in the next century. He is now tackling natural gas.

Jack Sharp continues his research on a variety of subjects and reports that he was blessed last year with a group of graduate students working with him as stimulating as any he has ever had. Highlights of the past year included daughter Katie's wedding, scientific visits to Nottingham, where a new research direction in urban hydrogeology began, and where he actually met the Sheriff, and to Australia, where Jack presented papers in Melbourne, Adelaide, and Sydney. The Australian visit was facilitated by the unbalanced teaching load for the spring semester (this required a doubling-up of courses in the fall semester). It was great to chat with colleagues from down under. The visit confirmed the fact that one month of such personal contact exceeds a year working via e-mails and faxes! However, the spring semester flew by too fast, with many projects still left undone. It's also been a year to sit on advisory boards. They include the American Institute of Hydrology Scientific Advisory Committees for the 1997 and 1998 annual meetings, the National Research Council Advisory Committee on the Waste Isolation Pilot Plant (WIPP), the International Scientific Committee for the Second International Conference on Water Resources & Environmental Research, the International Association of Hydrogeologists (IAH) Advisory Committee for the 28th Annual Congress, and the Scientific Advisory Committee for the SEPM 1998 Carbonate Research Conference.

Jack is serving as vice-president of the IAH, which will require trips to Bucharest, Las Vegas, Bratislava, and probably Brisbane in the forthcoming year. He is working with Jiri Krasny of Prague on an IAH *Handbook of Hardrock Hydrogeology*. Progress on the tuff handbook, with UT alums Grant Heiken and Becky Smyth continues but at a slower rate than planned. His *Glossary of Hydrogeologic Terms* will soon be put on the Internet via the Department's web site. Also, Jack is in what he thinks will be his final year of co-editing *Environmental and Engineering Geoscience* for GSA.

Other research activities include evaluation of how fractures control flow of fluids and how fracture skins affect transport of solutes and colloids (including contaminants) in groundwater systems. We are still trying to get samples of tuff surfaces that have been exposed for varying lengths of time to calibrate our models. Trans-Pecos Texas hydrogeology studies continue to focus on regional flow systems. Jack and Ph.D. student Matt Uliana are preparing a video presentation in Toronto next fall at the first

Inter(net)national Symposium of the GSA. The symposium is the brain child of Todd Halihan, another Ph.D. student, who is conveniently slipping off to Australia for a year. It is entitled "Understanding Ground Water in Arid and Semiarid Environments of North America and Australia" and will be held simultaneously in Toronto and Adelaide. Ph.D. student George Tsoflias is leading Jack back down the path of geophysical characterizations. George is studying the quantitative analysis of GPR data to evaluate hydrogeological properties. Studies of thermohaline free convection, conducted in conjunction with Professor Simmons of Flinders University, also show very promising results.

Finally, on the local scene—the hydrogeology degree plan and the new joint degree plan with Petroleum Engineering are going well, and these will have about 50 undergraduate students in them next year. We are always looking for internship and coop student opportunities. Jack really enjoyed his year as Chairman of the local SIPES chapter. He observes that there is a lot of geological expertise in the community. The duck hunting season was a flop compared to last year's record season, but he enjoyed watching the coyote pups romp around the duck blind.

Jim Sprinkle did more traveling than usual last year. Besides going to GSA in Salt Lake City in late October to present a short-course talk and make an oral presentation, he also visited Cincinnati in mid-March to work on research papers with former graduate student Colin Sumrall, who is now the invertebrate paleontology curator there. But the big travel event occurred late last summer when he and co-worker Tom Guensburg and Tom's family visited Moscow and St. Petersburg, Russia, for nearly five weeks using a small grant they were awarded from the Civilian Research and Development Foundation (CRDF) to work with three colleagues from the Paleontological Institute in Moscow. Their joint project involved a comparison of Early and Middle Ordovician echinoderm faunas from the Rockies with those from Baltic Russia, which are almost completely different.

Jim, Tom, and family flew from Chicago to Frankfurt, Germany, and then to Moscow, Russia. They stayed in two apartments for the two weeks they were in Moscow studying fossil echinoderm collections at the Paleontological Institute, and then everyone took an overnight train to Volkhov in the Russian Baltic. They then spent the next two weeks camping out in tents near Volkhov and St. Petersburg near working quarries and driving around from section to section in a Russian army surplus 10-ton supply truck that was the Paleontological Institute's field vehicle. Besides the driver and trip leader in the cab up front, there were as many as nine people packed into the passenger compartment in back with all their camping and cooking supplies stacked up right behind them. Having survived camping for two weeks at three quarries, drinking water from rural wells, and lurching down two-lane roads at about 80 km/hr, the truck's top speed, Jim was finally able to clean up and wash clothes in St. Petersburg and attend a one-day Ordovician conference at the Geological Museum. He then flew out of St. Petersburg early the next morning back to Frankfurt, Chicago, and then finally to Austin, a grueling 22-hour trip. This was one of those trips that you never forget!

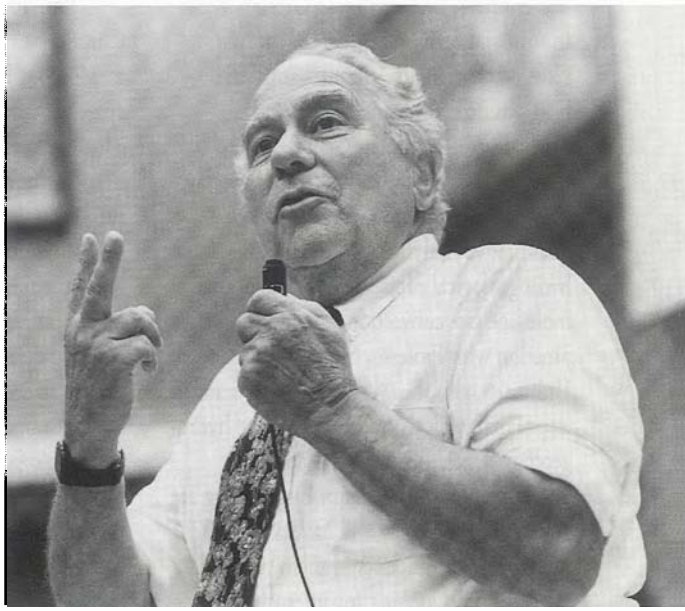
Clark R. Wilson has spent the 1997-1998 academic year in his temporary assignment at NASA headquarters in Washington, D.C. as the program scientist for geodynamics and geopotential fields. The work at NASA continues to be interesting, says Clark, with a variety of activities including overseeing the space geodesy observational program (GPS and other techniques), the evaluation and funding of research proposals, and conduct of international programs in geophysics including several space missions related to gravity and magnetic field observations. He reports that there is still a fair amount of travel involved, and this academic year included three trips to South America, two to Europe, and one to Tahiti. Clark has continued to supervise his graduate students via frequent visits to Austin. One student is graduating in spring 1998, with another anticipated to finish in fall 1998. An extension of the NASA tour has recently been approved for Clark, and the plans are to return to Austin in the summer of 1999. Although the family looks forward to getting back to Austin, they are finding life in the East to be enriching and fun. Clark continues his tradition of commuting by bicycle, weather permitting, using the excellent bike trails in the D.C. area.

Jack Wilson reports that he and Ruth still enjoy the quiet, rural life at Lake Travis. It isn't quite so rural as it used to be because Austin is growing out to them and cigarette boats sure can disturb a Sunday afternoon nap. Last spring they took off for China and Hong Kong. Although both of them had been there before, they had never seen the gorges of the Yangtze River. They boarded a river boat at Wuhan and ended at Chungking. The new dam that will flood the gorges is well underway, and it will be enormous—nothing like Mansfield Dam and Lake Travis. Bob and Joe Bluntzer were on this trip, and Bob and Jack discussed the geology with a beer in hand. In the fall, Jack and Ruth went on a sailing ship cruise of the western Mediterranean and saw the type section of a volcano and watched Stromboli burp as they sailed by. They went to Aix-en-Provence to see their football-sized dinosaur eggs. Ruth was cleaned out in about fifteen minutes at their hotel in Monte Carlo, so she didn't bother with the Casino. She saved her money to "support" the local boys at Las Vegas. Retirement is rough!!!

Department of Geological Sciences Hosts Special Fall Symposium

by Jay L. Banner

On September 11 and 12, 1997, the Department hosted a special symposium entitled "Coupled Interactions between the Ocean-Land-Atmosphere Systems: Past, Present and Future." The symposium brought together nine leading experts from across the country to present state-of-the-art research into the physical, chemical and biological processes that link the atmosphere, land surface, ocean, and cryosphere and drive the climate system, the water and sediment cycles, and the biosphere. These presentations explored the mechanisms that govern Earth-surface processes that occur on monthly to billion-year time scales. They also demonstrated the technological and interdisciplinary efforts required to understand the complex interactions in the past and present Earth system, and to predict future changes.



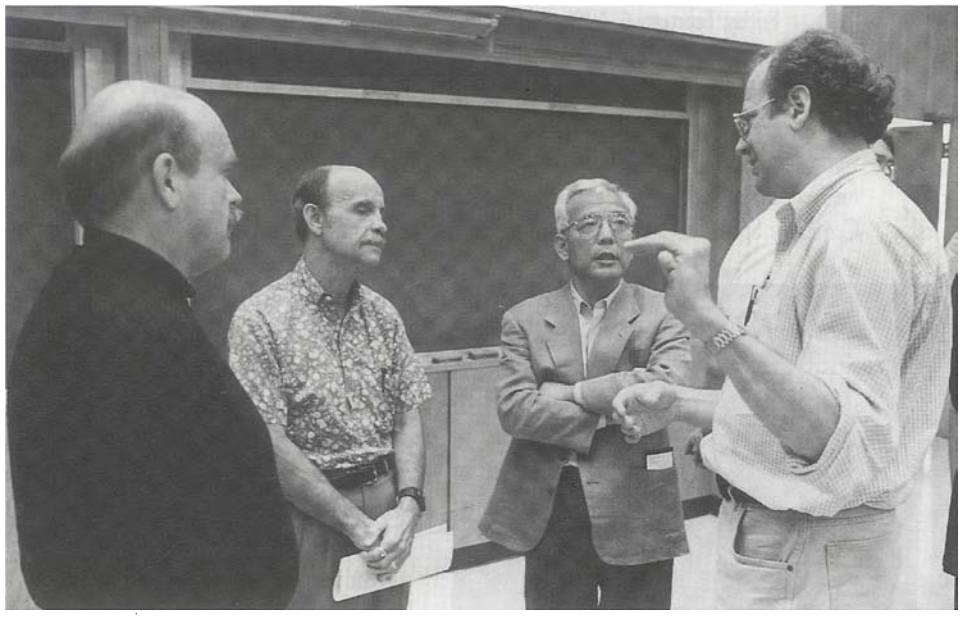
Dr. Heinrich Holland of Harvard University explains his theory of the evolution of atmospheric oxygen.

The symposium was attended by faculty and students from departments across campus, and from Texas A&M, Louisiana State, and Princeton Universities. Numerous others attended from state agencies, the private sector, and the news media. Some of the focuses of the presentations were: (1) the effects of increasing atmospheric carbon dioxide contents on the global carbon cycle and climate and (2) the El Niño-Southern Oscillation tropical climate system and its potential impact on global climate in general and Texas in particular.

Dr. Suki Manabe of Princeton University and NOAA describes climate models and their implications for future global temperatures.

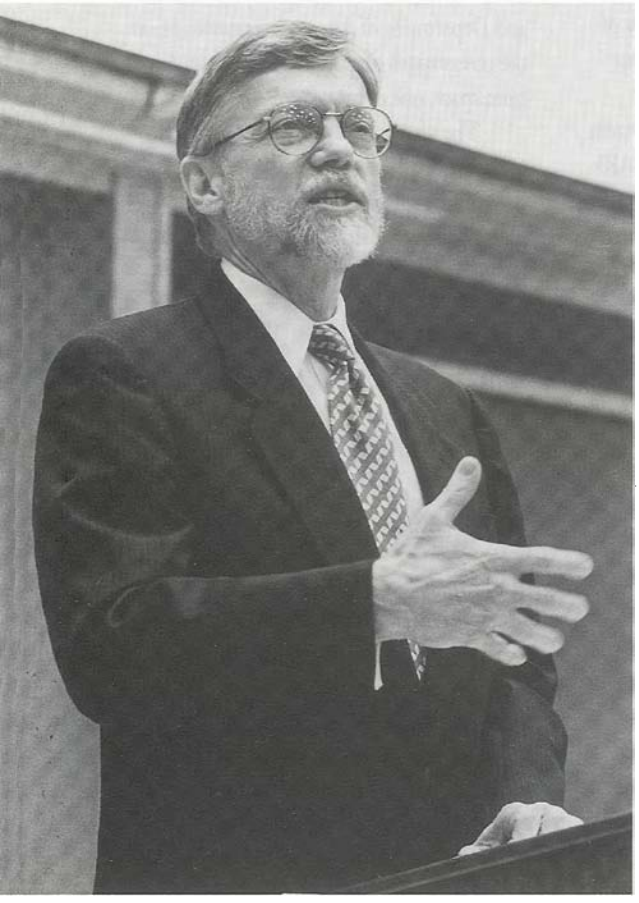
D. James Baker, the Under Secretary for Oceans and Atmospheres in the U.S. Department of Commerce, and the chief administrator of the National Oceanic and Atmospheric Administration, gave the keynote address on Thursday, September 11. He noted the multivariate social and economic interests that are involved in considering the global impact of atmospheric carbon dioxide evolution. He also noted that we will have to learn how to live in a high-CO_2 world. Thomas Crowley of Texas A&M stated that our present condition of high atmospheric CO_2 and extensive ice sheets is unique.

Heinrich Holland of Harvard University outlined the varied rise of oxygen in the Earth's atmosphere as evidenced by the petrology and chemistry of ancient soils and rocks. He proposed the theory that the low value of atmospheric oxygen prior to 2.25 Ga was controlled by the operation of the nitrogen cycle, whereas since then the marine phosphate cycle has probably supplied the dominant oxygen control mechanism. Rick Forester, a micropaleontologist with the U.S. Geological Survey, showed that the species distributions of modern freshwater ostracods are governed by hydrologic variables such as water chemistry. The fossil record of ostracods in turn provides insights into past climate/hydrologic linkages on various time



(left to right) Dr. Rich Forester, Dr. Fred Mackenzie, Dr. Suki Manabe, and Dr. William Schlesinger discuss global element cycles and their role in global change.

scales (million years to decades) suited to understanding the history and periodicity of past environmental change. Julia Cole of the University of Colorado spoke on the historical inter-annual records of El Niño events provided by studies of centuries-old coral heads from the tropical Pacific Ocean. Her results illustrate the diversity of temperature and rainfall effects that were produced globally by these climate events. Between detailed monitoring of key current conditions in the tropical Pacific and reconstruction of historical patterns, predictions of the location and magnitude of El Niño events may improve.



Dr. D. James Baker, Under Secretary for Oceans and Atmospheres, Department of Commerce, gives the keynote address to the symposium.

William Schlesinger of Duke University and Fred Mackenzie of the University of Hawaii spoke about the past, present, and future cycles of the life-essential elements C, N, P, and S. Key interactions to be addressed in improving our understanding of these cycles are the temporal and spatial extent of cycle perturbation by human activities such as the manufacture and use of fertilizer, the accumulation of sediment behind dams, and the combustion of fuels. Determining the extent to which these different element cycles are interconnected will be a key area of future research.

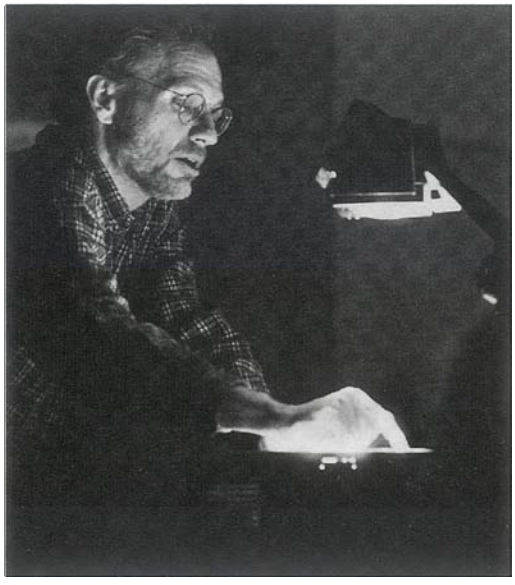
Suki Manabe of Princeton University and NOAA, who pioneered the use of numerical modeling to simulate changes in the coupled climate system, presented his latest work. Wally Broecker of Lamont-Doherty Earth Observatory presented evidence in sediments and ice cores for rapid changes between glacial-interglacial climate modes during the end of the last ice age. He argued these changes may have been driven by rapid reorganizations of the global ocean's thermohaline circulation.

The symposium was sponsored by the Geology Foundation and is an example of how the resources provided by the Foundation can help make such unique events happen. It is likely that such symposia, covering a variety of topics on a rotating basis, will be common in the future.

Spring Symposium: Space-based Geoscience Observations: Looking Down at the Future

by Clark R. Wilson

On Friday, February 6, 1998, a one-day symposium on space-based studies of the earth was held in the Department. Jay Famiglietti from Geological Sciences worked with Cliff Frohlich from the Institute for Geophysics and Steve Nerem from the Center for Space Research and Department of Aerospace Engineering to organize the event. The symposium included invited speakers from around the country and from UT, and a poster session showing related studies already underway on campus. The 16 posters from a variety of departments showed that The University is already significantly involved in space-based studies of the earth. An introductory lecture on NASA programs was given at the Thursday afternoon Technical Sessions by Department faculty member Clark Wilson. Wilson is currently serving temporary duty at NASA headquarters in Washington as the program scientist in charge of the geodynamics and geopotential fields programs, and many of the speakers at the Friday symposium are supported within that NASA program.



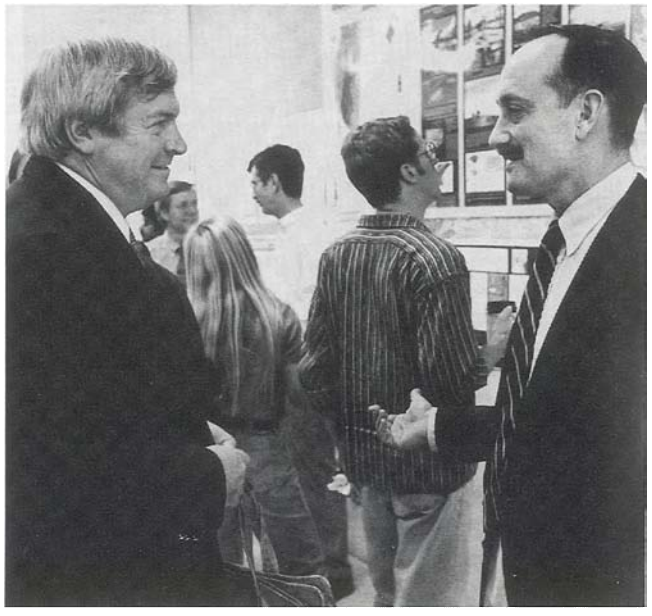
Speaker John Wahr.

(left to right) Speakers Tom Herring and Paul Segall.

Space-based Global Positioning System (GPS) and Synthetic Aperture Radar (SAR) interferometry are now capable of measuring centimeter-level displacements at the surface of the earth due to earthquakes, landslides, and other causes, including extraction of fluids, such as oil or water. The first two talks by Paul Segall of Stanford and David Sandwell of the Scripps Institution of Oceanography described these methods and the techniques they have developed to interpret such data. These talks were followed by a presentation by Steve Nerem of the Center for Space Research and Department of Aerospace Engineering on the observations of global sea-level change from space, one of his principal research areas.

The afternoon session started with an overview of all the space-based methods for determining motion of the crust. Tom Herring, of MIT, showed that all techniques

Speaker Don Blankenship.



Speaker Clark Wilson (right), with Institute for Geophysics Director Paul Stoffa (left).

Speaker David Sandwell.

are now capable of centimeter-level measurements of deformation, but careful attention to known error sources, such as atmospheric delays due to water vapor, should be able to push the limits to the millimeter level. John Wahr, from the University of Colorado, discussed the future capabilities of measuring changes in the gravity field from space. Wahr's main focus was on a satellite mission called GRACE, to be launched in the year 2001, in which The University of Texas at Austin (Center for Space Research) is the lead institution. GRACE will be able to detect gravity changes due to ground water, snow load, and other sources, making it a valuable tool to monitor global climate. Don Blankenship, of the Institute for Geophysics, who also heads the National Science Foundation Aero-Geophysical facility at UT, spoke about the remote sensing studies of ice sheets that he has been conducting in Antarctica.

The final two talks of the symposium described the applications of remote sensing to geological mapping and resource exploration. Alex Goetz of the University of Colorado described the use of multi-band imagery in mapping surface geology (when vegetation cover does not interfere). The final talk, by Floyd Sabins, a 1952 graduate of the Department and a widely recognized expert in the field of remote sensing, gave several examples from his days at Chevron showing how the perspective of space-based observations contributed materially to successful oil and gas prospecting. The symposium was designed to educate Department faculty and students about the opportunities for study of earth from space, following the identification of this as a target area in the development of the Department's long-term plans. The symposium was a success in this regard, but an equally important consequence was the heightened awareness of the variety of space-based earth sciences work already being conducted in other UT departments. This awareness should lead to closer ties with other research and academic units, which has also been identified as an important target in the Department's long-term plan.

Speaker Steve Nerem.

Speaker Alex Goetz (left), organizer Jay Famiglietti (center), and speaker Floyd Sabins (right).

Student and Departmental Support from Companies Reaches $181,800 for 1997–1998 School Year

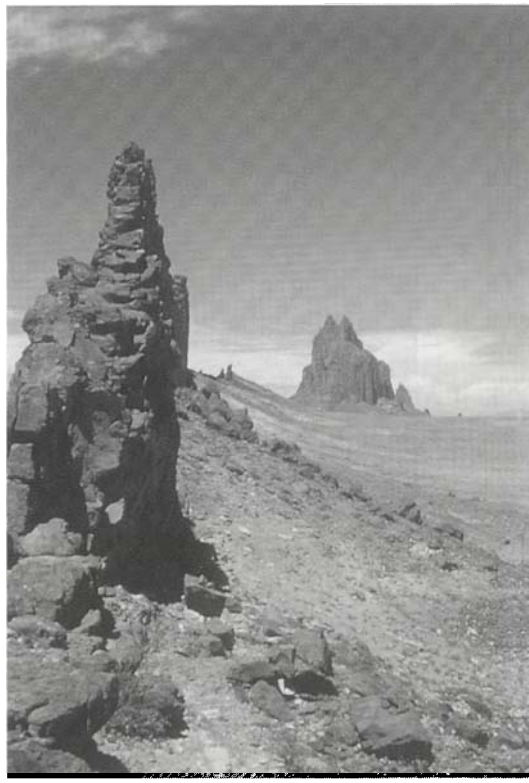
There is a long history of corporate contributions to the Geology Foundation of the Department of Geological Sciences. This academic year these contributions amounted to $181,800. These donations have been of tremendous help in supporting students and for use in the general operations of the Foundation.

Contributions this year of $96,500 to fellowships and scholarships were made available to graduate and undergraduate students chosen by the Graduate Admissions and Support Committee and the Undergraduate Advising and Awards Committee. These funds are used to attract top students to this Department. A part of the contributions, $13,500, was used to defray the costs of field courses for students, and some of the money, $6,600, made it possible for students to attend the AAPG, AGU, GSA Penrose, and SEPM meetings. Some of the donations, $14,700, were in the form of the Emerging Scholars program, which is used to acquaint high school students with geology and expose them to scholastic opportunities available in the Department. There also were major contributions to unrestricted funds, $50,500, some of which were used for general operations of the Geology Foundation.

The following is a breakdown of contributing companies and their contributions:

Amoco	$14,200
Atlantic Richfield	$ 7,500
BP Exploration	$ 7,500
Burlington Resources	$10,500
Chevron	$19,500
Conoco	$10,600
Exxon	$29,000
Marathon	$ 3,000
Maxus	$ 2,000
Mobil	$ 6,500
Phillips	$28,500
Shell	$10,000
Texaco	$20,000
Unocal	$13,000

Many thanks go to the companies for their support, which provides the margin we need for teaching and research excellence in the geological sciences.



North along dike to Ship Rock, northwestern New Mexico, 1955. Photo provided by William R. Muehlberger.

SMT Donates Major Software Package

Seismic Micro-Technology, Inc., of Houston, has donated to the Department their KINGDOM Suite Software package. SMT will also provide free technical support for the software for the next three years. This one-time contribution is valued at $697,000.

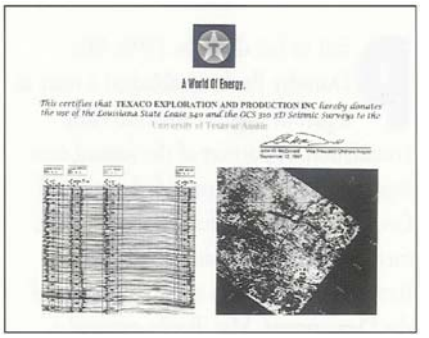
The SMT gift is a major addition to our efforts to provide integrated geological and seismic training to our graduate and undergraduate students by way of the workstation and computer. Bill Fisher and Bill Galloway have organized two new courses: Introduction to Petroleum Workstations at the graduate level and Orientation to Petroleum Workstations for undergraduates. This past spring semester, the SMT KINGDOM Suite Software package was used for the first time in the undergraduate class.

Gifts like this from SMT help us better prepare students for real work application of their training and also give them an edge in their employment pursuits.

Texaco Donates 3-D Seismic and Well-Log Data Suite

Geological workstations have become the stock-in-trade of the petroleum industry. To meet the need for student training in this rapidly expanding technology, the Department developed the nucleus of a geological workstation laboratory during 1997. A new graduate course—Introduction to Geological Workstations—was introduced in the fall of 1997. The course was well received, with 14 students registering, and several more auditing. A scaled-down version for undergraduate majors was offered, by popular request, during the spring 1998 semester.

Such a teaching facility can be compared to a tripod—three legs are required. The first leg is the workstation platform itself. Our nucleus is an SGI Indigo 2 with two high-resolution graphics monitors. The second leg is the software. With the help of Jerry Mazzaferro at GeoQuest, we were granted a site license worth in excess of $250,000 for use of the GeoQuest family of software products, including the well log (StratLog), mapping (CPS-3), and seismic interpretation (IESX) packages. All are widely used in industry, and the sale price of this program suite is in excess of $400,000.

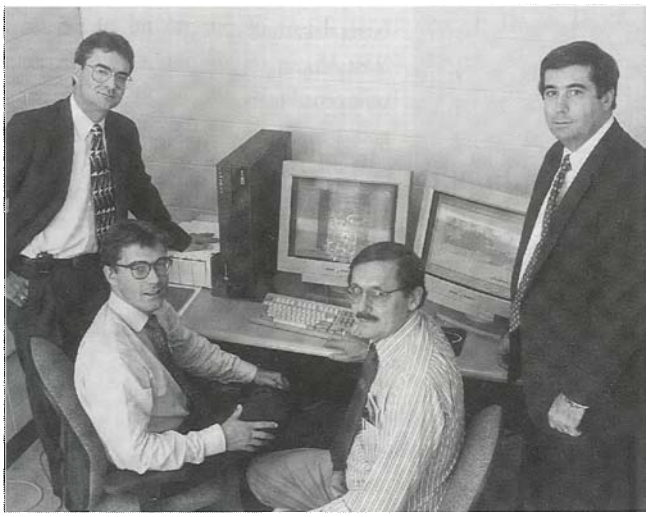


Plaque accompanying the Texaco OCS digital data set illustrates examples of both the well and 3-D seismic information as imaged on a geological workstation. Photo provided by Bill Galloway.

The third leg, and a most necessary one, if the workstation is to be utilized to its full teaching and research potential, is acquisition of seismic and well data sets. Here, Texaco promptly volunteered a major contribution that provides the "teaching laboratory" for the course. The data set includes two large, contiguous 3-D seismic surveys together covering more than 300 square miles and 9 major oil and gas fields located in State and Federal waters off southwest Louisiana. Also included are digital well logs, velocity surveys, and paleontologic data. Together, the data package provides a complete suite of industry data in an area of great commercial and scientific interest. Acquisition costs for the seismic data are placed at approximately $10 million.

Further, Texaco has made this a "living" data set, providing guest speakers to present to the class an overview of the area's geology and exploration and development challenges and to illustrate how Texaco geoscientists use the same data base as they continue to develop their resources. Texaco's Jack Gregory, a longtime friend of the Department and now in the New Orleans office, instigated, organized, and followed through with the transfer of this data set and the creation of a unique industry-academic partnership. Thanks also go to Texaco geoscientists Susan Longacre, Jerry Hardouin, Cliff Crowe, and Ellen Clark, who contributed their enthusiasm, time, and effort in bringing the concept to fruition.

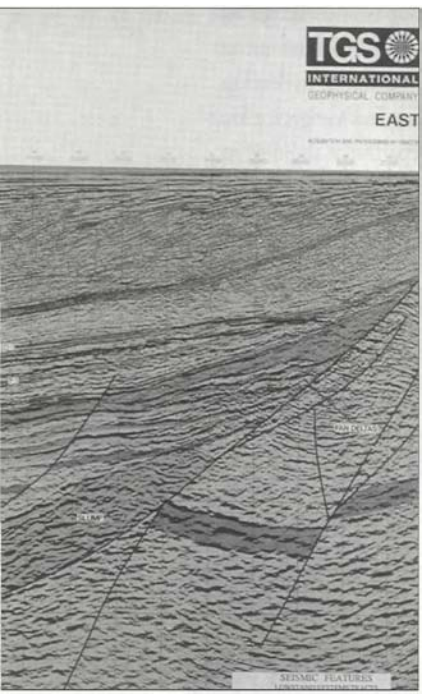
Jack Gregory, Texaco (left) and Cliff Crowe, Texaco (center) formally present the Louisiana OCS data set to Bill Fisher (right) before a meeting of Technical Sessions. Photo provided by Bill Galloway.



(left to right, front and back) Jack Gregory (Texaco), Jean-Paul van Gestel (Teaching Assistant for the new course, "Introduction to Geological Workstations"), Bill Galloway, and Cliff Crowe (Texaco) celebrate successful loading of the Texaco OCS 3-D data onto the Department's SGI workstation. Photo provided by Bill Galloway.

TGS-Calibre Geophysical Company Donates Seismic Traverses

TGS-Calibre Geophysical Company has donated to the Department a selection of 20 mounted, display-quality seismic traverses for use in teaching. The donation was arranged through John Adamick, President of TGS's Offshore Division.



West Africa Well Tie Survey, Phase I, Cameroon, on display at the Department of Geological Sciences.

The lines include large (up to 3' x 8') and smaller panels of both interpreted and uninterpreted 2-D and 3-D seismic data and illustrations of interpretation examples. Locations of data suites include the Gulf of Mexico, Niger delta, and West African continental margins. Interpreted lines variously illustrate structural and sequence stratigraphic features common to these margin settings.

Selected lines have been placed on permanent display in the Geology building. Others will be used for teaching purposes in sequence stratigraphy, petroleum workstations, and various other geology and geophysics courses.

Foundation Receives Major Scholarship Bequest from Banks Estate

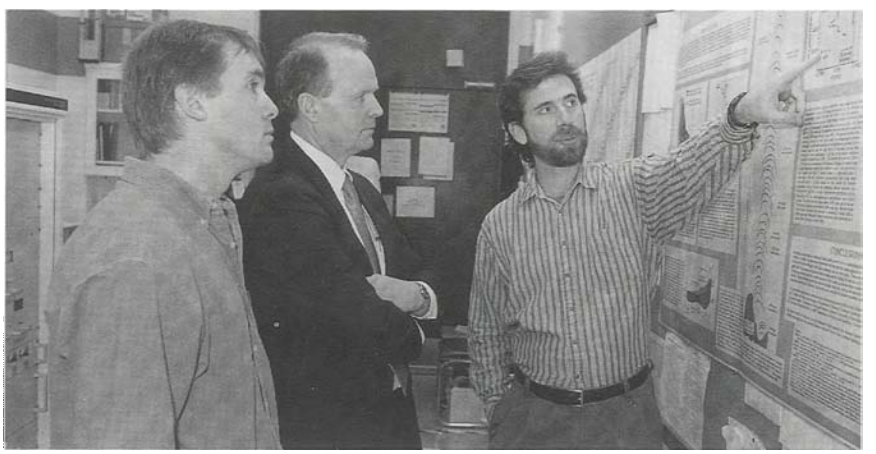
Prior to her death in 1996, Mrs. Dorothy Banks established a trust as a part of the San Antonio Area Foundation. A portion of the annual earnings from the trust is provided to the UT Geology Foundation for scholarships as a memorial to her husband, Thomas R. Banks. Mr. Banks was a 1923 graduate of the Department. Mrs. Banks received a degree in chemistry from UT Austin.

The value of the trust is computed as $1.9 million by the UT Development Office. Earnings from the trust distributed to the Geology Foundation for the Thomas R. Banks Scholarships in the 1998–1999 academic year amounted to $86,000, a major boost to the amount of scholarship support provided by the Foundation.

New UT President Dr. Larry Faulkner Visits Department

New UT President Dr. Larry R. Faulkner took over the reins from President ad interim Dr. Peter T. Flawn on April 13, 1998. Dr. Faulkner received his Ph.D. in chemistry in 1969 from UT Austin. Prior to returning to UT, Dr. Faulkner served as Provost and Vice Chancellor for Academic Affairs and Professor of Chemistry at The University of Illinois at Champaign-Urbana.

On April 28, Dr. Faulkner visited several departments in the College of Natural Sciences. During his visit to the Department of Geological Sciences, Dr. Faulkner toured the thermal ionization mass spectrometer facility and clean laboratory. Jim Connelly and Jay Banner described how clean room procedures and mass spectrometric measurements of U, Pb, Th, and Sr isotopes are used to address geological problems, including (1) determining the age of growth layers from Holocene cave speleothems in order to reconstruct records of groundwater evolution and climate change and (2) determining the age of single zircon grains from Precambrian crustal rocks in order to reconstruct tectonic processes.



(left to right) Jim Connelly, UT President Dr. Larry Faulkner, and Jay Banner during Dr. Faulkner's visit to the Department of Geological Sciences.

Renovations to Potassium-Argon Dating Laboratory

by Fred W. McDowell

K-Ar dating is a venerable method of geochronology, having been developed during the 1950's. It is unique in that it requires extraction, purification, and measurement of argon (a gas) under vacuum, rather than the more common acid dissolution and chemical purification procedures that are required by other common dating methods.

A K-Ar lab has been in operation within the Department of Geological Sciences since 1971. It was designed and constructed by Leon Long and Fred McDowell. In those days, only a limited variety of "off the shelf" vacuum hardware was available. Likewise, there were few options for pumps that could achieve a high vacuum while handling large gas loads. As a consequence, construction of the vacuum line required in-house machining and assembly by silver soldering and glass blowing. The only viable choice to attain acceptable vacuum conditions was by utilizing cryogenically trapped mercury diffusion pumps.

During its 25 plus years of activity, the UT K-Ar lab, under the direction of Fred McDowell, has contributed to a variety of research projects. Chief among these has been an ongoing investigation of the history of Cretaceous-Tertiary magmatism in western Mexico, conducted by Steve Clabaugh, Fred McDowell, and numerous graduate students. Other major efforts have involved K-Ar dating of subduction-related metamorphic rocks in the Franciscan terrane of northern California and in recent years a significant contribution to the dating of magmatism in the Central Highlands of Irian Jaya (Ertsberg project).

In 1996, significant funding was obtained from the National Science Foundation to modernize the vacuum lines in the lab. These funds were matched by UT contributions from the Office of the Dean of Natural Sciences, from the Geology Foundation of the Department of Geological Sciences, and from the Ertsberg project. This combined UT contribution was 55 percent of the total. Using this funding, the mercury diffusion pumps have been replaced with high-speed turbomolecular pumps, the original home-made vacuum valves have been largely replaced with commercial high-grade bellows-sealed valves, and flanged stainless steel vacuum fittings and tubing take the place of solder joints and glass seals.

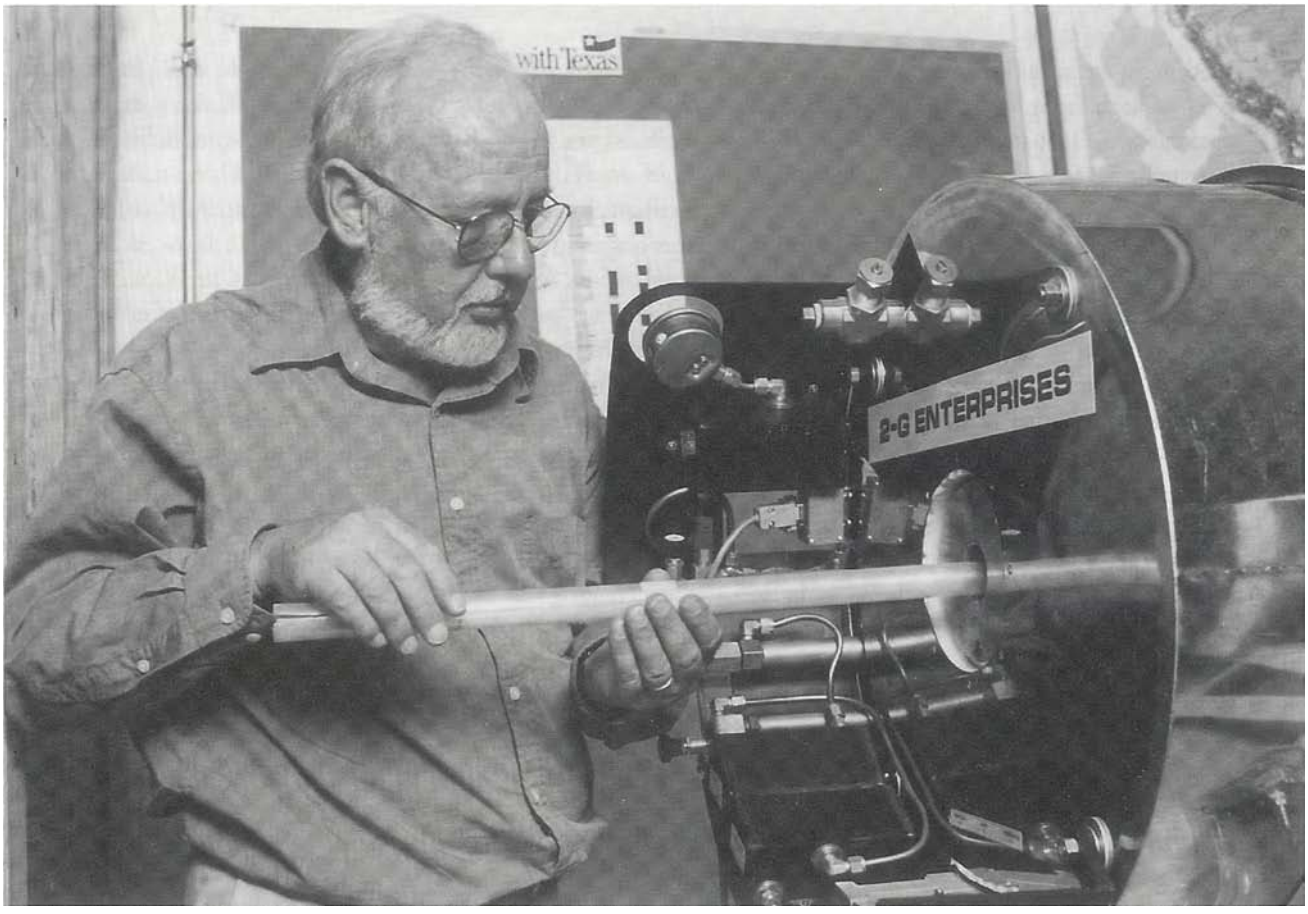
With the assistance of graduate student Richard Weiland, the renovation was completed and tested during a nine-month shutdown period, and normal operation resumed in September 1997. The new facility is more efficient, safer, and produces data of improved quality. There is no more mercury vapor to be trapped with liquid nitrogen, and sample gases are exposed to clean electropolished interior surfaces, rather than smaller diameter tubing that is oxidized and partially coated with soldering flux and oxides of mercury.

This renovation project is a good example of the value of Geology Foundation resources to the research and educational mission of the Department. The 15 percent of the total cost provided from the Foundation is important as such, but this value is amplified by its leveraging power in proving the Department's commitment to the project. This support surely influenced the decision to provide funding from the Dean's Office, and that in turn demonstrated to NSF a strong commitment by The University.

Fred McDowell, in front of the new argon vacuum line. He is preparing to transfer a gas sample by freezing it with liquid nitrogen.

Paleomagnetic Laboratory

by Wulf Gose



Wulf Gose performs the initial testing and calibration of a new instrument. After 23 years of use, the old cryogenic magnetometer has been replaced.

The most critical instrument in any paleomagnetic laboratory is the magnetometer, which measures the magnetic remanence of rock samples. It determines what type of rocks can be measured, and it controls the speed and efficiency of the measuring procedures. When I assembled the laboratory in 1975 at the Marine Science Institute in Galveston, I was fortunate to be able to purchase a then new type of machine, a superconducting or cryogenic magnetometer. This instrument has performed well for 23 years with only one minor repair. A few years ago, the manufacturer came out with a second-generation instrument, and it became clear that we had to upgrade the lab if we wanted to maintain a first-class facility.

In a joint proposal with Dr. John Kappelman, UT Anthropology, we obtained funds from the National Science Foundation with matching funds from the Deans of Natural Sciences and Liberal Arts as well as the Department and its Geology Foundation.

The new instrument offers several major advances, among them a larger dynamic range and increased sensitivity. Most importantly, the instrument needs to be filled with liquid helium only once a year rather than weekly. Besides saving time and money, the continuous readiness of the magnetometer makes it much easier for students to measure during the semester, and the rush to collect data just before the instrument warms up is a feature of the past. A new computer has been added as an interface with the magnetometer.

To further enhance the laboratory, I acquired an Impulse Magnetizer, which is used to conduct high-field magnetic studies such as can be used for magnetic mineral identification. The ease and speed of operation make this instrument very suitable for investigating large sets of samples such as samples from soil columns or archeological site profiles.

Inaugural Celebration Honors Supporters of CT Lab

by William Carlson

Last October, dignitaries representing the Geology Foundation, the National Science Foundation, the W. M. Keck Foundation, and The University gathered in the Geology Building with faculty, students, and staff to celebrate the creation of the UT High-Resolution X-ray Computed Tomography Facility—our "CT Lab." The facility consists of the scanner laboratory, housing the first and only high-resolution X-ray computed tomographic scanner dedicated to scientific research in an academic setting, and a digital image analysis laboratory, providing high-end computational resources for manipulation and interpretation of the scanner's data.

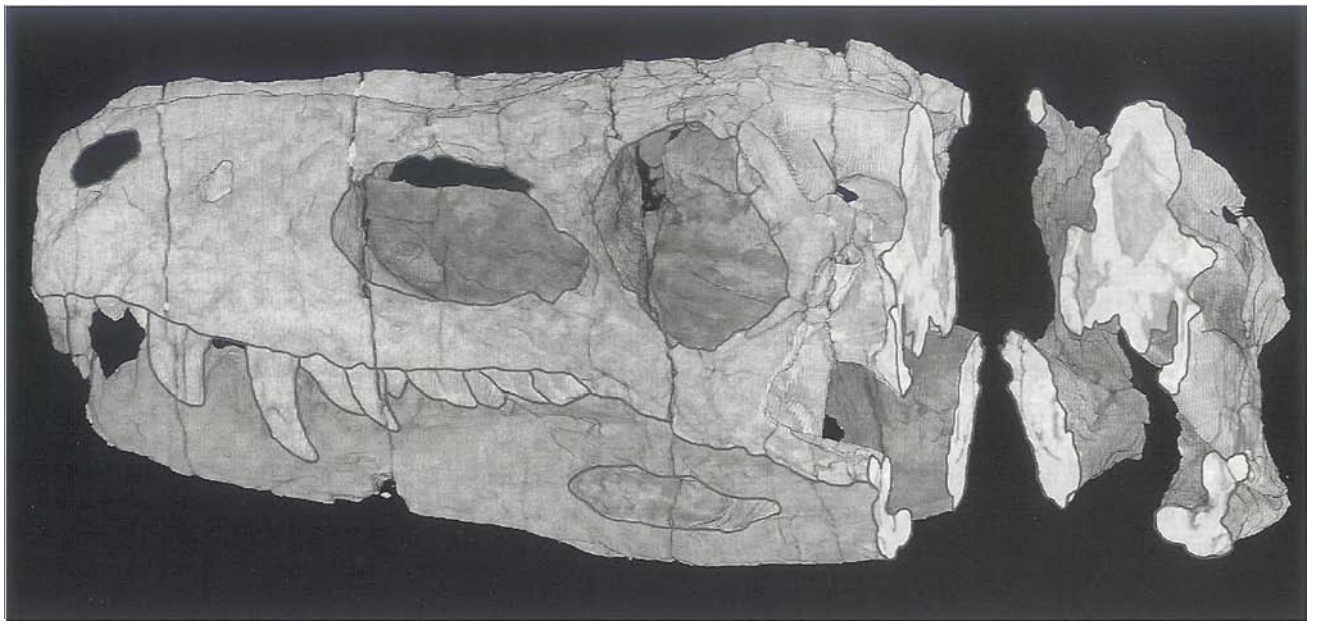
The establishment of this $1.2 million facility was a triumph of collaborative effort. The project was launched by funding from the Geology Foundation, involving six of the Foundation's endowments, most prominently the Langston Special Operations Fund and the Mayfield Excellence Fund, with ancillary support from the Clabaugh Hard-rock Petrology Fund, the Langston Vertebrate Paleontology Fund, and endowments from the J. Nalle Gregory Professorship and the W. S. Farish Chair. This substantial initial commitment from the Geology Foundation was leveraged by pledges from the College of Natural Sciences toward the scanner, renovation of space, and the image-analysis laboratory, the last of which was matched by a pledge from the College of Liberal Arts. Confronted with such strong University support, the National Science Foundation was encouraged to add a sizable grant, which in turn persuaded the private W. M. Keck Foundation to finish out the effort with a generous benefaction of its own.

In thanking the many people and organizations responsible, ad interim President Peter Flawn first addressed Mr. Thomas Fanning, Chairman of the Geology Foundation Advisory Council, reminding all present of the long history of extraordinary contributions made by alumni and supporters of the Department through the Geology Foundation, of which the CT facility was merely the most recent. The scientific purpose of the facility was highlighted in Flawn's remarks to Dr. Daniel Weill, Director of the Earth Science Instrumentation and Facilities Program at NSF, citing two extraordinary specimens on display at the celebration, both recently brought to the facility for scanning—the skull of the oldest known dinosaur, *Herrarasaurus*, and a fragment of Mars meteorite ALH84001— and a host of putative traces of ancient extraterrestrial nannobacteria. Flawn reserved a special expression of gratitude for Dr. Sandra Glass, Program Vice President of the W. M. Keck Foundation, whose efforts were central to acquisition of the scanner and other major equipment housed at UT.

Professor William Carlson (at podium) introduces special guests (left to right): Thomas Fanning (Geology Foundation), Sandra Glass (W. M. Keck Foundation), Daniel Weill (NSF), and UT President Peter Flawn.

Dinosaur News

by Tim Rowe



This skull of *Herrerasaurus*, the world's oldest known dinosaur, was brought to UT to be scanned in the Department's new High-Resolution X-ray CT facility. This image is a computer-generated 3-D restoration of the skull, built from CT data. The skull was synthetically sliced open—using a computer—to show the inside of the braincase. Image by Dr. Cambria Denison.

Dinosaurs made a strong showing this year in a series of events that were all sponsored in part by contributions to the Geology Foundation. This fall, Professor Tim Rowe gave a special lecture entitled, "The Mistaken Extinction—Dinosaur Evolution and the Origin of Birds" to kick off his new book of the same title. The lecture also marked the opening of a special exhibit at the Texas Memorial Museum of the world's two oldest known dinosaur fossils—the Argentine species, *Herrerasaurus* and *Eoraptor*.

Rowe and co-author Dr. Lowell Dingus of the American Museum of Natural History have written a book that sifts through all the evidence pertaining to the great extinction event that closed out the Cretaceous time period in a spectacular way. Was it caused by a volcano or an asteroid, or some combination of the two? In the course of their sleuthing, they are led to ask, "Did all dinosaurs really become extinct 66 million years ago?" This leads them to explore the evidence suggesting that modern birds are the lineal descendants of extinct Mesozoic dinosaurs and to navigate through the many startling and exciting discoveries of the last decade.

Along with the new book, Tim has published a third edition of his CD-ROM "The Age of Dinosaurs," along with co-authors and former students Kyoko Kishi, John Merck, Jr., and Matthew Colbert. This CD is an interactive educational work aimed at introducing undergraduates who take Rowe's freshman course on dinosaurs to the scientific study of dinosaurs and to the world of academic computing. Development of the CD-ROM was sponsored in part by the undergraduate Course and Curriculum Development program of the National Science Foundation, and over the course of its development, about 30 Geology students were hired to help.

The world's oldest dinosaurs, *Herrerasaurus* and *Eoraptor*, are visiting the Department of Geological Sciences this year, along with Dr. Oscar Alcober, who joined us as a Postdoctoral Fellow. Dr. Alcober brought these and other specimens from the Museo de Ciencias Naturales, San Juan, Argentina, to be scanned in the Department's High-Resolution X-ray CT facility. Dr. Alcober is working with Tim Rowe to map the genealogy of early dinosaurs, and CT scanning has provided new information on the evolution of the brain and special senses in dinosaurs and birds. These unique specimens will be on display at the Texas Memorial Museum until mid-September.

The Mistaken Extinction—Dinosaur Evolution and the Origin of Birds, by Lowell Dingus and Timothy Rowe, W. H. Freeman & Co., New York, 1997, 322 pp., ISBN 0-7167-2944-X, and ISBN 0-7167-3227-0 (academic version).

The Age of Dinosaurs, Educational Interactive Multimedia on CD-ROM for Macintosh and PC computers, by Timothy Rowe, Kyoko Kishi, John W. Merck, Jr., and Matthew Colbert, W. H. Freeman & Co., New York, 1998, ISBN 0-7167-3378-1, and ISBN 0-7167-3227-0 (academic version).

Bella Italia

by Brenda Kirkland George

Once again, Robert "Luigi" Folk continued his quest to indoctrinate novices in the wonders of Italian cuisine, culture, and oh by the way, geology. This year his traveling companions were Bob McLean, a microbiologist from Southwest Texas State University, Brenda Kirkland George, Pete George, four-year-old Maggie George, Matt Rodell, and, the official field assistant for the trip, UT DOGS graduate student Jenna Zampino Rodell.

This year's research goal was to perform geomicrobiological sampling of hot springs near Viterbo, Italy. The springs, most of them archaeological sites with ruins of Roman bath houses near by, are subtly beautiful. The soft colors of the different types of bacteria in the springs range from salmon pink to soft green in the pools of mud. The water is HOT and required the development of quick and creative techniques for acquisition of samples. The local people use these waters to cure everything from their own tired feet to their dogs' skin conditions.

After more than 20 annual trips to Italy, Luigi has learned more than enough to be qualified for a second career as a tour guide. He can relate fascinating details about churches, art, fountains, monuments, ruins, wine, pasta, calderas, hot springs, building stones, economics, regional geology, coffee, after-dinner drinks, and, of course, women's fashion. Poor Luigi! "Forced" into another summer of field work in Italy, where the latest style this year includes extraordinarily short skirts and extremely tight tops. No matter, he always finds *some* way to survive. For Luigi, the monuments of Rome are all open slates for lessons about history, culture, and religion—as well as travertine facies types!

Maggie George reports that the gelato di ciocolato was excellent, but the Italian habit of serving young children steamed milk did not meet with her approval. She refuses to act as Mommy's field assistant in any other countries that don't have cold milk. Luigi wonders when she'll be old enough for her first cappuccino.

Stone carvings piled up outside an Italian church. Note basalt building stone behind. Photo by Brenda Kirkland George.

Faculty Awards and Honors

During the past year, several Department of Geological Sciences faculty members received recognition and honors:

Jay L. Banner was selected for the Houston Oil & Minerals Corporation Faculty Excellence Award from the Geology Foundation.

Phil Bennett was named the 1997 Darcy Lecturer by the Association of Ground Water Scientists and Engineers.

Ian W. D. Dalziel was awarded one of the two 1997–1998 University Cooperative Society Excellence Awards, administered by the UT Austin Office of the Vice President for Research for his paper, "NeoProterozoic-Paleozoic Geography and Tectonics: Review, Hypothesis, Environmental Speculation" published in the *GSA Bulletin* on the roles that endogenic earth processes, plate tectonics, and geography play in the control of global climate.

Brenda Kirkland George received the Knebel Distinguished Teaching Award from the Department of Geological Sciences.

The College of Natural Sciences selected **Leon Long** as one of its Distinguished Teachers.

The Vice President and Dean of Graduate Studies selected **Randy Marrett** for a 1997–1998 Big XII Faculty Fellowship. Randy visited the Department of Geological Sciences at the University of Colorado at Boulder for several weeks during the spring semester. This new program provides a monetary award for transportation and per diem expenses.

Jay L. Banner (left) presented with the Houston Oil & Minerals Corporation Faculty Excellence Award by Mark Cloos (right).

Brenda Kirkland George (left) presented with the Knebel Distinguished Teaching Award by Mark Cloos (right).

Staff Awards

Rosemary Barker received the Thelma Lynn Guion Distinguished Service Award for her excellence and contributions to the Walter Geology Library.

Verta Thompson, Administrative Associate, was awarded the AASAP (African American Staff Advocating Progress) Staff Recognition plaque and award for her "unselfish commitment, advice, and support."

Debra Sue Trinque, Accounting Technician, was awarded the Distinguished Service Award in the Department. The award is made for the most outstanding contribution to the operation of the Department or Department facilities during the academic year. Selection is made by the Faculty Review Committee on the basis of nominating letters from the faculty, staff, and students.

Dennis Trombatore (left) and Rosemary Barker (right) at the Department of Geological Sciences' award ceremony where Rosemary received the Thelma Lynn Guion Distinguished Service Award.

Mark Cloos (left) presents Debra Sue Trinque (right) the Distinguished Service Award at the Department of Geological Sciences' award ceremony.

Knebel Award: Brenda Kirkland George: Educator Extraordinaire

by Mike Rahnis, Jennifer Beall, Alfred Gomez, and Suk-Joo Choh

Walking past the basement core lab on Wednesday morning, you might hear, "What happened here?!" Thus, Brenda Kirkland George enthusiastically prompts 15 graduate students to describe and explain fenestral porosity in an ancient tidal flat. The question is a good one—one that the students have a shot at answering for themselves—because they already know a little bit about tidal flats. They know that algae live there, that micrite is the dominant sediment type, and that organic materials decay. Brenda knows her students as individuals and can elicit an answer from them one small piece at a time. After some discussion, the students put the pieces together and arrive at an answer: the algae rotted and the gas bubbles stuck in the mud. The students make an intuitive leap. Brenda is the 1998 recipient of the Carolyn G. and G. Moses Knebel Teaching Award.

Brenda's devotion to teaching is well illustrated in this photo. To let the students get the best view of a key surface, she is precariously perched above the outcrop—hanging on with one hand and using the other hand to ask questions about features in the surface. She's holding on to her hat because there is a long, treacherous drop just below this point on the Permian Reef Geology Trail. Photo by Brian Exton.

Brenda devotes herself to bringing her love for geology and carbonate sedimentology to students of all types. At the graduate level, she stresses visual observation through her vast slide collection, numerous hand samples, thin-sections, cores, and field trips. Woe to students who fail to bring a hand lens to class! They might miss the opportunity to see an ooid grainstone up close.

In undergraduate Physical Geology courses, too, her emphasis is on seeing and doing. Her undergraduate GEMS (Geology Emerging Scholars) program introduces students to the working world of geology through field experiences, projects, and visits from professional geologists. Recognizing the increasing importance of technology in our field, Brenda solicited corporate donations of microscopes and computers for undergraduate Geology majors.

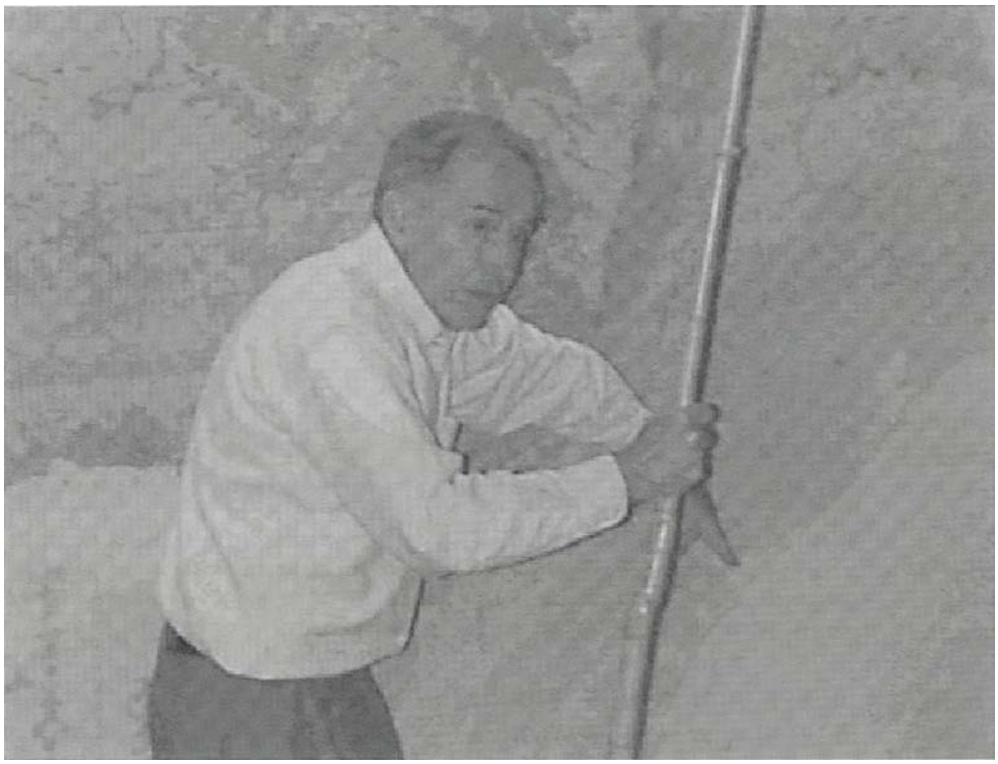
Along with researchers at the Bureau of Economic Geology, Brenda is training high school students to work in teams to collect shoreline profile and grain-size data on Texas beaches, as part of the Texas High School Coastal Monitoring Project (see related story in this Newsletter). Data collected at many locations by many groups of students will be used to model changes in shoreline profile and document coastal processes.

Questions in Brenda's classes, class projects, and puzzling over rocks in labs sharpen a student's power to observe, describe, deduce, and answer. Brenda teaches not through rote lecturing but by promoting active learning. Brenda encourages students to become involved, to work on challenging research topics, and to make more of those leaps in understanding, just as one might cross a creek from one rock to the next. Brenda's example makes students into geologists who, confronted with a problem, can ask the right, and often very simple, question.

We congratulate Brenda Kirkland George on winning, by student vote, the Carolyn G. and G. Moses Knebel Teaching Award. She is undoubtedly worthy of this award for her teaching style, which cuts across scholastic boundaries, age boundaries, skill boundaries, and disciplinary boundaries.

Leon E. Long Selected for 1998 College of Natural Sciences Teaching Excellence Award

by Mark Cloos



Leon E. Long.

This year, the College of Natural Sciences established a new award to recognize faculty with a consistent, long-term record of outstanding teaching performance. Of 310 faculty in the College, only a dozen were selected for recognition. At an April dinner held in the Faculty Center, Professor Leon E. Long was presented with a 1998 Teaching Excellence Award from the College of Natural Sciences.

For the past 36 years, Leon has been a dedicated and exemplary teacher at both the undergraduate and graduate levels. During the academic year and summer session, Leon has taught or team taught 123 sections of introductory geology courses (He has taught GEO 303 110 times!) totaling approximately 20,300 UT students. Most of our majors are transfer students, and we suspect that 50 percent of them had their first introduction to geology from Leon. Each spring, Leon teaches an intersession course in field methods in earth science (GEO 320L, "Introductory Field Geology"), which is directed at non-science majors. In addition, he is the sole author of the 526-page textbook, *Geology*, which is now in its sixth edition, and co-author of a laboratory manual now in its second edition. On the advising front, he has been the Undergraduate Advisor for the past four years and previously served as the Graduate Advisor for four years.

Leon has received other teaching awards. In 1993, he was one of only three University faculty selected for a "Dad's Association Centennial Teaching Award." In 1994, he received the Department's highest teaching honor, the Knebel Distinguished Teaching Award, in recognition of his accomplishments in teaching introductory geological sciences courses.

Leon's teaching extends beyond the conventional classroom. He has played a leading role in helping science teachers in Texas. He served as an instructor of the Chautauqua Short Course for College Teachers for two years, as a Consultant to the Science Academy of Austin and to the Texas Education Agency (TEA), and he is serving on TEA's committee to recommend reform of high school science curricula. On numerous occasions, he has been an invited Lecturer for Austin Independent School District science teachers, and he has led many field trips for science teachers. Leon also serves as Chair of the Department's Outreach Committee, responding to requests for information and assistance from many segments of the Austin community—elementary schools, Cub Scouts, garden clubs, and others.

We congratulate and thank Leon Long for his outstanding teaching and service!

Philip C. Bennett Named 1997 Henry Darcy Distinguished Lecturer

by Philip C. Bennett

For most of last year, I was traveling the world as the National Ground Water Association Henry Darcy Distinguished Lecturer. Each year, the association nominates one hydrogeologist from North America to present the "Darcy Lecture" at universities and research organizations, and I was the 11th Lecturer. When I was first told that I had been nominated, I was, well, excited...but I also recall wondering just what would be required. I was thinking—well, 30 lectures would be reasonable, at most 35, try and get up to Canada, maybe....

So, 52 lectures, 6 countries, 150 flight segments, and 130,000 air miles later (and 15 pounds gained), maybe I should have listened to myself. But doing the Darcy Lecture is a once in a lifetime experience, and I just couldn't stop. I never tired of the travel, the lecture, meeting new people, talking about hydrogeology, trying the local cuisine, arranging flights—none of it. I received over 70 invitations from a wide variety of institutions, and I eventually visited universities in the United States, Canada, Australia, England, Ireland, and Germany. At every stop, my hosts knocked themselves out to make me feel welcome, to help me with the arrangements, and sometimes to arrange field trips, cross-country ski excursions, day hikes, or winery tours on the weekends I stayed over. Going to Australia was particularly interesting—I was the first Darcy Lecturer to visit "Oz," and I found a rich research program in hydrogeology. I came away with new research ideas, answers to old questions, and a new appreciation for fine Shiraz. I now know why just about every hydrogeologist I know has either taken a sabbatical (oops, research assignment) in Australia, or is planning to (including me!).

I also learned a bit about what is going on in hydrogeology around the country. Many of the geological sciences departments I visited were still of the "one hydrogeologist in town" scenario, even in fairly large and diverse departments. This contrasts with our own situation of three faculty members in the UT hydro program, which may help explain our ranking of sixth in the country (*U.S. News and World Report*). These single-faculty programs, however, were quite often bringing in a large fraction of the graduate students each year, one indication of the continuing strength of this field. I also encountered a few departments that were responding to their faculty retirements with the almost wholesale conversion of the department to hydrogeology and related fields, somewhat like our own "New Directions" initiative to advance into new research areas. Once or twice, though, I found departments that were threatened with the loss of faculty lines, and there was the possibility of losing whole areas of expertise, or even the loss of a distinct geological sciences department.

Another trend I noticed is a resurgence of interest in environmental science as a standalone discipline. Several universities were resurrecting, or building from scratch, environmental science consortia, interdepartmental collaborations, and degree programs. This has huge potential for our field, as long as we are involved in the planning right from the beginning! Too often, the area of "environmental sciences" is viewed as just another term for "ecology," when in fact to be effective in this field a student requires training in several fields, particularly earth sciences.

Finally, I want to thank my graduate students, who really were co-authors on the lecture I presented—Franz Hiebert, Jennifer Roberts Rogers, and Wan Joo Choi. I got to have all the fun presenting the data that they were busy churning out. It's just not fair....

Shell fragments and feathers prevent sand erosion by the prevailing wind, August 1989. Pacific Beach, Washington. Photo provided by William R. Muehlberger.

Professor Milo Backus Retires

by Paul L. Stoffa

Professor Milo Backus retired this year after 23 years of service in the Department of Geological Sciences. Milo received his Ph.D. in 1956 from MIT, where his research centered on geologic age determinations. At that time, a revolution in data processing was just beginning as geophysicists were starting to exploit time series analysis and computers to improve the interpretation of geophysical data, particularly seismic data. After graduation, Backus joined Geophysical Services, Inc. (GSI) in Dallas, Texas, where he contributed to this revolution first as a research geophysicist and then as Director of Research and Vice President.

Milo M. Backus.

Milo retired from GSI in 1974 and joined The University of Texas at Austin in 1975. He continued his long-standing interest in the quantitative interpretation of geophysical data for petroleum exploration through his research program and the work of the graduate students he supervised. Ten students received their Ph.D.'s under Backus' supervision and over 20 their M.A. degrees. Many others, who were fortunate enough to have Professor Backus as members of their graduate studies committee, also benefited from his guidance and insight. During the 1980's, Milo Backus organized project SEER (Solid Earth Exploration Research), which was originally funded by eight oil and exploration companies. This program supported graduate students and their research into petroleum exploration problems. Nearly all of the students supervised by Professor Backus have gone on to careers in industry.

Professor Backus taught undergraduate and graduate geophysics majors exploration geophysics. He also taught graduate courses in modeling geophysical data and inverse methods, and a course in seismic lithology, which used quantitative interpretation techniques to derive material properties from seismic data.

A recognized leader in reflection seismology, Milo has received prestigious awards from the Society of Exploration Geophysicists (SEG) for his contributions. These awards show that Professor Backus has always been at the forefront in seismic technology. In 1959, he received the SEG Best Paper Award for his work on water column reverberations, which developed digital filtering techniques to improve seismic resolution. In 1975, the European Association of Geoscientists and Engineers gave Dr. Backus the Conrad Schlumberger Award for Flat Spot Exploration. In 1990, he received the Maurice Ewing Gold Medal for his work in digital seismic processing and 3-D reflection seismology. The Offshore Technology Conference gave him the individual achievement award in 1992 for his contributions to 3-D seismic exploration, processing, and interpretation.

Dr. Backus served as President of the SEG from 1979 to 1980 and was the SEG Distinguished Lecturer in 1985 where he presented the paper, "The Fourth Dimension—Offset Dependent Reflectivity." At The University of Texas at Austin, his contributions were recognized in 1991, when he was appointed to the Shell Oil Companies Foundation Distinguished Chair in Geophysics. Currently Milo serves as a consulting Research Scientist to the Exploration Geophysics Laboratory of the Bureau of Economic Geology. We wish him well in his retirement from formal teaching.

Professor Lynton Land Retires

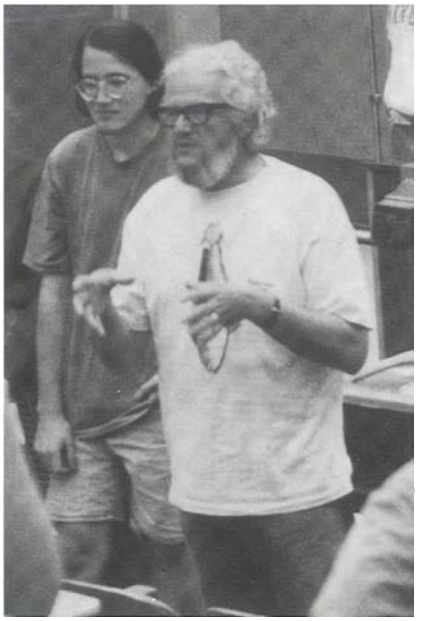
by Earle F. McBride

In a move that surprised his colleagues, Lynton retired in August of this year. In his 30-year tenure in the Department, Lynton has compiled a remarkable record of teaching, graduate-student supervision, research, and service. Lynton joined the Department in 1968 after completing a Ph.D. at Lehigh University under Keith Chave, followed by two years of post-doctoral work at Cal Tech, where he worked with Heinz Lowenstam. His undergraduate work at Johns Hopkins, where four geology majors constituted a large group, gave him exposure to four members of the National Academy of Sciences: Aaron Waters, Francis Pettijohn, Ernst Cloos, and David Raup.

Lynton regularly team-taught Sedimentary Rocks (and its precursor course, Sedimentary and Metamorphic Rocks) and Introduction to Oceanography in the undergraduate program and Sedimentary Geochemistry and Petrology of Carbonate Rocks and occasional seminars in the graduate program. He was a participant in the summer field course for many years, and a few years ago he introduced a new introductory course entitled "How to Live With a Planet," which treats the science of environmental and ecologic problems of the land, oceans, and atmosphere.

Twenty-seven students received their Master's degree and 24 students received their Ph.D. degree under Lynton's supervision. The majority of his students are in industry, but some are in academe, in geological surveys, or in consulting. Many of his former students attended a tribute and roast of Lynton held in Austin in April.

Lynton's research record is remarkable in scope, abundance, and quality. His principal contributions have been in geochemistry, particularly carbonate genesis and diagenesis, clastic diagenesis, and also stable-isotope geochemistry. His publications on rates of biogenic carbonate generation in reefs and carbonate shelves, origin of dolomite, origins of subsurface brines, hydrology of reefs, and various



Professor Lynton S. Land (center) at his retirement roast. Photo provided by Kitty Milliken.

aspects of rock-water interaction during shallow to deep diagenesis have become benchmark papers. But he has breadth as well: his first two publications dealt with sedimentary processes in terrigenous coastal environments, and more recently he has examined the isotopic composition of deer bone and plant seeds.

His innovative contributions in his major fields, chiefly as sole- or senior-authored publications, earned him a strong international reputation, two best paper awards for contributions to the *Journal of Sedimentary Petrology*, and the Francis Pettijohn Medal of the Society for Sedimentary Geology (SEPM) for sustained outstanding contributions to sedimentary geology. An additional measure of the strength of his published works is the frequency that his publications are cited by other workers: he stands heads above his unretired colleagues. Another remarkable statistic is that in his 30 years in the Department, Lynton had only one semester on research assignment when he was completely free of classroom duties.

Lynton has served the Department well in obtaining external funding from government agencies and industry to support his research and that of his students and post-docs; in obtaining funding for major pieces of widely used analytical equipment (electron probe, scanning electron microscopes, mass spectrometers, etc.), and in maintaining, repairing, and modifying much of the same equipment. His uncanny ability to identify the nature of mechanical and electronic problems in our analytical equipment—and fix many of them—has saved us many dollars and lots of down time and gnashed teeth.

In summers, Lynton left Austin, first alone and later with Judy, for field work in the Bahamas, Bermuda, and Jamaica. In addition to working on his tan, Lynton generated some fundamental data and interpretations of carbonate sediment generation, reef structure and hydrology, and geochemical characteristics of modern and Late Tertiary carbonate sediments and rocks. He particularly made a big impact on Jamaican reefs. Field work included land-based work, lots of scuba and snorkeling time, a visit to some deeper-water sites on the R/V *Eastward*, and a deep-water dive or two on the deep submersible *Nekton*. He also introduced students to the complexities of carbonate sediments and reefs on field trips to the Caribbean, Florida Bay, and on the *Nekton*. In recent summers "Luigi" Folk introduced Lynton, Judy, and Aaron to dolomites, travertines, and cultural aspects of Italy.

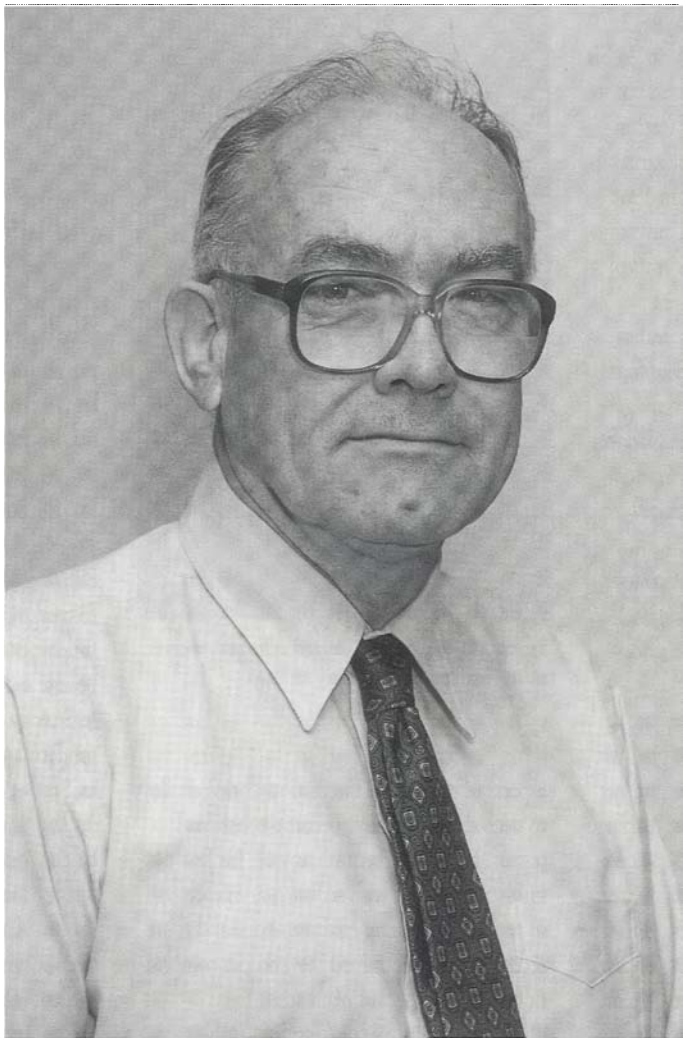
Lynton and Judy will move to a house overlooking Chesapeake Bay, where they can fish, sail, and monitor the quality of water in the bay. Lynton's contributions will be sorely missed, and so will Judy's. She regularly alternated teaching the Introduction to Oceanography course with Lynton, and provided counsel on the ecology of corals and other reef organisms. They leave behind a great legacy upon which to continue to grow.

Professor Ernest Lundelius Retires

by Tim Rowe

After 40 years as a Professor of Geology and 12 years as Director of the Vertebrate Paleontology and Radiocarbon Laboratory, Dr. Ernest Lundelius, Jr., has decided to retire. On August 31, 1998, Ernie will hand off to his successors at UT the fruits of a wonderfully prolific and highly influential career, including one of the nation's finest programs in vertebrate paleontology and one of the world's largest collections of fossil vertebrates.

Ernie was born and raised in Austin, Texas, and he was an undergraduate in the Geology Department at the University of Texas. His college education was interrupted by military service from 1947 to 1948, but he returned from the Army to finish his Bachelor's degree in Geology in 1950. Ernie went straight to graduate school, entering the acclaimed paleozoology program at the University of Chicago, where he studied with Dr. Everett C. Olson, who was one of the most influential paleontologists of the century. While a graduate student at Chicago, Ernie met Judy Weiser, whom he married in 1953. Ernie completed his Doctorate in 1954 and immediately set out for Australia on a yearlong Fulbright Fellowship. The topic of his fellowship was a study of the Pleistocene and post-Pleistocene vertebrate faunas of Australia, which Ernie has continued to work on to the present day, revisiting Australia several times. Following his Fulbright year, Ernie spent 18 months as a Postdoctoral Fellow at California Institute of Technology, a position he left in 1957 to accept a job as Assistant Professor in the Department of Geology at the University of Texas, Austin.



Ernest L. Lundelius.

Ernie's career at UT has been enormously productive and filled with accolades. Ernie was promoted to full Professor in 1969, and he became the John A. Wilson Professor of Paleontology in 1978, a position he has held until the present. In 1986, Ernie took on the Directorship of the Vertebrate Paleontology and Radiocarbon Laboratory, a post he also still holds. He directed several major grants that supported an extensive field program in Texas as well as field work in Ethiopia, and two major grants to improve the Vertebrate Paleontology Lab's collections. He is now working on the second of two large NSF grants to develop a massive computer database of North American Quaternary faunas. Ernie has served many professional societies, being President of both the Texas Academy of Sciences and the Society of Vertebrate Paleontology. He was elected as a Fellow of the American Association for the Advancement of Science in 1983.

During most of his career, Ernie has conducted research on Quaternary mammals, on reconstructing Quaternary environments, and on understanding microevolutionary change. While a UT professor, he supervised two dozen Master's and Doctoral students, most of whom work today as professional scientists, and many have carried on his Quaternary research program. To date, Ernie has published more than 70 influential papers and articles, and he has collected many tons of vertebrate bones from the Quaternary sediments of Texas, which have been the subject of dozens of publications by his students and colleagues from around the world. Ernie reports that he plans to continue his work in vertebrate paleontology into his retirement, including more field work in Texas and Australia.

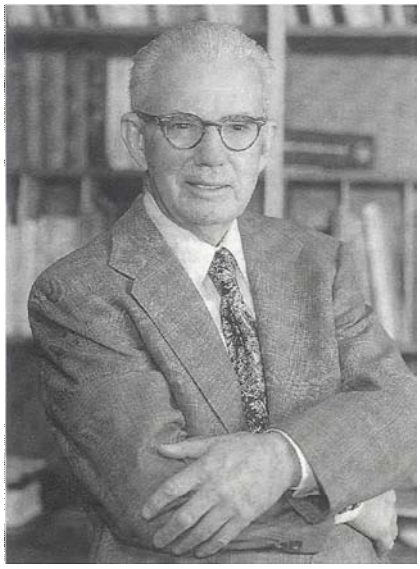
In Memoriam: Virgil E. Barnes

Virgil E. Barnes, Professor Emeritus, former Associate Director of the Bureau of Economic Geology at The University of Texas at Austin, and one of the world's leading experts on the geological phenomena of tektites, died in Austin, Texas, on January 28, 1998. He was 94, having been at The University of Texas at Austin for 63 years and professionally active until the time of his death. In recent years, he had been named the Distinguished Texas Scientist of the year by the Texas Academy of Sciences (1988), received the Barringer Medal from the Meteoritical Society at their 1989 meeting in Vienna, and received the 1993 American Association of Petroleum Geologists Public Service Award.

Born June 11, 1903, in Chehalis, Washington, Dr. Barnes earned his B.S. and M.S. degrees at Washington State College (now Washington University), and his Ph.D. at the University of Wisconsin in 1930. He spent the summer of 1929 prospecting in northern Manitoba for Dominion Explorers, Ltd., and emerged from the Canadian wilderness in October 1929 to witness the beginning of the Great Depression.

On finishing his doctorate in 1930, he worked for the American Petroleum Institute in Austin and then for the U.S. Geological Survey in Amarillo, Texas, before joining the Bureau of Economic Geology in 1935, where he worked until his death. He was known as the oldest University of Texas at Austin faculty member and oldest employee of the State of Texas. His last positions were as Senior Research Scientist at the Bureau of Economic Geology, Professor Emeritus in the UT Department of Geological Sciences, and Associate Curator Emeritus of Meteorites and Tektites for the Texas Memorial Museum. He was also Director of the Geologic Atlas of Texas Project, Director of the Geologic Map of Texas compilation, and Director of Tektite Research at the Bureau.

Tektites first came to his attention in 1936. At that time, these black, glassy objects were thought to be meteorites. He quickly came to the conclusion that tektites were



Dr. Virgil E. Barnes
(1903-1998)
Photo by David M. Stephens.

melted earth sediments. His now classic 1940 publication, *North American Tektites*, had been a basic reference during the Space Age. He steadfastly supported his conclusion that tektites are of terrestrial origin during a controversial period when some researchers asserted that tektites came from the moon. Investigations during the great surge in tektite research in the 1960's simply verified the conclusion earlier reached by Barnes.

Dr. Barnes was author or co-author of nearly 300 books, articles, maps, and abstracts in his long career. He belonged to 14 professional societies and was also a member of Austin's Scholia. Many awards and honors came his way. In 1978, a new lithium aluminum silicate mineral, which was discovered in Peruvian Macusanite glass which he had collected, was named "Virgilite" in his honor.

He had twice traveled around the world with grants from the National Science Foundation to visit all known tektite sites and a number of impact craters. In 1961, he visited Laos and Cambodia, going into areas that had seldom seen a westerner and were already in a state of unrest. At age 69, Barnes entered the disputed desert border area between Egypt and Libya to search for tektite samples, at some risk due to an "unofficial" crossing from the Libyan side, remote and extreme desert conditions, and the presence of smugglers using the Abu Mungar camel trail. His party discovered a downed airplane containing the corpses of eight Egyptian hydrologists who had perished from thirst after their plane lost direction in a sandstorm and ran out of fuel. The episode was widely reported in the European press, but his part in it was suppressed by the Libyan authorities.

His international travel went beyond tektites. In 1945, he conducted gravity surveys on mule-back at the Mexican volcano, El Paricutin, which had sprung up in a cornfield in Michoacan in 1943. He was a faithful attendee at the quadrennial International Geological Congresses, starting with the 1948 London Congress. He chaired a session at the 1968 International Geological Congress in Prague on the day that Warsaw Pact troops entered Czechoslovakia. (The Geological Congress was aborted at that point.)

His many decades of field geology were never stopped by an early, protracted, and severe case of painful ankylosing spondylitis, which left many of his vertebrae fused. In later years, he was notorious for out-walking other geologists when he led field tours. One of Virgil's recent official duties was to write his memoirs, *On Solid Ground*, which was published in 1995 by the Bureau of Economic Geology.

He was predeceased in 1994 by his wife of 62 years, Mildred Louise Barnes (nee Adlof). Surviving are his three children, Virgil E. Barnes II, Ph.D., of West Lafayette, Indiana, Louise Barnes, Ph.D., of Nashville, Tennessee, and Elizabeth Barnes Thompson, Ph.D., of New York City, and six grandchildren, Virgil E. Barnes III, Christopher Barnes, Jeffrey Barnes, Daniel Barnes, David Barnes-Seeman, and Victoria Thompson. Family members recently established the Virgil E. and Mildred L. Barnes Distinguished Lecture Series in Geology, to provide guest lectures in geology, in honor of their parents' contributions.

The 1947 "Brady Bunch" Class Reunion

by Robert W. Grayson

In 1947, the University of Texas, Austin, held a three-semester year to accommodate the explosive growth of the student body, which had grown to approximately 18,000 students. Most of this growth resulted from the large number of WW II veterans who were resuming their interrupted education under the G.I. Bill. This was particularly evident in the geology majors' classrooms, where the advanced courses were filled with veterans and a scattering of young women.

For students seeking a B.S. in Geology, a field course (Geology 60) was a requirement, and in the summer of 1947 this course was scheduled in two sessions at Brady, Texas, using the vacated Air Force Base as the base of operations. Sixty-three students, all men, attended these sessions, and nearly all graduated in either 1947 or 1948. Teachers for the course were Dr. Fred M. Bullard and Dr. Gus Eifler and Instructors, Gardley Moon, Travis Parker, and Kent Waddel.

Over the past 50 years, these graduates have maintained contact, and in 1979, Al Nelson (B.S., 1947) organized a reunion of the 1947 Geology 60 Class and referred to them as "The Brady Bunch." This gathering was held at Vail, Colorado, and was attended by Dr. and Mrs. Bullard and 25 graduates and spouses.

A second reunion was planned for 1986 in Santa Fe, New Mexico, by Charles Worrell (B.S., 1947) but was changed to Colorado Springs, where 13 members of the "Brady Bunch," 3 faculty, and 12 spouses attended.

Drs. Jack Wilson and Richard Bloomer organized a third "Brady Bunch" reunion in Austin (Lakeway) in 1990. Twelve class members, their spouses, and 5 faculty and spouses attended.

Class members who had attended the three reunions had a pow-wow after the Lakeway meeting and recommended that: (1) the next reunion be in Austin near UT campus; (2) the next meeting be in 1997 on the 50th Anniversary of the "Brady Bunch," and (3) all 1947-48 geology graduates be invited.

The "Brady Bunch" with Governor George W. Bush during tour of the Capitol; photo copyright Governor Bush Committee, 1997; photo by Bill Records.

Part of the "Brady Bunch" and spouses at brunch at Dick and Anne Bloomer's home on Sunday, September 14, 1997. Photo provided by Bob Grayson.

In early 1997, assistance was requested from the Geology Foundation in compiling the names and addresses of the 1947-48 geology graduates, those still living, and widowed spouses of those deceased. From all sources, a list of 105 graduates and 10 faculty was assembled, and a notice of the meeting, along with a questionnaire of interest in activities, was mailed. We are grateful to the Geology Foundation for help in developing this list and for financial assistance in the initial mailings.

From the 105 addressees, 53 responses were received, 13 of whom could not attend. Later, 72 were registered, and after the cancellation of two couples, the final count was 68 attendees.

The reunion commenced on Thursday, September 11, 1997, with registration and an evening ice-breaker reception at the headquarters hotel, where a Tex-Mex repast was served. Al Nelson brought white caps for all registrants with "'47–'48" embroidered in orange on them. These were courtesy of Al, Charley Worrell, O.D. Weaver, and Clem George.

On Friday morning, 39 members and spouses toured the Texas Capitol complex, including the new underground annex. Our group was greeted by Governor George Bush and then enjoyed lunch at the Capitol cafeteria. Four members missed this event because they were touring one of Austin's golf clubs. In the afternoon, a small group toured the Bureau of Economic Geology and Core Research Center, hosted by Ed Garner of the BEG.

Friday evening found our whole group on a riverboat cruise on Lake Austin in the crepuscule (Aggie dusk) enjoying fajitas with libations while viewing all the new lakeside dwellings. On the return trip, in the light of a beautiful full moon, we were treated to a geologic/geographical slide show narrated by Dr. Bill Muehlberger, using photos made by our astronauts. Many of these photos were taken at Bill's request.

On Saturday morning, the group was free to follow their own program, but on a hot September afternoon, five of our group attended the Texas-UCLA football game, sitting high in the upper deck, in the sun, in the end zone! The rest watched the game either in their rooms or in our hotel's party room, where we had installed a big-screen TV and enough libations to drown our disappointment in the disaster we were viewing. On Saturday evening, our group dispersed to sample some of Austin's renowned restaurants.

Our reunion concluded on Sunday morning with a delicious brunch at Anne and Dick Bloomer's Lake Travis compound. "This is a perfect ending to this 50th reunion," was the sentiment expressed by the 40 who attended.

All of our group were pleased with the reunion and look forward to the next one—perhaps in 2000.

Report from the Outreach Committee

The Department is continually reaching out via its scheduled lectures and seminars, but it is the Outreach Committee, chaired by Leon Long, that responds to requests, typically 15 to 20 in a year, from outside organizations.

Most commonly, teachers bring an elementary, middle, or high school class to tour our "rock garden," inspect the gem faceting lab, and be led through the mineral display room by Bill Woods. A graduate student may travel to a school for special presentations, as when Susan Knox recently coached middle school students from Pflugerville in paleontology, helping them to win state and do well in national competition. Visits to the Department are also popular with Scout troops and organizations of retired persons. Summer is a busy time as students attending the UT Honors Colloquium and other conferences come by.

There are more esoteric requests, especially for field trips. Long leads groups to a nearby locality on Shoal Creek where a fault is exposed, to spectacular Mt. Bonnell for a regional overview, or on day-long bus excursions to the Llano Uplift. These groups have consisted of teachers, representatives of a national consortium of magnet schools, church classes, townspeople installing hike-and-bike trail signage about geology, professional philosophers, and yes, even creationists. Field trips have a singular power to convince and instruct how the earth works; participants can see how it must have happened, right there in front of them.

Endowed Lecturers

Fall 1997

Mark Rowan

University of Colorado, Boulder, Colorado

Don R. and Patricia Kidd Boyd Lecture in Petroleum Exploration

"Rift-Basin Inversion in the Eastern Cordillera Fold- and Thrust Belt, Colombia"

December 3, 1997

"Allochthonous Salt Tectonics in the Gulf of Mexico"

December 4, 1997

Spring 1998

Charlie Kerans

Bureau of Economic Geology, The University of Texas at Austin

Judd H. and Cynthia S. Oualline Centennial Lectureship in Petroleum Geology

"Forward Modeling of the Permian Basin, Implications for Carbonate Factory Models and the Capitan Reef"

February 23, 1998

"High-frequency Sequence Stratigraphy and the New Sedimentology"

February 26, 1998

The fall symposium on September 11 and 12, 1997, titled "Coupled Interactions between the Ocean-Land-Atmosphere Systems: Past, Present and Future" was supported by the Edwin Allday Lectureship in Geological Sciences.

The spring symposium on February 6, 1998, titled "Space-based Geoscience Observations: Looking Down at the Future" was supported by the Judd H. and Cynthia S. Oualline Centennial Lectureship in Geological Sciences.

Visiting Speakers

Fall 1997 Semester

Ricardo A. Astini

Universidad Nacional de Córdoba

Cátedra de Estratigrafía y Geologíca Historica

Córdoba, Argentina

"The Laurentian-Derived Precordilleran Terrane, South-Central Andes"

October 28, 1997

James Baker

National Oceanic and Atmospheric Administration (NOAA)

Washington, D.C.

"Coupled Atmosphere-Ocean-Land Interactions and the Political Response"

September 11, 1997

Kenneth Bradbury

Wisconsin Geological and Natural History Survey

Madison, Wisconsin

"The Role of Groundwater Modeling in the Regulatory Process: A Case Study in the Permitting of a Large Mining Project"

October 2, 1997

"Combined Hydrostatigraphic Analysis and Groundwater Modeling for Delineation of Well Capture Zones in a Fractured Carbonate Aquifer"

October 3, 1997

Sean Buckley

Center for Space Research

The University of Texas at Austin

"Radar Interferometry: Topography Determination and Deformation Monitoring"

November 21, 1997

Richard W. Carlson

Carnegie Institution of Washington

Department of Terrestrial Magnetism

Washington, D.C.

"Brazilian Alkalic Volcanism and the Opening of the South Atlantic"

"The History of Continental Lithospheric Mantle"

September 25, 1997

Bill DeMis

Marathon Oil Company

Midland, Texas

"New Smackover Production, Stateline Graben Area, Louisiana"

September 15, 1997

T. Kenneth Fowler, Jr.

Exxon Production Research

Houston, Texas

"Pluton Emplacement Mechanisms: A View from the Roof"

November 6, 1997

Douglas Hamilton

Bureau of Economic Geology

The University of Texas at Austin

"Sequence Stratigraphic Concepts and their Application to Reservoir Performance: Examples from Fluvial Deltaic Reservoirs"

September 22, 1997

Dean Hendrickson

Curator of Ichthyology, Texas Memorial Museum

Austin, Texas (and)

Juan Manuel Rodriguez Martinez

Tuv America

Monterrey, Mexico

"Evolutionary History of Blind Cave Catfishes of Northeastern Mexico and Hydrologic Relationships of their Habitats"

October 31, 1997

Frederick Holzmer

Duke Engineering and Services

Austin, Texas

"Use of a Partitioning Interwell Tracer Test for DNAPL Site Characterization at a TCE Contaminated Superfund Site in Fort Worth, Texas"

October 10, 1997

David Johns

City of Austin

Austin, Texas

"Ground Water Quality in the Barton Creek Watershed"

September 26, 1997

Charles Kerans

Bureau of Economic Geology

The University of Texas at Austin

"Stratigraphic Hierarchy as a Key to a Genetic Classification of Paleokarst Heterogeneity Styles"

October 13, 1997

Eve Kuniansky
U.S. Geological Survey
Austin, Texas
"Use of Geographic Information System to Design Individual Models for Individual Sites at U.S. Air Force Plant 4"
October 17, 1997

Roger Lee
U.S. Geological Survey
Austin, Texas
"Remediation by Natural Attenuation of Chlorinated Hydrocarbons—Something for Nothing?"
November 14, 1997

Alan Levander
Rice University
Houston, Texas
"Whole Crustal Strike Slip Faulting and Basaltic Intrusion in the San Andreas Fault System, Northern California"
November 18, 1997
"Deep Probe Investigation of Phanerozoic and Archean Upper Mantle"
November 19, 1997

Robert Mace
Bureau of Economic Geology
The University of Texas at Austin
"Bug and Benzene: Behavior of Plumes Beneath Leaking Petroleum Storage Tanks in Texas"
December 5, 1997

Peter Mozely
New Mexico Tech
Socorro, New Mexico
"Geochemistry and Mode of Growth of Carbonate Concretions and Cemented Layers: The Big Picture"
November 10, 1997
"Controls on the Spatial Distribution of Carbonate Cementation in the Subsurface: Implications for Paleohydrologic Analysis"
November 11, 1997

Luis R. Peña
Geologic Consultant
Santiago, Dominican Republic (and)

Paul Mann
Institute for Geophysics
The University of Texas at Austin
"Neotectonic Studies of the Septrional Fault, North American-Caribbean Plate Boundary, Dominican Republic"
November 3, 1997

Jonathan G. Price
Director/State Geologist, Nevada Bureau of Mines and Geology
Mackay School of Mines, University of Nevada, Reno
Reno, Nevada
"The Greatest Gold Boom in U.S. History: Carlin-Type and Other Deposits in Nevada"
October 6, 1997
"Environmental Compatibility of Mining—Past, Present, and Future Issues"
October 7, 1997

Leslie Wood
Bureau of Economic Geology
The University of Texas at Austin
"A Model for Tectonostratigraphic Sequence Development in a Rapidly Subsiding Basin and Implications for Successful Exploration: Trinidad and Tobago, West Indies"
October 8, 1997

Xue-Yu Zhu
Nanjing University
Nanjing, China
"Environmental Problems Related to Groundwater in China"
November 7, 1997

Spring 1998 Semester

Radu Boghici
Texas Water Development Board
Austin, Texas
"Climate Change and Potential Flow Capacity in the Hueco Aquifer, Texas"
March 27, 1998

David Bottjer
University of Southern California
Los Angeles, California
"Non-actualistic Phanerozoic Sedimentology and Paleoecology"
January 27, 1998

Melba Crawford
Center for Space Research
The University of Texas at Austin
"Multisensor Applications of Remote Sensing to Land Cover and Surface Characterization"
April 24, 1998

Peter Dana
Geography Department
The University of Texas at Austin
"Matching GPS Methods to Applications"
February 20, 1998

Bruce Darling
LBG-Guyton Associates
Austin, Texas
"Valuation of Ground Water in Texas"
March 13, 1998

David Dettman
University of Arizona
Tucson, Arizona
"Paleoenvironments and Oxygen Isotopes in Freshwater Systems: Studies of Cretaceous Paleoelevation, the History of the Asian Monsoon, and the 1000 Years of Colorado River Flow"
April 2, 1998

Malcolm Ferris
Texas Natural Resource Conservation Commission
Austin, Texas
"State and Federal Regulation of Industrial and Hazardous Waste Landfills—Where's the Hydro?"
April 10, 1998

Henry Fricke
Carnegie Institution of Washington
Washington, D.C.
"Terrestrial Paleoclimate Records Preserved in the Tooth Enamel of Animals: Oxygen Isotope Ratios of Biogenic Apatite"
March 30, 1998

Jeffrey S. Hanor
Louisiana State University
Baton Rouge, Louisiana
Birdsall-Dreiss Lecturer, Hydrogeology Division of the Geological Society of America
"Origin and Migration of Saline Fluids in Sedimentary Basins"
March 10, 1998

Alan R. Hildebrand
Geological Survey of Canada
Ottawa, Ontario
"The Comet that Killed the Dinosaurs"
March 12, 1998

Carl Jacobson

Iowa State University
Iowa City, Iowa
"Subduction and Exhumation of the Pelona and Orocopia Schists of Southern California"
February 24, 1998

Braddock Linsley

State University of New York at Albany
Albany, New York
"Reconstructing Tropical Climatic Change on Millennial to Annual Time-scales: Stable Isotopic Evidence from Pacific Ocean Sediments and Corals"
April 9, 1998

Jerry Lucia

Bureau of Economic Geology
The University of Texas at Austin
"Conformance of Diagenesis to Carbonate Depositional Facies"
February 2, 1998

Richard Pancost

Pennsylvania State University
University Park, Pennsylvania
"Organic Carbon Isotopes as Paleoenvironmental Indicators: The Role of Source Variations"
March 26, 1998

James Papike

University of New Mexico
Albuquerque, New Mexico
"Evolution of the Moon: Current Insights"
April 1, 1998
"Exploring the Planets with the Ion Microprobe"
April 2, 1998

Corinna Prietzch

Center for Agricultural Landscape and Landuse Research
Müncheberg, Germany
"Soil Moisture Regionalization Approaches using Different Synthetic Aperture Radar Systems"
January 30, 1998

William Rowe

Geography Department
The University of Texas at Austin
"Water Resource Management in Southern and Eastern Morocco: A Three-Tier Approach to Maximization of Irrigation Schemes"
February 27, 1998

Stan Schumm

Colorado State University
Fort Collins, Colorado
"The Variability of Large Alluvial Rivers"
April 16, 1998

Barbara Sherwood-Lollar

University of Toronto
Toronto, Canada
1998 Darcy Lecturer
"Stable Carbon Isotopes: Tools for Detection of the Origin and Fate of Environmental Contaminants"
January 22, 1998

Lisa Sloan

University of California, Santa Cruz
Santa Cruz, California
"Spatially-resolved Versus Global Mean Models of Continental Denudation under Ice-free and Present-day Conditions"
February 9, 1998
"Paleoclimate Modeling and Comparisons with Paleoclimate Data: Examples from the Eocene"
February 10, 1998

Rebecca Smyth

Bureau of Economic Geology
The University of Texas at Austin
"Striking Oil at 20 Feet: A Petroleum Geologist's Dream or a Hydrogeologist's Nightmare"
April 17, 1998

Mark Sonnenfeld

Elf-Aquitaine, France
"Stratigraphic Cross-section Construction: Some Frequently Ignored Nuts and Bolts Issues"
April 20, 1998
"Facies Variation in a High-resolution Sequence Stratigraphic Context—Implications for Walther's Law: Upper San Andres Formation, Last Chance Canyon, NM"
April 21, 1998

Libby Stern

University of California, Berkeley
Berkeley, California
"Stable Isotope Evidence of Uplift Driven Climate and Vegetation Change in the Himalayan Foreland"
April 6, 1998

Basil Tikoff

Rice University
Houston, Texas
"Rock Fabrics, Lithospheric Levels, and Oblique Convergence"
March 25, 1998

Paulo Vasconcelos

The University of Queensland
Brisbane, Australia
"Weathering, Geochronology, Paleoclimates, and Catastrophism? (Ar/Ar Dating of Weathering Processes)"
February 13, 1998

Ruby Beach, Olympic National Park, Washington. Paleogene melange and broken formation. Photo provided by William R. Muehlberger.

Student Speakers

Fall 1997

Monika Bartelmann
M.S. Candidate
"Meter-Scale Hill-Slope Soil Moisture Variations, Rattlesnake Hill, Austin, Texas"
October 30, 1997

Rion Camerlo
M.S. Candidate
"Geometric and Kinematic Evolution of Detachment Folds, Monterey Salient, Sierra Madre Oriental, Mexico"
October 14, 1997

Christina Castellana
M.S. Candidate
"Age and Origin of the Coronel Joao Sa Pluton, Brazil"
November 13, 1997

Wagner Cruz
Ph.D. Candidate
"Study of Albian Carbonate Analogs: Cedar Park Quarry, Texas, USA, and Santos Basin Reservoirs, Southeast Offshore of Brazil"
November 4, 1997

Felix Diaz
M.S. Candidate
"Reservoir Characteristics in the Eocene Sandstones of Barua-Motatan Fields, Western Venezuela"
October 14, 1997

Qing Fang
Ph.D. Candidate
"Quantitative Analysis of Biostratigraphy and Sequence Stratigraphy of the Yegua Formation"
September 30, 1997

Frederick Hutson
Ph.D. Candidate
"The late Neoproterozoic and Early Paleozoic Tectonic History of the Shackleton Range, Antarctica"
November 25, 1997

Juan Carlos Jimenez
M.S. Candidate
"Structural Styles of the Andean Foothills, Putumayo Basin, Colombia"
November 20, 1997

Thomas Johnson
Ph.D. Candidate
"The Role of Ocean Variability in the Earth's Rotation and Gravity Field: Geodetic Applications for the Parallel Ocean Climate Model"
October 9, 1997

Virginia Smith
M.S. Candidate
"Hydrothermal Veining and Associated Alteration in the Tyrone Porphyry Copper Deposit, Grant County, New Mexico"
October 30, 1997

Mehmet Tanis
Ph.D. Candidate
"Prestack Split-Step Fourier Depth Migration and Parallel Implementations on Cray T3E"
December 2, 1997

Ronald Tykoski
M.S. Candidate
"The Shake-N-Bake Theropod (Dinosauria: Saurischia): A New Coelophysid from the Early Jurassic Kayenta Formation of Northeastern Arizona"
November 13, 1997

Spring 1998

Mario Aranda
M.S. Candidate
"Evolution of Neogene Contractional Structures, Southern Gulf of Mexico"
April 28, 1998

Jennifer Beall
M.S. Candidate
"Wolfcampian Platform and Basin Carbonates: West Texas"
April 4, 1998

Jianli Chen
Ph.D. Candidate
"Geodynamical Interconnections between the Atmosphere, Ocean, Hydrosphere, Cryosphere, and Solid Earth"
March 26, 1998

Johanna Devereaux
M.S. Candidate
"Investigating Spatial and Temporal Soil Moisture Distributions in a Large-Scale Field Experiment"
March 31, 1998

Alfred Gomez
M.S. Candidate
"Pennsylvanian Algal Bioherms: A Subsurface Analysis in the Paradox Formation, Four Corners Platform, Northwest NM"
April 28, 1998

Cory Hoffman
Ph.D. Candidate
"Time Significance of Albian Age, Shallow Subtidal Cycles of the Glen Rose Formation, East Texas Basin"
April 30, 1998

Senira Kattah
Ph.D. Candidate
"Controls on Deposition and Resulting Strata Architecture of Coarse-grained Alluvial Facies"
January 29, 1998

Cem O. Kilic
M.S. Candidate
"Neural Network Application in Well Logging"
May 5, 1998

James Lundy
M.S. Candidate
"Seismic Coupling along the New Hebrides Trench"
April 4, 1998

Ryan Mann
M.S. Candidate
"The Effects of an Inclined Diapiric Stem on Salt Flow and Suprasalt Deformation: Examples Using Finite-Element Modeling"
February 3, 1998

Paul Nyffenegger
Ph.D. Candidate
"Earthquake Aftershock Sequences and Regional Seismicity: The Little Picture"
April 7, 1998

Orlando Ortega
Ph.D. Candidate
"Understanding Artifacts in Fracture Scaling and the Use of Microfracture Information for Macrofracture Characterization"
April 8, 1998

Jennifer Piontek
M.S. Candidate
"Age and Origin of A-Type Granites from SW Sweden"
March 31, 1998

Laura Rico
M.S. Candidate
"Geometry and Kinematics of Detachment Folds"
April 29, 1998

James Rougvie
Ph.D. Candidate
"Amphibolites, Marbles and Bears-Oh my! Metamorphic P-T and Fluid Rock Interaction Histories of Proterozoic Rocks of the Northern Park Range, Colorado"
April 23, 1998

Steve Royer
M.S. Candidate
"The Effect of Polar Climate on Deltaic Sedimentation"
May 5, 1998

Richard Weiland
Ph.D. Candidate
"Emplacement of the Irian Ophiolite and Unroofing of the Ruffaer Metamorphic Belt, Irian Jaya, Indonesia"
April 9, 1998

Chris Zahm
M.S. Candidate
"Fracture Measurement, Characterization and Prediction: Implications for Groundwater Flow, Edwards Aquifer, Central Texas"
February 3, 1998

Research and Teaching Assistants, 1997–1998

Research Assistants

Bureau of Economic Geology

Akyurek, Fatma
Ali, Syed A.
Ariza, Eduardo E.
Beall, Jennifer L.
Beckage, Jeffrey S.
Bluem, Martina U.
Bondarenko, Maria
Brister, Christina J.
Chan, Ke Sheng
Chen, Jinghua
Cho, Heon
Choi, Wan-Joo
Cole, Danielle J.
Correa Vivar, Luciano L.
Coskun, Gundogan
Dacanay, Julienne R.
Dai, Jianchun
Dein, Colette A.
Delgado, Iliana M.
Desai, Ankur D.
Diaz, Felix A.
Diaz, Manuel A.
Doherty, Eloise H.
Dunlap, Dallas B.
Durriani, Kamran
Elliott, Benjamin P.
Fuller, Katy K.
Gao, Yugong
Griffiths, Isolda B.
Gu, Yaguang
Guzman, Jose I.
Hassan, Rashidul
High, Kimberly
Hu, Yujie
Izbasova, Akmaral E.
Jabbar, Irfan A.
Jimenez, Toribio A.
Johnson, Russ K.
Kilic, Cem O.
Kim, Eugene M.
Kim, Hye Won
Laljee, Faisal F.
Le Calvez, Joel H.
Lundy, James E.
Mann, Ryan J.
Narayanan, Keshav
Neilson, Kristin
Nutter, Christi G.
Nyffenegger, Paul A.
Palacheck, Susan
Parra Redondo, Sandra P.
Paulis, Janaka B.
Pessoa, Mirtes C.
Phillips, Jason A.
Pineda, Ruth Y.
Qiu, Yuan
Ragland, Nancy S.
Rahman, Mohammad
Rahnis, Michael A.
Ramirez, John G.
Reed, Robert M.
Romero, Martha L.
Sen, Vikramaditya
Tang, Shouan
Uliana, Matthew M.
Van Broekhoven, Norman G.
Vejil, Rosita V.
Vur, Cengiz, T.
Wang, Chengshu
Wood, Lesli J.
Workman, Marcia M.
Xu, Liying
Zahm, Laura C.
Zhu, Tiejun

Institute for Geophysics

Clark, Stephen
Cowley, Shane
Jiao, Junru
Kong, Fanchen
Lindsay, Sarah
Liu, Faqi
Liu, Qunling
Muszala, Stefan
Schuur, C. Laurie
Stachowiak, John
Tanis, Mehmet
Tsoflias, Georgios

Department of Geological Sciences

Fenstemaker, Thomas
Harrison, Jeffrey
Matzel, Eric
Ortega, Orlando
Rahnis, Michael
Rougvie, James
Royer, Stephen
Sapiie, Benjamin
Valentine, Daniel
Weiland, Richard
Zampino, Jennifer

Teaching Assistants

Department of Geological Sciences

Anderson, Susan
Ashworth, Martha
Asquith, William
Bartelmann, Monika
Beall, Jennifer
Bene, James
Bradley, Michael
Camerlo, Rion
Colbert, Mathew
Devereaux, Johanna
Dunn, Dennis
Faulkenberry, Laura
Feseha, Mulugeta
Ghosh, Ayati
Gomez, Alfred
Gournay, Jonas
Grellet-Tinner, Gerald
Hall, Brook
Hansen, Clarence
Harrison, Jeffrey
Hirsch, David
Hoffman, Cory
Hoh, April
Hunt, Brian
John, Jason
Jones, Ian
Lambert, Cori
Landrum, Michael
Loewy, Stacy
Luck, Roy
Macrini, Thomas
McFarlane, Christopher
Mickler, Patrick
Muszala, Stefan
Piontek, Jennifer
Pursell, Benjamin
Rico, Laura
Riley, Brook
Roberts, Jennifer
Roth, Michelle
Royer, Stephen
Rush, Jason
Sagebiel, James
Schlottmann, Robert
Shirley, Jolene
Turich, Courtney
Tykoski, Ronald
Uliana, Matthew
Valentine, Daniel
Van Gestel, Jean-Paul
Vasquez-Scheerhorn, Rosario
Zahm, Christopher
Zumbro, Justin

Assistant Instructors

Department of Geological Sciences

Hirsch, David
Owen, Pamela

Summer Field Camp 1998—GEO 660

by Mark A. Helper

What a difference an El Niño year can make! The 26 students who left Austin in late May for six weeks of field camp traveled nearly the same route as last year but saw vastly different conditions. Scorching temperatures in West Texas and New Mexico were followed by exceptionally rainy and cool weather in Colorado, Wyoming, and Montana. Camping and field work were a challenge.

The challenge was met by a particularly high level of group enthusiasm and cohesiveness, by a superb staff, and by a great collection of field projects in some of the most spectacular geology in the West. In some 6,300 miles, the group variously examined, mapped, described, and measured everything from Ag-Pb-Zn mineralization and contact metamorphism in the Pioneer Mountains, Montana, to the classic Permian reef exposures in the Guadalupe Mountains of West Texas and New Mexico. Students were led by Drs. Banner, Connelly, Helper, Kocurek, Marrett, McBride, and Sprinkle, assistant instructor David Hirsch, and six graduate teaching assistants who each taught three-week sessions.

As in previous years, the first week focused on carbonate rocks in the Guadalupe and Sacramento Mountains, New Mexico, with short trips to Carlsbad Caverns and White Sands. The emphasis shifted to fluvial and eolian sediments of the San Juan Basin during the second week, with stays at Ghost Ranch near Abiquiu, New Mexico, and Fort Lewis College in Durango, Colorado. From there the group traveled north to Greybull, Wyoming, on the western flank of the Big Horn Mountains, with visits along the way to Dinosaur National Monument and Thermopolis hot springs. During six days at Greybull, students mapped portions of the Sheep Mountain and Goose Egg Anticlines and viewed the structure of the Big Horn Mountains on a one-day trip through the range.

A three-day tour through the volcanic geology of Yellowstone and the neotectonics of Grand Teton National Park followed, before driving further north to Canyon Ferry, near Helena, Montana, for ten days of mapping in the thin-skinned fold-and-thrust belt of the Big Belt Mountains. The camp concluded with a project that examined relationships among mineralization, plutonism, metamorphism, and Laramide deformation in the Hecla silver district west of Melrose, Montana. The return trip to Austin provided glimpses of the geology of the Snake River Plain, the Colorado Plateau at Arches National Monument, and the Rio Grande Rift in northern New Mexico.

42 Days

Here I sit thoughts of 660 past
We are not the first or the last
We did it good, we did it right
We helped each other day and night
On shoulders we cried
On outcrops we died
Never once did we ever defile our pride
Through thick and thin
Through hell and high water
Through McKittrick Canyons hotter and hotter
We survived, we thrived
At the best of friends we have arrived
So no matter where we go
No matter what comes our way
We will remember each other and 42 days

—William J. McCarthy III
(July, 1998)

(left to right) Julie Dacanay, Andria Bilich, and Lisa Tarde record strike and dip during mapping at Clarks Gulch, Big Belt Mountains, Montana. Photo provided by Mark Helper.

Professor Randall Marrett leads students along a transect through the Sevier fold and thrust belt, as spectacularly exposed in Beaver Creek Canyon in the central Big Belt Mountains, Montana. Photo provided by Mark Helper.

The Texas High School Coastal Monitoring Project

by Brenda Kirkland George

Students involved in the Texas High School Coastal Monitoring Project learn to use a hand level to survey the profile of the beach. Photo provided by Brenda Kirkland George.

The Texas High School Coastal Monitoring Project is a pilot project that involves students in hands-on coastal research. Throughout the 1997–1998 academic year, students in the Ball High School (Galveston, Texas) honors marine science class made seasonal observations of beach morphology and coastal process. Jim Gibeaut and Roberto Gutiérrez from the Bureau of Economic Geology along with Brenda Kirkland George and Courtney Turich from the Department of Geological Sciences have trained teachers, prepared exercises, led field trips, and worked with students in the classroom.

This program provides high school students with an inquiry-based learning experience. Working in teams, the students conduct scientific research involving data collection, analysis, and hypothesis testing. The project monitors seasonal changes at several undeveloped beaches near Galveston. Monitoring these key beaches promotes understanding of the relationship between coastal processes and beach morphology.

Information generated from the project will allow communities to anticipate and respond to future shoreline change. Through the students, this program will also increase public awareness and understanding of coastal processes and hazards. Apart from these specific goals, we hope the program encourages bright students to consider careers in science, engineering, and technology. High schools in Port Aransas and Port Isabel are proposing to join the program in the future.

GEMS—Geology's Emerging Scholars

by Brenda Kirkland George

This year's GEMS program was one of the best classes to date. The course was filled to capacity and students had to be turned away. The goals for this year's class were to become familiar with real-life projects in a variety of fields of geology, to practice writing short reports and abstracts, and to learn to use commercially available presentation software for giving computer-based presentations. As always, each group exercise revolved around the computers, and the new departmental computer teaching facility proved to be the perfect place for teaching this type of class. At the beginning of the semester, many of the students struggled with software, and crashing noises were heard more than once. By the end of the semester, teams raced to complete computer-generated graphs and competed for the slickest presentations. They produced remarkable work that rivals presentations I have seen at professional meetings.

The first of our GEMS students have now graduated and started out on careers. Some of them check in from time to time and remind us that we have made a difference!

GEMS students visiting Enchanted Rock. Photo provided by Brenda Kirkland George.

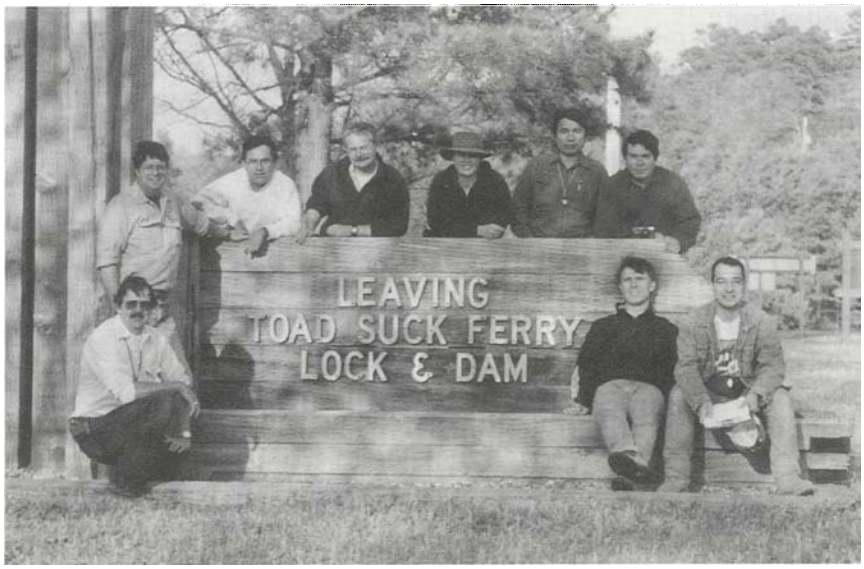
Graduate Seminar in Sedimentary Basin Analysis

by William L. Galloway

The 1998 spring field trip for Bill Galloway's graduate seminar in sedimentary basin analysis was special this year. Thomas (Mac) McGilvery (Ph.D., 1996), took time off from his job as Senior Stratigrapher at Phillips Petroleum Company (Bartlesville) to lead a field trip through the Pennsylvanian strata exposed in the Ouachitas of Arkansas and eastern Oklahoma. The four-day field trip examined the variety of facies and sedimentary features that formed along the Arkoma Basin paleo-continental margin. A special treat was the visit to the Toad Suck Ferry locality, noted for its strangely faulted/channeled? siltstones and its souvenir shop. Outcrops provided a look at classic localities exposing submarine channel, turbidite lobe, deep-water slump, delta-fed apron, tide-reworked shelf and delta, and incised valley-fill deposits.

Since arriving at Phillips after completing his Ph.D. at UT Austin, Mac has developed and run the trip several times as a part of the new-hire training course for Phillips geoscientists. Thus, participants not only sampled spectacular geological exposures but also benefited from the thoroughly illustrated guidebook and Mac's experience in Arkoma Basin geology and international perspective on facies and sequence interpretation—all spiced with a strong dose of Arkansas "down-home" humor.

Mac's time and guidebooks, as well as ample supplies of food and beverage, were graciously provided by Phillips Petroleum. This field trip illustrates yet another way that our students benefit from the support of both our graduates and the petroleum industry.



Thomas (Mac) McGilvery (Ph.D., 1996) Senior Stratigrapher, Phillips Petroleum Company (top, left), Bill Galloway (bottom left), and Sedimentary Basin Analysis students assembled for the ritual field trip photograph at the famous Toad Suck Ferry locality on the Arkansas River. Photo provided by Bill Galloway.

Placement Office Update 1997–1998

by Miriam Pashby

The 1997–1998 academic year was very favorable for the Geological Sciences Placement Office, and the 101 students who used the Placement Office services through the Department. Placement activities were coordinated in the fall semester by Mark McGee and in the spring semester by Miriam Pashby, who joined the staff in February. Of the students who took advantage of the placement services, 39 were candidates for B.S. or B.A. degrees, 35 for M.S. degrees, and 27 for Ph.D. degrees.

The Placement Office had great responses from the many organizations that visited the department this year. Representatives from Amerada Hess, Amoco, Anadarko, ARCO, BHP Petroleum, BP Exploration, Burlington Resources, CGG American Services, Chevron, Conoco, Exxon Exploration, Exxon Production and Research, Marathon Oil, Maxus, Mobil, PGS Tensor, Phillips, Radian, Schlumberger, Shell, Sonat, Texaco, 3DX, Union Pacific, Unocal, Veritas, and Western Geophysical visited the Department during the fall. Spring recruiters were Brigham, Geco-Prakla and GeoQuest, Mobil, and Veritas.

A survey was taken by the Placement Office wherein 47 responses, or nearly 50 percent, were returned out of 100 mailed. According to this survey, 40 full-time positions and 29 summer jobs/internships were offered to undergraduate and graduate students by various companies this past year.

The following salaries were offered by the companies interviewing through this office:

Full-time annual job salaries:

B.S./B.A.	$26,000 – $33,600
M.S.	$50,400 – $57,000
Ph.D.	$52,800 – $65,000

Summer job/internship salaries (annual basis):

M.S.	$36,000 – $54,000
Ph.D.	$43,200 – $63,000.

Student Awards and Honors

Best Technical Sessions Presentation Awards:

Mehmet C. Tanis (Ph.D. research, fall 1997) "Prestack split-step Fourier depth migration algorithms and parallel implementations on Cray T3E."

Ronald S. Tykoski (M.S. research, fall 1997) "The Shake-N-Bake theropod (Dinosauria: Saurischia): a new coelophysid from the Early Jurassic Kayenta Formation of Northeastern Arizona."

Ronald S. Tykoski (left) receives Technical Sessions Best Speaker Award for a Master's Candidate during fall 1997 from Mark Cloos (right), Department Chairman.

Richard J. Weiland (Ph.D. research, spring 1998) "Tertiary emplacement of the Irian Ophiolite and unroofing of the Ruffaer Metamorphic Belt, Irian Jaya, Indonesia."

Johanna A. Devereaux (M.S. research, spring 1998) "A study of surface soil moisture variability within remote-sensing footprints."

Honorable mention for Best Technical Sessions Presentations was also awarded to Frederick E. Hutson (Ph.D. research, fall 1997), Juan C. Jimenez (M.S. research, fall 1997), Jennifer E. Piontek (Ph.D., spring 1998), and Steve A. Royer (M.S. research, spring 1998).

Graduate Student Executive Committee Student Service Award:

MaryLynn Musgrove

Outstanding Teaching Assistant Awards:

Jennifer L. Beall
Cory L. Hoffman
Ronald S. Tykoski

Petrography Awards:

Eleanor J. Camann (undergraduate)
Christopher R. McFarlane (graduate)

Outstanding Field Geologist Hammer Award:

Bradley H. Reid

Office of UT Graduate Studies Graduate Student Professional Development Award:

Fanchen Kong
Qunling Liu
Rosario Vasquez-Scheerhorn

Houston Geological Society Award:

Eleanor J. Camann (undergraduate)

Brian J. Exton writes a monthly column in *GSA Today*, the monthly newsletter of the Geological Society of America. The column is titled "Student News and Views."

Staci Loewy (right) with MaryLynn Musgrove (left) right after MaryLynn's receipt of GSEC Student Service Award from Staci, Chair of GSEC, at Department's award ceremony on May 7, 1998.

Jennifer L. Beall (left) receives Outstanding Teaching Assistant Award from Mark Cloos (right), Department Chairman, at Department ceremony.

Mark A. Helper (left) congratulating Bradley H. Reid (right) on receipt of Outstanding Field Geologist Hammer Award at Department ceremony.

Andria Bilich.

Andria Bilich Receives Several Honors

Donors to the Geology Foundation have generously provided funds through which the Department can grant several Endowed Presidential Scholarships (EPS's) each year to our most distinguished undergraduate majors. Because of its limited scope, the EPS is one of the most prestigious awards at UT, endowments being variously sponsored by a department, by the entire College of Natural Sciences or another college, or by the university at large. Last year, our own Andria Bilich and Romy Schneider won EPS's in a rarefied competition at the college level with its thousands of math and science majors, who in principle would be eligible.

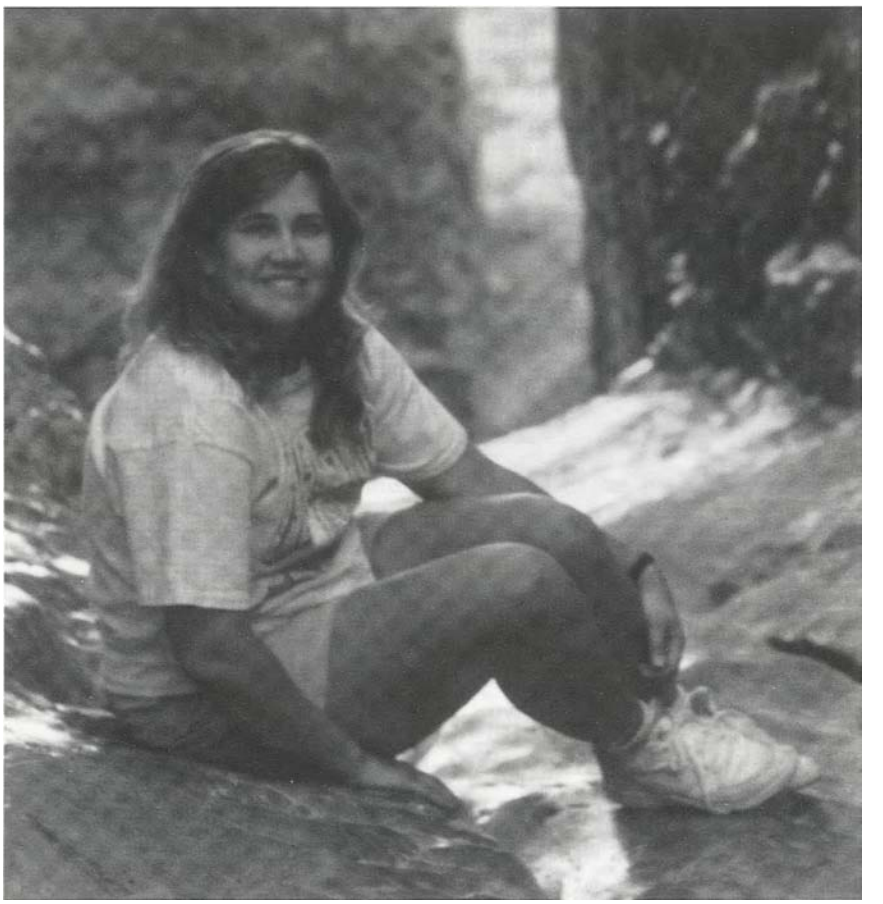
More recently, Andria has become the first person to win an EPS on the two highest levels of competition—college and entire university. And not only that, she has also won a scholarship at the national level. It is the Barry M. Goldwater Scholarship, established by the U.S. Congress to support 300 excellent students in mathematics, engineering, or the natural sciences across the country. Andria, we are proud of you!

Eleanor Camann Receives Award and Plaque from Houston Geological Society

Every year, the Houston Geological Society provides a generous award of $500 and a plaque to an outstanding student named by the Department. Traditionally we have identified a graduate student and an undergraduate on alternate years. This year the recipient was Eleanor Camann, an undergraduate.

Eleanor did not start out as a geologist. She grew up in upstate New York and attended Georgetown University, in Washington, D.C., having graduated *magna cum laude* with a bachelor's degree in Foreign Service and an Honors Certificate in International Business. She worked for a while in radio and for the travel industry, but it was her experience as a park ranger at Cape Cod National Seashore that "hooked" her on love of geology and the outdoors and led eventually to her coming to UT. She will graduate with a B.S. degree in 1999.

Eleanor is most interested in marine geology and sedimentology, especially of carbonates, and plans to pursue these specialties in graduate school. Ideally, she would like to work in a profession where she can continue to learn more about coastal processes.


Eleanor Camann.

Christie Rogers Gives Fall 1997 College Graduation Ceremony Speech

Christi Rogers. Photo by Wayne Long.

Members of the Department of Geological Sciences were delighted that for the 1997 fall graduation ceremony, our own Christie Rogers was chosen to be the Commencement speaker. It was a great honor both for Christie and for the Department which, although the largest geoscience department in the country, is relatively small (fewer than 160 majors) compared to the College (more than 8,000 math and science majors).

Christie grew up around Los Alamos, New Mexico. Her father, Harold, is a physicist there, having obtained all his degrees through the Ph.D. from UT, and Margaret Anne, her mother, is an alumna of our Department. Because geologists often must cope with harsh conditions in the field, they must have both intellectual and physical ability. Christie had already proven herself as a competitive swimmer throughout her early school years. When it came to applying to a university, Christie knew that geology was to be "it" for her. There are other good schools, but UT topped Christie's list; no doubt the prospect of becoming a third-generation Longhorn had something to do with that!

At UT, Christie promptly distinguished herself in the classroom and in leadership in a number of student organizations. A highly prized honor (among many) she received was the Outstanding Student Award, which goes to only a handful of the most accomplished undergraduates on campus. Perhaps an even greater reward was to be selected as a Dean's Honored Graduate for academic achievement and special accomplishments, honoring Christie's research and service to The University.

Christie became an ardent caver and explored some big (and exciting) caverns in remote parts of Mexico. Her Senior Honors Thesis, "Jointing in the Gorman Falls Area and its Relation to Gorman Spring, Colorado Bend State Park, San Saba County, Texas," was inspired by her involvement in a karst survey. At heart, Christie is a structural geologist. Currently she's working for an oil company in Midland, but later she will put her enormous energy and talent to work in graduate school somewhere.

Student Officers for Fall 1997 and Spring 1998

Bo McCarthy (President) (right) presents William L. Fisher (left) with plaque for Dr. Fisher's help as faculty advisor of the student chapter of AAPG.

Graduate Student Executive Committee (GSEC) 1997-1998

Chair	Staci Loewy
Vice Chair	Cori Lambert
Secretary	Laura Faulkenberry
Treasurer	Gavin Hudgeons
Board Member at Large	Jennifer Zampino
Board Member at Large	Courtney Turich
Board Member at Large	Orlando Ortega

Fall 1997

American Association of Petroleum Geologists–Student Chapter

President	William (Bo) McCarthy
Secretary	Lisa Tarde
Treasurer	Celinda Kelsey

Undergraduate Student Geological Society (USGS)

President	David Dufeau
Vice President	Bruce Keels
Secretary	Lisa Tarde
Treasurer	Celinda Kelsey

University of Texas Geophysical Society (SEG)

President	Andria Bilich
Secretary	Lisa Tarde
Treasurer	Celinda Kelsey

Spring 1998

American Association of Petroleum Geologists–Student Chapter

President	William (Bo) McCarthy
Vice President	Russell Hamann

Undergraduate Student Geological Society (USGS)

President	Andria Bilich
Vice President	Sherri Randal
Secretary	Brian Andres
Treasurer	Danielle Schleman
Webmaster	Donald Campbell
Public Relations	Scott Settemeyer

University of Texas Geophysical Society (SEG)

Not active in spring

Graduate Student Executive Committee

by Staci Loewy

The Graduate Student Executive Committee's (GSEC) main goal this year was to get graduate students involved in the community of both the Department of Geological Sciences and the City of Austin. The Department is not just a building where we come to work. It is a group of people with common interests and talents. We feel that we could all enjoy and benefit from more social and intellectual interaction with our co-workers. To this end, GSEC organized and contributed to the success of several projects and social functions to promote a stronger sense of community.

Our greatest achievement this year is the completion of the first UT Department of Geological Sciences graduate student research newsletter, *The Cross-Section*, a collection of summaries of graduate student research. This is a forum for Geological Sciences graduate students to share our work with each other and the faculty and staff, as well as with visiting scientists and prospective students. To attract new graduate students, we feel it is especially important to have an official document to show prospective students examples of the type and caliber of research that can be done as part of working toward a degree here. In addition, we also updated and improved the graduate student research board on the third floor and the bulletin boards in the fourth-floor lounge, to better exhibit our interests and activities.

The Department held two large symposia this year to investigate potential "new directions" for research. Many well-known scientists attended and presented their ideas. GSEC aided with the logistical aspects of these symposia: organizing the poster session, transporting speakers to and from hotels and the airport, and setting up refreshments during and after the symposia.

Through the diligent efforts of Cori Lambert and with the financial support of the Foundation, GSEC hosted visiting prospective graduate students. Students met with faculty and graduate students, both in the office and at organized social events. These events included refreshments in Eastwoods Park, a tour of Austin sites, a faculty/staff versus student basketball game, dinner at a local restaurant, and a barbecue at the home of a graduate student.

In November, we were able to come to the aid of the Foundation. For the last two years, the Foundation mailings (4,000 pieces) had been automated, and graduate students were not needed to collate shipments as we had done in the past. This year, there was a problem with the automated shipping of the newsletter, and it had to be stuffed into envelopes for mailing. GSEC was able to organize an emergency "envelope-stuffing session" the next day. Over a period of 15 hours, more than 40 graduate students volunteered their time to ensure that the shipment went out on time.

GSEC also tried to become more involved beyond the walls of the Department. Two blood drives were held, coordinated by Jennifer Roberts Rogers. Pints donated were credited to a new account that is available to any member of the Department or their families, should they need to receive blood. With two annual blood drives, we maintain a constant balance in our account of approximately 50 pints.

This spring, we participated in the Austin Science Fun Day, sponsored by the Texas Memorial Museum. Teachers and students, grades 1 to 6, collaborated with local scientists to create projects that they exhibited during the event. Families spent that day together learning science. The Department's graduate students, organized by Courtney Turich, prepared two hands-on experiments of our own for the festival to show young scientists what professional hydrogeologists and paleontologists do. We intend to make Austin Science Fun Day an annual event.

On the more purely social functions, the Departmental Christmas Party, coordinated by Jim Connelly and Kathy Manser, was a huge success, allowing faculty, staff, and graduate students to relax and socialize after the end of the fall semester. Plans are already being discussed for the second annual Christmas Party. In addition, we had a great turnout for the faculty/staff versus student basketball game in the spring, co-organized with the Undergraduate Student Geological Society (USGS). A full day of activities was held during the last day of class, May 8, to celebrate the end of the academic year. These began with a luncheon in the Geology Building, organized by Kathy Manser and Jim Connelly. After hours, we had refreshments in Eastwoods Park, co-sponsored with the USGS, followed by the traditional Final Bedlam entertainment, excellently executed by Al Gomez and Gavin Hudgeons, and post-Final Bedlam festivities with the help of Burlington Resources.

If you are interested in receiving a copy of our research newsletter, *The Cross-Section*, contact GSEC at Department of Geological Sciences (C1140), The University of Texas at Austin, Austin, TX 78712 (or GSEC@mail.utexas.edu).

Graduate Scholarships and Fellowships

Amoco Foundation, Inc., Scholarship

Jennifer L. Beall	Spring 1998
Donna L. Cathro	Spring 1998
Stephen W. Grimes	Spring 1998
Laura L. Faulkenberry	Spring 1998

Laura Thomson Barrow Graduate Fellowship

Catherine A. Christoffel	Fall 1997
Senira D. Kattah	Spring 1998

Leonidas T. Barrow Centennial Chair in Mineral Resources Scholarship

Jennifer L. Beall	Spring 1998

British Petroleum and Exploration, Inc., Scholarship

Jason J. Lundquist	1997–1998

Hal H. Bybee Memorial Scholarship

Eugene M. Kim	Summer 1998

Conoco, Inc., Scholarship

Faqi Liu	Spring 1998

Ronald K. DeFord Field Scholarship

Gerald Grellet-Tinner	Summer 1998
Jonas P. Gournay	Spring 1998
Jason G. John	Spring 1998
Michael T. Landrum	Spring 1998
Pamela R. Owen	Summer 1998
Laura Rico	Spring 1998
Stephen A. Royer	Spring 1998
Jason W. Rush	Summer 1998
Rosario Vasquez-Scheerhorn	Spring 1998
Georgios P. Tsoflias	Summer 1998
Courtney H. Turich	Spring 1998
Matthew M. Uliana	Spring 1998
D. Shane Valentine	Summer 1998

Elliott Academic Activities Fund

D. Shane Valentine	Fall 1997

William Stamps Farish Chair in Geology Fellowship

Susan D. Anderson	Summer 1998
David M. Hirsch	Summer 1998

Getty Oil Company Centennial Chair Grant

Maider Etxebarria	Fall 1997
Benyamin Sapiie	Spring 1998

F. Earl Ingerson Graduate Research Assistance Fund

Ayati Ghosh	Summer 1998

John A. & Katherine G. Jackson Fellowship in Geohydrology

Mitchell D. Zimmerman	Fall 1997

Howard R. Lowe Vertebrate Paleontology Fund

Brook E. Hall	Fall 1997

Marathon Oil Company Scholarship

Christopher K. Zahm	Spring 1998

Maxus Scholarship

Marcia L. Branstetter	Spring 1998
Jonas P. Gournay	Spring 1998
Ian C. Jones	Spring 1998
Michael A. Rahnis	Spring 1998

Mobil Oil Company Fellowship

Dennis P. Dunn	Summer 1998
Brian J. Exton	Spring 1998
C. Norman Hansen	Summer 1998
Christopher R. McFarlane	Summer 1998
Matthew Rodell	Spring 1998
Jennifer Roberts Rogers	Summer 1998
J. Christopher Sagebiel	Summer 1998

William R. Muehlberger Field Geology Scholarship

Wan-Joo Choi	Summer 1998
Laura L. Faulkenberry	Spring 1998
Todd Halihan	Summer 1998

Phillips Petroleum Company Fellowship

Joel Herve Le Calvez	1997–1998
Ryan J. Mann	1997–1998
Mehmet C. Tanis	1997–1998

Harlan Tod Sutherland Memorial Scholarship

Rion H. Camerlo	Summer 1998
Stephen A. Royer	Summer 1998

Texaco, Inc., Scholarship

Jennifer L. Beall	Spring 1998
Jonas P. Gournay	Spring 1998
Cory L. Hoffman	Spring 1998

Arno P. (Dutch) Wendler Professional Development Fund

Jennifer L. Beall	Spring 1998
Rion H. Camerlo	Fall 1997
Wan-Joo Choi	Fall 1997
Catherine A. Christoffel	Fall 1997
Jonas P. Gournay	Spring 1998
Todd Halihan	Fall 1997
Ian C. Jones	Spring 1998
Fanchen Kong	Fall 1997
Thomas E. Macrini	Summer 1998
Benjamin P. Pursell	Fall 1997
Michael A. Rahnis	Spring 1998
Matthew Rodell	Spring 1998
Jennifer Roberts Rogers	Fall 1997
Rosario Vasquez-Scheerhorn	Spring 1998
Virginia P. Smith	Fall 1997
Georgios P. Tsoflias	Fall 1997

Scholarships, Fellowships, and Grants from Other Agencies, 1997–1998

American Association of Petroleum Geologists Foundation Research Grants

Jennifer L. Beall
Suk-Joo S. Choh
Jonas P. Gournay
Jason G. John
Jason W. Rush
Courtney H. Turich

American Association of University Women

Donna L. Cathro

American Federation of Mineralogical Societies Scholarship Foundation

Susan D. Anderson
Rion H. Camerlo
David M. Hirsch
Pamela R. Owen

American Museum of Natural History Research Grants

Gerald Grellet-Tinner
Thomas E. Macrini

Environmental Protection Agency Science to Achieve Results

MaryLynn Musgrove

Undergraduate Scholarships and Awards

Fulbright Scholarship
Barbara J. Mahler

Geological Society of America Research Grants
Brian J. Exton
Laura L. Faulkenberry
Todd Halihan
Brian B. Hunt
Michael T. Landrum
Thomas E. Macrini
Michelle A. Roth
Juan B. Santana
Georgios P. Tsoflias
Matthew M. Uliana
Rosario Vasquez-Scheerhorn

Gulf Coast Association of Geological Societies
Rion H. Camerlo
Brian B. Hunt
Juan B. Santana

Houston Geological Society W. L. Calvert Memorial Scholarship
Jennifer L. Beall
Eugene M. Kim

NASA Fellowship
Stephen T. Graham
Marcia L. Branstetter

National Sciences Foundation Graduate Research Traineeships
Johanna A. Devereaux
Todd Halihan
Ian C. Jones
Karen D. Mohr
Matthew Rodell
Jennifer Roberts Rogers

Society of Economic Geologists Research Grants
Jeffrey S. Harrison

UT Austin Graduate School and Tuition Fellowship
Karen D. Mohr

AMOCO Foundation, Inc., Scholarship
Russell R. Hamman	Spring 1998
William J. McCarthy	Spring 1998

Wayne Franklin Bowman Endowed Presidential Scholarship
Lisa N. Tarde	1997–1998

Bloomer Fund for Motivated Students
J. Matthew Court	Summer 1998
Iliana M. Delgado	Summer 1998
Heather R. Good	Spring 1998
Gregory A. Hodge	Spring 1998
Jeff B. Gipson	Spring 1998, Summer 1998
Kristin E. Neilson	Summer 1998
Christopher B. Strganac	Fall 1997
Duane R. Tisdale	Summer 1998
W. James Wiemann	Summer 1998
Lemuel C. Williams	Spring 1998

John F. Bookout, Jr., and Carolyn Bookout Scholarship in Geological Sciences
Eleanor J. Camann	Spring 1998
Thomas A. Golden	Spring 1998

Wayne Franklin Bowman Endowed Presidential Scholarship
Lisa N. Tarde	1997–1998

Brahman Energy Company Scholarship
William J. McCarthy	Summer 1998

Thomas and Ray Burke Student Job Program
Apryl Sullivan	Spring 1998
Jennifer Weber	Fall 1997

Burlington Resources Foundation Scholarship
Gilbert P. Manning	Summer 1998
William J. McCarthy	Spring 1998
Romy D. Schneider	Summer 1998

Hal H. Bybee Memorial Fund
James S. Ables	Summer 1998
Julienne R. Dacanay	Summer 1998
Melanie A. Humphrey	Summer 1998

Dorothy Ogden Carsey Memorial Scholarship
Danielle J. Cole	Summer 1998
David L. Dufeau	Spring 1998
Jeff B. Gipson	Summer 1998

W. Kenley Clark Memorial Endowed Presidential Scholarship
Amy M. Balanoff	1997–1998

Conoco, Inc., Scholarship
William J. McCarthy	Spring 1998

R. H. Cuyler Endowed Presidential Scholarship
Behnaum Moayyad	1997–1998

Guy E. Green Endowed Presidential Scholarship
Andria L. Bilich	Summer 1998

Charles and Eunice Haas Endowed Presidential Scholarship
Adrienne M. Beede	Fall 1997

Fred E. and Nora V. Haas Endowed Presidential Scholarship
Tammi S. Kennedy	Fall 1997

Allen C. and Nancy Locklin Scholarship
Adrienne Barnett	Spring 1998

John H. and Lujza P. McCammon Endowed Scholarship
Brady L. Ansley	Summer 1998

Mr. and Mrs. L. F. McCollum Scholarship in Geology
Andria L. Bilich	Summer 1998
Bradley H. Reid	Spring 1998

Carroll C. Miller Endowed Presidential Scholarship
Russell R. Hamman	1997–1998

Wes Ogden Memorial Scholarship in Geophysics
Romy D. Schneider	Summer 1998

Phillips Petroleum Company Scholarship

Brady L. Ansley	Summer 1998
D. Bryan Pairsh	Summer 1998
Lisa N. Tarde	Summer 1998
John A. Vaughan	Summer 1998

F. W. Simonds Endowed Presidential Scholarship

Celinda A. Kelsey	1997–1998

John and Elizabeth M. Teagle Scholarship in Petroleum Geology

Brian B. Andres	Spring 1998
Eleanor J. Camann	Fall 1997
Deanna M. Combs	Spring 1998
Jennifer K. Dickinson	Spring 1998
Russell R. Hamman	Summer 1998
Russell Humphrey	Summer 1998
D. Bryan Pairsh	Fall 1997
Christie M. Rogers	Fall 1997
Douglas S. Sassen	1997–1998
James P. Savage	Fall 1997

Texaco, Inc., Scholarship

Adrienne Barnett	Summer 1998
Adrienne M. Beede	Summer 1998
D. Bryan Pairsh	Summer 1998

Thayer Scholarship

Behnaum Moayyad	Summer 1998
Kathryn B. Oheim	Summer 1998

Udden Memorial Scholarship

Jaime D. Barnes	Spring 1998

Unocal Company Scholarship

Jeff B. Gipson	Summer 1998
Gilbert P. Manning	Summer 1998
Cody M. Simmang	Summer 1998
Thomas G. Thayer	Summer 1998

Glenn & Martha Vargas Scholarship in Gemology

Romy D. Schneider	Spring 1998

Albert W. and Alice M. Weeks Fund in Geology

Brian B. Andres	Fall 1997
Adrienne Barnett	Fall 1997
Jennifer Dickinson	Fall 1997
David L. Dufeau	Fall 1997
Thomas A. Golden	Fall 1997
Charna E. Meth	Fall 1997
Behnaum Moayyad	Summer 1998
D. Bryan Pairsh	Spring 1998
Kristie L. Persky	Fall 1997
James P. Savage	Spring 1998
Christopher B. Strganac	Spring 1998
Lawrence E. Taylor	Spring 1998
Xiaomei Zhou	Fall 1997

F. L. Whitney Endowed Presidential Scholarship

Angela D. Masloff	1997–1998

Charles E. Yager Undergraduate Field Scholarship Fund

Brady L. Ansley	Summer 1998
Deanna M. Combs	Summer 1998
Michael C. Edmonds	Summer 1998

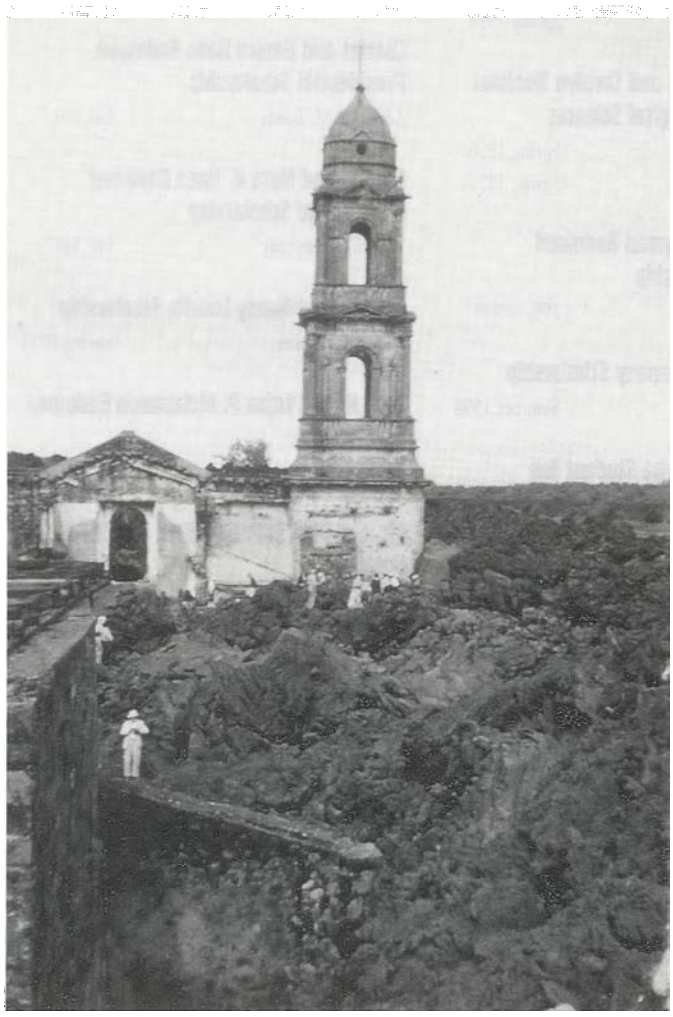
Scholarships and Fellowships from Other Agencies

Barry M. Goldwater Scholarship, 1997–1998

Andria L. Bilich

University Co-Operative Society Undergraduate Research Fellowship, 1997–1998

David L. Dufeau



Church buried by lava from Paricutin volcano, Mexico, June 1944. Photo taken July 1956. Photo provided by William R. Muehlberger.

Degrees Awarded

Graduate Degrees in Geological Sciences Conferred by The University of Texas at Austin 1997–1998

Master of Science, August 1997 (7)

Balinsky, Robin L.
B.S., Geology, 1992, The University of Texas at Austin
Revision of the Pleistocene to Holocene Wilson-Leonard Microvertebrate Fauna and its Paleoenvironmental Significance
Supervisor: Ernest L. Lundelius
Committee Members: Michael Collins, Timothy B. Rowe

Boghici, Radu
B.S., Geology, 1987, University of Bucharest
Hydrogeological Investigations at Diamond Y Springs and Surrounding Area, Pecos County, Texas
Supervisor: John M. Sharp, Jr.
Committee Members: Philip C. Bennett, Brenda Kirkland George

Hicks, David Lee
B.S., Geology, 1991, University of New Mexico
Depositional Environments and Diagenesis of the Early Cretaceous Cox Sandstone, Finlay Mountains, Trans-Pecos, Texas
Supervisor: Earle F. McBride
Committee Members: Lynton S. Land, William E. Galloway

Nieto Camargo, Jorge E.
B.S., Geology, 1988, Universidad Industrial de Santander
Facies Architecture and Production Optimization in the Upper Cretaceous-Upper Eocene Operational Unit K1, Apiay Field, Llanos Basin, Colombia
Supervisor: Noel Tyler
Committee Members: William L. Fisher, Randall A. Marrett

Oribio Quintana, Ronald
B.S., Geology, 1986, Colorado School of Mines
Reservoir Architecture and Reserve Growth Potential of Miocene Fluvial-Deltaic Deposits in the Bachaquero Field, Maracaibo Basin
Supervisor: Noel Tyler
Committee Members: William L. Fisher, Bob A. Hardage

Phinney, Eric J.
B.S., Geology, 1994, Virginia Tech
Sequence Stratigraphy, Structure, and Tectonics of the Southern Ontong Java Plateau and Malaita Accretionary Prism, Solomon Islands
Supervisor: Milo M. Backus
Committee Members: Clark R. Wilson, Paul Mann

Schuster, Stefan K.
B.S., Geology, 1992, The University of Texas at Austin
Hydrogeology and Local Recharge Analysis in the Toyah Basin Aquifer
Supervisor: John M. Sharp, Jr.
Committee Members: William E. Galloway, David Maidment

Doctor of Philosophy, August 1997 (7)

Akbar, Faruq E.
B.S., Civil Engineering, 1988, Bangladesh University of Engineering
M.S., Geology, 1992, University of New Orleans
Three-Dimensional Pre-Stack Plane Wave Kirchhoff Depth Migration in Laterally Varying Media
Supervisors: Paul L. Stoffa, Mrinal K. Sen
Committee Members: Milo M. Backus, Stephen P. Grand, Thomas H. Shipley

Barker, Daniel H.
B.A., Geology, 1989, University of Cambridge
M.S., Geology, 1990, University of London
Tectonic Evolution of Bransfield Strait, West Antarctica
Supervisors: Ian W. D. Dalziel, James A. Austin, Jr.
Committee Members: Randall A. Marrett, Thomas H. Shipley, Paul L. Stoffa

Calderon Macias, Carlos
B.A., Geology, 1989, Universidad Nacional Autonoma de Mexico
Artificial Neural Systems for Interpretation and Inversion of Seismic Data
Supervisors: Paul L. Stoffa, Mrinal K. Sen
Committee Members: Milo M. Backus, Stephen P. Grand, Clifford A. Frohlich, Sven Treitel

Edgerton, David G.
B.S., Geology, 1982, Oregon State University
M.S., Geology, 1987, Arizona State University
Geologic Models of Sediment-Buffered Hydrothermal Vents: A Case Study of the Red Dog Zn-Pb-Ag Orebody, Western Brooks Range, Alaska
Supervisor: J. Richard Kyle
Committee Members: Lynton S. Land, John M. Sharp, Jr., Roger J. Barnaby, Donald Sangster

Fitchen, William M.
B.S., Geology, 1987, University of Wisconsin-Madison
Lower Permian Sequence Stratigraphy of the Western Delaware Basin Margin, Sierra Diablo, West Texas
Supervisor: Richard T. Buffler
Committee Members: Lynton S. Land, Brenda Kirkland George, Charles Kerans, Lloyd C. Pray

Swezey, Christopher S.
B.S., Geology and French, 1987, Duke University
M.A., Geology, 1991, The University of Texas at Austin
Climatic and Tectonic Controls on Quaternary Eolian Sedimentary Sequences of the Chott Rharsa Basin, Southern Tunisia
Supervisor: Gary A. Kocurek
Committee Members: Brenda Kirkland George, Earle F. McBride, Francisco L. Perez, Nicholas Lancaster

Xia, Ganyuan
B.S., Geology, 1987, Duke University
Background Velocity Estimation, AVO Inversion and Full Waveform Inversion for Horizontally Stratified Media: A Divide and Conquer Approach
Supervisors: Mrinal K. Sen, Paul L. Stoffa
Committee Members: Milo M. Backus, Clark R. Wilson, Nathan L. Bangs

Master of Science, December 1997 (11)

Bartelmann, Monika S.
B.S., Geology, 1994, University of Massachusetts at Amherst
Spatial and Temporal Variability in Soil Moisture on a Hill-Slope: Rattlesnake Hill, Austin, Texas
Supervisor: Mark P. Cloos
Committee Members: John M. Sharp, Jr., Bridget Scanlon

Christoffel, Catherine A.
B.A., Geology, 1994, Lehigh University
Mesoproterozoic Tectonothermal Development of Southwestern Sweden: New Age Constraints Using Field Relationships and U-Pb Geochronology
Supervisor: James N. Connelly
Committee Members: Leon E. Long, Sharon Mosher

Jimenez, Juan C.
B.S., Geology, 1990, Eafit University
Structural Styles of the Anean Foothills, Putumayo Basin, Colombia
Supervisor: Randall A. Marrett
Committee Members: William E. Galloway, Paul Mann

Knox, Susan D.
B.S., Geology, 1993, Colorado State University
Cyclicity and Reservoir Quality Variations in the Blair and Rock Springs Formation, Rock Springs Uplift, Southwest Wyoming
Supervisor: Earle F. McBride
Committee Members: William E. Galloway, Michelle Kominz

Konnecke, Lis K.
B.S., Geology, 1990, University of Hamburg
Early Development of the Southern Kerguelen Plateau (Indian Ocean) from Ocean Bottom Seismograph and Multichannel Seismic Reflection Data
Supervisor: Paul L. Stoffa
Committee Members: Millard F. Coffin, Ian W. D. Dalziel

Martineau, David T.
B.S., Geology, 1992, University of Mississippi
Hydrogeochemistry of the Pine River Methane Seeps: Durango, Colorado
Supervisor: Philip C. Bennett
Committee Members: Lynton S. Land, John M. Sharp, Jr.

Massell, Christina G.
B.S., Geology, 1993, Stanford University
The Neotectonics of the Macquarie Ridge Complex, Pacific-Australia Plate Boundary
Supervisors: Sharon Mosher, Millard F. Coffin
Committee Member: Ian W. D. Dalziel

Ortega Perez, Orlando J.
B.S., Geology, 1990, Universidad Central de Venezuela
Prediction of Macrofracture Properties Using Microfracture Information, Mesaverde Group Sandstones, San Juan Basin, New Mexico
Supervisor: Randall A. Marrett
Committee Members: Stephen E. Laubach, Earle F. McBride

Penniston-Dorland, Sarah
B.A., History of Science, 1986, Harvard College
Veins and Alteration Envelopes in the Grasberg Igneous Complex, Gunung Bijih (Ertsberg) District, Irian Jaya, Indonesia
Supervisor: Mark P. Cloos
Committee Members: William Carlson, Randall A. Marrett

Pursell, Benjamin P.
B.S., Geosciences, 1994, The Pennsylvania State University
A Record of Changing Seawater Chemistry and Diagenesis Derived from 87Sr / 86Sr Variations Through the Latemar Carbonate Platform, Dolomites, Northern Italy
Supervisor: Jay L. Banner
Committee Members: Brenda Kirkland George, Lynton S. Land

Zimmerman, Mitchell D.
B.A., Chemistry, 1992, Ohio State University
Sorption in a Model Fracture System
Supervisor: Philip C. Bennett
Committee Members: John M. Sharp, Jr., Randy Charbeneau

Doctor of Philosophy, December 1997 (5)

Brochu, Christopher A.
B.S., Geology, 1989, University of Iowa
M.A., Geology, 1992, The University of Texas at Austin
Phylogenetic Systematics and Taxonomy of Crocodylia
Supervisor: Timothy B. Rowe
Committee Members: David Cannatella, James M. Clark, Ernest L. Lundelius, Jr., James T. Sprinkle

Cruz, Wagner M.
B.S., Geology, 1982, Universidad Federal do Rio de Janeiro
Study of Albian Carbonate Analogs: Cedar Park Quarry, Texas, USA, and Santos Basin Reservoirs, Southeast Offshore of Brazil
Supervisor: William L. Fisher
Committee Members: Robert L. Folk, Brenda Kirkland George, Charles Kerans, F. Jerry Lucia

Darling, Bruce K.
B.A., Philosophy, 1975, University of Southwestern Louisiana
M.A., Geology, 1989, The University of Texas at Austin
Delineation of the Ground-Water Flow Systems of the Eagle Flat and Red Light Basins of Trans-Pecos Texas
Supervisor: John M. Sharp, Jr.
Committee Members: Philip C. Bennett, Alan R. Dutton, Robert L. Folk, Charles W. Kreitler, David R. Maidment

Merck, John W.
B.A., Near Eastern Studies, 1977, Oberlin College
M.A., Geology, 1989, The University of Texas at Austin
A Phylogenetic Analysis of the Euryapsid Reptiles
Supervisor: Timothy B. Rowe
Committee Members: John M. Sharp, Jr., Gary A. Kocurek, David R. Maidment, William Back

Molineux, Margaret A.
B.A., Geography, 1964, Girton College, Cambridge
M.A., Geography, 1968, Girton College, Cambridge
Late Pennsylvanian Shales of North-Central Texas: An Assessment of Their Depositional Environment
Supervisor: James T. Sprinkle
Committee Members: Jay L. Banner, Theodore Delevoryas, Gene Mapes, Royal Mapes, Earle F. McBride

Master of Science, May 1998 (7)

Castellana, Christina Hansen
B.S., Geology, 1995, University of California-Los Angeles
Age and Origin of the Coronel Joao Sa Pluton, Bahia, Brazil
Supervisor: Leon E. Long
Committee Members: James N. Connelly, Alcides N. Sial

Cowley, Shane
B.S., Geology, 1995, University College, Dublin
Oligocene to Recent Stratigraphic and Tectonic History of the Central Solomon Intra-Arc Basin as Determined from Marine Seismic and Onshore Geology
Supervisor: William E. Galloway
Committee Members: Paul Mann, Randall A. Marrett, Tom Shipley

Diaz, Felix A.
B.S., Geophysical Engineering, 1988, Univeridad Central de Venezuela
Architecture of a Shore-Zone Reservoir System in Barua Field, Maracaibo Basin Western Venezuela
Supervisor: Noel Tyler
Committee Members: William L. Fisher, Randall A. Marrett

Lundy, James E.
B.S., Electrical Engineering, 1986, Purdue University
Seismic Coupling along the New Hebrides Trench
Supervisor: Stephen P. Grand
Committee Members: Mark Cloos, Clark Wilson

Mann, Ryan J.
B.S., Geology, 1996, North Dakota State University
Numerical Modeling of Deformation Around Allochthonous Salt Tongues Driven by Sedimentary Loading: Applications to the Gulf of Mexico
Supervisor: Randall A. Marrett
Committee Members: Dan Schultz-Ela, William E. Galloway, Martin P. Jackson

Smith, Virginia P.
B.A., Geology, 1993, Bryn Mawr College
Evolution of Hypogene Veining and Associated Alteration in the Tyrone Porphyry Copper Deposit, Grant County, New Mexico
Supervisor: J. Richard Kyle
Committee Members: Randall A. Marrett, Douglas Smith

Upitis, Geoffrey W.
H.B.S., Geology, 1993, University of Western Ontario
Paleocene-Early Middle Eocene Lithostratigraphy and Sequence Stratigraphy in the Rio Grande Valley, Texas
Supervisor: William E. Galloway
Committee Members: Randall A. Marrett, Earle F. McBride

Doctor of Philosophy, May 1998 (4)

Johnson, Thomas J.
B.S., Aeronautical and Astronautical Engineering, 1989, Purdue University
M.S., Engineering, 1991, The University of Texas at Austin
Role of the Ocean in the Planetary Angular Momentum Budget
Supervisor: Clark R. Wilson
Committee Members: Raynor L. Duncombe, James S. Famiglietti, Stephen P. Grand, Byron D. Tapley, Michael Watkins

Li, Ning
B.S., Engineering, 1983, Wuhan College of Geology
M.S., Geochemistry, 1986, Peking University
Depositional Controls and Genesis of the Jinding Sandstone-Hosted Zn-Pb Deposit, Yunnan Province, Southwest China
Supervisor: J. Richard Kyle
Committee Members: Earle F. McBride, Lynton S. Land, Richard P. Major, Donald F. Sangster

Mace, Robert E.
B.S., Geophysics, 1989, New Mexico Institute of Mining and Technology
M.S., Hydrology, 1990, New Mexico Institute of Mining and Technology
Ground-Water Flow and Solute-Transport in a Fractured Chalk Outcrop, North-Central Texas
Supervisors: Alan R. Dutton, John M. Sharp, Jr.
Committee Members: Philip C. Bennett, Fred W. McDowell, Sharon Mosher

Sapiie, Benyamin
B.S., Geology, 1987, Institute Technology of Bandung
Strike-Slip Faulting, Breccia Formation, and Porphyry Cu-Au Mineralization in the Gunung Bijih (Ertsberg) Mining District, Irian Jaya, Indonesia
Supervisor: Mark P. Cloos
Committee Members: Carl E. Jacobson, J. Richard Kyle, Sharon Mosher, David V. Wiltschko

Undergraduate Degrees in Geological Sciences Conferred by The University of Texas at Austin 1997–1998

Bachelor of Arts, August 1997 (2)

Holland, Scott Wayne
Warner, Deena Rene

Bachelor of Science, August 1997 (16)

Ambriz, Jesus
Ashby, Michael Lea
Avvakoumides, Jacqueline
Braun, Christopher Lee
Campbell, Amy Lee
Denson, Mark Kevin
Floyd, Jacqueline Suzanne Marie
(Special Honors in Geological Sciences)
Gale, Douglas Andrew
Johnson, Russell Kent
Landrum, Michael Thomas
Marks, John Myron II
Muratov, Nurlan I
Pierce, Timothy Lane
Schaffer, Jennifer Erin Marie
(High Honors; Special Honors in Geological Sciences)
Thiele, Michael Owen
Wenzel, Brian Josef

Bachelor of Arts, December 1997 (3)

Heil, Roger Henry
Keels, Bruce Vincent
Parr, David W., Jr.

Bachelor of Science, December 1997 (8)

Callaway, Todd A.
Dippel, David Royce
Dunlap, Dallas Brogdon
Hansen, Clarence Normen
Herrell, Katherine Anne
(Special Honors in Geological Sciences)
Jordan, David Craig
Rogers, Christie Marie
(Highest Honors; Special Honors in Geological Sciences)
Zhou, Xiaomei

Bachelor of Arts, May 1998 (2)

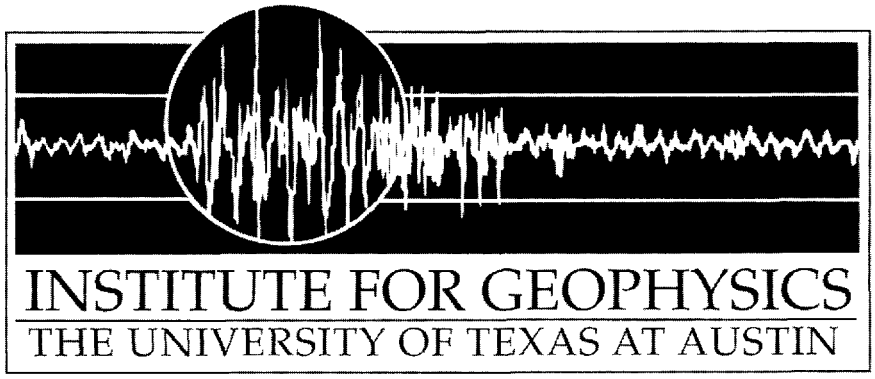
Ansley, Brady Lewis
Kraft, David Owen

Bachelor of Science, May 1998 (7)

Crone, Robert Wallace, Jr.
Khorzad, Kaveh
Reid, Bradley Hamilton
(Special Honors in Geological Sciences)
Kelsey, Celinda A.
(Special Honors in Geological Sciences)
Lopez, Alexander III
Savage, James P.
Shah, Sachin Dinesh

Institute for Geophysics

by Patricia E. Ganey-Curry



The University of Texas at Austin Institute for Geophysics (UTIG), a leading academic research group in geology and geophysics founded in 1972, conducts geophysical investigations of the history, structure, and dynamics of the earth's crust and of earthquake phenomena. UTIG is an Organized Research Unit within the College of Natural Sciences and serves the basic and applied geophysical research and graduate student training needs of The University of Texas at Austin.

Areas of research include seismic reflection and refraction, earthquake seismology, geothermal studies, gravity, geomagnetism, aerogeophysics, laser altimetry, geodesy, and theoretical geophysics. Geographic areas of research are worldwide. Funding is provided by federal agencies (principally the National Science Foundation and the Office of Naval Research) and by the State of Texas, with additional support from The University and major oil companies. Institute staff have been busy in the field this year and have started many new projects.

Ian W. D. Dalziel, Senior Research Scientist and Associate Director of the Institute for Geophysics, was awarded one of the two 1997–1998 University Cooperative Society Excellence Awards, administered by the UT-Austin Office of the Vice President for Research for his paper, "Neoproterozoic-Paleozoic Geography and Tectonics: Review, Hypothesis, Environmental Speculation," published in the *GSA Bulletin*, on the roles that endogenic earth processes, plate tectonics, and geography play in the control of global climate.

The Institute recently acquired a large parallel computer, which will be used primarily for pre-stack 3-D applications including depth migrations. It is an 8 CPU, 8 Gbyte, SGI Origin 2000 system, with 100 Gbytes of disk. Funds for the purchase were acquired through a Major Research Instrumentation (MRI) Program award from NSF with additional contributions from ARCO Exploration and Production Technology, Conoco, Inc., Mobil Exploration and Producing Technical Center, Petroleum Geo-Services, Norway, Shell E&P Technology Company, and the G. Unger Vetelsen Foundation. This new system will run larger existing seismic processing applications as well as allow production tuning and testing of new parallel codes created by scientists and students.

Paul Stoffa and Mrinal Sen have received two years of funding from Shell, Amoco, and ARCO for a project titled, *SLOSEIS: Slowness Analysis, Waveform Inversion and Uncertainty Estimation in VTI Media.*

The successful industry-sponsored project, UT-GBDS: *Gulf of Mexico Basin Depositional Synthesis*, with principal investigators Dick Buffler and Bill Galloway, will be extended two additional years beginning September 1998.

A new industry-funded project was initiated June 1 titled *GIB: Gulf of Mexico Intraslope Basins Project* with principal investigators Hilary C. Olson (UTIG) and John E. Damuth (UT Arlington). The project will produce a detailed, comprehensive, and integrated synthesis of late Quaternary depositional processes and facies in intraslope basins and document the influence of sea-level changes on controlling these facies and processes. The research will integrate seismic interpretation, sedimentology, and biostratigraphy from previously collected seismic data and piston cores.

Yosio Nakamura, James A. Austin, and Ben Yates traveled to Spain to participate on a cruise on the *R/V Maurice Ewing* as part of a project headed by Rice University's Dale Sawyer. The project is a joint USA-German multichannel and wide-angle seismic experiment to study the apparently non-volcanic Galicia Interior Basin/Galicia Bank rifted continental margin and the transform boundary with the Iberia Abyssal Plain margin segment to the south.

Mike Coffin, Paul Mann, and Mark Wiederspahn participated in the joint Japanese-United States *KH-98* cruise to the Solomon Islands and Ontong Java Plateau (OJP) in January and February. The cruise, operated by the Ocean Research Institute in Tokyo and UTIG, focused on the structure and stratigraphy of the Ontong Java Plateau, and the Plateau's collision with the Solomon Islands.

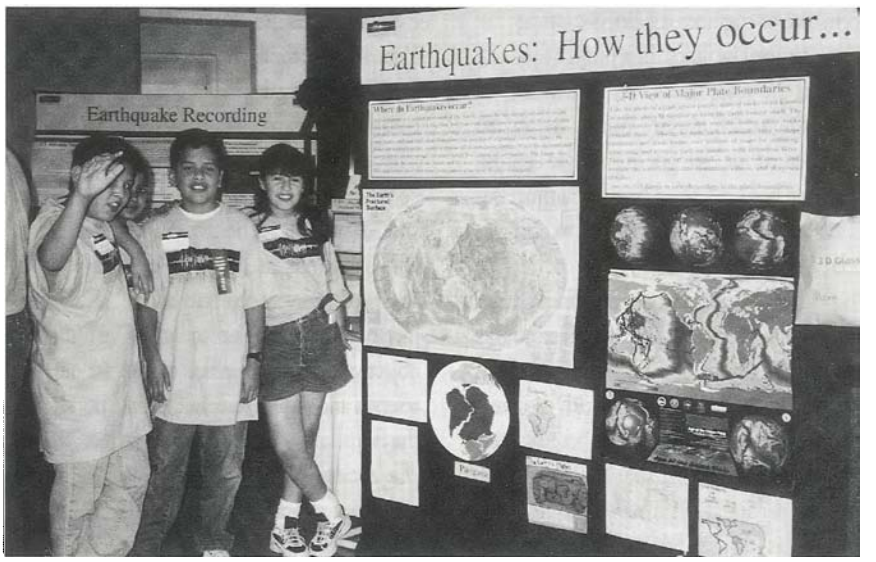
Nathan L. Bangs, Thomas H. Shipley, and Yosio Nakamura are principal investigators of a new research project in the Lesser Antilles subduction zone in the Caribbean to examine sediment deformation and flow through the subduction zone. The recent experiment was conducted in spring 1998 using both seismic reflection and refraction techniques to probe deep within the subduction zone on the *R/V Maurice Ewing* east of the volcanic island of Guadeloupe. During the cruise multichannel seismic reflection data were acquired both along strike and across strike of the subduction zone to image crust and sediment structures from the seabottom, which is 5 km below the sea surface, to 10 km subseafloor. UTIG ocean bottom seismometers were deployed to acquire seismic refraction data. Department of Geological Sciences students and several UTIG staff members were also able to take part in the acquisition cruise.

This December Mike Coffin will be a co-chief scientist on *Ocean Drilling Program Leg 183* on the Kerguelen Plateau/Broken Ridge, one of two giant oceanic plateaus formed in Cretaceous time. The ridge is a prime target for addressing mantle processes resulting in large igneous provinces (LIPs), formation of large igneous provinces themselves, and environmental consequences of voluminous mafic magmatism. Leg 183 will penetrate igneous basement to depths of ~200 m at several morphologically and tectonically diverse locations on the ~2 x 10^6 km^2 LIP formed by the Kerguelen Plateau-Broken Ridge in the Southeast Indian Ocean.

Co-principal investigators Nathan Bangs and Thomas H. Shipley have been recently funded by the NSF to conduct a 3-D seismic investigation of the Nankai Subduction zone in collaboration with the University of Hawaii and University of California, along with six Japanese agencies and universities. The primary objective of the investigation is to use seismic data to quantify transitions in the physical properties along the major plate-boundary thrust within the Nankai Subduction zone. The planned experiment is a 3-D seismic reflection and refraction survey, with 41 lines acquired within a 4 x 90 km area. Data are to be acquired in 1999 on the *R/V Ewing*, using its large (8400 cu. in.) airgun array. These data will be used to locate possible drilling targets for deep riser drilling with the planned OD21 drilling ship to sample major out-of-sequence thrusts connected to the plate-boundary thrust or perhaps the main thrust itself.

Craig S. Fulthorpe, Paul Mann, and Cliff Frohlich are co-principal investigators on a recent NSF grant to conduct a high-resolution, multichannel seismic (MCS) study in the Canterbury Basin on the eastern margin of the South Island of New Zealand. The goal of this work is to understand the interplay of global (eustasy) and local (tectonics, sediment supply rate, and current activity) controls responsible for continental-margin depositional cyclicity.

The Institute has expanded its outreach activities. Many research staff assist groups in the Austin area with science-related activities. The Institute is listed in the Austin Science Fun Guide as a "Science Center in Austin" and will be hosting student groups starting this fall. UTIG has one special class that it worked with this past school year and plans to continue assisting in the future. The class is a bilingual fifth-grade class from Galindo Elementary in south Austin. With UTIG's help, the class participated in Austin Science Fun Day, choosing earthquake seismology as the topic for its interactive booth. All the work paid off, as the booth was awarded first prize.



(left to right) Jorge Vasquez, Sergio Torres, Julio Moreno, Dora Sorto, Galindo Elementary students celebrating their first-place win at Austin Science Fun Day. Photo by Patricia E. Ganey-Curry.

Vertebrate Paleontology Laboratory

by Ernie Lundelius

The building that houses the Vertebrate Paleontology Laboratory is undergoing much-needed renovation, which will remedy many long-standing problems. This has been somewhat disruptive but will make life much more pleasant when finished.

John Merck successfully defended his dissertation dealing with the phylogeny of the Sauropterygia (plesiosaurs and ichthyosaurs), large Mesozoic marine reptiles. Pamela Owen, Chris Sagebiel, Gerald Grellet-Tinner, and Ron Tykoski continue to work on their theses and dissertations and will be finishing in another year. Ted Macrini is finishing his first year as a graduate student and is in the process of picking a thesis project.

Bob Rainey and Earl Yarmer continue to prepare specimens for study. One specimen is a partial skull of *Deinosuchus*, a giant crocodile from the Big Bend, being studied by Wann Langston. This is the only specimen that has the posterior part of the skull preserved, which will make it possible to clear up some problems concerning the giant crocodiles from a number of parts of North America. Bob continues preparation of the material of fossil mammals from Barrow Island off the northwest coast of Australia. Earl is working on some Triassic reptiles from Arizona collected by Tim Rowe last year.

Wann Langston is heavily involved in studies of pterosaurs. He is struggling with scaling problems in the reconstruction of the very large pterosaur from Big Bend. He has plans to collect newly discovered material of the giant crocodile this coming summer and has hopes of getting part of the skeleton.

Dr. Chris Bell is finishing his first year in the Department. He co-taught Geology 405, Life through Time, with Ernie Lundelius in the fall semester. He is now teaching a course for both graduate and undergraduate students on the Morphology of the Vertebrate Skeleton.

Ernie Lundelius is still working on Australian and Texas Quaternary faunas. He will retire in August 1998 to devote full time to various research projects.

Bureau of Economic Geology

by Tucker Hentz

In 1997–1998, the Bureau conducted 84 geoscientific and environmental research projects, both abroad and within the United States. A discussion of selected projects follows.

During the year, the Bureau continued several domestic oil-resource investigations. To aid operators in optimizing recovery of their remaining hydrocarbon resources, the University Lands Advanced Recovery Initiative characterized selected reservoirs on extensive acreage owned by The University of Texas System. The objective of this study is to stem the current decline in University Lands production. This project is funded by The University of Texas System and by matching funds from operators of University Lands fields. The Bureau, with support from the State of Texas, is also providing expertise and advanced geologic and engineering technology to help recover remaining oil and gas on State Lands. The goal of this State of Texas Advanced Oil and Gas Resource Recovery Optimization Initiative (Project STARR) is to increase royalty income to the Permanent School Fund through drilling of targeted infill wells. In Ozona field in Crockett County, for example, 15 STARR-recommended wells have been drilled and are significantly outperforming other recent Ozona infill wells.

Carbonate Secondary Gas Recovery studies at the Bureau are designed to develop and demonstrate advanced technologies (3-D seismic-data interpretation and geologic, engineering, and petrophysical modeling) that can be used to evaluate deep, carbonate gas reservoirs, such as the productive Ellenburger interval at Lockridge and Waha fields in West Texas. The program is funded by the U.S. Department of Energy and the Gas Research Institute.

Hydrogeologic and environmental efforts by Bureau staff emphasized remediation of near-surface contaminants and geologic study of subsurface waste containment. The Bureau continued to assist the Railroad Commission of Texas in devising cleanup solutions at eight sites in Texas where the source and subsurface extent of contamination are unknown and where complex subsurface geology will affect remediation efforts. Investigations focused on finding cost-effective remedial solutions by applying nonintrusive and advanced techniques. The Bureau also investigated the performance of engineered barriers capping waste-disposal facilities. In a project funded through the Texas Low-Level Radioactive Waste Disposal Authority, Bureau researchers documented the changes in geologic deposits that have been modified by natural processes as analogs to what might happen to engineered barriers over time.

Exposure of submarine-channel (massive sandstone) and levee (thin beds at top) deposits in the Upper Permian Cherry Canyon Formation, Delaware Mountain Group, West Texas. Outcrops such as this serve as analogs to highly productive Delaware Mountain Group reservoir facies in the Delaware Basin, which are under study by the Bureau. Photo by Mark D. Barton.

Projects funded by consortia of Bureau industrial associates addressed diverse tasks related to hydrocarbon exploration and production. One major Bureau study is investigating fluvial-deltaic reservoir heterogeneity and, specifically, the spatial distribution of rock properties at the interwell scale in the subsurface. The study's approach is to develop a firm quantitative basis for reservoir modeling through study of extensive, continuous outcrops as reservoir analogs. Outcrop studies provide data critical to modeling sandstone-body architecture, distribution of shales, and permeability structure of strata. The major focus of the project was the Frewens Castle Sandstone of the Frontier Formation, central Wyoming, a superbly exposed tide-influenced lowstand delta system.

The Bureau's Exploration Geophysics Laboratory is developing technologies that will image reservoirs by using the complete seismic wavefield, not by using just the conventional compressional (P) wave component of the wavefield. Researchers hope to create three independent 3-D seismic images of reservoir architecture: the conventional 3-D P-wave image and two distinct shear (S) wave images. By combining the content of these three seismic images, they can gain considerably more insight into petrophysical rock properties; pore structure; type of pore fluid; sequence relationships; and spatial distributions of lithologies, fractures, and anisotropic reservoir properties of reservoir systems.

Reservoir characterization and environmental projects in Austria, Belize, and Venezuela are the focus of the Bureau's international program this year. Bureau researchers collaborated with geoscientists from the three affiliate companies of the national oil company of Venezuela (Corpoven, S.A., Lagoven, S.A., and Maraven, S.A.) on five projects that are employing integrated field studies and advanced reservoir-characterization techniques in various basins in that country. The primary objective of these projects is to increase oil reserves and ensure sustained production from the fields, many of which have low recovery efficiencies. The project teams have identified numerous recompletion opportunities and infill-well locations.

Walter Geology Library

by Dennis Trombatore

The year 1997–1998 has been marked by efforts to streamline operations and improve efficiency in order to respond to budgetary pressures on staffing. For many years, the General Libraries, of which the Geology Library is an administrative unit, has been struggling with a flat budget for student workers, who are vital to keeping the library open after normal working hours and providing basic services such as shelving, filing, materials handling, and circulation. With each increase in the minimum wage, fewer hours are available to the units at the same time that automation has added many new and complex tasks to an already lengthy list of services.

U-RENEW and other changes in automated circulation have reduced desk traffic, but more drastic measures were required this year. At the beginning of school in August, the branch libraries had to make small reductions in weekend hours in order to stay within budgets for the year. As a consequence, the Walter Library changed the way course reserves are handled in order to make better use of dwindling student worker resources.

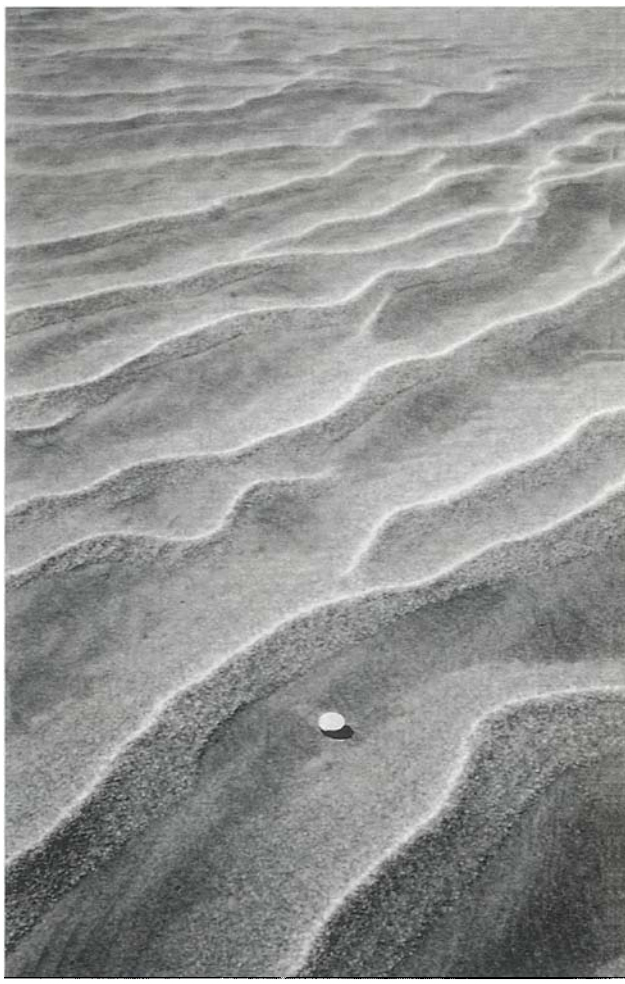
Reserves readings that are not original library materials are now housed in "Open Reserves." These are file cabinets in the photocopier area that are no longer maintained by the library; instead, faculty and Teaching Assistants are free to place materials in the files when and how they wish. Students are expected to use and replace the materials in a responsible manner. There was some concern about the integrity of this arrangement, and there has been some irresponsible behavior, but the change made a huge difference in staff requirements and the difficulties have not been serious or widespread.

In the coming years, as The University moves to address salary problems, particularly among the low-wage group of clerical positions, these staffing problems may worsen, and may lead to further reductions in hours of service and in our ability to provide support. The Walter Library will make every effort to work with the Department to identify new and better ways to fulfill our primary mission of organizing and running the library at the same time that we continue to support the teaching and research goals of the Department to the extent that funding permits.

From the perspective of the collection, this year has been better than average, particularly in the area of gifts. Of special note is another large donation of Russian language materials by Anatoly Kaplan of Houston, and a large collection of Texas-water-related materials from Tom Grimshaw. Gifts (and the foreign publications exchange program sponsored by the Bureau of Economic Geology) continue to be a major source of research-level materials. Quite a bit of additional labor is required to process these materials, but they provide strong value.

Cost increases this year make it clear that another reduction in subscriptions is looming, and a preliminary review of current titles is already under way. Electronic delivery of journals is finally becoming a reality for the products of a few major science publishers. The price is rather steep, and there are no guarantees about the long-term accessibility of the materials electronically, so cost savings from eliminating paper subscriptions are small or nonexistent. Another hindrance is the technical difficulty of getting the whole document on-line and in formatting and producing hard copy of illustrations and maps. In fact, the electronic revolution is creating a thicket of difficulties at the user interface, where library staff are burdened with more and more teaching and interpreting tasks before users can actually get the information they seek. We live in interesting times.

In staff news, Dennis Trombatore has been asked to serve another term on the GEO-REF Advisory Committee of the AGI, and has been elected Secretary of the Austin Geological Society for 1998–1999. Jim McCulloch has continued his good work adding to and improving our Web page, and Carol Russell has now completed more than three-quarters of the coding and cataloging for the Tobin Map Collection. Special thanks this year to Rosemary Barker, this year's winner of the Guion Award, for her tireless hours of volunteer effort for the Walter Library.



Damp sand capped with one day's accumulation of blowing sand, Great Sand Dunes National Monument, Colorado. Photo provided by William R. Muehlberger.

Geology Foundation Advisory Council News

The Geology Foundation, the first Foundation at UT Austin, was formed by the Board of Regents in October 1953. Dr. W. L. Fisher is Director, assisted by Mary Koch and Debra Sue Trinque. The Geology Foundation exists to enhance and enrich geologic education and training at The University of Texas at Austin, a mission it accomplishes beyond expectation.

Governance of the Foundation is provided by the Faculty Review Committee. An Advisory Council of 42 members and 9 Honorary Life Members is chaired by Mr. Thomas E. Fanning and includes a diverse group of distinguished geologists from industry and academia. The Advisory Council supports and counsels the Foundation.

We were saddened with the passing of Advisory Council Member Charles W. Alcorn, Jr. Chuck fought, with great courage, a year-long battle with pancreatic cancer. We will miss him sorely.

The Geology Foundation has 115 endowed accounts with a market value of $41,312,000 as of May 31, 1998.

In addition, expendable amounts of corporate and individual gifts amounted to $236,330 for the same time period. A perpetuity trust fund managed outside The University provides scholarships annually in the amount of $86,000 to the Foundation.

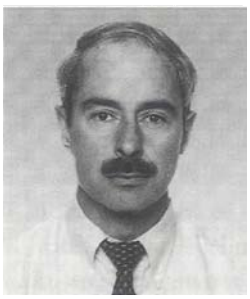
John A. Jackson.

J. Donald Langston.

At its fall 1997 meeting, the Geology Foundation Advisory Council elected two of its members, John A. Jackson and J. Donald Langston, to Honorary Life Membership. Mr. Jackson, a petroleum geologist from Dallas, Texas, joined the Advisory Council in 1975. He and his wife are long-time supporters of the Department and Foundation, establishing in 1983 the John A. and Katherine G. Jackson Centennial Teaching Fellowship and in 1993 the John A. and Katherine G. Jackson Fellowship in

Advisory Council member and past chairman Scotty Holland (right), visits with Bill Carlson (left), and Sharon Mosher (center) at fall Advisory Council meeting.

Advisory Council member Jack Mayfield (left), and Bill Carlson (right) during fall Advisory Council meeting.


David S. Birsa.

Paul R. Gucwa.

John R. Hopkins.

Fred L. Oliver.

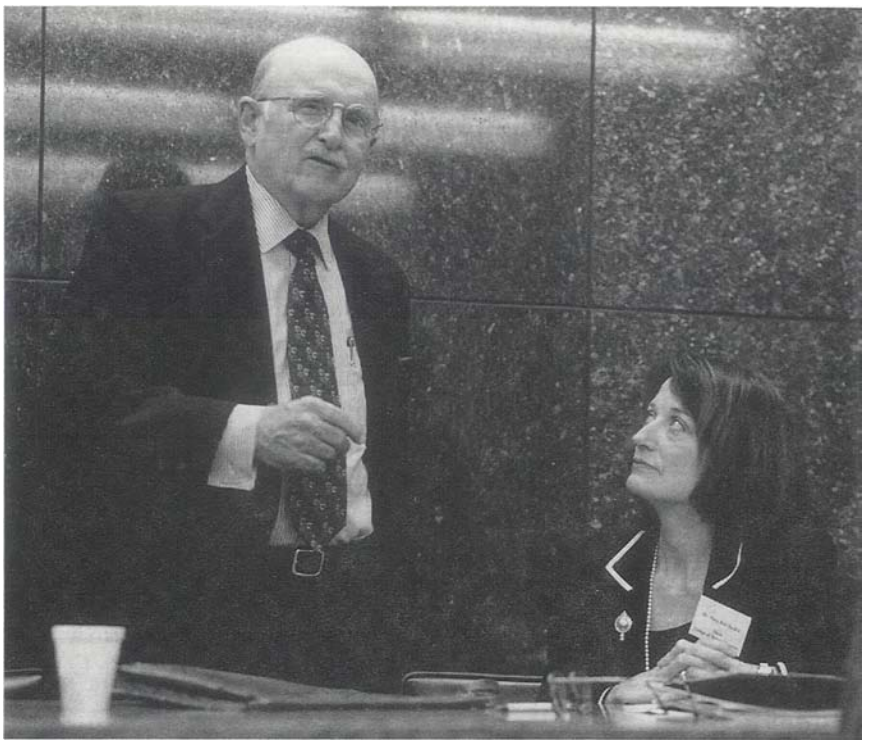
Joseph E. Sullivan.

Geohydrology. Mr. and Mrs. Jackson were principal donors and in 1984 established the Geology Foundation Advisory Council Centennial Teaching Fellowship. Mr. Langston joined the Advisory Council in 1979. He spent most of his career as a geologist and executive with Exxon Corporation. Don Langston has been a generous supporter and counselor to the Department. In 1986, he established the J. Donald Langston Special Operations Fund in the Foundation, and in 1996, he and his wife, Ginny, established the J. D. and V. L. Langston Endowed Scholarship Fund in Geology and Geophysics. Congratulations to Jack and Don on being elected to Honorary Life Membership.

At the spring 1998 meeting of the Geology Foundation Advisory Council, five new members were recommended. With administrative approval, they join the Council for a three-year term beginning September 1, 1998. They are: David S. Birsa, Paul R. Gucwa, John R. Hopkins, Fred L. Oliver, and Joseph E. Sullivan. Dave Birsa is Exploration Manager, Onshore U.S. and Alaska, for Chevron USA in Houston, Texas. He served previously as a member of the Advisory Council. Paul Gucwa, who holds both M.A. and Ph.D. degrees from UT Austin, is Manager of U.S. Exploration for Marathon in Houston, Texas. John Hopkins is Vice President, Upstream Technology, for Conoco in Houston, Texas. Fred Oliver rejoins the Advisory Council after serving on the Council from 1977 to 1986. He is a long-time supporter of the Department and The University, and in 1985, he and Mrs. Oliver established the Fred L. and Frances J. Oliver Centennial Lectureship in Hydrology/Water Resources. Fred is an independent geologist in Dallas, Texas. Joe Sullivan has an M.A. in Geology from UT Austin and is currently Director of Project Development, Central Asia—Kazakhstan for Unocal.

Foundation staffers Debra Sue Trinque (left) and Mary Koch (right), at spring Advisory Council meeting break.

Tom Fanning, Advisory Council Chairman (left), with Honorary Life Member Tom Barrow (right), at spring meeting.



President ad interim Peter T. Flawn (left), Honorary Life Member of the Advisory Council, addresses the Advisory Council at its spring meeting. Looking on is Dean Mary Ann Rankin (right).

Honorary Life Member Bill Gipson (left), visits with Advisory Council member Scotty Holland (center) and Decker Dawson (right) at the spring meeting.

Honorary Life Member of the Council and President Emeritus, Peter T. Flawn, assumed the Presidency of UT Austin on an interim basis on July 1, 1997, and served until April 13, 1998, when Larry Faulkner was installed as the new President. Pete Flawn has been with The University of Texas at Austin since 1949 and served as a widely regarded and successful President of The University from 1979 to 1985. After his second tour in the tower, he is now back to his office in the Geology Building.

At the Salt Lake City, Utah, meeting of American Association of Petroleum Geologists, Advisory Council member, Robbie Gries, was elected Honorary Member of the Association for her achievements in geology and her contributions to the profession. Honorary Membership is AAPG's second highest honor. In May, Dr. Thomas D. Barrow, Honorary Life Member of the Foundation, gave the commencement address to the College of Natural Sciences 1998 graduating class.

New Endowments Established

The children of Virgil and Mildred Barnes, along with friends, have established the Virgil E. and Mildred L. Barnes Distinguished Lecture Series in Geology, to honor Dr. and Mrs. Barnes. Virgil was a long-time member of the Bureau of Economic Geology and Professor Emeritus of the Department of Geological Sciences. His wife, Milla, was a frequent collaborator with Virgil, especially on tektites. Earnings from the endowment are dedicated to the Department's Distinguished Lecturers in the many areas of geology to which Virgil contributed.

Mr. James C. Patterson has established the James C. Patterson Fund for Excellence in the Geophysical Sciences. Jim spent much of his career with Conoco and has been a member of the Geology Foundation Advisory Council since 1989.

Mr. and Mrs. Glenn Vargas have created the Glenn and Martha Vargas Fund for Gem and Mineral Curation. Since 1975, Glenn and Martha, who serve as lecturers

in the Department, have traveled twice a year to teach a portion of our Gems and Gem Minerals course. In addition, the Vargases have been long-time supporters of the Department. Previously they established the Glenn and Martha Vargas Gemological Scholarship in Geological Sciences in 1986, the Glenn and Martha Vargas Endowment for Gems and Gem Minerals Instruction in 1988, and the Glenn and Martha Vargas Endowed Presidential Scholarship in 1993.

Scholarship Gift

Prior to her death in 1996, Mrs. Dorothy Banks established a trust as a part of the San Antonio Area Foundation. A portion of the annual net income from the trust is awarded to the Geology Foundation for geology scholarships as a memorial to her husband, Mr. Thomas R. Banks. Mr. Banks was a 1923 graduate of the Department. For several years, Mrs. Banks, a graduate in chemistry from UT Austin, has provided scholarship support to the Department.

Don R. Boyd Inducted into Hall of Honor

The Department of Geological Sciences is honored to have Distinguished Graduate and Honorary Life Member of the Geology Foundation Advisory Council, Don R. Boyd, a 1998 inductee into the College of Natural Sciences' prestigious Hall of Honor. The induction occurred during a reception and dinner at the Austin Country Club on March 11, 1998.

The Award is presented annually to individuals who have distinguished themselves professionally and through demonstrated interest in the College of Natural Sciences of which Geological Sciences is a part. Previous Advisory Council members inducted into the College Hall of Honor include Tom Barrow, John Bookout, Peter Flawn, Bill Gipson, Jim Bob Moffett, and Joe Walter.

Don Boyd is an independent petroleum geologist, a prominent South Texas businessman, a scholar of Gulf Coast geology, and a friend and benefactor of The University of Texas at Austin. He received a Bachelor of Science degree in Geology in 1958. His wife, Patricia Kidd Boyd, received her B.B.A. degree in 1957 from The University, and all three Boyd children are graduates of UT. Don and Patricia reside in Corpus Christi, Texas.

Advisory Council members Chuck Weiner (left) and Eddie Williamson (center), chat with Bob Folk (right) at the spring meeting.

Don began his career with the Pan American Petroleum Corporation, and later joined Texas Eastern Transmission Corporation. In 1966, he became an independent geologist, and has had many professional relationships, including a long and fruitful one with W. L. Sinclair. He is President and Owner of Gulf Coast Exploration Company, founded in 1974, and Texan Drilling Company, Inc., founded in 1987. While maintaining his own offices, he has served three different management positions with large and active exploration, production, and drilling companies, demonstrating his leadership abilities and hunger for new challenges. Don also maintains a ranch in Goliad and farmland in Nueces County.

Don R. Boyd.

Don has done geological research in both Texas and Mexico. He has published numerous articles, contributing substantially to the understanding of Gulf Coast Basin geology.

Don Boyd is a long-time supporter of the institutions in which he believes. At The University of Texas at Austin, Don is a Distinguished Graduate of the Department of Geological Sciences. He is also an Honorary Life Member and former Chairman of the Geology Foundation Advisory Council. Don and Patricia are members of the President's Associates and the Chancellor's Council and are charter members of the Littlefield Society.

Gifts

Gifts to the Geology Foundation from July 1, 1997, through May 31, 1998

Peyton O. Abbott
Floyd J. Adcock
Charles W. Alcorn, Jr.
Eugene J. Amaral
Nancy J. Anderson
Raymond H. Anderson, Jr.
Anonymous
Bill and Jody Armstrong
William H. Armstrong, Jr.
John E. Atkins
Arten J. Avakian
Walter B. Ayers
Byron A. Bachschmid
Carol S. Baker
Donna F. Balin
Jay L. Banner
Louise Barnes
Virgil E. Barnes II
Thomas D. and Janice H. Barrow
Gerald S. Barton
Bruce D. Becker
Mark J. Berlinger
David S. Birsa
Lucy Fay Blackman
Richard R. Bloomer
Lars and Jennifer Borg
Douglas L. Bostwick
William M. Boyce
Robert E. and Betty Boyer
Hal A. and Linda M. Bozeman
Philip Braithwaite
Robert F. Brandt
Herbert L. Brewer
Thomas E. Bridge
Ben M. and Anne L. Brigham
David A. Bristol, Jr.
Wallace E. Brunson, Sr.
Daniel J. Bump
Bureau of Economic Geology Employees
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Geology Foundation Endowed Accounts

Values as of May 31, 1998

	Book Value	Market Value
Edwin Allday Centennial Chair in Subsurface Geology *Income supplements salary and supports research of recipient*	$687,149	$1,436,641
Edwin Allday Lectureship in Geological Sciences *To provide for guest lectures in geological sciences*	$153,662	$268,158
Mary and Ben Anderson Endowment for Graduate Studies in Geology *To support graduate students and graduate programs in geology*	$41,277	$66,047
Millard B. Arick Memorial Fund in Petroleum Geology *Support of students to further interest in finding and producing more oil in Texas*	$11,854	$11,854
Virgil E. and Mildred L. Barnes Distinguished Lecture Series in Geology *To provide for guest lectures in geology*	$29,943	$29,943
E. M. Barron Trust *For support of the Barron Mineral Collection*	$125,369	$266,925
Leonidas T. Barrow Centennial Chair in Mineral Resources *Development of programs of excellence in mineral resources; income supplements salary and supports research of recipient*	$1,080,312	$2,365,732
Laura Thomson Barrow Graduate Fellowship *To support graduate students specializing in natural resources; special consideration for female students and students concentrating in field-oriented studies*	$237,588	$424,746
Barrow Periodical Fund *For purchase of periodicals for the Walter Library*	$163,805	$230,419
Bloomer Fund for Motivated Students *Financial aid for students not qualified for scholarships*	$117,468	$221,793
Leslie Bowling Professorship *To attract persons from industry and government for short-term appointments of the faculty*	$149,204	$288,491
Wayne F. Bowman Endowed Presidential Scholarship *Unrestricted geology scholarships*	$110,721	$253,113
Don R. and Patricia Kidd Boyd Lectureship in Petroleum Exploration *To provide for guest lecturers in petroleum exploration*	$53,712	$109,038
Brahman Energy Scholarship *Senior field course scholarship*	$19,100	$44,655
Charl Broquet Memorial Scholarship *Graduate student scholarship*	$10,200	$10,347
Jesse L. Brundrett Memorial Endowed Presidential Scholarship *Graduate student scholarship*	$47,779	$83,222
Fred M. Bullard Professorship *Excellence in teaching, income supplements salary and supports research of recipient*	$114,498	$222,211
Thomas and Ray Burke Student Job Program *Jobs for students in geologic work related to faculty research*	$88,119	$115,426
Hal H. Bybee Memorial Fund *Student field support, or support of students researching geologic issues related to public policy*	$98,485	$159,100
Hal P. Bybee Memorial Fund *Faculty use—research, travel, study, etc.*	$569,535	$1,240,959
L. W. Callender Memorial Fund *Department use, unrestricted*	$57,156	$135,247
Dave P. Carlton Centennial Professorship in Geology *Income supplements salary and supports research of recipient*	$613,331	$1,392,947
Dave P. Carlton Centennial Professorship in Geophysics *Income supplements salary and supports research of recipient*	$554,177	$1,234,772
Dorothy Ogden Carsey Memorial Scholarship Fund *Geology scholarships, any level; special consideration to micropaleontology students*	$114,719	$238,626
J. Ben Carsey Sr. Special Maintenance Fund *To maintain teaching and research equipment*	$93,738	$177,143
Chevron Centennial Professorship in Geology *Income supplements salary and supports research of recipient*	$272,163	$568,935
S. E. Clabaugh Fund in Hard-Rock Geology *To support research in hard-rock geology*	$34,631	$74,611
W. Kenley Clark Memorial Endowed Presidential Scholarship *Geology scholarships, any level*	$48,382	$106,051

Joseph S. Cullinan Scholarship in Geological Sciences *Scholarship in petroleum or field geology*	$43,446	$104,609
Robert H. Cuyler Endowed Presidential Scholarship *Undergraduate (upper-division) and graduate scholarships*	$58,593	$134,911
Morgan J. Davis Centennial Chair in Petroleum Geology *Income supplements salary and supports research of recipient*	$849,156	$1,851,370
Ronald K. DeFord Field Scholarship Fund *Field studies for graduate students*	$207,398	$438,298
Alexander Deussen Professorship Energy Resources *Development of program of excellence in energy resources; income supplements salary and supports research of recipient*	$211,078	$401,509
Michael Bruce Duchin Centennial Memorial Endowed Presidential Scholarship *Scholarship for Master's candidate with preference toward general geology*	$45,763	$94,184
Elf Aquitaine Petroleum Faculty Fellowship in Geological Science *Income supplements salary and supports research of junior faculty member*	$182,283	$332,707
John E. "Brick" Elliott Centennial Professorship in Geological Sciences *Income supplements salary and supports research of recipient*	$335,660	$767,263
Samuel P. Ellison, Jr. Endowment Fund *For Department newsletter and support of faculty-alumni functions*	$77,852	$178,900
Energy and Mineral Resources Fund *Support of programs and students in energy and mineral resources*	$31,007	$72,271
William Stamps Farish Chair in Geology *Income supplements salary and support research of recipient*	$416,653	$945,087
Peter T. Flawn Centennial Chair in Geology *Income supplements salary and supports research of recipient*	$783,643	$1,640,147
Robert L. Folk Excellence Fund in Geological Sciences *To support excellence in geological sciences*	$56,058	$64,455
Geology Foundation Advisory Council Centennial Teaching Fellowship in Geological Sciences *Income supplements salary and supports research of junior faculty member*	$98,733	$190,673
Getty Oil Company Centennial Chair in Geological Sciences *Income supplements salary and supports research of recipient*	$932,316	$2,045,806
Miss Effie Graves Memorial Scholarship *Geological Sciences student scholarships*	$27,618	$71,355
Guy E. Green Endowed Presidential Scholarship *Geology scholarships, any level*	$33,207	$76,079
J. Nalle Gregory Chair in Sedimentary Geology *Development of program of excellence in sedimentary geology; income supplements salary and supports research of recipient*	$732,449	$1,408,080
J. Nalle Gregory Regents Professorship in Geological Sciences *Income supplements salary and supports research of recipient*	$320,981	$555,848
Thelma Louise Guion Geology Staff Award *For recognition of excellence by Geology Library Staff*	$13,085	$16,937
Karl F. Hagemeier Jr. Memorial Endowed Presidential Scholarship *General geology scholarships, any level, with preference to students from Brazoria or Kerr counties*	$43,703	$77,992
George S. Heyer Memorial Fund *Any purpose of the Foundation*	$97,325	$240,905
Bill D. Holland Endowed Presidential Scholarship *Scholarship for a Texas student who plans to pursue a career in the oil and gas industry*	$26,988	$31,233
Houston Oil and Minerals Corporation Faculty Excellence Awards *In recognition of outstanding service and special contributions to the teaching and research programs*	$55,392	$124,021
F. Earl Ingerson Graduate Research Assistance Fund in Geochemistry *Research assistance to graduate students in geochemistry*	$56,927	$94,530
John A. and Katherine G. Jackson Centennial Teaching Fellowship in Geological Sciences *Income supplements salary and research of junior faculty member*	$136,755	$286,982
John A. and Katherine G. Jackson Fellowship in Geohydrology *Graduate scholarships in geohydrology*	$218,430	$307,299
Carolyn G. and G. Moses Knebel Teaching Award *For teaching excellence in geological sciences*	$95,656	$210,711

Martin B. Lagoe Student Research Fund in Micropaleontology $26,399 $32,582
Support of students studying in the area of Micropaleontology

Clara Jones Langston Centennial Lectureship in Vertebrate Paleontology $24,325 $52,051
To provide for guest lectures in vertebrate paleontology

J. Donald Langston Special Operations Fund $250,866 $420,198
Purchase teaching and research equipment

Wann and Marietta Langston Research Fund Vertebrate Paleontology $117,529 $252,803
Faculty research in vertebrate paleontology

Jack K. Larsen-Mesa Petroleum Company Fund in Sedimentary Geology $152,386 $338,242
Support of programs in sedimentary geology

Howard R. Lowe Vertebrate Paleontology Endowment $34,236 $76,482
Support of student fieldwork in vertebrate paleontology

Hoover Mackin Memorial Scholarship Fund $25,368 $56,832
Graduate geology scholarship

George W. Marshall Jr. Memorial Endowed Presidential Scholarship $38,819 $61,478
Graduate scholarships in general geology

Jack H. Mayfield Jr. Fund for Excellence in Geological Sciences $455,812 $756,228
For innovative projects in geoscience instruction and research, and for unrestricted support for continuing programs of teaching and research

John H. and Lujza P. McCammon Endowed Scholarship $12,273 $29,072
Upper-division undergraduate scholarships

Mr. and Mrs. L. F. McCollum Endowed Scholarship $20,524 $50,072
Geology scholarships, any level

Frank W. Michaux Scholarship Fund $12,064 $27,186
Geology scholarship, any level

Joan A. Middleton Endowed Presidential Scholarship $10,437 $12,575
Geology scholarship to students especially hydrogeology students

Carroll C. Miller Endowed Presidential Scholarship $34,003 $77,909
Geology scholarship to students pursuing careers in energy industries; preference to students from South Texas

William R. Muehlberger Field Geology Scholarship $81,681 $122,032
To support field studies at graduate or undergraduate levels

Wes Ogden Memorial Scholarship in Geophysics $12,887 $22,369
Geophysics scholarships to students pursuing careers in energy industries; preference to students from South Texas

Fred L. and Frances J. Oliver Lectureship in Texas Hydrology and Water Resources $71,092 $132,493
To provide for guest lectures in water resources

Judd H. Oualline Endowment Fund $21,153 $43,926
For special needs of the Department

Judd H. and Cynthia S. Oualline Centennial Lectureship in Geological Sciences $95,764 $163,177
To provide for guest lecturers in geological sciences

Judd H. and Cynthia S. Oualline Centennial Lectureship in Petroleum Geology $88,462 $151,910
To provide for guest lectures in petroleum geology

Ed Owen-George Coates Fund $117,160 $265,218
Publication of geological research by faculty and graduate students

James C. Patterson Fund for Excellence in the Geophysical Sciences $20,000 $20,286
To support excellence in the geophysical sciences

Bill R. Payne Centennial Teaching Fellowship in Geological Sciences $94,375 $193,268
Income supplements salary and research of junior faculty member

Joyce Bowman Payne Centennial Teaching Fellowship in Geological Sciences $96,396 $185,066
Income supplements salary and research of junior faculty member

Pennzoil and Pogo Producing Companies-William E. Gipson Scholarships $182,987 $331,399
Scholarships for UT graduates seeking Master's degrees at UT

O. Scott Petty Geophysical Fund $207,550 $435,388
Development of program of excellence in geophysics

Wallace E. Pratt Professorship in Geophysics $218,733 $454,521
Development of program of excellence in geophysics; income supplements salary and research of recipient

Louis and Elizabeth Scherck Geology Scholarship $110,219 $207,357
Undergraduate (upper-division) and graduate scholarship

Wilton E. Scott Centennial Professorship *Income supplements salary and supports research of recipient*	$286,432	$640,481
Walter Benona Sharp Memorial Scholarship in Geological Sciences *Scholarship in petroleum or field geology in honor of Walter Benona Sharp*	$42,586	$103,461
The Shell Companies Foundation Centennial Chair in Geophysics *Income supplement salary and supports research of recipient*	$1,219,283	$2,345,487
The Shell Companies Foundation Distinguished Chair in Geophysics *Income supplements salary and supports research of recipient*	$983,042	$2,004,123
Frederick W. Simonds Endowed Presidential Scholarship *Scholarship to undergraduate (upper-division) and graduate students*	$29,854	$74,963
William T. Stokes Centennial Teaching Fellowship in Geological Sciences *Income supplements salary and research of junior faculty member*	$152,436	$326,991
Structural Geology and Tectonics Fund *For support of faculty and student research in structure and tectonics*	$119,011	$209,998
Harlan Tod Sutherland Memorial Scholarship Fund *For summer research support for graduate students*	$39,097	$75,216
John and Elizabeth M. Teagle Scholarship in Petroleum Geology *For scholarships to students with interest in petroleum geology*	$698,976	$1,231,821
David S. Thayer Memorial Scholarship Fund *Senior field course scholarship*	$30,090	$69,763
Tobin International Geological Map Collection *For purchase of maps and photos, storage and viewing facilities for these items*	$82,421	$202,416
Udden Memorial Scholarship Fund *Geology scholarships, any level*	$16,238	$31,259
Glenn and Martha Vargas Endowed Presidential Scholarship *Graduate level scholarship in geological sciences*	$38,802	$60,713
Glenn and Martha Vargas Gemological Scholarship *Scholarships for students interested in gemology or mineralogy*	$18,018	$33,884
Glenn and Martha Vargas Endowment for Gems and Gem Minerals Instruction *For course-related materials and instruction on gems and gem minerals*	$69,038	$120,409
Glenn and Martha Vargas Endowment for Gem and Mineral Curation *For curating and maintaining the gem and mineral collections of the Department*	$31,000	$31,000
Various Donors (General) *Unrestricted funds for any purpose of the Foundation*	$35,153	$102,304
Joseph C. Walter Jr. and Elizabeth C. Walter Geological Library Fund *Acquisition of books, maps and other library materials*	$453,263	$774,467
Albert W. and Alice M. Weeks Centennial Professorship in Geological Sciences *Income supplements salary and supports research of recipient*	$188,997	$386,422
Albert W. and Alice M. Weeks Fund in Geological Sciences *Scholarships in geological sciences at any level*	$569,512	$934,011
E. A. Wendlandt Fund *Purchase of books and journals in German or English translations*	$8,579	$19,170
Arno P. (Dutch) Wendler Professional Development Fund *Support of graduate student presentations at professional meetings*	$116,522	$255,516
Francis L. Whitney Endowed Presidential Scholarship *Geology scholarships, any level, paleontology and stratigraphy preferred*	$47,263	$109,922
Francis L. Whitney Memorial Book Fund *Purchase of paleontological books for library*	$37,975	$67,753
Addison A. and Mary E. Wilkinson Endowed Presidential Scholarship *Geology scholarships for graduate and undergraduate students*	$50,193	$58,496
John A. Wilson Professorship in Vertebrate Paleontology *Development of program of excellence in vertebrate paleontology; income supplements salary and supports research of recipient*	$167,486	$343,840
Charles E. Yager Undergraduate Field Scholarship Fund *Support for students taking GEO 660*	$55,191	$124,941
Mr. and Mrs. Charles E. Yager Professorships *Three professorships in any discipline for faculty who participate in field instruction*	$485,894	$1,129,574

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Chairman & CEO
Freeport-McMoRan Copper & Gold, Inc.
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New Orleans, LA 70151
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Memorials

Charles W. Alcorn, Jr.

Charles W. Alcorn, Jr. (1927–1998).

Charles William (Chuck) Alcorn, Jr., the man credited with the first big oil find in the Central Texas Austin Chalk region, died Monday, June 29, 1998, following a year-long battle with pancreatic cancer. He was 70. Born in Dallas in 1927, Alcorn grew up attending public schools in Dallas, Texas, Houston, Texas, and Tulsa, Oklahoma. He graduated from Houston's Lamar High School in 1945. After serving two years in the Navy, Alcorn entered The University of Texas, Austin, where he served as grand master of the Kappa Sigma fraternity. Alcorn graduated with a geology degree in 1952 and began working for Warren Petroleum in Abilene, Texas. He moved to Victoria, Texas, the city where he would spend the rest of his life, in 1961, when Gulf Oil bought Warren. In Victoria, he became an area geologist for the Gulf of Mexico region for Gulf. In 1965, Alcorn left Gulf to form Alcorn Well Service, an independent oil and gas exploration firm. Less than six years later, he made the Giddings discovery that turned ignored property near Austin, Texas, into prime oil-producing real estate. In 1985, Alcorn founded and served as Chairman of VAALCO Energy Inc., a company created to explore Southeast Asia for oil. Under that company, Alcorn discovered the West Linapacan Oil Field offshore of the Philippines. In 1995, Chuck secured VAALCO's rights to Etame, an oil concession offshore Gabon in Western Africa. A major oil find was later announced in that field by VAALCO.

In Victoria, Alcorn spent much of 1966 and 1967 as Chairman of the Victoria Chamber of Commerce's Oil and Gas Committee. In 1969, he served as the national director for the Association of Oilwell Servicing Contractors. In 1977, he became the District Vice President for the Lower Gulf Coast of the Texas Mid-Continent Oil and Gas Association. He maintained that post until he became Chairman of the organization in 1987. In 1990, the Mid-Continent Association granted Alcorn its highest honor, the Distinguished Service Award. Mr. Alcorn served as a member of the Geology Foundation Advisory Council from 1976 until his death. An avid sports fan, Chuck Alcorn attended all but two meetings of the Summer Olympics between 1968 and 1996, missing only the 1980 games in Moscow, Russia, when the United States boycotted and the 1988 games in Seoul, South Korea.

Alcorn is survived by his wife, Dorothy Jean Walston Alcorn; daughters, Dorothy Anne Henderson of Galveston, Texas, and Lexey Elizabeth Fender of Victoria; son, Charles William Alcorn III of Houston; grandchildren, Gage Sterling Fender, Katilee Martin Fender, Dorothy Claire Henderson, Holly Marie Henderson, Charles Wagner Alcorn, and William Duer Alcorn; and brothers, Fred Crasin Alcorn and George Avery Alcorn, both of Houston.

James William Alewine

James William Alewine of Friendswood, Texas, died recently. He received a B.S. in Geology from the University of Texas, Austin in 1950. He was retired.

Abdullah ibn Hamoud al-Tariki

Abdullah ibn Hamoud al-Tariki of Cairo, Egypt, died on September 7, 1997, of a heart attack at age 80. Mr. al-Tariki received an M.A. in 1947 in Geology from the University of Texas, Austin and returned to Saudi Arabia where he went to work in the Finance Ministry. He became Saudi Arabia's first oil minister. In September 1960, he was one of the founders of the Organization of Petroleum Exporting Countries (OPEC) and three months later became the Kingdom's first minister of petroleum, a post he held until 1962. He spent his later years as an oil consultant.

Robert Wright Booton

Robert Wright Booton, retired from the Computation Center and formerly of Kerrville, Texas, died recently. He received a B.A. in Geology from the University of Texas, Austin in 1953.

Paul Frederick Byrom

Paul Frederick Byrom died on January 3, 1997. He received a degree in Geology from the University of Texas, Austin in 1957. He was an independent petroleum geologist and resided in Midland, Texas.

J. Ben Carsey, Jr.

J. Ben Carsey, formerly of Houston, Texas, died March 30, 1998, at the age of 64. Mr. Carsey received a B.S. in Geology from the University of Texas, Austin in 1956. He was a consulting geologist and a member of the American Association of Petroleum Geologists and the Petroleum Club of Houston. He is survived by his sister and brother-in-law,

Dorothy and Walton B. Sumner; nephews, Edward Ben Sumner, and Walton Sumner II and wife, Carla; grandniece, Holly Sumner; and grandnephew, Joshua Sumner.

Dimitri Basil Cocovinis

Dimitri Basil Cocovinis died recently. He was formerly of Denver, Colorado. He received an M.A. from the University of Texas, Austin in 1949. He is survived by his wife.

Morgan Jefferson Davis, Jr.

Morgan Jefferson Davis, Jr. of Houston, Texas, died on November 5, 1997, at the age of 69 after a tremendous battle with heart disease. He received an M.A. in Geology from the University of Texas, Austin in 1952 where he was a member of the Delta Kappa Epsilon. He was a graduate of New Mexico Military Institute, Roswell, New Mexico, and Harvard University, Boston, Massachusetts, in 1951 where he was a member of the Fly Club and the Hasty Pudding Club. Mr. Davis was born in 1928 in Roswell, New Mexico, lived in Indonesia, and came to Houston, Texas, in 1936. He served two years of military service in Europe. He was employed by the International Petroleum Company (an Exxon affiliate) in Peru and Colombia, South America; Carter Oil Company (now a part of Exxon Corporation), Denver, Colorado; Pennzoil in Calgary, Canada; and a partner in Morgan J. Davis Associates (with his father) where he helped discover a large oil field on the island of Barbados in the Caribbean; Southern Minerals Corporation in Corpus Christi, Texas; and DSTJ Corporation in Montgomery, Texas. He was a member of the American Association of Petroleum Geologists and Board of Trustees of the Houston Museum of Natural Science. He was preceded in death by his mother and father, Morgan J. and Veta Davis. There is a Chair in the Geology Foundation in the Department of Geological Sciences, The University of Texas at Austin, named after his father and called the Morgan J. Davis Centennial Chair in Petroleum Geology, which for a number of years has been of tremendous support for faculty. He is survived by four children, Veta Davis Maxwell, Morgan J. Davis III and wife, Tina, Marjorie Lee Davis, and Daphne Davis; and four grandchildren.

Ralph Irving Ellsworth

Ralph Irving Ellsworth of Austin, Texas, died on January 18, 1998, at the age of 73. He received a B.S. in Petroleum Engineering in 1948 and an M.A. in Geology in 1949 from the University of Texas, Austin and spent his professional life in Houston, Texas. He had a lifelong interest and pride in The University of Texas at Austin. He is survived by his wife, Jackie McKay Ellsworth; daughters and sons-in law, Nancy and Charles Robinson, Jane and Bill Phillips, Katherine and Bob Baxter, and Anne and J. D. McCaslin; and 13 grandchildren.

Margaret Alma Hart-Keys

Margaret Alma Hart-Keys died on August 23, 1997, at the age of 42 after a valiant battle with leukemia. She was born in Reading, Pennsylvania, and lived in Austin, Texas, where she was employed by the Texas Natural Resource Conservation Commission as a hydrogeologist. She received a B.S. in 1983 and an M.A. in 1992 in Geology from The University of Texas at Austin. She enjoyed geology, caving, bicycling, boat racing, and orchid growing. She is survived by her husband, Peter L. Keys; father and stepmother, Harry and Eleanor Hart; mother and stepfather, Kay and Paul Beidelman; maternal grandmother, Betty W. Yoder; and three brothers, Robert D. Hart, William A. Hart, and Sean L. Hart.

William Brent Hempkins

William Brent Hempkins, formerly of San Francisco, California, died on June 13, 1997, at the age of 61. He received a B.S. in Geology from the University of Texas, Austin in 1958.

Jack Hendrickson

Jack Hendrickson, a retired geologist, died on March 16, 1998. He lived in Fort Worth, Texas. He received a B.A. in Geology from the University of Texas, Austin in 1949.

Allen Elbert Humphrey

Allen Elbert Humphrey, age 71, died on September 2, 1997, after a lengthy bout with heart problems. He was born in Dallas, Texas. After attending the Terrell Preparatory School and Southern Methodist University, he graduated from the University of Texas, Austin with a B.S. in Geology in 1949 where he was a member of the Silver Spurs and Pi Kappa Alpha fraternity. He was a member of many geological societies including the American Association of Petroleum Geologists. His career began with the Superior Oil Company in 1946 in Colombia, Venezuela, South America, and later he was transferred to Kansas. After several years, he became an independent explorationist with several family-owned companies where he made many discoveries in the Mid-continent Area, the area in which he was most interested. He is survived by his wife, Miriam Bartlett Humphrey; his son and daughter-in-law, Charles Bartlett and Jolie Dimock Humphrey; his daughter, Tessa Humphrey Campdera; and his four grandchildren.

Alsie Linscomb

Alsie Linscomb died on October 1, 1997, at the age of 73. He was born in 1924 in Beaumont, Texas. He was a member of the American Association of Petroleum Geologists and was a U.S. Army veteran. He is survived by his wife, Louise H. Linscomb; his sons and daughters-in law, Park and Linda Linscomb and Steve and Michelle Linscomb; his daughter and son-in-law, Mary and Mike Davis; and his six grandchildren.

Erzebet Lujza Pataky McCammon

Erzebet Lujza Pataky McCammon (1913–1997).

Erzebet Lujza Pataky McCammon died in Dallas, Texas, on November 24, 1997, at the age of 83. She was born in Budapest, Hungary, in 1913 and moved to Ankara, Turkey. She moved to San Angelo, Texas, in the 1950's and Austin, Texas, in the 1980's. She was an active volunteer for the March of Dimes, the League of Women Voters, the Democratic Party, and the Girl Scouts. She recently knitted hundreds of woolen scarves for the Bosnian refugee effort through the International Rescue Committee. The McCammons were official representatives of the United States at an international trade fair in Budapest during Lyndon Johnson's presidency, her first visit back since her departure. She generously and often took her family back to learn of Hungarian culture and their shared Hungarian heritage.

She is survived by her son, Michael Paul McCammon; daughters, Francis Buster, Victoria Murphy, and Dunya Bean; and eight grandchildren. She was preceded in death by her husband, John Henry McCammon. A scholarship named for the McCammons and called the John H. and Lujza McCammon Endowed Scholarship in the Geology Foundation in the Department of Geological Sciences at The University of Texas at Austin has benefited many students in support received from this scholarship.

Hugh E. Longino

Hugh E. Longino of Magnolia, Arkansas, died of a massive heart attack on June 30, 1997. He received a B.S. in Geology from the University of Texas, Austin in 1941. He is survived by his wife.

Ruth Elinor Wilson Melton

Ruth Elinor Wilson Melton of Dallas, Texas, died on June 5, 1998, at the age of 63. She was a direct descendant of Alexander and Sarah Horton Cockrell, pioneer citizens and founders of Dallas. She received a B.S. in Geology from the University of Texas, Austin in 1957. She was preceded in death by her husband, James Paschal Melton. She is survived by her sons, James Wilson Melton and Lance Paschal Melton; daughters, Pam Melton McCracken and husband, Allen, and Roberta Melton Tidwell and husband, Matthew.

Robert J. Moffatt

Robert J. Moffatt passed away in Shreveport, Louisiana, on October 19, 1997. He was born on September 9, 1918, and grew up in Pecos County and San Antonio, Texas. He received a B.S. in Geology from the University of Texas, Austin in 1941. He served in World War II, was admitted to practice law by the Louisiana State Bar Association in 1954, and became an independent geologist in 1954. He was a past national director for SIPES and was active with the local Ark-La-Tex Chapter until the time of his death. He was a member of the Shreveport Geological Society, the State of Arkansas Board of Professional Geologists, the Louisiana State Bar Association, the Shreveport Bar Association, the American Legion, the Petroleum Club of Shreveport, and BPO Elks. He is survived by his wife, Margaret; daughters, Mary Clark and Margaret Halliburton; sons, Charles and Robert Moffatt; and eight grandchildren.

Charles P. (Chick) Mueller, Jr.

Charles P. (Chick) Mueller, Jr. was born on March 31, 1934, in Chicago, Illinois, and died on June 22, 1998. He received a B.S. in Geology from the University of Texas, Austin in 1960. Mr. Mueller was President of Mueller Oil and Gas Corporation and previously had worked for Shoreline Petroleum Corp. and was co-owner of Viking Drilling Company. He was a member of the American Association of Petroleum Geologists, the South Texas Geological Society, and Sigma Chi fraternity. He is survived by his wife, Barbara Jean Mueller; daughter, Kathryn Bencomo and husband, Jimmy; son, John Stewart Mueller; three grandchildren; and stepsons, Dana and Lane Sanderson.

Alvin Peter (Pete) Noyes, Jr.

Alvin Peter (Pete) Noyes, Jr. died on September 22, 1997, in New Orleans, Louisiana, after a short bout with leukemia. He was a native of Kilgore, Texas, and served in the U.S. Air Force. He received a B.S. in 1955 and an M.A. in 1957 in Geology from the University of Texas, Austin. He embarked on his career with Magnolia Petroleum (later changed to Mobil) and later went out on his own. He

specialized in oil and gas plays in South Texas and southeastern Louisiana. He is survived by three daughters, Sarah Jane, Jennifer, and Kathryn.

Paul Roehr, Jr.

Paul Roehr, Jr., a native Dallasite, died on March 22, 1998, at the age of 74. He obtained a degree in Geology from the University of Texas, Austin in 1952. He was a veteran of World War II. He was employed at Lakewood Bank and Republic National Bank. He is survived by his wife, Hazel; daughter and son-in-law, Daphne and Gary Hatcher; son and daughter-in-law, Paul and Joanne Roehr; grandsons, Gabriel Hatcher and Nathan Roehr; granddaughter, Hannah Roehr; and two sisters, Dorothy Roehr and Sarah Heed.

Marvin (Duke) Romberg

Marvin (Duke) Romberg died on December 20, 1997. Mr. Romberg graduated with a degree in Geology from the University of Texas, Austin in 1933. He later earned advanced degrees from Texas and Stanford. He was a former employee of Exxon and a member of the Houston Geological Society.

Louie Sebring, Jr.

Louie Sebring, Jr., formerly of Corpus Christi, Texas, died on September 6, 1997, while in northwestern Colorado. He was born in 1920 in Nowata, Oklahoma, and resided in Denver, Colorado; Lafayette, Louisiana; Corpus Christi, Texas; Houston, Texas; San Antonio, Texas; Fort Worth, Texas; and Tulia, Texas. He received a B.S. in 1941 and an M.A. in 1947 in Geology from the University of Texas, Austin. He served in the U.S. Army Air Corps and was discharged as Captain. He worked for Standard of Texas, Chicago Corporation (Champlin), Coastal States, and as an independent in the oil and gas industry. He was still active as a geologist at the time of his death. He wrote many articles in trade journals, and some of his articles were reprinted by the American Association of Petroleum Geologists in instructional manuals. He received many awards and honors, his most recent being the Corpus Christi Geological Society's Distinguished Member Award in 1996. He is survived by his wife, Elizabeth Hudel Sebring; son, Earl Michael Sebring; daughter, Ann Maddux; and five grandchildren.

Joseph S. Sheldon, Jr.

Joseph S. Sheldon, Jr., formerly of New Orleans, Louisiana, died on April 10, 1998, at the age of 71. He received a B.S. degree in Geology from the University of Texas, Austin in 1949.

Edmund David Sneed

Edmund David Sneed died on January 9, 1998 at the age of 65. He is survived by his wife, Ann Sneed; daughter and son-in-law, Susan Lorine and Russ Alexander; son and daughter-in-law, David Richard and Diantha Sneed; and four grandchildren. He was born in Denison, Texas. Mr. Sneed received a B.S. degree in Geology from Baylor University in 1953 and an M.S. degree in Geology from the University of Texas, Austin in 1955. He was employed by Marathon Oil Company in Abilene, Wichita Falls, and Midland, Texas, from 1955 until 1984 when he came to Houston, Texas, where he retired in 1992 at the title of U.S. Offshore Exploration Division Manager. He was a member of the American Association of Petroleum Geologists, Houston Geological Society, West Texas Geological Society, and SEPM. He was an active member of a chapter of the Service Corps of Retired Executives, served on the board of Marketplace Ministries, Inc., Dallas, and was a member of the Pine Forest Country Club.

Mary M. Udden

Mary M. Udden of Austin, Texas, died in 1994. She was a homemaker and received a degree from the University of Texas, Austin in 1950. She is survived by a son, Robert Andrew Udden, of Austin, Texas. She was preceded in death by her husband. The Udden Memorial Scholarship was created in 1983 in the Geology Foundation to honor two members of the Udden family, J. A. Udden and S. M. Udden.

Edwin Van den Bark

Edwin Van den Bark, 80, formerly of Santa Fe, New Mexico, died on January 23, 1998. He served on the Geology Foundation Advisory Council from September 1, 1974, to September 1, 1983. He was a Senior Vice President of Exploration and Production for Phillips Petroleum Company in Bartlesville, Oklahoma, and joined Phillips as a geologist in 1939. Mr. Van den Bark was a member of several professional organizations. He received his B.S. in Geology from the University of Nebraska and did post-graduate work at Washington University in St. Louis, Missouri.

Notes from the Alumni

Alumni Honors

Don R. Boyd (B.S., 1958) inducted into College of Natural Sciences Hall of Honor
Darcy (Brooks) Cuthill (B.S., 1993) CGEG 1997 Best Paper Award in 1997
Willard R. Green (M.A., 1955) Honorary Membership, AAPG
Robbie Gries (M.A., 1970) Honorary Membership, AAPG
Margaret Ann Christie Rogers (B.A., 1964, M.A., 1969) 1997–1998 President, Energy Minerals Division, AAPG
Peter R. Rose (B.S., 1957, M.A., 1959, Ph.D., 1968) 1997 Best International Paper Award, AAPG; 1997 Public Service Award, Austin Geological Society; 1997 Best Paper Award, DPA, Technical Session, AAPG
Robert T. Sellars, Jr. (B.A., 1957) President, Division of Professional Affairs, AAPG
Dan Smith (B.S., 1958) President, House of Delegates, AAPG

Peyton O. Abbott (B.S., 1950) is a retired hydrologist and is living in Pueblo, Colorado.

Samuel C. Adair, Jr. (B.S., 1956) is retired from Exxon and still enjoys living at Walden on Lake Conroe. He and Doris recently took a photo safari to central Africa (Kenya, Tanzania, and Zimbabwe), and it was a wonderful trip.

Jim W. Adams (B.S., 1951) of Midland, Texas, works as a consulting geologist. He serves on the AAPG Youth Education Committee, and was in charge of the Geology Merit Badge booth at the 1997 Boy Scout Jamboree, at which 223 young scouts earned their badges. He also delivered two papers at the 25th Anniversary Symposium of Guadalupe Mountains National Park. "We are proud of the Department at UT," he writes.

J. Wesley Adams (B.A., 1948) is retired from Exxon and living in Conroe, Texas, and writes, "sweating out recovery from two knee replacements so that I can join my golfing buddies."

Matthew Adams (B.S., 1997) writes, "I married Audrey Wohlford (a UT geology grad in December 1996) in October of 1997. We are currently living in Houston, Texas. I was recently employed by Geco-Prakla, and she has been working as a geologist for Sandalwood Oil and Gas."

Floyd J. Adcock (B.S., 1955) is a geologist and owner of Saltdome Exploration in Kilgore, Texas, and writes, "Still prospecting for oil and gas—I moved from the Gulf Coast (Houston) in 1996."

James H. Anderson (Ph.D., 1985) works as a supervisor in New Orleans, Louisiana, and writes, "Lived in New Orleans 3 1/2 years and having a great time. Now I ride in a Mardi Gras parade. Call us if you come to New Orleans. Diana is a senior in high school, and Jackie is 11 and was an exchange student in France this spring."

Nancy Jenswold Anderson (B.A., 1950) is President/Chief Executive Officer of Urban Environment Associates, Inc., resides in Cedar Hill, Texas, and writes, "I continue to work on environmental assessments and impact statements, mostly on highways and airport improvements. This year a project in southwest Utah took me to the area of Zion National Park—a beautiful area. I've been doing much travel around the United States, visiting children, grandchildren, and favorite sights. I hope to retire soon."

Paul D. Anderson (B.S., 1947) is an independent geologist in Midland, Texas, and writes, "I'm fine, although Peggy is in bed with multiple sclerosis; son, Ken, lives in South Dakota, and daughter, Karen, in Wimberley, Texas. I'm still working but not very hard."

Payton V. Anderson (B.S., 1945) is an independent oil operator in Midland, Texas, plays golf with Evelyn, his wife of 52 years, and travels worldwide. He reports that he is still active in oil and gas operations, mainly in Alabama, West Texas, and the Williston Basin.

Raymond H. (Pat) Anderson (B.S., 1956) is retired from Texaco and currently living in Richmond, Texas, and writes, "I continue to enjoy retirement with spring and summer traveling and fall and winter quail hunting in South Texas. Joanne is still selling real estate in and around Richmond."

Edgar P. Armstrong (B.S., 1951) is retired in Houston, Texas, and writes, "Still going to Longhorn football games with season tickets, along with son and grandson. Call us when you are in Houston at (281) 493-0851."

James M. Armstrong (B.S., 1978), an accountant, writes, "I am continuing to enjoy my employment at Huntsman Petrochemical Corp. in Houston."

Robert N. Arrington (B.S., 1951, M.S., 1954) lives in Houston, Texas, and writes, "My e-mail address is rarrington@pdq.net, and I am enjoying retirement. I am a recent convert to e-mail and the Internet."

Larry M. Asbury (B.S., 1959, M.A., 1961) resides in Dallas, Texas, and he reports that he is happily retired after 35 years and six countries with ARCO, and that he and his wife enjoy living in the Dallas, Texas, area near family and friends! Larry is a former member of the Geology Foundation Advisory Council.

John E. Atkins (M.A., 1989) of Dallas, Texas, is currently a management consultant at A. T. Kearney, Inc. and is consulting to Fortune 500 oil companies, helping them to increase shareholder value through operations improvement in the supply chain.

Gerald L. Atkinson (B.S., 1983) is a Senior Exploration Geologist with Exxon Exploration Company, resides in Kingwood, Texas, and writes, "Good to see the Department doing so well. Have been working Southeast Asia for past 6 years with Exxon."

E. R. (Bob) Atwill (M.A., 1960) ranches on the Serendipity Ranch in Tubac, Arizona, and writes, "Ranch is bumping along just fine. Sold some calves last year and early this year but price still low. My 1996 vintage Chenin Blanc wine is superb! The 1996 Cabernet Sauvignon only so-so. Maybe 1998 will be better. Cheers to old friends."

Gene M. Austin (B.S., 1952) is a consulting petroleum geologist in Houston, Texas, and writes, "In addition, I originate shallow, close-in, low-risk prospects and they sell. I promise to call one of you old timers when the next newsletter comes out."

Sara Avant-Stanley (B.S., 1978) is a fitness instructor with the American Embassy Recreation Association in Jakarta, and writes, "Starting our third year in Indonesia—enjoying the travel (New Zealand, Australia, Bali, and Singapore so far). Sailing out to Krakatau and hiking up and around Anak Krakatau (Child of Krakatau) is still a highlight. We miss friends and family back home. Come visit!"

Carol E. (Evans) Avery (M.A., 1986) has been with Chevron 11 years as a petroleum geologist and is now working producing fields on the shelf in the Gulf of Mexico. Mark has a successful private investigations business in New Orleans, Louisiana. Their children, Harris (7) and Travis (4), are wonderful!

Byron Alan Bachschmid (B.S., 1983) resides in Hurst, Texas, and is a geologist at GEOREX-C.G.G.—Maracaibo Project in Houston, Texas, and writes, "Am now doing geology work in the Maracaibo area in Venezuela."

T. Dale Bagwell (B.S., 1979) lives in Spring, Texas, is a high school teacher for science and technology, and writes, "Teaching is a wonderful field if only it paid. Attitude is everything."

Carol Swenumson Baker (B.S., 1984) is Senior Petroleum Geophysicist at Exxon, and writes from Houston, Texas, "Rodney and I are constantly on the go with our boys, Grant (8) and Andrew (almost 3). We've lost track of too many people. Look me up at Exxon and call!"

Linda R. Balcom (B.S., 1987) writes, "The last 12 months have been extremely busy! My personal favorite was completing the Pike's Peak ascent, a 13.2-mile run up Pike's Peak. I also switched jobs. I am now working for Harza Environmental Services. However, the biggest news yet is that we are expecting our second child in June. Helen is looking forward to having a brother or a sister! Helen, 20 months old, is already showing signs of being an excellent geologist. She tastes every rock she sees! Hope all is well with our geopals. Durbo, got your postcard from the Sipapu Lodge, and it gave me cold sweats remembering field camp 1987! Hope all is well in Houston. Drop me an e-mail sometime at lrbalcom@sni.net."

Donna Balin (B.S., 1978) writes, "In April, I married a wonderful man named Andrew Scott, a Program Director with the Bureau of Economic Geology in Austin, Texas. Sure am glad I took his short course! I'm also involved in oil and gas exploration as a consultant in Houston, Texas, so we've had a '90s-style commuter marriage! Sort of like dating but with more commitment! At work, I've been having a great time working with 3-D seismic, so I'm gradually bridging the gap between geologist and geophysicist. Best wishes to everyone."

Stanton N. Ballard (B.S., 1977) is a geologist/geophysicist in Dallas, Texas.

Ben Barrow (B.A., 1951) is retired in Utopia, Texas. He reports that he and his wife, Kay, have spent much time traveling in the west collecting rocks, and that he missed last year's newsletter inquiry card because they spent the summer in Oregon. They work rocks and make jewelry and other items from them.

Robert Bartels (B.S., 1985) is Co-Owner/Hydrogeologist for Enviro Source, Inc. in Austin, Texas. They are presently dealing with LPST sites in Texas. He writes, "My wife, Karyn, and I have two kids—Hunter (5) and Kaetlyn (3)." They have been living in south Austin for 7 years.

Sandy Beach (B.S., 1987) is a geologist at Beach Exploration, Inc., in Midland, Texas.

Joe Beard (B.S., 1942) is an independent petroleum geologist in Wichita Falls, Texas.

Robert E. Beatty, Jr. (B.S., 1954) is a geology consultant and lives in San Antonio, Texas.

Hector A. Becemberg (B.S., 1993) is a financial analyst in San Juan, Puerto Rico, and writes, "I passed the CPA examination in November 1997, and I was just transferred to the Mergers and Acquisitions Division of Popular, Inc."

Bryan D. Beck, Jr. (B.S., 1939) is retired in Beaumont, Texas, and writes, "Tempus fugits!"

Fred H. (B.S., 1983) and **Teresa Harkrader Becker** (B.S., 1982) are geophysicists in New Orleans, Louisiana, and live in Slidell, Louisiana. Fred is still with Shell Offshore, Inc. Teresa is still with Amoco. They inform us that their girls keep them busy with soccer and school work. They would love to hear from any of their old classmates!

Sidney Straleigh Bell (B.A., 1946) writes from Fort Plain, New York, "Keeping alive at 79—my tarnished "Golden Years." Still trying to start a business—pewter wildlife carvings for sportsmen and have 250 designs. But the hospital keeps getting my business—triple bypass, cataract surgery (both eyes), sugar, cancer radiation, two spinal fusions, and disk removal (2). All that and more after 25 plus years in the arctic and bush prospecting, where my clean living prevented even a cold. Maybe I can blame it on Clinton. Adios, Sid."

Walter Edwin Belt, Jr. (B.S., 1943) has been retired for almost 11 years and writes, "Having reported only addresses, etc., in past years and during those times having noted how much of the reporting of others involved reports of trips, hobbies, all forms of activities, status of kids, grandkids, as well as other interesting items, I will now construct my report to make up for the years of reporting that I failed to submit.

Virginia and I have lived on a 33-acre hill about 6 miles from Flatonia, Texas, and about 12 miles from Schulenburg for the last 11 years following retirement from Houston, Texas. We have about 7 acres of 100-year-old (plus) live oak trees. We raise catfish in one pond (mainly for the fun of feeding them) and bass in another pond. We have planted several thousand trees and fully a thousand have lived. I failed to get a soil test before purchase and initially purchased trees that would thrive in the Houston, Texas, area. We do not have animals, so basically we have a 33-acre yard. Animals might interfere with our travel plans. We are delighted to have two Houston weekender neighbors and two wonderful permanent neighbors, and one of those is also retired from Houston, Texas.

In the category of "hobby" (Can it be a "hobby" if it takes so much time and costs?), I became interested in family history about 7 years ago. Following a course at the Mormon Library in Salt Lake City, Utah, plus an introduction to their software at The University of Utah, I went into the "hobby" on a serious basis. In the meantime, I have published four family history books, two more than 600 pages each, on the surname Allen (my mother) and the surname Belt. I have traced Belt back to the first Belt who crossed the ditch from Europe to the Colonies in 1635. He left Gravesend, England, on the ship *America*, and landed at Jamestown, Virginia, that summer. He is my 8th great-grandfather. This "hobby" has enabled me to meet so many wonderful people by phone, letter, and meetings that it was more than worth it. My books are in several libraries, including the Clayton Library in Houston, Texas, the Texas State Library in Austin, Texas, the Center for American History at The University of Texas at Austin, as well as the Mormon Library in Salt Lake City, Utah, and the DAR Library in Washington, D.C.

My early family history "required" my second hobby to be Texas history (prior to becoming a Republic) and U.S. colonial history (prior to the American Revolution). That hobby has taken us to many areas.

Because we live in "the boondocks," there was no ISP for my area, so I was unable to have a cost-reasonable Internet connection until January of this year. That has taken time from my family history basic research in one way, but I would not trade it for a spotted pup. Now I am still involved in growing pains going from DOS to Windows 95 and from 16 to 233 MHz.

And now for the travel report: In our 11 years of retirement, we have made 11 cruises on the big ships, and one was quite super. We were on a "mail boat" that went along the coast of Norway from the south to the border of Russia, making 34 stops. On the return trip, we made 37 stops. It was like the story of the Central America buses, where children with tricycles and people on local trips would not take a room but would sleep on the floor. But my reaction to the people of Norway was and is that they are possibly the most intelligent group I have ever been around. Recently, we have chosen the smaller boats, such as clippers *Nantucket* and *Yorktown* (only about 100 passengers). Last fall we made the north California inland waters up to Sacramento, and then this spring we went from Jacksonville, Florida, to Charleston, South Carolina, mainly in the Intracoastal Canal, with a stop at the Kingspoint Naval Station in St. Mary's, Georgia, where we were allowed to tour about 60 percent of the *USS Maryland*, a Trident submarine. It was quite an experience.

Perhaps the most satisfying trip, on a personal basis, was time spent in the Washington D.C. area viewing Belt family historical items such as the Col. Joseph Belt monument (my 6th great grandfather) (on Chevy Chase Circle), Belt Woods (huge virgin tree forest) east of D.C., and the town of Beltsville and other items. Col. Belt was the 2nd largest

landowner in Colonial America. His first son, my main line, married out of the family religion and was disowned. Therefore, I am part of the outcast line. The others remained in the D.C. area, even today. Perhaps that answers a lot.

We have also attended 15 Elderhostel programs during our retirement—from watching whales in Southern California to "An Explanation of Oil and Gas Fields in Southern Alabama" and, of most interest, was a week spent at the UT M. D. Anderson Cancer Center Science Park near Bastrop, Texas, several relating to local and/or state history, as well as two on what many people refer to as "The Civil War," but which I refer to as "The War Between the States."

I have been active as a past program director of the Schulenburg Lions Club. My programs included Dr. Marye Anne Fox, Vice President for Research at UT; Dr. Ed Vargo, UT biologist doing research on fire ants; Ms. Jody Conradt, UT Women's Sports Director and basketball coach; the Associate Executive Vice Chancellor for Academic Affairs of the UT System; Robert Thonhoff, Texas history writer and two-time winner of the LaBahia Award; Mike Moses, Texas State Commissioner of Education; John Sharp, Texas State Comptroller; and Garry Mauro, Commissioner, Texas General Land Office, as well as the Army's manager of the "New Concept" Army Truck factory near Sealy, Texas.

1997 was spent in a horrible limbo as I was incorrectly diagnosed with lung cancer with weeks to live...Finally it was determined to be only a problem with a super hiatal hernia. Since that scare I DO ONLY WHAT WE WANT TO DO.

We are blessed with 4 super children and 5 wonderful grandchildren. A granddaughter is a sophomore at UT Austin.

We are in the Flatonia telephone book, and I hope our UT friends will give us a call, and/or an e-mail message, and a visit. And you better hurry. We are getting a lot older faster than I planned." He may be reached at webeltjr@fais.net.

James I. (Jay) Bennett (B.S., 1952) is retired from Texaco and currently living in Houston, Texas. He writes, "I am age 77 and spent 28 1/2 years at Texaco and 7 years self-employed. We have two boys and two girls, all are college graduates. My wife, Quita (Henrietta A. Castillo), is a 1937 UT graduate and is a retired teacher."

Robert L. Bently (B.A., 1954) resides in Calgary, Canada, retired on October 1, 1990, and writes, "Enjoy newsletter—reading about classmates."

Allen Bertagne (M.A., 1980) is a Geoscience Manager with PGS Reservoir, U.S., and is living in Houston, Texas.

Don G. Bilbrey (B.S., 1953, M.A., 1957) is retired from Gulf Oil Corp., living in New Orleans, Louisiana, and writes, "Still in good health and enjoying retirement, golf, and semi-annual visits to Seattle to see my daughter and son-in-law."

Terry V. Bills, Jr., (B.S., 1955, M.A., 1957) is President of Sevarg Company, Inc., in Lafayette, Louisiana, and writes, "Continuing exploitation rather than exploration of oil and gas as I approach my 39th year as an independent. Took time off for a great Alaskan cruise and another through the Panama Canal!"

David Birsa (Ph.D., 1977) is an Exploration Manager for Chevron USA. He currently resides in Kingwood, Texas. He reports that he is still working in Houston for Chevron and that he has been spending a lot of time on Alaska as lower 48 exploration winds down. David is a member of the Geology Foundation Advisory Council.

William T. Biskamp (B.A., 1954) is retired in Dallas, Texas, and writes, "I have seven great grandkids, still helping Mona sell real estate, playing golf, had a great trip last year—sailed on Windstar from Rome and around the coastline to Barcelona."

Tom Bjorklund (M.A., 1962) is retired and is currently a graduate student at the University of Houston, and writes, "I'm still a contender for becoming the best senior grad student in the Department at U.H."

Robert H. Blodgett (Ph.D., 1990) is an Associate Professor in the Department of Geology at Austin Community College, and writes, "The past year has been very busy with reorganization of the college and my participation in the GSA Earth and Space Technological Education Project. This project involves the introduction of GIS, GPS, and image processing in ACC Geology courses."

Patricia Bobeck (M.A., 1985) is a geologist at the Texas Natural Resource Conservation Commission in Austin, Texas. She writes, "The TNRCC continues to present new challenges in hazardous waste management! Also, the foreign language translation business is booming, with lots of exploration in Africa and South America. I'm into my second term as Administrator of the Science and Technology Division of the American Translators Association and have just completed a year as President of the Austin Geological Society. Son Dennis, age 11, is on the verge of growing taller than me—a new era begins."

Julie Bonner (B.S., 1983) writes, "I left Pioneer Natural Resources (aka Parker & Parsley) in February. I now live in The Woodlands, Texas, and work for Chevron Petroleum Technology as a lead drilling engineer in the horizontal and multi-lateral well group. There's lots of foreign travel involved, but I still make time to hot air balloon."

Silverio Bosch (B.S., 1974, M.A., 1975) is an independent petroleum geologist in Corpus Christi, Texas, and writes, "Continuing successful exploration efforts with Esenjay Petroleum thanks to 3-D surveys. 3-D confirms subsurface leads and, more importantly, brings out investors. Never a dull moment with my hyper family: Matthew (10), Eric (8), and Lisa (?)."

Felicia Boyd (M.A., 1982) lives in Jacksonville Beach, Florida, is owner of Felicia M. Boyd & Associates Environmental Services and Adjunct Professor, Earth and Space Sciences at Florida Community College at Jacksonville.

Walter A. Boyd, Jr. (B.S., 1953) is retired in Houston, Texas.

Walt V. Boyle (B.S., 1954, M.A., 1955) is a consulting geologist in Houston, Texas, and writes, "I spend a lot of time doing "computer investing" and traveling."

Philip Braithwaite (M.A., 1958), residing in Dallas, Texas, writes, "I finally decided to retire from Mobil (February 1998) and am really enjoying the more relaxed pace of life, though I am staying busier than I expected I would be. I still stay in touch with my old group at Mobil and consult for them once in a while."

Robert F. Brandt (B.S., 1957) from Houston, Texas, is an Adjunct Instructor for Geology at Houston Community College System, and writes, "I'm still teaching Physical Geology and Environmental Science on campus and "distance education" (videotapes) Physical Geology. I'm slowly "easing" into retirement but will keep teaching at least one course as long as I am able."

Michael Breeding (B.S., 1971) writes, "After graduation, I went into the rare and specialty gas divisions of several industrial gas companies with B.O.C. being the last. In the early 80's, my partners and I developed a post-fluorination plastic container process and business. Fluro-Seal is now a closely-held worldwide corporation. In 1990, my wife and I moved to Santa Fe, New Mexico, and built our adobe in the foothills of the Sangré de Christo Mountains. I then pursued my life-long passion—manufacturing parts for antique American made Indian motorcycles. A catalog and mail-order business followed. I still ride the same Indian Chief that I parked behind the Geology Building in 1970. I realize that my career(s) have hardly been earth sciences related. I discovered northern New Mexico on our 1970 660 class, and I rode my Indian during my entire undergraduate time majoring in Geology at UT Austin. I would not have

had a chance in the industrial gas field without a science-related degree from UT. My fellow students were wonderful people."

Bill Brenner (B.S., 1958) is currently semi-retired and in real estate investment. He and his wife are just completing a cabin in northwest Montana near Glacier Park and hope to spend summers there.

James G. Brewton (B.S., 1983, M.A., 1992), is "currently a technical geophysicist for Amoco Norway. My work involves AVO, MBS, modeling, rock properties, and other technical applications. I'm still learning Norwegian. Yina and I are going to have our first child in June."

Ben M. (Bud) Brigham (B.S., 1983) lives in Austin, Texas, and is Chief Executive Officer/President of Brigham Exploration Co. He writes, "We moved to Austin in July 1997. Elizabeth is 2, and Anne is expecting in December."

M. H. (Buddy) Brock (B.S., 1956) is "semi-retired" in Edna, Texas, and writes, "Only new occurrence is a granddaughter born in 1997. This brings the count to 9 grandkids. No time for anything else except a few rounds of golf."

Ken Brook (B.S., 1967) resides in Reno, Nevada, and is President of Desert Ventures, Inc. and writes, "Family fine, but gold mines remain as elusive as ever. Remember DDYBW!"

Gerald R. Brooks (B.S., 1958) is Vice-President of Mallin Exploration, Inc. in Shreveport and currently resides in Bossier City, Louisiana, and writes, "Enjoy the oil business—nothing stays the same."

C. Douglas Brown (B.S., 1984) is President of BXP Company, LLC in Dallas, Texas, and writes, "Acquisition and development business is going well in South Texas. Our son, Renner, will be 2 years old this fall."

Wallace E. Brunson (B.S., 1942, M.A., 1954) is retired in Houston, Texas, and writes that, "The word "work" is a thing of the past; but I do keep an office with Big "6" Drilling Co."

J. E. (Woody) Bryant (B.S., 1943, M.A., 1948) is a self employed geologist in Fredericksburg, Texas, and writes, "Exploration activity nil, however, still evaluating producing O & G properties. Bryant family now includes 4 grandchildren."

Leonard C. Bryant (B.A., 1957) is an independent geologist in Helotes, Texas, and writes, "We are still enjoying our condo in Branson, Missouri. The entertainment is great, and we make about 4 trips a year up there."

Thaïs Bullard and her father, Fred Bullard, at Faculty Center in 1992. Photo provided by Thaïs Bullard.

Julius A. Buchanan (B.S., 1941) raves, "You cannot beat retirement. I have been retired 18 years but stay busy. Looking forward to this year's newsletter to see what my old friends are doing." All of his family is doing well.

Keith F. Buck (M.A., 1997) is a geologist for Anadarko Petroleum Corp. in Houston, Texas.

Thaïs Jeanne Bullard (M.A., 1951) writes, "My father, Fred Bullard, was a member of the Geology faculty from 1924 to 1994. That must be some kind of record! My news is that I have initiated in his honor "The Fred M. Bullard Fund" to be administered by the Graduate School of Library and Information Science to pioneer the field of geology information science at UT. The Fund will serve first to process my father's papers, now archived by special invitation in the UT Library Archives, so that information they contain can be accessible, and later the Fund will support graduate student research in the new interdisciplinary field. It is exciting to be able to initiate this program now at UT because new information technology offers an unprecedented opportunity to leverage the increasingly large amount of information resources to greater coherence and to manage knowledge in cyberspace, for the service of institutions of learning and research and, in this case, the development of current and new fields of geology information. Your participation in this new venture is invited. Any personal recollections you can offer about Fred Bullard and your days in Geology at UT—stories, events, memories—and any photos you can find—will be added to the information base that will provide dimension to a history of Fred Bullard's times in the Geology Department, a project planned for future research that will parallel the processing of his papers. You could be footnoted in cyberspace! Everyone will enjoy these recollections, and they will give a human face to this part of The University's history. Please contact me at 1801 Lavaca Street, #15-A, Austin, Texas 78701, or call me at 512-476-8076, or e-mail me at bullard@gslis.utexas.edu, or for more information contact the Graduate School of Library and Information Science, The University of Texas at Austin, 78712-1276, telephone 512-471-3972, e-mail gharmon@uts.cc.utexas.edu."

Dan J. Bump (B.S., 1985) is Marketing Manager of Natural Gas for Western Gas Resources in Denver, Colorado, and writes, "The natural gas business has been very exciting the past couple of years. However, my favorite challenge is my 16-month-old daughter, Amanda, and another on the way. Howdy to all the Geo-Dogs from 1985...wassup, Marsai and Johnny Kennedy?"

Ron Butterworth (M.A., 1970) is a team leader in geophysical research in Bakersfield, California.

Robert W. Bybee (B.A., 1941) is retired in Houston, Texas. He reports, "Elizabeth and I continue having good health and good living! We've slowed down some at ages 78 and 79. We spend July, August, and September in Wyoming. Regards to all our buddies."

Leon G. Byerley (B.S., 1952), an independent geologist in Midland, Texas, writes, "I'm still keeping my office open, but there are times I wonder why."

Gary L. Byrd (B.S., 1984) is a roofing contractor in Rockwall, Texas.

Frank Kell Cahoon (B.S., 1957), an independent oil operator in Midland, Texas, writes, "Just returned from a Civil War trip on the *Delta Queen*. We still love Midland and our Austin grandchildren."

Notes from the Alumni

Amy Lee Campbell (B.S., 1997) writes, "I will be starting at Brown, McCarroll & Oaks Hartline, L.L.P., in Austin, Texas, on June 15, 1998, as an Environmental Technical Research Assistant after traveling around Europe and working in London for a year after graduation."

Donald H. Campbell (M.A., 1962) is a geologist/petrographer at Campbell Petrographic Services in Dodgeville, Wisconsin, and informs us that life as a petrographic entrepreneur is at a fast pace, with too little time to enjoy the "Wisconsin Driftless Area" to its fullest.

Donald M. Campbell (B.A., 1955) writes from New Market, Maryland, "Retired 10 years from Geophysics. Currently, I'm still a sales associate for Eaglehead Co., the main builder of homes at Lake Linganore, near Frederick, Maryland. Hope to go to my 50th high school reunion in San Antonio, Texas, and a trip to Hawaii, Tucson, Arizona, and Plano, Texas, later this year."

Richard A. Campbell (M.A., 1959) is a geologist and writes, "Back at work and enjoying it as part of Camex Operating Co. in Lafayette, Louisiana."

Jim Carew (M.A., 1969, Ph.D., 1978) is a Professor of Geology at the University of Charleston, Charleston, South Carolina, and reports "am still working in carbonates of the Bahamas and Caribbean. Expansion into the Pacific should take place next year. I was co-author of the chapter on the geology of the Bahamas in the recently published book, *Geology and Hydrogeology of Carbonate Islands*, Vachert and Quinn (eds.), Elsevier. I see Bob Folk at meetings regularly, and I always enjoy seeing him!"

A. T. (Toby) Carleton (B.S., 1951, M.A., 1952) is an independent geologist in Midland, Texas. He writes, "I will go off the AAPG Advisory Council in July but have just gone on the SIPES Board of Directors. Also, I continue to serve on the UT Geology Foundation Advisory Council."

Marvin T. Carlsen (B.S., 1952) is retired in Midland, Texas. He writes, "Wife and I had a great two-week trip to Alaska in August to September 1997: Inside Passage, Anchorage, Denali Park, and Fairbanks. Met a friend in Skagway I had not seen in 56 years. Wife had a double heart bypass operation in February and is still recuperating. Keeps me busy. My best wishes to all geology exes."

Steve Carlson (M.A., 1984) is a Senior Geophysicist with Unocal Patagonia in Sugar Land, Texas, and writes, "Our fourth child, Zoe Diana, was born in Singapore on Indonesian Independence Day, August 17. We moved back to Houston in January, after 5 years in Indonesia. I'm now working the San Jorge Basin, offshore Argentina, and coping with reverse culture shock."

Danielle L. Carpenter (M.A., 1996) is a geoscientist with Texaco Exploration in Bellaire, Texas.

David L. Carr (M.A., 1983) lives in Austin, Texas, and is a consulting petroleum geologist. He writes, "I am working too much, but feel lucky to live in Austin. Send e-mail to me at carrd@onr.com."

Richard F. Carroll (B.S., 1980) is Director of Exploration, South Texas, for Mobil Exploration and Producing U.S., Inc., in Houston, Texas. He writes, "I'm working with a major now after having been either independent or working for an independent for 17 years. Somebody has to teach them how to find gas. Still working onshore Texas Gulf Coast, and I still love the business. Just got back from India and Nepal and am glad to be back. Still married to my beautiful wife, Robin, and still proud of my two wonderful sons, Ian and Austin, aged four and three." He lives in The Woodlands, Texas.

Wilson Carter (B.A., 1949) resides in St. Joseph, Missouri, and is President of Central Gas Utilities Co.

Dwight E. Cassell (B.S., 1955, M.A., 1958) is an independent geologist in Austin, Texas. He writes, "Between low crude prices, stripper wells, and taxes, just about all the fun has gone out of the oil "bidness." However, there are a few more locations out there that won't let you quit, at least not just yet. Linda and I escaped for an extended bus tour of France and Spain—so vive ustedes and come see us."

Charles A. (Chuck) Caughey (B.S., 1969, M.A., 1973) is an exploration manager with Gulf Resources in Jakarta, Indonesia. He writes, "One son is finishing his first year at UT, and the other will graduate from high school next year. The current Year of the Tiger dawned in Indonesia with widespread drought, huge forest fires, and economic crises. The situation stabilized recently with the tardy arrival of both the rainy season and financial aid from abroad. Meanwhile, Gulf stayed busy in Sumatra drilling large gas accumulations in fractured granite, and we flew an aeromagnetic survey to help define these unusual reservoirs. There is never a dull moment."

Mike Cervantes (M.A., 1988) writes, "Decided to exercise my option last summer and joined the Texaco team in Midland, Texas. The change has been good for me and my family, we're adjusting. It's good to see other alumni around town too."

John G. Champion (B.S., 1947) is an independent geologist in Tyler, Texas, and is "semi-retired."

David C. Chow (B.S., 1985) is an Advanced Geophysicist at Marathon Oil Co. in Houston, Texas, and writes us, "I have been doing Landmark support for the last six years after three years each doing geophysical processing and interpretation. Carla, my seven-year-old, and I are going to Hawaii and Bali, Indonesia, with this year's bonus!"

James Lane Claughton (B.S., 1971) is an exploration consultant in Corpus Christi, Texas.

Wilbur R. (Ted) Cleaves (B.A., 1960) is a medical doctor at Family Practice Associates. He writes, "I am still enjoying my medical career but looking forward to retirement. My wife is a novelist who writes under the name of Ann Mayor. My oldest son now has an M.F.A. from UT. My two youngest are seniors there." He lives in Corpus Christi, Texas.

Kelton Cloud (B.S., 1973) is geologist/partner at Harbor Operating in Granbury, Texas, and writes, "Continue to work on a wide variety of oil and gas projects. We moved to Granbury one year ago and really enjoy being away from the heavy traffic around the metroplex."

Joel Coffman (B.S., 1984) is employed by Pinnacle Environmental Solutions and writes, "I'm Technical Coordinator for our Northern California Group, which is a spin-off of Emcon (our parent company). I live/work here in Cameron Park, California, trying to hang on in the environmental field as times get tough and nasty. Hopefully, I will catch another big wave before some riptide takes me out to sea. Amber is now 14 and is "hell on wheels" as some of you with teenagers probably can relate. Overall, things are okay, still trying to come to grips with about to turn 40 years old, miss the Austin, Texas, music scene (but not the heat, smoke, and humidity) and always catch the Joe Ely tour when he comes through (and helped with CD/tee shirt sales). Been stuck at home on the West Coast for the past year with little travel other than within the western United States (Vancouver to Tijuana). Many life changes ahead for the next year. I hope I survive to see the 1999 to 2000 New Year's Party coming up. Looks to be a good one! Cheers to all 83 grads!!!"

Thomas L. (B.S., 1984, M.A., 1991) and **Julianne M. Cogswell** (M.A., 1988) live in Houston, Texas. Their present jobs and positions are: Tom, a Senior Petroleum Geologist with Exxon Co., U.S.A. and Julie, an exploration geologist with Exxon Ventures (CIS) Inc. Julie has been with Exxon for over 10 years now, and is enjoying her current assignment working Azerbaijan and the South Caspian basin, from Houston, though there have been two trips to Baku so far. Tom left Mitchell Energy in The

Woodlands after almost 8 years to join Exxon in December and is working the deep water Gulf of Mexico, Diana development project. Getting to the rig isn't as easy as it used to be. David, their son, is 5, and Clara, their daughter, is 3. They keep both of them pretty busy.

H. Grady Collier, Jr. (B.S., 1949) is a self-employed, consulting geologist, and writes, "Geology continues to be fun, although not as profitable as a few years ago. Most of my age group have ceased to practice downtown in New Orleans, and it's a "new cast of characters, but it's still fun!" (When in New Orleans, call me at 581-7602)."

Billy (Chuck) Collins (B.S., 1976) is "Working on my 17th year in Corpus Christi, Texas, as a Chief Geophysicist. It is a great place to live if you enjoy hunting, fishing, and the water. My oldest son, Chris, is looking to attend UT in fall 1999, continuing a proud tradition. He won't consider another school. I am presently with Manti Resources, a small aggressive independent. Manti is concentrating on the onshore Gulf Coast areas of Texas and Louisiana. We are finding success in the combination of solid subsurface/geophysical integration."

Carlton Cook (B.S., 1978), Senior Geologist at Rimco Production Management Co. in Houston, Texas, writes, "I hit a big one and retired for a couple of years, but I just couldn't stay away from the exploration business. So now I am back looking for oil and gas in south Louisiana and loving it."

David Cook (B.S., 1982) of Honolulu, Hawaii, is an Environmental Restoration Program Manager with the U.S. Air Force Pacific Command.

Mary Beth Cooper (B.A., 1967, M.A., 1969) is a Registered Nurse and writes from Denver, Colorado, "Graduated from Regis University (Denver) with a B.S. in Nursing in early May. Will take the registry exam in June and start working at Denver General Hospital in an adolescent psychiatric unit and on a medical surgical unit as well. I love it!"

Casey C. (B.S., 1988) and **Susan Schwarz Cornett** (B.S., 1986) write from Houston, Texas, "Susan continues to be the great mom, Sunday school teacher, and volunteer. The boys are 6 (Marshall) and 2 1/2 (Stuart) and growing up too darn fast! Casey switched jobs, coached T-ball, and we moved all in May 1998—hello?!? If any of the geopals are around Houston, give us a yell." Casey is a Petroleum Geologist and Data Management Consultant with PGS Data in Houston.

Frank Cornish (M.A., 1975) resides in Corpus Christi, Texas, and is a geologist for Yuma E & P, and writes, "Will return to England for fourth annual visit, Devon, Cornwall to find Cornish roots and Lake District for romance. S.W. Speaks field continues development. Seven wells flowing 40MMCFD, 3 drilling (15,000 feet + 17,500 feet), will drill 3 to 4 more this year. See you in Corpus, GCAGS, October 1998."

Darcy (Brooks) Cuthill and Kary Cuthill, rafting in central Alberta in 1995. Photo provided by Darcy (Brooks) Cuthill.

Augustus (Gus) S. Cotera (B.S., 1952, M.A., 1956, Ph.D., 1962) is retired in Avondale, Arizona, and still doing research for his book—historical fiction. Went to Belgium last fall, Ireland this summer and Spain next fall —and "miles to go, before I sleep."

Raymond Wilson Cozby III (B.A., 1983) is an attorney with Hoffman Kelley, L.L.P., in Tyler, Texas. He reports that everything is fine in Tyler, and that he has a new home address.

Roland (Buddy) Crawford (B.S., 1963) is retired in San Antonio, Texas.

Weyman W. Crawford (B.A., 1950) of Houston, Texas, is retired from Elf Aquitaine, Inc., and continues to serve on the Geology Foundation.

John C. Crowell (B.S., 1939), an Emeritus Professor at the University of California in Santa Barbara writes, "I continue geological writing and have recently had a long treatise accepted for publication by the Geological Society of America. I recall with thanks and warmth the 9 years at UT in the late 1930's when I was introduced and educated in geology. Regards to all!!"

Timothy E. Crump (B.S., 1991) is a Project Manager in Houston, Texas, and currently resides in Pearland, Texas.

Steve Cumella (B.S., 1977, M.A., 1981) is a Senior Geologist for International Reservoir Technologies in Golden, Colorado, and resides in Evergreen, Colorado.

Hugh W. Curfman (B.A., 1948), retired from consulting geology in Lafayette, Louisiana, is still visiting children in five states and watching for "good" oil news.

Darcy (Brooks) Cuthill (B.S., 1993) of Alberta, Canada, writes us, "Thank you for your recent interest in tracking your UT Geoscience alumni. I think it's great that the department continues to make this effort, and I look forward to the newsletter. After graduating with my B.S. in Geophysics in 1993, I worked in technology and exploration (subsalt) roles for Amoco in Houston, Texas. After meeting my Canadian husband-to-be at Amoco, I transferred along with Kary to Calgary, Alberta—the oil hub of the north! I worked several development areas for Amoco Canada and drilled a number of wells. In 1995, I led a pilot integration project for Amoco using Landmark Graphics integrated workflow solutions, and my team produced results worth talking about. We subsequently won the CSEG Best Paper Award in 1997 and presented our project numerous times. Mid-last year, I chose to pursue new opportunities in the high tech business with Landmark Graphics. My role here as Account Manager is one of sales, strategic planning, and customer relationship management. I am very happy with this career move and hope to continue the promotion of technology to geoscientists and their peers. Best Wishes."

Judy Gaylord Dain (B.S., 1981) is a Financial Analyst in Fairfax, Virginia, and writes, "My six-year old son has discovered rock crystals! Now we can talk rocks! Hello to Ann and Buddy, Anthony and Pistol."

Harris P. (Koop) Darcy (B.S., 1951), an independent geologist in Houston, Texas, writes, "Write to ICR, P. O. Box 2667, El Cajon, California 92021 and order their catalog. Excellent information. Also, order book L1O2—*Dinosaur* ($17.00) from Creation Evidences Museum, P. O. Box 309, Glen Rose, Texas 76043-0309. Maranatha!"

Julius Dasch (M.A., 1960) as Manager/Scientist at NASA manages the NASA National Space Grant Program (modeled after Land Grant Universities) and the NASA EPSCOR Program (Experimental Program to Stimulate Competitive Research) and does minor research (geochronology) on lunar rocks and meteorites.

M. V. Dauzacker (Ph.D., 1981) writes, "After 12 years in Australia, we are returning to Brazil, Rio. Oil business in Brazil is looking good. The boys, Erico

(27) and Leonardo (24), will stay in Australia. Lina is busy renovating the new home in Rio."

Erik K. Davidsen (B.S., 1983, M.A., 1986) writes, "Donna and I moved from The Woodlands, Texas, to Anchorage, Alaska, last September. We are thoroughly enjoying the Alaska experience—winter sports, hiking, and frequent moose in our backyard. The only downside is that my golf game will suffer. The transfer was the result of an alliance between Chevron and BP to explore and develop the Eastern North Slope."

Benjamin R. Davis (B.S., 1987), a high school science teacher in Statesboro, Georgia, writes, "I recently got my Master's in Science Education here at Georgia Southern University. I love teaching and hope to continue teaching for many years. I am about to complete my 11th year here. My how time flies! I continue to tour the United States and Europe on my motorcycle in the summers and recently bought a mid-life convertible red Miata. I would love to hear from all my GEO 660 pals from 1987. I still visit with Paul Neumann. He is a bigwig in South America now. My best to everyone."

Linda Lee Davis (Ph.D., 1993) is a Fellow at Battelle, Pacific Northwest National Lab in Richland, Washington, and writes, "I am systematically examining solubility of Hf, REE, and Pu in peralkaline and peraluminous melts. The rumor is that Richland has more Ph.D.'s per area than anywhere else in the world! Can't pick them out on the street!"

William E. Davis, Jr. (M.A., 1962), Professor, Division of Science and Mathematics at Boston University, writes, "While on sabbatical doing research on birds, I saw Ernie Lundelius at a conference in Perth, Western Australia. I took a course from him in 1961!"

William W. Davis (B.S., 1941) is retired and living in San Antonio, Texas.

Michelle Marie Debus (B.S., 1990), resides in San Antonio, Texas, works as a geologist, and writes, "Currently Rick and I are working for an exploration company (Oakrock Exploration) that my partner and I formed 5 years ago. It is exciting and growing quickly. Rick and I have 2 children (5 and 3). Sara is now 16, yikes! Drop us a line."

Carlos Deere (B.S., 1950) is retired in Belleville, Texas, and writes, "When last we met, I had written my first screenplay. But it turns out that Hollywood had already gotten 30,000 of them last year alone and didn't need mine. Besides, mine didn't have any violence in it. My new script will have lots of love, sex and greed. It can't miss."

Frederik E. Dekker (M.A., 1966), a Senior Manager of Business Development in Sugar Land, Texas, and residing in Katy, Texas, writes, "Still traveling a lot, both on business and pleasure. Very active in and a director of Association of International Petroleum Negotiators (AIPN). Organized AIPN spring conference in San Antonio, Texas, in April, 1998."

The Reverend John Lane Denson III (B.A., 1949, M.A., 1950) resides in Nashville, Tennessee, and writes, "I manage, lead, and play trumpet with the Monday Night Jazz Band and co-edit and co-publish the journal, *Covenant*, an occasional paper and commentary on the church and how it goes about making decisions. I have 5 grandchildren and am a non-stipendiary priest on staff at St. Augustine Chapel, Episcopal College Work Center at Vanderbilt University."

Jairo Marcondes de Souza (M.A., 1982) has been involved in the "Brazilian Continental Shelf Survey Plan" (LEPLAC Project) since 1989, a program of the Brazilian Government that is being jointly carried out by the Brazilian Navy and the state-owned oil company, PETROBRAS, in order to establish the outer edge of the Legal Continental Shelf (LCS) of Brazil in accordance with the criteria of article 76 of "The United Nations Convention on the Law of the Sea" (UNCLOS). The UNCLOS went into effect on November 16, 1994, and all the coastal States that have already ratified it (that is the case of Brazil) have ten consecutive years to finish their job and submit the LCS limit to the "Commission on the Limits of the Continental Shelf" of UNO. Brazil finished the acquisition of geophysical data for the LEPLAC, and now the data are being processed and interpreted by PETROBRAS people.

In addition to his current LEPLAC tasks, this year he is also participating in an M.B.A. course for managers and reports that it has been a very hard year for him. He has a daughter 15 years old and a son 10 years old, and both were born in Rio de Janeiro after his return from UT Austin in 1982.

Patricia Wood Dickerson (B.A., 1970, Ph.D., 1995) is a geologist with NASA/Lockheed-Martin, Johnson Space Center in Houston, Texas. She writes, "This has been another year of new directions! I am just beginning to apply my dissertation research on fault-zone travertines to Mars exploration. I created the prototype electronic training manual for astronauts, for which I received a NASA award. I assisted with astronaut/cosmonaut field trips in the northern Rio Grande rift and around Galveston Bay and went to Cape Canaveral for the launch of Space Shuttle 89—night launch—a moving experience! I also went to GSA in Salt Lake City, Utah—reported some recent research, enjoyed a grand reunion with many of you, as well as with colleagues from around the planet; was elected to Fellowship this year (always wanted to be one of the fellows...). I fulfilled a dream that has recurred repeatedly since I received that first degree in geology/Greek archaeology back in the Ordovician--traveled to Greece this spring! I did a bit of field geology in the Argolid, explorations of Olympia—awe-inspiring; Epidauros—lovely; Ancient Corinth—deeply engrossing; Mycenae—and stood, at last, in the Lion Gate—magnificent! I hopped a ferry to the Cyclades—geology, Minoan and Hellenic archaeological sites, and the living beauty of Santorini were unparalleled! I was invited to lecture at the American School of Classical Studies at Ancient Corinth and visited the dig there. I have accepted an invitation to lecture to the Canadian Institute for Classical Studies in Athens when I'm next in the neighborhood—took me 30 years to make the first trip, but it certainly won't be 30 years until the second! I have enjoyed visits from several of you here in Mayhem-on-the-Bay during the year, with more to come this summer—looking forward to it!"

Kenneth L. Diebel (B.S., 1950) is retired from Exxon and living in Conroe, Texas, and writes, "I'm heading into the seventeenth year of retirement and am just back from England and reliving the two work periods in the London area. It was great. Deja vu!!"

Charles W. Dietz (B.A., 1954) is a retired consulting geologist in Rockport, Texas, and is looking forward to the newsletter.

Jane Lee Ormond Dinkins (B.S., 1938) is retired and writes, "Since L. L.'s death in early 1996, I have continued running our red angus farm at Chappell Hill, Texas."

David Dippel (B.S., 1997) is a staff geologist at Trinity Engineering Testing Corp. in Austin, Texas.

Laura Martin Dobson (M.A., 1990) is teaching Environmental Geology and Physical Geology at the University of Northern Iowa. She reports, "I only teach in the fall, so it is fun spending lots of time with Chris (2) and Kelley (4). Husband Andy and I are looking forward to our third child's arrival in November 1998."

John D. Doehring, Jr. (B.S., 1982) is Vice President, Sales and Marketing, Windward Petroleum Partners, L.L.C., lives in Basking Ridge, New Jersey, and writes, "Have left Exxon U.S.A. after 15 years to start Windward Petroleum, a distributor of industrial lubricant products."

Gary (B.S., 1984) and **Jennifer Donnan** (M.A., 1984) have an addition to their family with the birth of number 3, Robert Connor Donnan, in April 1998. Jennifer is staying home with the kids and staying busy with civic and school activities, and Gary is still with ERM SW, Inc., where he is a partner.

George A. Donnelly, Jr. (B.S., 1940) is President of the Eastland Oil Co. in Midland, Texas. George is a member of the Geology Foundation Advisory Council.

Gene C. Doty (B.S., 1954) of Las Vegas, Nevada, is a retired hydrologist. He writes, "Mopsy and I are well, with just enough infirmities to remind us of our mortality. Mostly we watch the grandkids grow and wait for Mammoth Lakes to erupt."

Robert E. Doyle (B.S., 1955, M.A., 1957) is President of American Energy Investment Group in Houston, Texas, and writes, "Most of the past year was spent in Russia where we remain very active. We are involved in horizontal drilling and well workovers in addition to the financing of these operations."

John G. Drake (B.S., 1974) is a Senior Geoscientist at Headington Oil Company in Dallas, Texas, and writes, "3D, 3D, 3D, 3D, 3D, 3D, 3D."

Ralph C. Duchin (M.A., 1955) is an independent geologist in Tucson, Arizona, and writes, "No appreciable change from year to year. Am doing more traveling and still making multiple visits to Houston, Texas, for oil and gas matters."

Philip V. Duggan, II (B.S., 1982) is President, INEXS, and Director of Technology Development, XPLOR Energy in Houston, Texas, and writes, "I have two children, Shaun is 5 (boy) and Kelly is 3 (girl) and am still in Houston but looking for a waterfront house on Lake Austin. Look me up on my Web pages http://www.inexs.com and http://www.xplorenergy.com."

William E. (Bill) Dunaway (M.A., 1962) in a state of semi/full-time retirement says, "Nothing new (glad we have new coaches)."

William R. Dupré (B.S., 1968, M.A., 1970) writes from Houston, Texas, where he is an Associate Professor in the Department of Geosciences at the University of Houston. "Elaine is still teaching second grade, and I am still at University of Houston. The big news is our older son is a Plan II sophomore at UT, while number 2 son is a senior looking for colleges. How time flies."

Bobby DuPreé (B.S., 1954) is retired. He writes that, "Lerla and I are busily enjoying retirement here in Huntsville, Texas, as well as 16 grandchildren scattered over Texas."

William Duran (B.S., 1983) is a hydrogeologist in Houston, Texas, and says, "Family doing well in Pearland, Texas. Groundwater/surface water interaction studies keeping me busy."

Steve Dworkin (Ph.D., 1991) is Professor of Geology at Baylor University and writes, "I am blossoming both professionally and personally here in Waco, Texas. The former is due in part to superior intelligence, the latter to a change in lifestyle that now includes a recently purchased 4 x 4 truck, tight jeans, snakeskin boots, and two-step lessons. Yeeeehaaaw!!"

Fred A. Ealand (B.S., 1948) retired from Exxon in 1986 and writes from Houston, Texas, "The gathering of the "Brady Bunch" in Austin in September 1997 was outstanding thanks to Bob and Billie Fay Grayson and their committee. I'm looking forward to the next one for all 1947–48 Geology grads!"

Roy E. (Ernie) Easley (B.S., 1980) is Vice President of Exploration at Tana Oil and Gas Corporation in Irving, Texas, and resides in Dallas, Texas.

Charles R. Ehlers (B.S., 1978) is Manager of Special Projects of Box Exploration L.L.C., in Richardson, Texas.

Ross Ensley (B.S., 1976) resides in Bellaire, Texas, and is Senior Research Specialist at Exxon Production Research in Houston, Texas.

Richard J. Erdlac, Jr. (Ph.D., 1988) is Director of Integrated Research at West Texas Earth Resources Institute in Midland, Texas, and writes us, "As a co-founder and officer of West Texas Earth Resources Institute, the last few years have been exciting. Eighteen oil and gas companies and $1,000,000 have started a natural resources research center in the Permian Basin. We will soon find out if West Texas wants this kind of facility as we begin major fund raising for permanent support. We live in interesting times."

Rojelio P. Espinosa (B.S., 1985) is Senior Explorationist in San Antonio, Texas, and married Allison Wagner of Winter Park, Florida, on September 20, 1997.

David A. Evans (B.S., 1988), is Director of Petroleum Services at ATC Associates and writes from Richmond, Texas, "Have recently changed jobs, still in the environmental consulting business. Business is

W. L. Fisher and Teaching Assistant Jennifer Beall, GEO 380, Sequence Stratigraphy, during spring break in March 1998 at Last Chance Canyon, Guadalupe Mountains, New Mexico. Photo provided by Pedro Kress.

great. Linda, Stuart (2 1/2), and I are doing well. Greg Warren, where are you these days?"

A. Gordon Everett (Ph.D., 1968) and **Natalie E. Everett** write, "We have an exciting announcement. We are building a new home in Arizona and expect that by next April 1, our new address will be: Casa de Alegria, 28585 North 114th Street, Scottsdale, Arizona 85262. The one-story pueblo-style house is located on a mountain pass about 25 miles north-northeast of downtown Scottsdale. Our veranda offers wonderful views of the mountains and, at night, of distant twinkling lights."

Rizer Everett (B.A., 1937, B.S., 1937) is living in Austin, Texas, and writes, "After 31 years in our home on Laurel Circle, Hildegard and I have recently moved into a single-family cottage overlooking a branch of Williamson Creek in the Englewood Estates retirement facility. Our new address is 2603 Ektom Drive, #412, Austin, Texas 78745-2675. Our new phone number is (512) 899-0430, and our e-mail address is rizere@swbell.net. We are enjoying the sounds of the mockingbirds and the sight of a pair of woodpeckers tending their nest in a nearby pecan tree."

Norman Ewbank (B.S., 1943) is retired in Midland, Texas, and writes, "Hoo boy! Old age sure ain't for sissies!"

Judith K. Fabela (B.S., 1997) is a student in Austin, Texas, working to achieve her teaching certificate.

Thomas E. Fanning (B.S., 1956) is residing in Austin, Texas. He retired from Marathon Oil Co. as Exploration Vice President. He writes, "We have been in our new house in the Village of the Hills about 18 months. Central Texas is still a wonderful place to live in spite of the influx of outsiders like us." Tom is Chairman of the Geology Foundation Advisory Council.

Dorman N. Farmer (B.S., 1950) is owner of Fargo Exploration Company in Abilene, Texas, and writes, "We are still struggling along. However, the price of oil is taking its toll. Looking forward to the new century."

Irma Morgan Feibelman (B.S., 1959) is retired and writes, "Jim and I continue to enjoy Canyon Lake and Texas."

W. M. Felknor, Jr. (B.A., 1958) writes, "After retiring, Gratia and I moved back to Fort Worth, Texas. It's great to be back in Texas."

Carol Finsrud (B.S., 1981) is a printer in Lockhart, Texas.

William M. Fitchen (M.A., 1992, Ph.D., 1997) is a Senior Research Geologist at Exxon Production Research in Houston, Texas. He writes, "My wife, Martha, and I got married in March, and the three of us (stepson, Sebastian, age 3 1/2) have been settling in nicely. Coming up on 3 years with Exxon but still managing to do some field geology now and then. Best wishes to all!"

Walter M. (Dub) Fitzgerald, Jr., (B.S., 1953) is retired from Temple-Inland in Diboll, Texas, currently resides in Lufkin, Texas, and writes, "I'm enjoying retirement—get up at the "Crack of Noon." Play some golf, visit friends at the office, shoot trap, skeet, and sporting clays. Always thankful that I attended UT Geological School. Give my regards to Dr. Sam Ellison."

Ted Flanigan (M.A., 1980) is a geologist with Quest Petroleum in Carson City, Nevada, and writes, "Hello from northern Nevada!"

Jose A. (Tony) Flores, Jr. (B.S., 1990) is Project Manager at BNC Environmental Services, Inc. in Houston, Texas. He and his wife reside in Rosenberg, Texas, and are expecting their second child in late May.

D'nese (Young) Fly (B.S., 1980) is a science teacher in Uvalde, Texas, and writes, "I stay busy teaching elementary/junior high kids to think—a tougher job than (my husband) Chip's."

Sterling H. (Chip) Fly III (B.S., 1980, M.A., 1985) is an environmental geologist working at Atkins and Fly, Inc. in Boerne, Texas, and writes, "I'm busy working on industrial remediation projects in Texas, occasionally daydreaming about the good ol' days in the oil patch of West Texas/New Mexico." They live in Uvalde, Texas.

Hewitt B. Fox (B.A., 1947, B.S., 1948, M.A., 1948) is President/Owner of Hewitt B. Fox, Inc. in Corpus Christi, Texas, and writes, "I am on the committee that is planning and conducting the SIPES national convention this July at Tamarron Resort north of Durango, Colorado. From there we plan to tour Grand Teton, Jackson Hole, Yellowstone, and Glacier National Parks before visiting Seattle, Washington, and Victoria, British Columbia."

Matt (B.S., 1981) and **Kathleen (Minahan) Franey** (B.S., 1982) are residing in Corpus Christi, Texas. Matt is a consulting geologist and writes us, "Kathleen and I are enjoying life in South Texas. The kids, Sarah (10), Elizabeth (7), and John (1 1/2), are growing up too fast. We would look forward to hearing from any old classmates."

Curtis C. Franks (B.S., 1950) is retired in Fair Oaks Ranch, Texas, and "Enjoying the wonder of retirement and aging. I often question the benefit of either. Still involved in a workover or a drilling prospect occasionally."

William D. (Dick) Frazell (M.A., 1935) is retired in Lafayette, Louisiana, and writes, "I'm still looking at an oil deal now and then."

Bob Folk showing off a small octopus stuck to the bottom of his tennis shoe in Yucatan, Mexico, during summer 1959. Photo provided by Rogelio (Roger) Robles.

Annabelle Bannahan Friddle (B.A., 1945, M.A., 1950) resides in Aztec, New Mexico, and writes, "I surely do appreciate the newsletter—thanks."

Tatiana Frierson (B.S., 1985) is a management consultant with Perot Systems Corporation in Dallas, Texas, and says, "Been with Perot Systems going on nine years—consider me a road warrior—travel virtually 100 percent of the time—home in Houston, Texas, on weekends. Would love to catch up with the GEO 660 Geodogs from summer 1985. Send e-mails!! (tatiana.frierson@ps.net)."

David Froehlich (Ph.D., 1996) is an Assistant Professor of Biology at Austin Community College and writes, "Still living in Austin, teaching Biology at ACC, and doing research at the Vertebrate Paleontology Lab, where I am a Research Associate."

Nancy Null Funderburk (B.S., 1979) writes that she is an exploration consultant for Quintana Minerals Corporation in Houston, Texas.

James B. Furrh, Jr. (B.A., 1947, B.S., 1950) owns James B. Furrh, Jr., Inc., in Jackson, Mississippi, and is "still involved in drilling deals in Mississippi, Alabama, and Texas. Best investment now is my interest in a drilling company."

Gerardo (Jerry) H. Garcia (B.S., 1982) is a consulting hydrogeologist with Pennzoil in Houston,

Texas, and writes, "Don Dunbar (class of 1982 also) and I are working here on a contract basis for Pennzoil Products Company. I never knew Don at UT (imagine that with an 800-plus-sized department), but it has been a pleasure working with him here. Hook 'em!"

Abato John Garza (B.S., 1978) resides in Norway and is an exploration business advisor for Mobil Exploration Norway, Inc. and reports, "This summer will be our first full year in Norway, and we have enjoyed living near the water and mountains. Jared is in the fifth grade, and Kate is in the third grade. They are growing fast and meeting new friends from different parts of the world. I am presently working on the business side but still maintaining a hold on the technical aspects. Mobil's office in Stavanger is busy with exciting exploration and producing opportunities. The office has 115 employees, and it is like one large family. Great working environment with many challenges and adventures. The workload is heavy at times, but the learning curve is fast. The energy level is high, and this brings the best out of the workforce. We wish all our friends well and drop a line when you have time. E-mail is john.a.garza@online.no."

Jan Gaudaen (B.A., 1986) reports that she still has her husband and two boys, ages 8 and 7. She is currently working at the Center for Monitoring Research in Arlington, Virginia, which is the prototype verification system for the Comprehensive Nuclear Test Ban Treaty. She has been involved in a variety of tasks, but her main responsibility is managing an International Training Program to train Scientists in the operations of the International Data Center. Working with scientists from 20 different countries has been extremely interesting and a great learning experience for her. She resides in Bowie, Maryland.

Henry B. Gayle (B.A., 1958, M.A., 1958) is retired in San Antonio, Texas, and writes, "Last year Margee joined me on the retirement rolls, and we left Las Vegas, Nevada, for San Antonio. We've been spending the last 7 months refamiliarizing ourselves with Central Texas. Nothing has changed in Austin. Still can't find a parking space!"

Thurman Geddie (B.S., 1945) is a petroleum geologist in Austin, Texas, and is "Still active in the business, enjoying living in Austin, and hoping for better oil prices!"

Charles (M.A., 1996) and **Christianne Weismantel Gell** (B.S., 1996) married in December 1996. Charlie works as a senior consultant/geologist for Landmark Graphics in Houston, Texas. Christie will finish her M.S. at the University of Houston in August and in fall of 1998 will begin working as a geologist for Worldwide Exploration, Marathon Oil Company, in Houston.

Fred M. Gibson (B.A., 1951) resides in Austin, Texas, and writes, "Still semi-retired and doing statistical work at Internal Revenue Service."

Tracy Baker Gibson (B.S., 1986) lives in Conroe, Texas. She writes, "I started a new job at Louisiana Pacific last year as Project Manager, Environmental Affairs. This is the first job I have had since graduation that has absolutely nothing to do with geology. I am working on a lot of permitting issues and learning air regulations. What a change (and a challenge)! Rick and I are still working on renovating our house, although not as much since our two-year-old came along. If anyone who graduated in 1985 or 1986 is in the area, I would love to hear from you!"

Leslie W. Giddens, Jr., (B.S., 1954, M.A., 1957) is an independent geologist in Corpus Christi, Texas, and writes, "Still drilling horizontal wells for Austin Chalk oil and gas. For the past several years, I have been working in Railroad Commission Districts 1, 2, and 3."

Gretchen M. Gillis (M.A., 1989) has joined Schlumberger Oilfield Services Marketing Communications group in Sugar Land, Texas, as an editor of *Oilfield Review*. Previously she was a geologist with Oryx Energy Company in Dallas, Texas.

Paul Giraudin, Jr. (B.S., 1948) of Corpus Christi, Texas, has been retired "for years."

Bill Glover (B.S., 1956) is an independent and mostly retired. He says, "Naomi and I are enjoying small community life with access to big city charms. Still striving to turn deals, but we are enjoying 3 grandsons too much to spend all our time on business. Therefore, we are blessed."

Georgette Covo Browder Goble (B.A., 1944) is a homemaker and community volunteer. She writes, "I'm doing a lot of archival work in anticipation of my Methodist Church's sesquicentennial celebration in 2000. My husband and I are looking forward to a trip to California in September."

Charles A. Goebel (B.S., 1980) writes, "Well, I took 20 years to get back to Taos, but it's because I spend my time in places like Madrid, doing oil exploration deals for Peru. Part of that process is basin analysis using lots of existing maps and data, but I haven't yet seen any real rock there! Still, we have made some real "discoveries" doing the synthesis, and that in itself is exciting, plus now we compare with selected competitors/potential partners and see what comes out of it all. By the way, the only rocks here in Madrid are polished and in and on the buildings. I also get to utilize my Spanish a lot and am tuning to the various Spanish Castillian accents. I would really like to do the Big Bend trip, but will have to see what the schedule permits. My last real outcrop/rocks course was 1995 with J. Balsley in Utah. I have been scheduled for several since then but keep having to cancel due to pressing/urgent business priorities. Actually, I just remembered I did do a two-day course in the Anadarko/Ardmore areas last fall."

W. Leonard Goode (B.A., 1953) is a consulting geologist in Midland, Texas, and, "Had a good year. Business is slowing down. My footsteps are also."

Phil P. Goodson (B.A., 1984) and **Jill S. Harding** (B.S., 1984) report that Phil is President of a drilling/well service company in Austin, Texas. Phil writes, "I'm managing a drilling/well service company. Jill and I built a house in Dripping Springs, Texas, and we both still guide river trips for UT Recreational Sports. Always enjoy hearing from old friends."

James E. (Jim) Gordon (M.A., 1951) is retired in Victoria, Texas.

Mark B. Gordon (Ph.D., 1990) is a Depth Imager for GX Technology. He reports, "After returning from a visiting scientist position in France, I settled back into Houston, Texas, and looked for a permanent job for too many months. Last August, I started working for GX Technology, a small company that sells software and services to the oil industry. The work has been interesting, and I have been busy. On the personal side, I am planning to get married this summer to Cecilia Pall, who I met in Paris."

Scott and Susan Gorham (both M.A., 1981) write, "Susy keeps in touch with science by teaching earth science in middle school. Scott keeps searching for those elusive hydrocarbons with Seneca Resources. From time to time, we visit with old UT buddies. Isn't life grand?"

Peggy Stanley Gormley (B.A., 1946) is a part-time bookkeeper and tax preparer in Dallas, Texas. She writes, "My sister, Ann Stanley (B.A., 1944), died last year just 3 months after retiring as Vice President of Miles Production Co. Based on her geology, a discovery well came in recently. Now there is a Stanley Field in Jack County, Texas."

Volker C. Grasso (B.S., 1949) is retired from Cities Service and living in Oklahoma City, Oklahoma, and writes, "Still enjoying banishment near daughters in Oklahoma City. This spring, we have a new great-grandson. Only thing wrong is he lives in South Carolina and I don't get to spoil him nearly enough."

Robert W. Grayson (B.S., 1948) is retired in Austin, Texas, and "Organized the fourth reunion of the "Brady Bunch" of 1947–48 in Austin last September. It

was attended by 68 graduates and spouses. Highlights were the riverboat cruise and wind-up breakfast at Ann and Dick Bloomer's lakeside hacienda. Thanks to the Geology Foundation for all their help!"

Charles J. Greene (B.S., 1975) lives in Austin, Texas, and writes, "I am still working as a geologist at the Texas Natural Resource Conservation Commission in Austin and enjoying the "laid back" Austin lifestyle. My work includes inspections and compliance on Class I and Class III underground injection wells. I observe mechanical integrity demonstrations at Class I wells around the state, do a lot of data management, and am currently entangled in UIC Quality Assurance Plans for EPA. Looking forward to getting down to San Antonio, Texas, for the 1999 AAPG."

Robbie Gries (M.A., 1970) is President of Priority Oil and Gas. She writes, "Business is going well—trying to get drilling packages ready for our two main exploration areas, Kansas and Ireland. Traveling a lot and enjoying every second of it. Will do "roots" travel with daughter, Lynn, this summer." Robbie is a member of the Geology Foundation Advisory Council.

Ariel Dale Griffin (B.S., 1957) resides in Spring, Texas.

John C. Griffiths (B.S., 1975) is President of Calvin Resources, Inc., in Houston, Texas.

Charles G. (Chip) Groat (Ph.D., 1970) is Director for the Center for Environmental Resource Management and Professor of Geological Sciences at The University of Texas at El Paso. He writes, "I am enjoying my second year back in the desert. I'm further from Austin than when I was at L.S.U.! Texas is a big state."

Robert O. Gross (B.A., 1963) is President of Keystone Oil Co., Inc., in Dallas, Texas.

Roy H. Guess (B.A., 1939, M.A., 1940) is a consulting geologist in Casper, Wyoming, and writes, "I would like to urge all my friends to take the Y2K problem very seriously. Certainly no one knows for sure what will happen, but it likely will be serious. We all spend thousands of dollars every year on insurance, and we hope at the end of the year that we had not had to use any of it."

DeNeice Collerain Guest (B.S., 1987) is Vice President of Links Diagnostics, Inc. and writes from Greenville, South Carolina, "Received an M.S. in Geology & Remote Sensing. Doing Remote Sensing for golf courses."

James J. Halbouty (B.A., 1942, M.A., 1943) is a retired petroleum geologist in Houston, Texas. He writes, "My pretty wife, Dorsey, and I are doing fairly well—still walking around. Son, James Robert, is with UNOCAL Corp. Son, Thomas Collins, is Vice President of Pioneer Natural Resources. The violin and composing are my hobbies. 1942 yearbook still missing. Regards to former classmates."

Doug Hall (M.A., 1974), President of W. D. Hall Company in Austin, Texas, writes, "In 1994, my environmental consulting company, Hall Southwest Corporation, was merged with Groundwater Technology, Inc. In 1996, our company was purchased by Fluor Daniel. I left Fluor Daniel in late 1997 and started the W. D. Hall Co., a business consulting firm for owner-managers in 1998. Our services include business planning, exit strategies, and market research." Doug is a member of the Geology Foundation Advisory Council.

John H. Hansen (B.S., 1978) is an independent and President of Hansen Oil Corporation in Shreveport, Louisiana, and is drilling, exploring, and developing prospects in East Texas, Louisiana, and Mississippi. He writes, "Will some illustrious UT grad make oil prices go up?.....Please."

Richard L. Harding (B.A., 1981) is a partner/geologist at R&D Energy Consultants in Graham, Texas.

Robert W. Hare (B.S., 1979) is a geologist for Producers Service Company in Fort Worth, Texas.

Louis H. Haring, Jr. (B.S., 1938) is President of Haring Energy Company in San Antonio, Texas, and informs us, "This year will mark my 50th year as an independent oil producer. Geology has been good to me and my family. I still maintain my office, enjoy time with my three grandchildren, and travel a great deal."

Jess Harkness (B.S., 1960) is retired in Dolores, Colorado. He writes, "I am enjoying life in cool and dry Colorado after too many years in South Texas. Jan and I prospect for gold every chance we get. We winter in Arizona at a gold camp and prospect in the mountains in the summer."

Wiley B. Harle (B.S., 1950) is retired in Houston, Texas, and writes, "I wonder how I ever found time for work."

Erik (B.S., 1989) and **Monica Istvan Harris** (B.A., 1990) are living in Austin, Texas, where Erik is an Environmental Quality Specialist for the city. They write, "Our first child was born in December (Ingrid Veronica), and we are enjoying being new parents!"

Laurence H. Hawes (B.S., 1951) of Midland is retired from ARCO. He writes, "Since retirement my wife and I have been busy with volunteer work. Have managed to do some traveling and being with our grandson. Lately, I have concerns about the low oil prices and the very dry skies in and about Midland, Texas."

Hugh Hay-Roe (M.A., 1952, Ph.D., 1958), Senior Vice President of Exploration and Development for BPZ and Associates in Houston, Texas, currently lives in Kingwood, Texas, and writes, "For the first time in a long while, I am back in overseas exploration full time. My son and son-in-law are both due to get Ph.D.'s from UT Austin this year (but neither in geology). I note that it's 40 years this year since I last graduated from UT. How time flies when you're having fun!"

Edward F. Haye (B.S., 1951) is President of Benchmark Exploration, Inc., in Houston, Texas.

Arch H. Heim (B.S., 1950) is retired and living in Nelson, Missouri.

James H. Helland (B.S., 1943) is President of Inland Ocean, Inc., in San Antonio, Texas, and jokes, "This may be the last time I write. Patty and I agreed to keep an eight-week-old golden Labrador puppy (12 pounds) for two of our grandchildren. She (Bubbles) is now 16 weeks and 33 pounds and bites everything in site. In six more weeks I expect her to eat me for lunch as there will be nothing left."

Douglas R. Henderson (M.A., 1996) is a GIS/Remote Sensing Specialist/Geologist in Boulder, Colorado.

John D. Henderson (B.S., 1937) is retired in Dallas, Texas, and writes, "No news—just taking it easy and enjoying retirement."

Steven Henderson (B.S., 1990) lives in Joshua, Texas, and reports, "I moved to Fort Worth in January 1998 as a Technical Instructor in Halliburton Energy Services' worldwide training center. I am staying busy with training 200 new field engineers per year and keeping up with the rat race in magnetic resonance imaging logging (MRIL)."

Larry R. Hensarling (B.S., 1956) is an independent in San Antonio, Texas. He writes, "I enjoy being on the Advisory Council at UT. I still am very involved in oil and gas exploration in South Louisiana and raising money to purchase producing properties in San Antonio."

Reid Hensarling (M.A., 1981), currently residing in Bennettsville, South Carolina, is the Rector of St. Paul's Episcopal Church. "El Niño has certainly made its presence known in eastern South Carolina. Rivers and streams have swelled to very high levels. Farmers have a difficult time getting back into their fields. It's amazing how much Mother Nature affects our lives and our land."

Charles W. Henslee (B.S., 1951) is retired in Houston, Texas, and writes, "Same ol' stuff—golf, travel, bridge, grandkids, doctors, hospitals—never a dull moment."

Spring 1987 320K class at Spider Mountain. Shown are Adrienne Tackenburg, Renee Daulong, and Suzanne Mechler. Photo provided by Charlie and Suzanne Hewitt.

Harold T. Henslee (B.S., 1950) is an independent petroleum geologist in Amarillo, Texas, and writes, "I have motivated myself to search for more prospects to drill, but the fluctuating oil prices prevent much stability in this business. Looking forward to seeing my son in Alaska in June."

Jon Herwig (M.A., 1982) is Vice President, Program Manager of Ogden Environmental in Honolulu, Hawaii, and resides in Kailua, Hawaii. "Promoted last year to Program Manager of Ogden's CLEAN contract with the U. S. Navy. Starting to feel like a native here in the Aloha state after five years in paradise. A warm aloha to all, especially Gene, Lee, and Rick."

Charlie (B.S., 1988, M.A., 1990) and **Suzanne Mechler Hewitt** (B.S., 1989) reside in Arlington, Texas, and inform us, "1998 has brought several changes for the Hewitt family. Charlie is now a Key Account Executive within the Marketing and Sales Group at TU Electric. This means that Charlie has been racking up more travel miles around the state and spending less time in the office—both of which he really enjoys. Charlie is also looking forward to finishing up his M.B.A. this December. The end of the tunnel is finally in sight! The other big change is there will be an addition to the Hewitt clan in October. We are really looking forward to a new little baby in the family. Margaret, who will turn 3 in November, is already practicing to be a big sister!"

Franz K. Hiebert (M.A., 1988, Ph.D., 1994) is a Consulting Environmental Scientist for RMI, Inc., in Austin, Texas, and writes, "International/national practice advising clients on groundwater cleanup and compliance with regulations. Julie writes fiction and continues Sanskrit work. Sam (10), Simon (8), and Jake (4) love school and skateboarding. I work with Phil Bennett on geomicrobiology and help advise one Ph.D. student."

Charles H. Hightower, Jr. (B.S., 1956) is an independent geologist in Lafayette, Louisiana.

Janice Hill (B.S., 1979) writes, "We continue living in Cairo, Egypt, where John works for Amoco/Gupco, and the kids attend the American school. I am a full-time volunteer for various community organizations. My most exciting "professional" job was taking 110 third graders on a ride on the geologic time machine, out in the desert. We escaped lava flows, swam the ocean, trudged through swamps, and were shaken by earthquakes, all while sitting on the side of a dune. I also teach the after-school science club to elementary students. They have a lot of questions."

Paul B. Hinyard (B.A., 1928). Mrs. Paul Hinyard of Tyler, Texas, writes us that Paul "Is critically ill. He is 95 years old and has had several strokes and heart attacks. He has been a patient in the hospital and nursing home for one year and two months and gets weaker all the time. Please pray for him."

Nolan Hirsch (B.S., 1944) is President of MVC, Inc. in Midland, Texas, writing us "Still trying, but I think the stick is getting shorter. The oil business needs some help."

F. A. (Fred) Hoeninghaus, Jr. (B.S., 1949) is retired from Exxon and living in Houston, Texas, and writes, "Thanks again for the newsletter. Enjoying retirement as usual..."

Paul F. Hoffman (B.S., 1975) resides in Houston, Texas, where he is Executive Vice President for Duncan Energy Company and reports, "Work continues to be a challenge, but it is very satisfying working with such talented people. My 17-year-old son, Joseph, just finished his first geology course, made an "A," and loved it. Ain't life grand?!"

Ray Holasek (B.S., 1951, M.A., 1952) resides in West, Texas, with the present job of "Feeding cows and fighting mesquite," and reports that, "Our first grandchild was born on August 8, 1997."

William C. (Boomer) Holland (B.S., 1981) is a Senior Staff Exploration Geologist for King Ranch Energy, Inc., in Houston, Texas, resides in Missouri City, Texas, and writes, "I'm working the offshore Louisiana-Texas shelf. Looking deeper in these mature basins. Hello to the members of the UT Batmobile-1981 field camp. We saw the black bear."

Jennifer Glasford Hood (M.A., 1989), a geologist in Houston, Texas, writes, "New name—new company. I finally got married in April 1997 and enjoy married life tremendously. I joined Seagull Energy in February 1997 and work in Egypt. Cats, Calvin and Hobbes, are fatter than ever."

Ben Hooper (B.S., 1980) is an Exploration Manager for Josey Oil Company in Houston, Texas, and writes, "Josey Oil Company is currently pursuing exploration opportunities on the Gulf Coast. We participated in several 3-D programs in 1997. Debbie, Mary (11), and Kelly (9) are doing well."

Eleanor M. (Ellie) Hoover (B.S., 1956) lives in Conroe, Texas, is a Consultant/Exxon Annuitant, and writes, "Continue to work in the Volunteer Fire Department. Also attend several Houston Geological Society meetings, industry seminars, and the Offshore Technology Conference."

Lawrence E. Hoover (B.S., 1948) is President of Guaranty Petroleum Corp. in Corpus Christi, Texas, and writes, "Still exploring South Texas and not playing any favorites. Presently working on a 900-foot prospect and a 15,000-foot prospect."

Janie Hopkins (M.A., 1982) is a geologist with the Texas Water Development Board in Austin, Texas. She writes, "Zanzari? Non! Campari? Si! Ah, such a deal—tagging along with Luigi and Ben Purcell, that is, while they hunted for nannobacteria hideaways. After four years of imagining I'd take a vacation with some interested guy, I changed my tune and figured a

Ben Purcell (left), Janie Hopkins (center), and Bob Folk (right) in Amalfi, Italy, in 1997. Photo provided by Janie Hopkins.

trip to Italy with interesting guys was actually far superior. I went, I saw, and now, out of the blue, I've conquered! Or...was conquered? Paul Lawrence, a newly interested guy, is moving from Seattle, Washington, to marry me on my birthday in September. I am more than content to stay on the edge of this muggy Gulf Coast, periodically motivated by my job with the Texas Water Development Board, and always thankful for the two good boys, Beck (11), and Eli (8), still shared amicably with John, AKA Greater (and now Only) Payne, AKA Mr. Clean & Lean. What could a Folk trip to Italy do for you?"

Dean A. (Cap) Horning (B.S., 1977) writes, "Still trying to figure out the Morrow in Southeastern New Mexico. Still buddies with Sebring (at least when I see him). Still riding Ducati's (my leathers are getting really tight). My son is thinking about UT Geology or Petroleum Engineering. Man!! Has it been that many years?" Cap is Vice President for Exploration and Production for Nearburg Producing Company—Exploration and Production in Midland, Texas.

G. B. (Bill) Howard IV (B.S., 1982) is President of Flare Resources Incorporated in Houston, Texas.

Jack M. Howard (B.S., 1951) is retired in Austin, Texas, and writes, "Retired since December 31, 1992, do limited consulting—available for more. Growth and traffic in Austin is more like Houston, Texas, every month."

Ed Hughston (M.A., 1950) is "self unemployed" and "Still living (almost 20 years now) in Taos, New Mexico. Continuing to be active in Gulf Coast drilling deals."

Emmett A. Humble (B.A., 1949, M.A., 1951) is retired and is a consultant in Houston, Texas. He writes, "Still doing consulting in the Far East and Russia. Lorine and I still globe-hop a good bit and now enjoy a great grandson. We'll brand him with the "Hook 'em Horns" logo. One grandson is headed for UT next year. Enjoy the news about "old" friends."

Gary Hummel (M.A., 1982), is a geologist at Wesport Oil & Gas in Houston, Texas, and writes, "Second son, Kurt, born January 30, 1997."

Elvin M. Hurlbut, Jr. (B.S., 1943) is retired in Tyler, Texas, and writes, "Virginia has recovered from encephalitis. I am now educating myself in complementary, integrative, or alternative medicine. I prefer the term complementary, but the government bureau uses the term alternative. Both cats fine."

Daniel C. Huston (M.A., 1987) is an independent consulting geophysicist in Sugar Land, Texas. He writes, "Holly and I have been in business for a year-and-a-half. Our company, Hunter 3-D Inc., does geophysical consulting with an emphasis on 3-D seismic and gravity interpretation and AVO analysis. Our daughters are 2 and 4."

Jim Immitt (M.A., 1981) is Manager, Financial Analysis, at Advanced Micro Devices, and writes from Austin, Texas, "Pam, Adrian, Angela, and I are still enjoying living in Austin as it goes through its growing pains. AMD would like to feel growing pains as it continues to "butt heads" with Intel. Hello to all! Look us up if you're in town."

Maureen (Mullarkey) Imus (B.S., 1981) is Vice President of Finance for International Game Technology and writes, "Greetings from Reno, Nevada! Scott and I have been here over 10 years and are feeling like locals. I "retooled" back in 1989 with an M.B.A./Finance Degree and landed in the gaming business shortly after moving to Reno. Life is good, but I miss my Texas friends. Hello to Kathy and Matt, Wil, Brent, Shannon, Judy, Moira, Tom, and everyone else! Please drop me a note at Imusm@Intgame.com."

Paula Ivey (B.A., 1984) writes from Houston, Texas, "Married Pierre McCrea, Ph.D., a Professor of cell biology at M. D. Anderson. Working in international markets and market development."

J. R. Jackson (M.A., 1940) is retired from Exxon in Houston, Texas, and writes, "Life is quiet and simple. These days—golf, travel, kids, grandkids, and usual activities for old retired geologists trying to keep healthy and keep going."

James R. Jackson (M.A., 1969) is President of Trace Oil and Gas in Baytown, Texas, and is "Just doing the seismic 3-D thing."

Joe L. Jackson (B.S., 1956) is retired in Alamogordo, New Mexico, and writes, "Still at the 3R ranch (rocks, rabbits, and rattlesnakes). I spent some time in Spain last fall (and I do mean spent). Otherwise, things are about the same."

Otis L. James, Jr. (M.A., 1952) is self-employed in Gainesville and resides in Dallas, Texas.

Borden Jenkins (B.S., 1978) is an independent petroleum geologist in Corpus Christi, Texas, and writes, "Trying to find a prospect that hasn't been shot for 3-D yet."

Charles B. John (B.S., 1951) is a geologist with the U.S. Bureau of Land Management (BLM) in Tulsa, Oklahoma. He is "Working half-time for the BLM conducting independent research along the frontal belt of the Ouachita Mountains of southeast Oklahoma. Norma and I are okay, working on our 52nd year of marriage."

Ronald A. Johns (M.A., 1987, Ph.D., 1993) is an Associate Professor at Austin Community College.

Charles G. Johnson (B.S., 1983), a geologist at McGowan Working Partners in Jackson, Mississippi, writes, "Trying to keep on track with two to three new deals a year. The only upside to the low oil prices is that maybe we can start buying more properties at reasonable values. It's been frustrating trying to compete with the stock market's "funny money" that has been overpaying for reserves."

Douglas S. Johnson (B.S., 1978) is a Senior Geophysicist in Tyler, Texas.

Gene (Funkhouser) Keyser Jones (B.S., 1948) of Midland, Texas, writes, "Retired, I think! We maintain offices at home, mostly for fun and updating our files. Our fall reunion in Austin was a magnificent weekend...Phil and I enjoyed it *so* much. We

are well, busy, and marvel at the resiliency of our oil industry as the price bounces around. West Texas is drilling, Midland is building...and isn't it amazing. Thanks for all your hard work. We look forward to the newsletter!"

J. Phil Jones (B.S., 1964) is a Land Supervisor at Kerr-McGee Corp. in Oklahoma City, Oklahoma, and writes, "Retirement at K-M looms large, but I am looking forward to continued employment in the landside of E&P for several years to come. Enjoying grandchildren Clay (3) and new Texan, Kara Ann, 3/2/98. Son, Chris, and daughter-in-law, Kelley, live now in Austin where he works for UTEL. I'm enjoying exploring Austin after a 30-year hiatus. Regards."

Luther G. Jones (B.S., 1959) is retired and lives in San Antonio, Texas.

Jon T. Jorgenson (B.A., 1949) is retired in Denver, Colorado, and tells us, "Am still enjoying our life of retirement or occasional semi-retirement. Our three children and their broods descended on us as a surprise get-together on our 50th Memorial Day Anniversary—what a happy time."

Edwin N. Kasper, Jr. (B.S., 1951) is retired in Houston, Texas, and writes, "What a good economic year in 1997 for most everyone in Texas! I am looking forward to being on the UT campus at Jester in June for more "quality time" at the Ex-Student's "Update 98." It will be nice to see so many ex-classmate there."

Steven G. Katz (Ph.D., 1975) is Vice President of Operations at ISORCA, Inc. He writes, "Connie and I continue to enjoy living in Granville, Ohio. I'm challenged by my work with a contract R & D firm in the polymer composites business. Regards to everyone at UT."

Daniel N. Keeler (B.S., 1980) is an independent in Midland, Texas. He writes, "Andrea and I plan on relocating to Midland this summer after working in Kerrville, Texas, for the past two years. I started a contract position with Mobil's Permian Gas Business Unit in May."

Gene Ross Kellough (B.A., 1932) is retired in Seneca, South Carolina, and writes, "Are there any other graduates of class of 1932 still alive? I worked at the Bureau of Economic Geology from 1930–1932. First job with Conoco, second with Schlumberger, where I met John S. Kellough. We're still together after 60 plus years."

Ed Kennedy, Jr. (B.S., 1948, M.A., 1949) is a consulting geologist in Midland, Texas.

George L. Keptra (B.S., 1952) works out of East Bernard, Texas, as a consulting geologist and writes, "No travel plans for this year. Purchased a new home in East Bernard. Spending time and money on our home."

Don Kerr, Jr. (B.S., 1960) is President of Kerr Construction Services in Houston, Texas.

Marcus Key (B.S., 1983) is Associate Professor and Chairman of the Department of Geology at Dickinson College in Carlisle, Pennsylvania, and informs us, "My latest project involves using the isotopic and morphologic stratigraphy of growth bands in Bryozoan colonies as a proxy for sedimentation rates on the New Zealand shelf off Otago."

Howard W. Kiatta (B.S., 1958) is an independent geologist in Houston, Texas. He writes, "Staying busy exploring for oil and gas in and around Galveston Bay and elsewhere. Also working on GCAGS special publication, *3-D Seismic Case Histories from the Gulf Coast Basin.* Ada and I spend as much time as possible with our 11 grandchildren."

Robert J. Killian (B.S., 1977) is a geologist in Houston, Texas, and writes, "Still working East Texas and the Gulf Coast."

David L. Kirchner (B.S., 1973) of Phoenix, Arizona, is President of Basin and Range Hydrogeologists, Inc., and writes, "Life is good in Arizona! I have one wife, two sons, two dogs, and lots of smiles!"

Jan Knox (B.A., 1969) of Austin, Texas, is retired, but "Still exploring and surveying caves and studying rocks and fossils all over the world as we travel."

Radim A. Kolarsky (M.A., 1992) lives in Pearl River, Louisiana, and is a Senior Geologist with Shell Deepwater Development in New Orleans, Louisiana. He writes, "My wife, Lisa, and I have renovated a 1904 church into our new home. The house has been written up in the local paper several times. Come and see. Still enjoying it big time. Come see us on our page at http://www.geocities.com/heartland/estates/9121. You may e-mail me at radim@shellus.com. In July 1997, Shell lured me away from Texaco to do deep Gulf of Mexico exploration. It is lotsa fun!"

Rick Kolb (M.A., 1981) writes, "No changes to my information—same address, same work location. My e-mail address is rkolb@lawco.com."

Erwin K. Krause (B.S., 1949, M.A., 1954) is retired in Houston, Texas, and writes, "Oldest granddaughter (Miss Austin-1997) started UT in August 1997. Making sixth trip to Alaska in August 1998 with family on *Dawn Princess.* I never tire of Alaska or cruising."

J. David Krause (B.S., 1953) is retired. He writes, "Bessie and I are still living the great life in Maui, Hawaii—back and forth between house in the mountains and condo on the beach. Both still healthy. Go Horns!"

Lynton (left) and Judy Lang Land (right) visiting hot springs at Viterbo, Italy, in 1996. Photo by Emma T. Rasbury.

Charles W. Kreitler (M.A., 1972, Ph.D., 1974) tells us, "After the Bureau of Economic Geology, I taught Hydrogeology in the Department of Hydrology and Water Resources at the University of Arizona. I then returned to Austin where I am now running the Austin office of LBG-Guyton Associates."

Ted B. LaCaff (B.S., 1950) is a professional trophy hunter in Santa Fe, New Mexico, and writes, "Just changed from "retired" to "recharged!" In May 1998, I won 3 gold medals (rifle, table tennis and horseshoes) and one silver (billiards) in the Senior Olympics! Changing from petroleum (ugh—$10 oil) to the "hard metals" was a good move! Still enjoying Santa Fe."

Laurel Lacher (B.S., 1987) is a Senior Hydrologist at Environmental Planning Office in Whiteriver, Arizona, lives in Pinetop, Arizona, and writes us, "Life in the heart of the White Mountains is beautiful and fun. Kayaking, skiing, and mountain-biking are all within an hour from my house at Fort Apache. Come visit!"

James L. Lamb, Jr. (B.S., 1956) works as an oil and gas producer in Austin, Texas.

Leon M. Lampert (B.S., 1951, M.A., 1953) is in Dallas, Texas, working as a consultant for oil exploration, and writes us, "After 34 years in Corpus

Christi, Texas, I have moved my office to Dallas, Texas. I plan to continue exploration in South Texas and southeastern New Mexico. Will also consult in reserve evaluations and recompletions. Still have a wife, 3 children, and 3 grandchildren."

Bob Lattimore (B.S., 1956, M.A., 1962) is retired in Walnut Creek, California, and writes, "As of May 1, I am retired after 21 years as an operations geophysicist for Gulf and Chevron, 3 years as a consultant in the nuclear power business, 15 years as a government scientist, and 3 years unemployed."

Tom Laughery (B.S., 1983) is Director of Marketing at Glaxo Wellcome in Raleigh, North Carolina, and writes, "Still enjoying North Carolina and the pharmaceutical industry. I'm the only marketing person with a museum-quality barite sample in my office. My two little boys, Zane and Austin, are growing like weeds and are more fun than a climb up Molas Pass."

Bill Layton (B.S., 1981) is a petroleum geologist in San Antonio, Texas, and writes, "Still developing prospects with Burk Royalty Co. along Texas Gulf Coast onshore. Joe, Jessica, and Jordan (18, 14, and 10) keep me out of trouble, some gray hair showing though! Special hello to 660 friends (1981)... Phantom riders, Sipapuv Youth Gang, Boomer, Pilar Darr... Boogie till ya p---. Got married in 98...Gotta luv it!"

H. Louis Lee (B.A., 1954, M.A., 1958) is a consulting geologist in Austin, Texas, and writes, "Having a great time with new 3-D workstation. Now working on several large Gulf Coast 3-D sheets. Feels like a kid with a new toy. New technology is wonderful."

Joseph W. Lee (B.S., 1950) is retired in Richardson, Texas.

Ann Hoadley Leist (B.S., 1979) is retired in Austin, Texas, and writes, "Life is good. Still doing the books for our business, Conans Pizza. Two teenagers in the house now. I was saddened this year by the passing of Mark Martin. He will be missed at the old hangout, Posse East. Hello to friends."

G. Warren Leve (M.A., 1952) is retired and still consulting part time in Ponte Vedra Beach, Florida, and writes, "Regards to my "old" (and I mean old) classmates. I am fishing and golfing in paradise."

David Levin (B.A., 1978) is the owner of Power Petroleum in San Antonio, Texas, and reports that, "David and Betsy are busy with kids, Blair and Betsy, and between times, David runs Power Petroleum."

Ron Lewis (Ph.D., 1982) is Associate Professor in the Department of Geology, Auburn University, Alabama, and writes, "I am still studying crinoids and other echinoderms, but I now emphasize experimental work in taphonomy. I have one daughter, Anne Marie, who is 12 years old and wants to be an astronaut and go to Mars!"

John F. Ligon (B.S., 1981) is the "Proud father of first child, John Andrew Ligon, born April 27, 1998," and also is the President and Co-owner of Sandalwood Oil & Gas, Inc., in Houston, Texas.

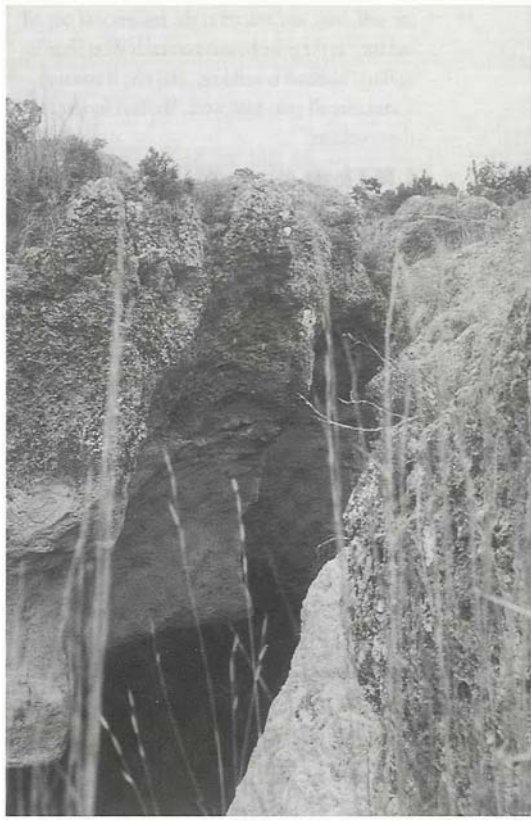
Russell Lilly (B.S., 1953) is the owner of a vending business in Oklahoma City, Oklahoma, and writes, "Still working five or six hours a day and enjoying the slower lifestyle."

Nancy Elizabeth (Green) Lister (B.A., 1955) is a housewife and secretary for Ray Lister in Houston, Texas. She writes, "In May of 1997, I started helping out at Ray's office. Have learned a "little bit" about the computer and am fascinated by it. I do a little bit of everything, but our accountant does all the important stuff! Regards to all!"

Larry D. Littlefield (B.A., 1957) resides and consults in San Ramon, California, and tells us, "Still living in California and enjoying it. Doing a small amount of work on the coastal Congo Basin, my favorite geological province."

Erwin R. (E. R.) Lochte, Jr. (B.S., 1956) is an independent petroleum geologist in San Antonio, Texas, and writes, "I am really enjoying a semi-retired state of life. Still maintain my downtown office but will opt for a stay at our Hill Country ranch anytime. Still doing some exploration geology in South Texas."

Allen C. Locklin (B.S., 1954) is an independent, lives in Tyler, Texas, and reports that he and Nancy founded the National Vitiligo Foundation, Inc., in September 1985 to inform, counsel, and aid the patients and to fund the research. (Vitiligo is a noncontagious skin disorder in which pigment cells are destroyed, resulting in irregularly shaped white patches on the skin, which may spread over most of the body or may remain dormant for years.) He has made trips to the most eminent U.S. doctors in vitiligo and asked them to be on the medical advisory board. They expanded by adding the international medical advisory board. In the past 12 1/2 years they have funded over $700,000 in research and helped patients and doctors better understand the disease. Their twice-yearly newsletter has reached patients in 76 countries. They have assisted several other similar vitiligo groups to form around the world. Anyone may explore this further through their Web site at http://www.nvfi.org. Allen further writes, "Nancy and I will be married 44 years in August. We still love UT and the newsletter. I'm still putting deals together, working for the Foundation, and playing golf and tennis. Don't plan to slow down as I race toward 69. Keep up the good work."



Pipe Creek field trip in 1997 near Bandera, Texas. Photo provided by Susan Longacre.

John L. Loftis, Jr. (B.S., 1940) is retired and living in Houston, Texas. John is an Honorary Life Member of the Geology Foundation Advisory Council.

Laddie F. Long (B.S., 1952) is retired in Midland, Texas, "Still enjoy traveling. Considering refresher course in mineralogy—grandkids want to know what every rock is that they see."

T. E. (Ted) Longgood (B.S., 1958, M.A., 1960) is retired from Exxon and writes, "Moved to the Hill Country in southwest Austin last year. Enjoying retirement to the fullest. Still singing in a barbershop chorus. Have five wonderful grandchildren."

E. W. (Bill) Longmire (B.S., 1950) is retired in Carrollton, Texas, and informs us that there is, "Nothing new—playing golf and grandkids. Sure not complaining."

Mark Longtine (M.A., 1991) is a geologist with Ecology & Environment, Inc., in Seattle, Washington.

Howard R. Lowe (B.S., 1948) is Chairman of Centas Technical Services in Houston, Texas. He writes, "Things are really moving. We are preparing

to drill two wells in our Doohan Field (South Central Kazakhstan) and one wildcat on our Zhamansu block (South Central Kazakhstan). We anticipate being issued an exploration and development license on a large area southeast of Tengis Field—gas potential is very great. Other than this, I have very little to do." Howard is a former member of the Geology Foundation Advisory Council.

Vance Lynch (B.S., 1951) lives in Liberty Hill, Texas, is retired from Unocal. He writes, "I am still enjoying retirement in the Hill Country northwest of Austin. Most of my time is spent hunting, fishing, reading, and clearing brush on my property." Vance is a member of the Geology Foundation Advisory Council.

James I. Lyons (B.A., 1971, M.A., 1975) lives in El Paso, Texas, and writes, "The past year has been good. In addition to my usual work in Mexico, I taught a three-day mineralization in volcanic rocks short course in Ecuador, Peru, and Chile in Spanish and spent two months on a Greek island mapping volcanic rocks."

Frank Leroy Manville (B.S., 1955) of Brownsville writes, "Since retiring several years ago, I have been living a quiet life with hardly any outside activities, and I have nothing of importance to report on."

Sabin W. Marshall (B.S., 1952) is retired in Houston, Texas, and writes, "I took a trip to western Canada visiting Vancouver and Victoria, British Columbia. Delightful summer weather."

Dave Martens (B.S., 1984) is an advising geologist at Unocal in Thailand and writes, "My family and I have now spent five years in Bangkok. We are still enjoying our time in Southeast Asia."

Jeffrey G. Martin (B.S., 1984) is Exploration Manager for Martin-Marks Exploration L.L.C. in New Orleans, Louisiana, and writes, "Looking for opportunities in South Louisiana and Northwest Michigan."

Christina Massell (M.S., 1997), living in San Diego, California, is "Finishing second year in Ph.D. program at Scripps Institution of Oceanography!"

Jose F. Matos (M.A., 1971) is Exploration Agreements and Technical Relations Manager Assistant, works and lives in Caracas, Venezuela, and may be e-mailed at GEAS2@ep.pdv.com.

Paul R. Mayo (B.S., 1950) is a semi-retired independent geologist in Abilene, Texas, and writes, "I hope the troubles in The University Athletic department and those as a result of El Niño are close to an end. Exes welcome to write, call, or visit."

Dr. Robert L. McBroom, Sr. (B.A., 1951) is Adjunct Professor and a consulting geologist in Wichita Falls, Texas, and writes, "Still teaching English at Midwestern State University and putting oil deals together downtown."

William E. (Bill) McBroom (B.S., 1940) retired in 1979, lives in Wichita Falls, Texas, and writes, "Note change of address from Vernon, Texas, where I was associated with the W. T. Waggoner Estate as manager of their oil and gas interests for thirty years."

Rene Curtis and **Merle McCartney** (both M.A., 1985) live in Newark, Delaware. Rene writes, "I asked Merle if we could move to the Orkney Islands if we won the lottery. He said, "Sure." We still live in Delaware."

Robert B. (Bob) McCarty (B.S., 1950) has been retired from Exxon since September 1986. He writes, "My wife, Mary Louise, and I continue to enjoy good health. We live in Lakeway on Lake Travis (Austin, Texas). Play a lot of golf, and will spend three weeks in Turkey this October."

J. J. McCauley (B.A., 1949) writes from Houston, Texas, "Retired but in good health and happy about the whole thing—wife, Jackie, and I did Buckingham Palace in September one week after Diana's funeral, and the throng of mourners thought we were royalty leaving the grounds by auto due to Jackie's physical inability to walk. Something to remember!"

Dan McConnell (B.S., 1995) lives and works in Houston, Texas, as a seismic interpreter. He writes, "Joined Fugro-McClelland as a seismic interpreter in November 1997. I was previously with Scott Pickford (Houston). Beth and I have a new baby, Molly, born in March. Cara, age 3, is pretty delighted with her little sister. (So far...)."

Carew McFall (B.S., 1950, M.A., 1952) is a geologist in Los Altos Hills, California. He writes, "Continue in mining projects and travel. Wife Jean's daughter and her family are nearby. We spend holidays and one summer week in the mountains with them."

Edward McFarlan, Jr. (M.A., 1948) is a geological consultant in Houston, Texas. He reminisces, "The 1997 mid-summer Austin reunion of 1947–1948 UT Geology grads, spearheaded by Bob Grayson, was an unforgettable experience for Ann and myself."

Bill J. McGrew (B.S., 1954, M.A., 1955) is retired in Mena, Arkansas, and writes, "Everything is the same. I did travel to Texas to visit old friends and kids."

Thomas E. McKenna (Ph.D., 1997) is a hydrogeologist at the University of Delaware, in Newark, Delaware.

W. N. (Mac) McKinney, Jr. (B.A., 1960, M.A., 1963), a consultant geologist in Oklahoma City, Oklahoma, writes that "The demand for consultants and good drilling deals got so much better that I gave up teaching school to go to full-time consulting."

Jim McLaren (M.A., 1984) is a software engineer with Open Microsystems in Austin, Texas. He writes, "After years of using high-end computers for modeling quakes, I got more interested in the computers than the earthquakes! Nora and I are delighted to be back home in Austin."

Mike McLeod (B.S., 1986) resides in Pleasant Hill, California, is a geologist for Kennedy/Jenks Consultants, and writes, "Still working in the environmental geology consulting field. The San Francisco Bay Area is a great place to live and work, except for the traffic. That'll drive you nuts."

Jude McMurry (M.A., 1982) writes, "I continue to work as a geochemist for Atomic Energy of Canada Ltd. (AECL), where I do geochemical modeling for Canada's radioactive waste management program for used nuclear fuel. I live in Winnipeg, Manitoba, but work at a lab in the woods 110 km away and so spend about half my life on the highway. But what a drive—deer, moose, foxes, eagles, and wolves. Some days it's worth it. (Other days it's minus 30 and just plain cold.) My daughter, Dante, is now nine years old and a delightful person. I'm still collecting and admiring minerals as a hobby and active in the local mineral society. Every two years we host an impressive gem and mineral show that brings visitors from the United States and Canada. Check out the Mineral Society of Manitoba Web page for more information."

Jeveld E. McQueen (B.S., 1961, M.A., 1963) is owner of McQueen & McQueen in Kingwood, Texas.

A. D. McRae (B.S., 1942) is still enjoying retirement in Horseshoe Bay, Texas.

Joe N. Meadows (B.A., 1962) of Waco, Texas, writes, "Practicing a little law; scuba diving and playing with grandchildren."

Peter K. M. Megaw (B.A., 1976, M.A., 1979), President of IMDEX, Inc., writes, "Things continue to look good for exploration in Mexico, especially with the bump in silver. Minerals continue to loom large and Lauren (4 1/2) eagerly awaits my returns from the field to help unwrap. She's developing quite an eye (and a collection)...what have I done? Drop by if you are on I-10 west through Tucson, Arizona."

Charlie Merrill (B.S., 1956) is retired in Austin, Texas, and writes, "I remember days of miserable, dry heat from the drought of 1955, 660 field trip east of Brady, Long Valley area. Got so bad among us that tempers occasionally flared. Reached a peak one day while plane table/alidade mapping. One guy in a rage of frustration yelled at his rod man over a *quarter mile away*, "If you don't hold that rod up straight, I'm gonna come up there and beat the hell out of you!!!" All of the rod men immediately straightened up, and

Flash flood, Reynolds Creek, Marathon Basin, Texas. Geology 660 students (left to right) Don Mahaffey, Larry Barnett, and Rodney Templeton, Summer 1958. Photo provided by William R. Muehlberger.

a chorus of guffaws rang out up and down the valley, as the tension broke among all of us. Is anybody alive who remembers who that "masked man" was??"

Anne Smith Miller (B.A., 1983) is a geologist/contract manager with the Texas Natural Resource Conservation Commission in Austin, Texas, and writes, "A Texas-sized "Hello" to my special pals: Judy, Barb, and Paula!"

Daniel N. Miller, Jr. (Ph.D., 1955) is retired in Chapel Hill, North Carolina. He writes, "Esther and I are as active and busy as ever seven days a week and rarely take time for other activities. We are very concerned about the future of our country and governmental activities."

Ginger Braswell Miller (B.S., 1987) writes, "With the arrival of our third child, Katherine Hazel, in March, my transition to full-time mommie has been made complete. As I was resigning from American Airlines last summer, Bill was hired at United, and we moved from the Mojave Desert to Denver, Colorado. Life is good."

Harry A. Miller, Jr., (B.S., 1941) is an independent petroleum geologist in Midland, Texas. He writes, "Still working-up drilling deals and still having fun doing so. Health is very good, but it is patch, patch—new back, new hip, and two new knees." Harry is a member of the Geology Foundation Advisory Council.

R. Dick Miller (B.S., 1951) is retired in Georgetown, Texas, and writes, "Pat and I still enjoy living in the country. My golf game is going downhill, but we enjoy going on trips in our motorhome with a local birding group."

Wayne D. Miller (M.A., 1957) is an independent consulting geologist in Midland, Texas. He writes, "Consulting business has been very good the past year. Trying to get a couple of drilling deals put together, but things have slowed down enough that this part of the oil business is very difficult. In all, the past year was enjoyable enough to keep me active for a few more years."

J. Todd Mitchell (M.A., 1987) is President of Dolomite Resources, Inc., in Houston, Texas.

Charles Gardley Moon (B.S., 1940, M.A., 1942, Ph.D., 1950) is retired from Exxon in Houston, Texas, and writes, "I try to keep in shape by walking one to two miles daily. This is becoming more difficult as the hot weather of summer approaches."

R. McKay Moore (B.S., 1952) is self-employed in Shreveport, Louisiana.

Terry L. Moore (B.S., 1980) lives in Sugar Land, Texas, is a Geophysical Specialist at Phillips Petroleum Co. in Houston, Texas, and writes, "Now working Latin America Exploration: Brazil, Venezuela, and Peru."

Shannon E. Morrison (B.S., 1982) is a Reservoir Systems Supervisor for Exxon in Houston, Texas, and writes, "Did my stint in the international company and am now back in the U.S.A. where data abounds and opportunities are still out there. Married, two stepchildren, and three grandchildren! 1982 660 folks, send me an e-mail (semorri@aol.com)!"

Charles Motz (B.S., 1960) is retired, living in New Braunfels, Texas, and "enjoying leisurely life."

Susan Hallam Murosko (M.A., 1982) is a geoenvironmental consultant in Sykesville, Maryland.

Michael F. Murry (B.S., 1982) is residing is Houston, Texas, is Chief Exploration Geologist with Yuma Petroleum, and writes, "Busy generating exploration projects off of 3-D seismic in Southeast Louisiana. Also developing Yegua field in South Texas, where we will drill 4 to 8 wells this year. I'm in the book and would love to hear from the old gang."

Aurelian Negut (Exchange Student 1968-1969) is now Professor of Well Logging and Formation Evaluation at the University of Bucharest in Romania. While at UT, he took courses in both petroleum engineering and geological sciences from Professors Emeriti Ellison and Ingerson.

G. Allan Nelson (B.S., 1947) is a self-employed consultant in Denver, Colorado, lives in Englewood, Colorado, and writes, "Our big 50th reunion (our fourth) in Austin, Texas, last September, 1947 and 1948 classes, was a whopping success (leave out football). 68 in attendance. Thanks to Bob Grayson and committee for a superb job. On to Corpus Christi in 3 years."

Ken Nemeth (M.A., 1976) writes from Dallas, Texas, "Started work at GeoQuest as a geologist/interpreter in April for Dallas Area Service Bureau. Will be teaching IESX interpretation class for North Texas Geoscience Technology Training Center in July and September. Finished term as past President of Dallas Geological Society."

Isaac W. Norman (B.S., 1948) is retired and residing in Taylor, Texas.

Michael A. Ochoa (B.S., 1985) is an administrator and writes, "After relocating to San Antonio, Texas, from the Third World, we are now enjoying the "Hill Country" life. Our three children, Campbell, Alison, and Tamsin, bring us all joy and memories, just like an endless 660 trip."

John F. O'Donohoe (B.S., 1950) is President and Chief Executive Officer of Coastline Exploration, Inc., in Houston, Texas.

Fred L. Oliver (B.S., 1951) is President of PVT Inc. in Dallas, Texas. He writes, "For 10 years I've been working on a redevelopment project of the Beaver River gas field in Northern British Columbia, Canada, with over 1 Tcf in place. Canadian Occidental now spending $12 million on the concept. Same type play and coalbed methane extraction."

Fred is a member of the Geology Foundation Advisory Council.

Chris Osburn (B.A., 1987) is President of Global Tech 2000 in Arlington, Texas, and resides in Mansfield, Texas.

Kenneth Ira Owens (B.A., 1954) is semi-retired in Austin, Texas, and writes, "The sands of time abrade the orifice through which they drain; thus, hastening their departure...There's still time to accomplish more things!"

Robert (Bob) M. Owens (B.S., 1951) is an independent geologist in Cypress, Texas, and writes, "See quite a few classmates at the local (Houston) SIPES luncheons."

David Palmer (M.A., 1981) is a Project Geologist at Dames & Moore in Phoenix, Arizona, and lives in Gilbert, Arizona.

H. R. Pan (B.S., 1997) is a geophysicist at Schlumberger in Houston, Texas.

Robert Timothy Parks (B.S., 1988) is a geologist with Kelley Oil Corp. in Houston, Texas, and writes, "Kids are fine. (Meg is 4 and Steele is 2.) Dogs are fine. (Charlie is 8 and Lucy is 7.)"

Matthew J. Parsley (M.A., 1988) is President of Parsley Resources, Inc., in Midland, Texas.

J. F. Patterson, Jr. (B.S., 1952) is retired in Bellaire, Texas.

Bill R. Payne (B.A., 1940, M.A., 1941) is retired in Houston, Texas. He writes, "Still living primarily in Houston. Wife and I continue to spend time at our second home in Horseshoe Bay with children and grandchildren coming for water sports and other activities. My health does not allow us to attend many of The University events as formerly done, such as UT football games and attending the Chancellor's Council and Littlefield Society meetings. Enjoy the newsletter very much."

Nestor D. Phillips II (M.A., 1991), a Senior Geologist, Inland Exploration, CNG Producing Company in Houston, Texas, writes "I sure hope the Department replaces Martin Lagoe soon—the tardiness is a huge disappointment!"

George B. Pichel (B.S., 1951) is retired in Dana Point, California. He writes, "Sailed the Newport-Ensenada race for the third time. Will go to Geologic Congress in Rio in November, my home town." George is a former member of the Geology Foundation Advisory Council.

James N. Piper (B.A., 1988, M.A., 1997) is a Research Scientist at Applied Research Lab and writes from Austin, Texas, "Started the new year off with a big bang! Blew out my knees skiing and now have 6 to 12 months of rehab to look forward to. Other than that, all is well. Wish me luck!!"

Gerald (Jerry) S. Pitts (B.S., 1954) is President of Pitts Energy Co. in Midland, Texas, and writes, "Oil prices continue to be a problem. Hope someday we can have stable prices."

Phil M. Pitzer (B.S., 1954) lives in Breckenridge, Texas. He writes, "New wife, less money, few friends, and more work."

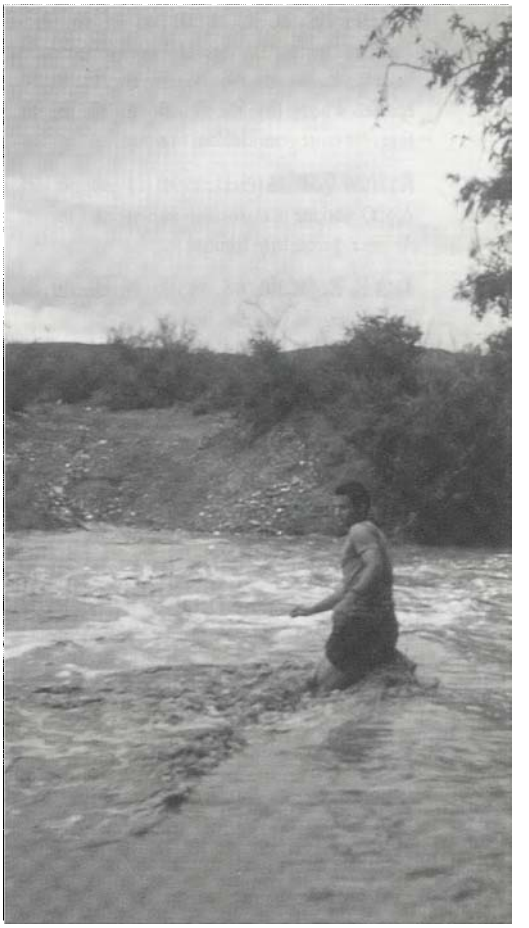
Nick Pollard (B.S., 1984) is Senior Geologist at Sonat Exploration Co. in Tyler, Texas, and writes, "Finally got paroled from the Austin Chalk. Now chasing pinnacle reefs in East Texas. The most exciting geology I have seen since the Glen Rose!"

John M. Pope (B.S., 1986), a Senior Account Executive in Houston, Texas, writes, "Paula and I visited Austin in January. It is unbelievable how much Austin has grown. We saw some long-lost friends, and we all went to see "Phantom" at the UT Performing Arts Center. Hook 'Em Horns!"

Robert B. (Bob) Porter (M.A., 1951) is a "semi-retired geologist in Midland, Texas. Kids and grandkids now living in either Texas or Arizona, and we still have our place in Ruidoso, New Mexico, so we travel a lot. Another grandson is a sophomore at The University in Austin. Will give us 6 Texas-Exes in immediate family. Have formed our own Exes Chapter but don't hire or fire coaches. Love to hear from old classmates and really enjoy the newsletter."

Lee S. Potter (Ph.D., 1996) is a resource control geologist at Phelps Dodge Morenci, Inc. in Morenci, Arizona, and writes, "After two years with exploration and development at the Morenci Copper Mine, I transferred to engineering to work on the mine geology program. Still enjoying life in the southwest. I am trying to locate and visit a cave here where my father collected fossils 60 years ago."

Ron R. Pressler (B.S., 1976) writes from Houston, Texas, "1998 has proven to be the beginning of exciting times. In 1997, as Amerada Hess Corp.'s (AHC) Manager of Exploitation, I bid my GOM Shelf projects good-bye and joined our newly formed Deepwater Prod. Unit to focus on the development of our Deepwater/Subsalt Projects. Since then, our joint projects with Shell have seen first oil on Enchilada (GB128) with Chimmichanga (GB127) and Salsa (GB172) to follow shortly. In August, AHC's operated Baldpate (GB260) Project (WD1650') will come on line and anticipate up to four additional operated developments to be completed starting in 1999. I also had the pleasure of returning to UT to conduct AHC's recruiting efforts."



Larry Templeton testing the strength of the flash flood about one minute after the front went by the 1958 Geology 660 field camp. Photo provided by William R. Muehlberger.

John W. Preston (B.S., 1970) lives in Houston, Texas, and writes, "Got the lowest price ever for my stripper crude this month (under ($10)—South Texas sour, but somehow still employed as a geophysicist for Hurd Enterprises, Ltd., out of San Antonio, Texas. Must still be a boom since I'm still employed."

Dennis R. Prezbindowski (Ph.D., 1981) is a Senior Research Associate with Texaco in Houston, Texas.

Beth Priday (B.S., 1991) resides and works in Houston, Texas, as a geophysicist at Geotrace Technologies, Inc.

J. L. (Joe) Pritchett (B.A., 1946) is a consulting geologist in Lafayette, Louisiana.

John Proctor (B.A., 1950) is retired in New Braunfels, Texas, and writes, "Last September, we viewed the giant monolith at Stone Mountain, Georgia. I was impressed by its size."

Notes from the Alumni

A. Leo Pugh, Jr. (B.S., 1952) lives in Galena Park, Texas, and writes, "Leo reports in from Houston. Still has a flea market operation going strong. The junk business is better than the oil business at the present time. No more grandchildren to report."

Andrew Quarles (Ph.D., 1996) is a geologist with ARCO working in exploration in northern Latin America, particularly Trinidad.

Jack H. Ragsdale (B.S., 1951) is President of Forge Energy in Gonzales, Texas.

James A. Ragsdale (M.A., 1960) is Area Manager of Agip Petroleum Co. in Houston, Texas, and writes, "Now in my 15th year at Agip Petroleum. Petroleum exploration is still fun and challenging!"

Walter K. Rainbolt, Jr. (B.A., 1957) is President of Dynamic Exploration, Inc., in Lafayette, Louisiana.

Clyde M. Rascoe (B.S., 1949) is "Mostly retired but still doing a little geologizing," and is President of Merit Oil Company in San Angelo, Texas.

Matthew H. Ray (B.S., 1996) lives in Austin, Texas, and writes, "I am currently still at UT and pursuing a second degree in Computer Sciences. I am hoping to graduate again in the spring of 1999. I am considering going to graduate school in Computer Sciences to study Artificial Intelligence."

M. Allen Reagan (B.A., 1950) is retired in Houston, Texas, and writes, "Sue Ann and I are enjoying travel and our many grandchildren. We have a granddaughter at UT (Freshman) but a real achiever."

Jeffrey C. Reid (M.A., 1973) is Chief Geologist and Manager at North Carolina Geological Survey in Raleigh, North Carolina. He writes, "Still employed in the same capacity as indicated. Daughter, Sarah, is completing her first year at college. Eric, who is 15, is active in sports and is working on his Life Rank. Jeff started his second consecutive three-year term as Trustee of the Sure Foundation and is the scouting coordinator for our church. Mary is recovering from an automobile accident on December 26, 1997."

Kevin Reid (B.S., 1992), formerly of Albuquerque, New Mexico, has a new address. It is Cuerpo de Paz, 162 Chaco Boreal, c/Mcal. Lopez, Asuncion, Paraguay, South America, and writes, "For the next two years, I will be living and working in Paraguay as a volunteer for the Peace Corps. I will be helping farmers implement best management practices to reduce soil erosion and to increase crop sustainability and productivity. If any Texas alumni are in the area, feel free to contact me."

Charles B. Renaud (B.S., 1949, M.A., 1950) of Midland, Texas, writes, "I am general partner of a family partnership called Ranaud Minerals, Ltd., which deals in royalties. Eldest son, Louis, was appointed to State School Land Board by Governor Bush last year."

Kirk W. Rexrode (B.S., 1984) is a marketing consultant in San Diego, California, and writes, "I'm currently helping to market some new, powerful, Windows-driven PC software, which create many types of maps and also produce models of hydrocarbon reservoirs. They suggest drilling sites, calculate volumetrics, and more. Many major oil companies have started using them with great success and have cut costs significantly."

Cory Richards (B.S., 1985) is Executive Vice President of Vista Resources Inc. in Midland, Texas, and writes, "Oil business is going very well. Vista produced our one millionth barrel of oil since starting our company less than 3 years ago. Amy, Charlotte (6), and Audrey (8), are the loves of my life and keep me spoiled and very happy. Hello to all GeoDogs, especially Carla and Lisa."

James V. (Jim) Richards (B.S., 1956) writes, "Continuing as a consultant for Genesis Producing Co. Moved to new offices on Memorial Drive in Houston, Texas, only 2 blocks from my house. Still drilling in North Texas on our Jurassic Basin Rim Trend but poking around in South Louisiana onshore to look for big reserves."

James W. (Jim) Richards (B.S., 1958) is self-employed in St. Helena, California, and writes, "Still making wine in the Napa Valley. Give us a call when you're in the San Francisco Bay area."

Gary Richter (B.S., 1979) resides in Austin, Texas.

Wade C. Ridley (B.S., 1953, M.A., 1955) is an independent in Tyler, Texas, and writes, "Still part of the East Texas Fraternity composed of species "geologicum oldgeezeras." But we're all hanging in there."

Jess P. Roach (B.A., 1941) is retired and has "Reached another decade. I am 80. I still have many interests and am never bored. I am very proud of our geological department. Keep up the good work."

Clem H. Roberts (B.S., 1949) is retired in Midland, Texas. He writes, "All five offsprings are approaching middle age and seem to be doing well. I lost my wife to cancer March 2, 1998. It's a lonely life so far."

Edwin C. Robinson (B.S., 1950) is retired in Carlsbad, California, and is "Playing golf, using my computer to store my genealogical data, and keeping in touch with my six children and 11 grandchildren."

Rogelio (Roger) Robles (B.S., 1960) lives in Midland, Texas. He reports "I am enjoying my third profession as a Realtor of my own business. My wife, Minerva, my son, John David, and daughter, Terri, are enjoying life and wish everyone the best. We are blessed with seven grandchildren."

William B. Rodan (B.S., 1942) resides in Metairie, Louisiana, is Vice President for Exploration for Shell in New Orleans, Louisiana, and is "Trying to take advantage of advanced technology—3-D is making a difference."

Margaret Anne Christie Rogers (B.A., 1964, M.A., 1969) is President of MARA, Inc., environmental/waste management consultants. She writes, "I am completing a very interesting year as the 1997–1998 President of the Energy Minerals Division of the AAPG. I also am pleased to announce that my daughter, Christie, graduated from the Department in December 1997 with a B.S. degree." She lives in Los Alamos, New Mexico.

Kathy A. Rosborough (B.S., 1979) is a Research Associate at the School of Geology and Geophysics at the University of Oklahoma in Norman, Oklahoma.

Lucy O. Ross (B.S., 1950) is President of Deltex Royalty Co., Inc., in Colorado Springs, Colorado.

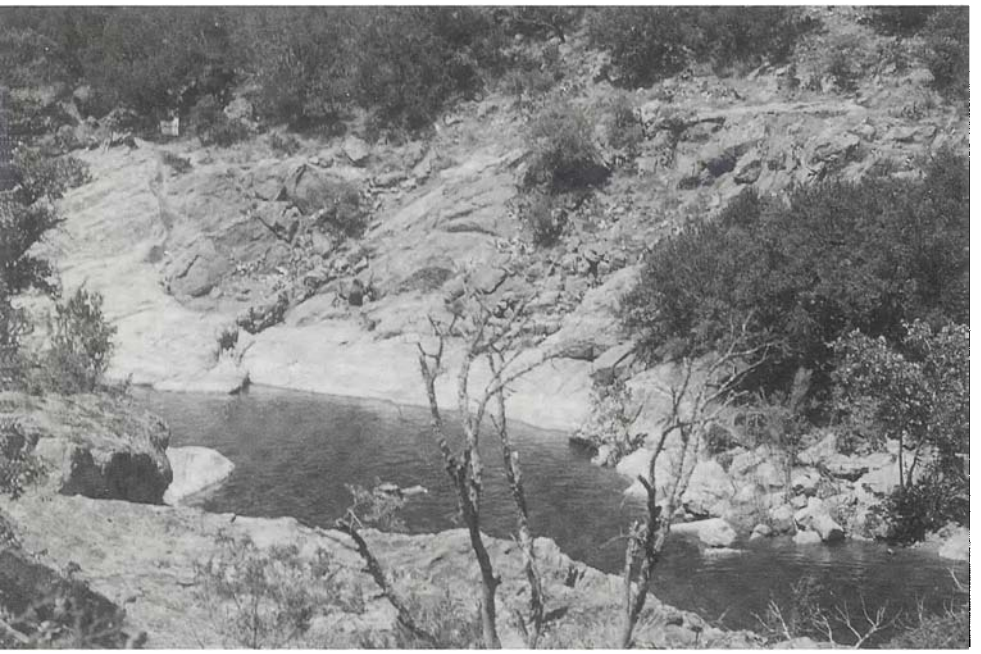
Oliver (Tres) Ross (B.S., 1975) lives in Edmond, Oklahoma, is a Captain with American Airlines, and writes that "During the "oil bust" of the early 80's, I decided to make a career change and moved from the oil business to aviation. So far everything has worked out."

Ray M. Ross (B.S., 1956) lives in Arlington, Texas, is a Sales Engineer with Murray Energy in Garland, Texas, and writes, "Still working with oil companies, contractors, manufacturing facilities, municipalities, etc., by providing instrument controls and mechanical equipment. Wife, children, grandchildren are all doing fine."

Rollins M. Roth (B.S., 1958) is Production Superintendent in Breckenridge, Texas, and writes, "With oil prices below $13, only the gas wells will keep us going."

Philip Rowell (Ph.D., 1993) is a Senior Geophysicist at Marathon Oil Co. in Houston, Texas, and writes, "Settled in Houston for the last two years after many years walkabout. Got a great job working on sequence stratigraphy all over the world with Marathon Oil Co."

Peter D. Rowley (Ph.D., 1968) lives in Henderson, Nevada, is a geologist with the U.S. Geological Survey in Las Vegas, Nevada, and tells us, "In April 1997, I transferred to the USGS office in Las Vegas, where I co-manage the Las Vegas Urban



Inks Lake State Park in May 1997. Photo provided by Rosemary Barker.

Corridor/Nevada Test Site Project that does plain old environmental geology. My fiancee and I are building a house 2 1/2 hours' drive up the interstate, in New Harmony, Utah."

Jimmie Norton Russell (B.A., 1952, M.A., 1954) had another productive year in the public schools in special ed. and will continue this coming year as an assistant teacher in Austin, Texas.

Floyd F. Sabins (B.S., 1952), President of Remote Sensing Enterprises, Inc., lives in Fullerton, California, and writes, "I enjoyed being invited to speak at the Space Based Geophysics Symposium sponsored by the Department in February. I got to tell some of the classic Aggie jokes to a new audience!"

Raul M. (Mike) Saenz (B.A., 1988) of Corpus Christi, Texas, is "Having success drilling wells on my ranch in Duval County. Seismic and Geochem are a great aid. There's no place like home, Toto."

Michael A. Salafia (B.S., 1978) is an independent geologist in Dallas, Texas.

Jack S. Sanders (B.S., 1957) is retired in Dallas, Texas, and "Traveling and enjoying retirement immensely (for as long as the money and health last). It's true, we find that our time is now much more tight."

James W. Sansom, Jr. (B.S., 1963) resides in Austin, Texas. He writes, "I am a consulting geologist in environmental and engineering geology in the Central Texas area, and I have done so for the past seven years since I retired from the State of Texas. The association with geologists over the state, many of whom are UT graduates, in our effort to license geologists in Texas has been enjoyable."

Vickey Price Sare (M.A., 1981) writes, "This has been a very active, exciting year for our family. In May, I received my Ph.D. in Geochemistry from the Colorado School of Mines. My dissertation research focused on the hydrogeochemistry of Holocene carbonate sand islands of the San Blas Archipelago, Panama. My son, Robby, is eight years old now, an avid reader, budding cartoonist, and basketball aficionado. He is known at school as "science man." This summer, we are moving to San Ramon, California, where I will work for Chevron Overseas Petroleum. I can be contacted via my new Web site <www.diagenesis.com>. Hello to all my old friends, stop by when you are in the neighborhood!"

Elsie C. Schiemenz (B.A., 1943) is retired in Mobile, Alabama, and states, "I remember my days at UT with affection and appreciation—especially for expanding my horizons—and I continue to read, travel widely, and to enjoy life in general."

George W. Schneider, Jr. (B.S., 1958) is an independent and writes, "Moved my residence from Metairie to Madisonville, Louisiana, on the Tchefuncta River in April 1998. Enjoying the beauty and simplicity of the "Northshore." Still have a business in Metairie, Louisiana."

Louis I. Schneider, Jr. (B.S., 1960) is Vice President of Geophysical Services in Houston, Texas, and writes, "Business is very good for offshore Gulf of Mexico for our company."

Tom Schneider (B.S., 1950, M.A., 1951) is residing in Midland, Texas, and writes, "Active prospecting, in spite of times, ranching, and enjoying grandkids."

Paul E. Schnurr (M.A., 1955) is retired in Concord, California. He is "Traveling, enjoying grandchildren, attending a lot of baseball and football games—that's in exchange for attending the symphony with my wife."

Milton Scholl (B.S., 1947, M.A., 1948) is retired in Chula Vista, California, and writes, "Enjoying family and frequent trips to Pacific Northwest and New England and planning trip to Black Hills region this fall."

John T. (Ted) Schulenberg (M.A., 1958) is currently an unemployed consultant and resides in Kerrville, Texas. He writes, "Have made my last move. Janet and I are in agreement that when we leave here, it will be feet first."

Frederick E. Schultz (B.S., 1947) is "Retired in Ojai, California. Lois and I celebrated our 50th anniversary on June 1, 1998."

Rubin A. Schultz, Jr. (B.S., 1961) writes, "Still with Texas Department of Transportation, plenty of work, planning another May trip to the island of Maui, Hawaii, (again!). Family is fine and daughter announced I'll be a granddad *again* this summer." He lives in Corpus Christi, Texas.

Jerry W. Schwarzbach (B.A., 1983) is a Medical Director at East Texas Medical Center Rehabilitation Hospital in Tyler, Texas, and writes, "Had fourth child this year. Still enjoy playing basketball and backpacking."

Eugene P. Scott (B.S., 1957) is a petroleum consulting geologist in Corpus Christi, Texas.

John E. Seale (B.S., 1941) is retired in Houston, Texas, and writes, "Stay busy with children and grandchildren. Old saying, how did I ever find time to work?"

Clyde Seewald (B.S., 1963, M.A., 1966) is an independent living in Henderson, Texas, and writes, "Still working the Cotton Valley Sand gas play on the Sabine Uplift in East Texas."

Kenneth O. Seewald (Ph.D., 1964) is Owner/President of Seewald Energy Company in Houston, Texas, and writes, "Still looking for the remaining oil and gas in Texas, Colorado, and Kansas. Mary and I always enjoy seeing old classmates and friends at the national and regional AAPG meetings."

Notes from the Alumni

Robert T. Sellars, Jr. (B.A., 1957) is a consulting geologist in Denver, Colorado, and writes, "I have enjoyed my year as President of the Division of Professional Affairs of AAPG. Had a chance to work with Texas grads—Pete Rose, Charles E. Mear, Dan Smith, and Royse Carr."

Holmes A. Semken, Jr., (B.A., 1958, M.A., 1960) is Professor of Geology at University of Iowa. He writes, "Most of my research effort is directed toward the vertebrate remains recovered from archaeological sites with paleoecology as a primary goal. This summer, we will excavate a cave deposit with cultural remains representative of most of the Holocene. Elaine and I also plan to take a coastal ferry up to the arctic of Norway." He lives in Iowa City, Iowa.

George B. Sewell (B.S., 1954) is currently in Denver, Colorado, and describes present job as a "geological petroleum consultant/retired."

John S. Shambaugh (B.S., 1949, M.A., 1951) is retired in Corpus Christi, Texas, and writes, "News for the UT Geological Sciences newsletter is nil for me at this time. Will hope to do better next time. Can't even think of any ex-student I have seen the past year. I guess that is what makes the newsletter so special. Many thanks."

William W. (Bill) Sharp (B.S., 1950, M.A., 1950), an investor in Dallas, Texas, writes, "Enjoyed recent "Tejas" reunion in Dallas and recounting tales with Jack Johnson (UT Law). Working for Gulf Oil Co. as roustabout at Borger and Pampa after WW II 1947. Ranch/farm continues to grow/improve. Real estate/stock market on a boom. Plan European vacation as soon as possible. Hope to attend Creole Pet. (Exxon Venezuela) reunion at Fort Worth in May 1998. Fortunate to be included in "*Who's Who in America*" again."

Stephen Shaw (B.S., 1971, M.A., 1974) says, "Nancy and I are still enjoying Midland, Texas, and Nancy is retiring from Midland College this year. I still enjoy spending time in the Department with my "college recruiter" hat on. Best wishes to all." Steve is a Division Geoscientist in the Permian Area with Burlington Resources in Midland.

Denman Shelton (B.S., 1994) is residing in College Station, Texas, and "Starting a Biology Ph.D. program at A&M this summer."

William T. Sherman (B.S., 1951) is self-employed at Fairdawn Enterprises, Inc., in Houston, Texas, and is "Enjoying 12 (1 dozen) plus (?) grandchildren and whipping up on the Big C. Still active in the oil patch."

Elgean C. Shield (B.S., 1953), lives in Goldspring, Texas, is President of Shield Development Corp. in Houston, Texas, and is "Still looking for oil and gas in the exploration business in Houston. Four grown children and seven grandchildren want me to find the big one so they can retire."

Mark S. Shield (B.S., 1988) is a Geoscience Systems Analyst for Landmark Graphics in Austin, Texas, and writes, "Eight plus years with Landmark is and continues to be rewarding and a daily challenge. Coordinating the testing, quality control, and release of over 7 million lines of code and 3 geological products—Z-MAP Plus, Rave, and SigmoView is a blast."

Mark A. Sholes (Ph.D., 1978) is Professor in the Department of Geological Engineering at Montana Tech in Butte, Montana, and writes, "Four years with one boss, instead of two, and having summers off has been good. Montana continues to be a good place to live, and El Niño winters here are great. Fire fighters are looking forward to a good summer, so it might be an interesting fire season."

Clint Simmons (B.A., 1982) is employed by the Texas Natural Resource Conservation Commission in Austin, Texas, as a geologist. "Oldest son is now a teenager, and the youngest son is double digits! Mary Ann is busy selling real estate and not growing older. Time goes by fast while having fun in the Texas Hill Country."

Scott Simmons (B.S., 1987) is presently a geologist with GeoSyntec Consultants in Atlanta, Georgia, and reports that he is doing lots of general geologic consulting, especially in geochemistry, and is currently the manager of the Geochemistry/GIS group of their office (strange combination, he says). Further, he reports that GIS seems to be the big thing these days, and that his wife, Ronda, and dog, Crawdad, spend most of their free time outside in the garden or mountains, although the trout fishing is only good in the latter.

Samuel J. Sims (M.A., 1957) is a consulting geologist in Bethlehem, Pennsylvania, and writes, "I continue to keep busy doing consulting work in Southeastern Pennsylvania. I have to admit that retirement is looking better, but I plan to keep working a bit longer."

David K. Skidmore (B.S., 1976) is Vice President of Vertex Oil & Gas, Inc., in Dallas, Texas.

William P. Slater (B.A., 1950) resides in Canyon Lake, Texas, is an independent geologist, and says, "Missed the Second Oak Grove reunion in November 1997; do not plan to miss the next one. Went fishing a couple of days and missed the last oil boom, though. Prospects still numerous and fun."

Ben Sloan (Ph.D., 1995) is a geologist with Texaco in Bellaire, Texas, and writes, "Things are happier than might be expected in this giant swirling toilet bowl called Houston. I haven't sneezed in three years. Oil business is corybantic, I heard someone say. Spouse and I adopted our first child, and she's quite a handful, except during trips to the vet, then she's six or eight gloved handsful."

Christopher Small (M.A., 1989) lives in New York City, New York, and is a Research Scientist at Lamont-Doherty Earth Observatory at Columbia University.

Marriott Wieckhoff Smart (B.S., 1957) is a retired consulting research librarian in Littleton, Colorado, and writes, "This year seemed the right one to shut down my research business and retire. I have enjoyed the flexibility and relaxed schedule, but don't seem to be able to get as much done as I thought I would. John and I have some fun trips planned to the Grand Canyon and to Switzerland. It has been fun reading again about the geology of the Grand Canyon. Seems like the theories have changed a little since the 1950's. Hope everyone is doing well."

Tommy T. Smiley (B.S., 1951) is retired in San Antonio, Texas, and "Still enjoying retirement. Have three grandchildren and one great-grandson. Does make one feel a bit old."

Charles D. Smith (B.S., 1978) is Project Manager for OHM Remediation Services Corp. in Houston, Texas, and lives in Austin, Texas.

Dan L. Smith (B.S., 1958) is Vice President for New Ventures of Meridian Resource Corp. in Houston, Texas.

Edwin L. Smith (B.S., 1951) is an independent geologist in Wichita Falls, Texas, and writes, "Independent in Wichita Falls, getting a few wells drilled, and enjoying just taking it easy."

Harry L. Smith (B.S., 1951, M.A., 1956) is retired in Boerne, Texas. He writes, "Just got back from enjoyable trip to California with wife. Rode on Amtrak both ways. Interesting!!"

J. T. Smith (B.S., 1950, M.A., 1956) resides in Fredericksburg, Texas, is retired from Sun Oil Company, and tells us "Still enjoying retirement in the Texas Hill Country. No change except being a year older."

Paul K. Smith (B.S., 1984) is a Clinical Exercise Physiologist at Rehabilitation Services, Austin Diagnostic Medical Center, in Austin, Texas.

Traci Trauba Smith (B.S., 1985) lives in Lake Jackson, Texas, and is an office manager of Birdsong Real Estate.

Frederick C. Smythe (B.S., 1947) is retired in Dallas, Texas.

Fred R. Snyder (B.S., 1982) lives in Michoacan, Mexico, and writes, "While doing some consulting

work in Mexico a few years ago, I saw opportunities in exporting. I left Radian Corporation in Salt Lake City, Utah, and moved my wife, Meg, and two kids, Branham (7) and Miranda (3), to Mexico in 1995 to begin furniture manufacturing and established the infrastructure to provide export services to foreign companies. I am having fun in Mexico. Come visit us." He is owner of Rustica/Manana Export.

John (J. W.) Soward (B.A., 1950), residing in New Orleans, Louisiana, retired from Oryx Energy, and currently with Realty Resources, Inc., informs us about "Celebrating my 75th birthday in New Orleans. Renovating historic homes in Garden District and uptown with partner, Michael L. Baker."

Stephen W. Speer (M.A., 1983) lives and works in Roswell, New Mexico, as a geologist and general partner at Speerex, Ltd., and writes that, "Family and work are going well. Staying very busy at both. Am doing more consulting work and enjoying the variability and change in pace and topic. I even manage to find some oil that hasn't emanated out from underneath my truck!!"

William Spindler (M.A., 1977) of Exxon Exploration Co. and living in Kingwood, Texas, writes, "The deepwater Gulf of Mexico continues its fascination—fabulous structural geology (salt, compressional folds, etc.) and deep water depositional systems."

Bill St. John (B.S., 1958, M.A., 1960, Ph.D., 1965) lives in Vanderpool, Texas, is Manager, New Countries Exploration, Vanco Energy Co. in Houston, Texas, and writes, "Failed retirement (again!). Now looking for oil around continents in water depths 200 to 3000 meters. Minimal data/maximum imagination/years to be proved right or wrong. The perfect job. Nancy tolerating 3 weeks/month in Houston."

Sam R. Stanard (B.A., 1951) is retired in San Antonio, Texas.

George D. Stanton (M.A., 1977) is an independent in oil and gas exploration and production in Austin, Texas, and writes, "Still in Austin. The last half million people (seemingly all Yankees and Californians) have really jammed-up the neighborhood. Working Wx and Lwrk. Hi, Everyone!!"

Theodore Stanzel (B.S., 1956) is President of Victor Stanzel Co. in Schulenburg and informs us, "Manufacturing and marketing toy flying models of airplanes, helicopters, and spacecraft. Compiling model airplanes with control line devices for museum exhibits to be available for public viewing in 1999 in Schulenburg, Texas."

Tracy J. Stark (B.S., 1979, Ph.D., 1986) is a Principal Geophysicist at ARCO Exploration and Production Technology in Plano, Texas, and reports, "In June 1996, after 10 years at Exxon, I moved to ARCO. Life is good. Look for me on the cover of ARCO's annual report. (Yeah, right). In October 1996, I made another wise choice and married Laure Ferlic (no UT connection). Life is really good. We are living in Plano, Texas, where I am working on virtual reality, and Laure is working virtually in Houston, Texas, (telecommuting via the Internet)."

Frederick L. Stead (M.A., 1950) is a part-time consultant in Dallas, Texas, and writes, "When oil prices dropped, I decided it was time to return to natural gas exploration."

Burgess Stengl (B.S., 1985) is a geologist with Texas Natural Resource Conservation Commission in Austin, Texas. He writes, "Still permitting landfills in Texas—definitely something we will always need. Angela and I have one daughter "graduating" from fifth grade and one from high school. Shara has decided to go to UT Austin and major in architecture. We found out last January that we are expecting our third child in August and have discovered it's a boy! We're starting over after 11 years! Hey, John Pope, call me back!!"

Sheree Stewart (B.A., 1984) is a Drinking Water Protection Program Coordinator at Oregon DEQ in Portland, Oregon, and writes us, "Still working in and loving Oregon...using my systems and processes-oriented (UT) geology training to do water resource protection work. My biggest challenge is trying to find enough time to do all the fun outdoor passion—river rafting, golf, hiking, and climbing."

Jim Stimac (M.A., 1983) is a Geoscience Coordinator with Unocal-Philippines. He writes, "This has been a big year for us. I did geothermal exploration and development projects in Indonesia and Nicaragua and moved to a new assignment in the Philippines. Adrienne kept busy with research and teaching, and we are expecting our first child in September. Ad should be joining me in Manila in November. Look me up if you pass this way."

William T. Stokes (B.S., 1950) is living in Dallas, Texas, and he writes, "I always look forward to the newsletter for the news of our classmates. Serving on the Geology Foundation Advisory Council helps keep me in touch with the Geology Department. The very best to Chuck Weiner on his 75th birthday." Bill is former Chairman of the Geology Foundation Advisory Council.

Winston L. (Skip) Stokes (B.S., 1957) is retired in The Woodlands, Texas and writes, "Now have three grandchildren—Nathan, Rebecca, and Shannon. Kathryn and I are headed for Hawaii for a month to see the various islands. Retirement is great!!"

Ted Stout (B.S., 1985) is a Park Ranger at Mount Rainier National Park, lives in Ashford, Washington, and tells us, "I am busy preparing for my second summer at Mount Rainier. Besides supervising interpretive operations in two areas of the park, I am also becoming increasingly involved with the USGS in helping them get out the word about volcanic hazards at "The Mountain"."

Mike Stowbridge (B.S., 1982), a geologist in San Angelo, Texas, lives in Abilene, Texas, and writes, "There are very few viable oil prospects at $12 to $14 per barrel. The sudden slow-down this year reflects that. My regrets go to those graduates who cannot find a job, like the class of 1982."

Robert E. Stowers II (B.A., 1986) is an Environmental Project Manager at Raytheon Environmental Services, lives in Spring, Texas, and "Still working the environmental consulting industry. More and more international projects. Made it to Argentina and Bolivia in 1997 and Equatorial Guinea in 1998. Lisa and I are great, kids too! Larry and Kevin, where are you?"

John L. Stripling (B.A., 1940) is retired in West, Texas. He writes, "Margie and I continue to travel, mostly in Texas. Took a trip to Athens and the Greek Islands last year—no geology involved but a lot of climbing. We enjoy the newsletter every year!"

Edgar J. Stulken (B.A., 1934, M.A., 1935) is a retired geophysicist in Dallas, Texas. He writes, "At age 86, I'm keeping busy with desk work and in workshops. My wife, Ruth, was hospitalized following a severe stroke."

Mary Moczygemba Stulting (B.S., 1982) resides in Pflugerville, Texas, and is Vice President of Accounting at Texas Workers' Compensation Insurance Fund in Austin, Texas. She writes, "Geology is now a hobby I share with my husband, Mike, and my daughter, Elizabeth (age five). Liz loves dinosaurs and has an extensive rock collection—mostly limestone out of our backyard. Matthew (age two) loves to try to eat Liz's rock collection. Matthew has shown an interest in paleontology. He loves Barney!"

Martin Stupel (B.S., 1988) is an Area Geophysicist at Western Geophysical, and informs us, "Enjoying being back in Houston, Texas, after a few years in the Far East. Business is booming. I hope it stays that way."

Paul D. Suddath (B.S., 1976) is an independent geologist in Abilene, Texas.

W. C. Swadley (B.A., 1952) is retired in Littleton, Colorado.

Cindy and **Tom Swinbank** (both B.S., 1971) reside in Georgetown, Texas. Tom is a consulting geologist

Joseph W. Versfelt (right) in Amazonian rain forest, Marajo Island (Para State, Brazil) during 1988 seismic shoot in Cretaceous-age Marajo rift basin. He supervised two heliportable, dynamite crews here while at Texaco. No trees were felled on the lines and 100 x 50 m clearings for choppers at 5-km intervals. He even saved a tree sloth from the cutting crews. Photo provided by Joseph W. Versfelt.

with Winn Exploration in Corpus Christi, Texas. Their daughter, Claire, has signed for a four-year scholarship to play basketball at San Diego State.

Cynthia G. Talbot (B.S., 1976) resides in Cincinnati, Ohio, and works for Jacor Communications, Inc., in Covington, Kentucky.

James B. Tartt (B.S., 1948) writes, "Have been retired in Houston, Texas, for 11 years. Have enjoyed it very much. Also, I can remember some great days at UT—very good memories."

Dick Teel (B.S., 1941), a geological systems consultant in Houston, Texas, writes, "Having fun working for Petroleum Information and learning Windows 95. Data at your fingertips are incredible. I still remember the grunt work we had to do. Still hunting in Africa and going to Tanzania in August for lion and buffalo."

Billy D. Thomas (B.S., 1949) is retired from being Director of Technical Hearings at the Railroad Commission of Texas. He writes, "Another year, trying to keep up with my wife. I would like to visit our daughter in Georgia and son in Dallas, Texas, more often. I still am fond of stock car racing."

Jamie E. Thomerson (B.A., 1957) Professor Emeritus, Biology, Southern Illinois University in Edwardsville, Illinois, resides in Collinsville, Illinois, and informs us of "Greenfield & Thomerson, *Fishes of the Continental Waters of Belize*, 1997, University Press of Florida."

Karen Bergeron Thompson (B.S., 1992) is Executive Assistant with Quality Surveys at a HR consulting firm and lives in Big Timber, Montana.

Ray Steven Thompson (B.S., 1983) is a Natural Gas Marketer for Burlington Resources in Houston, Texas.

T. J. Thompson (B.S., 1957) is the owner of Toro Exploration Co. in Rockwall, Texas, and writes, "Thanks for your hard work in getting the Geological Sciences newsletter to us. Good to keep up activities of our school. Keep up the good work!"

Bert C. Timm (M.A., 1941) writes us that he is "Retired with fun" in Plano, Texas, and that "Myrna and I are living the life fantastic. She'll enjoy the leaves, and I'll observe the Laurentian Highlands on a cruise ship up the St. Lawrence Seaway in October."

Robert Joe Tondu (M.A., 1976) is President of Tondu Corporation in Houston, Texas, and writes, "Still going strong. We are now looking for good investment opportunities. Out of oil and gas for the last 15 years, now we are looking to get back in. And around it goes."

Jack W. Trantham (B.A., 1951) is President of TCD Energy, Inc., in Tyler, Texas, and writes, "Still enjoying generating prospects and drilling them, of course, not at the same pace as in the past. Got a pacemaker installed on April 10, 1998. I'm doing real good. If any of my classmates and friends are in Tyler, I would love to visit with you."

Everette Travis (M.A., 1951) is retired in Buchanan Dam, Texas, and "Still enjoying knowing geology. Makes traveling much more interesting. Amazed at how much geology the grandchildren are exposed to in middle school."

Robert F. Travis (B.A., 1957) is retired and writes, "Come to Corpus Christi, Texas. We'll go fishing (not through pipe). By the time you print this, I will have just completed my term as President of GCAGS."

Galen Treadgold (M.A., 1985) is a Senior Staff Geophysicist, Latin America, and writes, "After four years in the United Kingdom, we are heading back to Texas. I will be working exploration in the Ecuador, Peru, and Colombia group out of our Plano office."

Jennifer Winkler Truax (B.S., 1992) is a geologist at ARCO International in Plano, Texas, lives in Rowlett, Texas, and writes, "Working in Southeast Asia New Ventures Exploration at ARCO."

Arthur J. (Art) Tschoepe (B.S., 1951) lives in Leakey, Texas, is an independent geologist and oil operator, and writes, "Still working and producing and enjoying my wonderful family."

James (Jeff) Tucker (B.S., 1948) is retired in Jackson, Mississippi.

John D. Tuohy (B.S., 1939) is retired in Canyon Lake, Texas, and writes, "Still living happily in the Hill Country and waging a losing battle with the deer who eat everything we plant but won't mow the grass. The family is fine. Children still scattered—daughter in Flagstaff, son carrying on with the oil business in Baku (ex Russia)."

Neil L. Turner (Ph.D., 1970) is a consultant in petroleum geology in Fulshear, Texas. He writes, "After retiring March 1, 1997, Rosemary and I spent some time traveling with the longest trips to Canada and Europe. In Europe, we caught the meetings in Heidelberg and Vienna, spent time in the Dolomites, and cruised the Greek Isles. The rest of the year was spent enjoying retirement and getting our house in shape. I'm back working doing consulting in carbonate exploration and reservoirs."

LeeRoy Tydlaska (B.A., 1949, M.A., 1951), retired from Amoco and residing in Metairie, Louisiana, writes, "Being retired is great. Am having a

fun time keeping up with my investments, no oil, only stocks and bonds. Keep up the good newsletter. Regards to all."

Robert Chan Tysor (B.A., 1952) is a consulting geologist for Cico Oil and Gas Co. in Houston, Texas.

Martin S. Ulrich (B.S., 1974) is an Exploration Manager in Houston, Texas, and writes, "Julie and kids are doing fine. I am looking for oil and gas for Southern Mineral Corp. now and enjoying it. All UT'ers are welcome to stop in for a cup of coffee. Has it really been 24 years since graduation?"

James R. Underwood, Jr. (M.A., 1956, Ph.D., 1962) is a retired Professor Emeritus of Geology from Kansas State University and lives in Austin, Texas. He writes, "Margaret Ann and I are delighted to be in Texas, even hot Texas, once again. It is good to be closer to family and to renew old friendships. Leaving Kansas State after 20 plus years was not easy, but icy winters there are severe."

Don Urbanec (B.S., 1960) is President of Mina Energy in San Antonio, Texas, lives in Boerne, Texas, and writes, "I'm beginning to look forward to retirement, but low oil prices may extend that day."

Mark Valencia (M.A., 1968) reports, "I am still at the East West Center in Hawaii working on maritime policy and international relations in Asia. I also work on Northeast Asia Economic Cooperation, sort of track two diplomacy with North Korea (visited twice), Mongolia, Russian Far East, and Manchuria. I had a great trip to the Mongolian GOBI last August. We went to Bayanzag (Flaming Cliffs), where Roy Chapman Andrews rode up on his camel in the early 1900's and found dinosaur bones just lying on the desert floor and sticking out of the cliffs. The amazing thing is that you can still see bones scattered through the area. Our Mongolian friends said that the National Museum was only interested in "whole skeletons" so they just ignored the fragments. There are no rangers, no fences, and no one around. I am afraid this site will be plundered by the intrepid tourists who make it out there. I have one daughter at Smith, and one son about to enter BC and run track for them. He is ranked about 15th in the nation in his age group for the 400M—48.50 seconds. Cheers!"

Robert Valerius (B.S., 1959) is an independent geologist and mediator in Corpus Christi, Texas.

James B. (Ph.D., 1986) and **Amy L. Wharton Vanderhill** (B.S., 1983) report that Jim is employed at Mobil E&P US Inc. in Houston, Texas, and Amy at Pogo Producing Company in Houston. They write, "The oil industry is so amazing, so variable, we never know what will happen next! Jim will celebrate 10 years with Mobil this year. He is enjoying working onshore South Louisiana. Amy has completed her first year with Pogo Producing, after 11 with Mobil, and is trying to understand the Wilcox of South Texas! They say that is the goal of a lifetime! Ceili will start fourth grade, Shannon second grade, and little Meagan kindergarten in the fall. All three girls are in school, and we never have enough time for anything!! When we do get to go play, they love fishing with their Grandpa Taylor in Galveston Bay! Mary Koch, thanks for including us in the newsletter. We enjoy reading about our friends and the Department each year."

Roasting wieners somewhere in southern Colorado during field camp in summer 1986. Photo provided by David A. Wallace.

Joe E. Vaughan (B.A., 1954) is President of Energy Production Corp. in Dallas, Texas, and writes, "Mother Nature keeps throwing us some curves in our efforts to find some new oil in West Texas, but we keep that high one over the plate."

Joseph W. Versfelt (B.A., 1984) is a geologist, international exploration, in Houston, Texas, and writes, "Left Texaco in November 1997. Now at CMS Nomeco, part of CMS Energy, as a geologist. Enjoying my one-year-old son, Nicholas."

R. B. (Bob) Vickers (B.S., 1947) is retired in Abilene, Texas. He writes, "My wife (of 54 years) and I really enjoyed the 1947–48 reunion last September, except for the football game (UCLA). One daughter sells Val-Pak advertising in the Austin area, other daughter teaches in central Washington State. One grandson sells Dell computers in Round Rock, Texas. Other grandson becoming a geophysicist in Houston, Texas. Both grandsons got married in August 1997. As an extra, the whole crowd gathered for Christmas at a dude ranch in Bandera, Texas."

William Vrana (B.A., 1939) is a retired consulting geologist residing in Corpus Christi, Texas. He writes, "My wife, Joyce, and I stay busy maintaining our home and lawn with an occasional trip within Texas. I make an attempt to attend all of the local Geological Society luncheons to keep in touch. Always amused at how fast the world is changing from what it once was."

Martin James Wachel, Jr. (B.S., 1956) is retired in Laird Hill, Texas, and tells us he is "Enjoying retirement and annual newsletter."

R. Kent Waddell (M.A., 1941) is an independent operator, FBO, motorcycle dealer in Abilene, Texas, and writes, "Still producing a little oil, selling a few airplanes, and a lot of Harley-Davidsons. Not smart enough to quit."

Notes from the Alumni

A. H. (Al) Wadsworth (B.S., 1941, M.A., 1941) lives in Houston, Texas, is an exploration geologist, and writes, "Still working. Am directing an exploration program that will make headlines for Texas when it can be announced."

Tom Waggoner (B.A., 1957), who lives in Spicewood, Texas, is "trying to retire," but is "too busy to quit."

Sandra L. Waisley (M.A., 1978) resides in Alexandria, Virginia, where she is Deputy Assistant Secretary of Natural Gas and Petroleum Technology for the U.S. Department of Energy in Washington, D.C. She writes, "I am in my seventh year as a public servant in Washington, D.C. and managing a $78 million research and development program in natural gas and petroleum (international and domestic). I work extensively with industry, universities, and state organizations such as the Bureau of Economic Geology. I am married 11 years to Simon Dance, a private attorney in D.C."

Joe Dudgeon Walker, Jr. (B.S., 1951, M.A., 1954) is retired in Houston, Texas. He writes, "I am so glad the newsletter is still in capable hands. I have finally completely retired from stratigraphic work and willingly let computers and 3-D seismic continue the search. Still in good health and have a great wife, three children, and nine grandchildren. Keep up the good work on the newsletter."

Mark C. Walker (B.A., 1981) is an attorney/shareholder at Mounce, Green, and Myers in El Paso, Texas, and writes, "My three-year-old son, Lee, can tell the difference between stalactites and stalacmites and can give a good description of how volcanoes work! Are we starting too early?"

David A. Wallace (B.S., 1986) lives in Austin, Texas, and tells us "Just completed my first year of UT Austin's M.B.A. program. Very grueling! Will be doing an internship at Cisco Systems in San Jose, California, for the summer. Returning in fall to Austin for one semester and spending last semester studying business in Monterey, Mexico, in preparation for career in Latin America. Any geopals out there, e-mail me at dawallace@mail.utexas.edu."

Rusty Walter (B.S., 1980) is President of Walter Oil and Gas Corporation in Houston, Texas.

Anne Walton (M.A., 1986) is presently part of the faculty of Austin Community College in Austin, Texas, and writes, "My son, Alexander Amadeo DePillis, was born in May 1996 and is now two. He shows all the instincts of a baby hydrologist, geologist, or engineer. Here comes trouble!"

Tony Walton (M.A., 1968, Ph.D., 1972) is Chairman of the Department of Geology at the University of Kansas, and writes, "First kid graduating from college, second is on track to graduate in two more years. First has job. We're 3/4 of the way home."

Bernie Ward (B.A., 1955) is an independent geologist and writes, "Still in business—and finally gave up and got a computer."

Daniel L. Ward (B.A., 1949, M.A., 1950) is retired in Grand Junction, Colorado.

Ralph H. Warner (M.A., 1961) retired in Kingwood, Texas, writes, "Still in Kingwood searching for the effects of global warming and keeping an eye on the sky for the killer comet. How about this instant geology?"

L. Coy Warren (B.S., 1948) is semi-retired in Abilene, Texas, and "Still active through my stepson, Greg King. He is doing a great job and found us a lot of oil and gas! I sure enjoyed the 1947–48 reunion and missed some who didn't come."

Bill D. Watson (B.A., 1958) is retired, living in Sugar Land, Texas, and writes, "Enjoying the retired life, playing trumpet in a community band, playing golf, and spoiling seven grandchildren."

John Allen Watson (B.S., 1956), of Austin, Texas, writes, "I continue as an Associate with Creation Evidence Museum of Glen Rose, Texas. We continue in our third year of excavation of the world record Stegosaur in Colorado (femur length 5 feet and 1 1/2 inches). The Lord is generous, and we uncovered evidence that there may be another skeleton at the site. He brought me across a rare fossil in my travels, a natural cast of a jellyfish, diameter eight inches. The collector has donated it to the museum for display. Since the creature has no hard parts, it is prime evidence for catastrophe/cataclysm. The long dangling tentacles were broken off before fossilization, but all the other detail remains. It appears to be of the order Coronatida."

Joseph D. Watzlavick (B.S., 1941) is consulting in Bellaire, Texas, and writes, "It's good to be kept informed."

Gerald E. Weber (M.A., 1968) is a Lecturer and Consulting Engineering Geologist at the Earth Sciences Department of UCSC in Santa Cruz, California, and writes, "Still teaching summer field and working part-time as a geologic consultant. Using all that spare time for white water rafting, beer and wine drinking, and traveling."

Nelson Webernick (M.A., 1952) is an independent petroleum geologist in Midland, Texas.

Charles Weiner (B.A., 1948) is a geologist residing in Houston, Texas. He writes, "Luck in Australia, France, and Canada. Good in Australia and Canada, not so good in France." Chuck is a member of the Geology Foundation Advisory Council.

Bonnie Weise (B.S., 1974, M.A., 1979) is a Senior Explorationist for Venus Exploration, Inc., in San Antonio, Texas.

Richard O. Whitaker (B.S., 1950) is retired in Houston, Texas, and writes, "I'm enjoying retirement—golfing, traveling, and visiting grandchildren."

James V. White (M.A., 1995) is a geologist with Mobil Exploration and Production, U.S. in Houston, Texas.

Leslie P. White (B.S., 1956), is a retired consultant living in Austin, Texas. He writes, "Dianne and I continue to enjoy semi-retirement, Austin, grandchildren, and, thankfully, good health. It is good to see an active, enthusiastic Student Chapter of the AAPG on campus. The petroleum industry is important to the prosperity of Texas, and it continues to offer fulfilling career opportunities to geologists."

Robert R. White (B.A., 1964) of Albuquerque, New Mexico, writes, "I am an independent writer and historian and also serve as Executive Director of the New Mexico Book League."

Steven L. White (B.S., 1978) is a consultant, and writes, "Still enjoying consulting in Tyler, Texas."

C. D. Whiteman, Jr. (B.S., 1958) is retired in Denham Springs, Louisiana.

Fred L. Whitney (B.S., 1943) is retired in Kerrville, Texas, and sends "Greetings to all."

Marion I. Whitney (B.A., 1930, M.A., 1931, Ph.D., 1937) is retired in Shepherd, Michigan, and writes, "At the annual meeting of the Geological Society of America, October 20, 1997, I gave a paper on ventifacts, detailing an experiment in which extensive basal surface erosion occurred *in situ*, while depositions of atmospheric dust were deposited on tops. I've been in the hospital three months with two bouts of pneumonia and am now relearning to walk."

James C. Whitten (B.S., 1956) is an independent geologist and writes, "Still prospecting the Permian Basin in Midland, Texas, and enjoying ten grandchildren."

Fred Wiegand, Jr. (B.S., 1969) resides in Lockhart, Texas, and is an international consultant. He writes, "In 1997–98, I worked in Egypt and Venezuela. Technical manager of Pan Ocean, Lagos, Nigeria. Well site geologist, Saudi Aramco in Saudi Arabia. Family is fine. Wiegand Brothers growing up. Regards."

William D. (Dave) Wiggins (Ph.D., 1982) is a geologist with Chevron Petroleum Technology Company in La Habra, California, and writes, "I am still at Chevron's lab in La Habra, California, working in structural geology. I would enjoy hearing from any of the fourth floor gang circa 1977 to 1981 at e-mail wdwi@chevron.com."

Michael A. Wiley (B.S., 1957, M.A., 1963, Ph.D., 1970) lives in Carrollton, Texas, but works in Farmers Branch as a consultant. Michael writes, "Still having fun consulting and writing specialized data management and display software for oil and environmental industry."

Addison A. Wilkinson (B.S., 1956) is retired in Lafayette, Louisiana, and writes, "After a recent visit to the Department, I was very impressed with the technological advances I saw. Also, a little depressed at how obsolete I am now!"

Joel M. Wilkinson (B.A., 1954) is retired and living in Metairie, Louisiana.

James Richard Williams (B.S., 1950) is retired in Bullard, Texas. He writes, "Doing okay. Completely retired now except for occasional consulting job. Family fine. Son in Cedar Park. Daughters and grandchildren in Minnesota and Colorado. Ouitau and I were married 50 years this February."

John B. (Jack) Williams (B.S., 1943) is an independent geologist in Houston, Texas, and writes, "I am enjoying semi-retirement but missing the excitement of petroleum exploration."

Robert R. Williams (B.S., 1954) is a consultant in Dallas, Texas. He writes, "Robin and I now have eight grandchildren (four boys and four girls). Look forward to receiving the newsletter."

Eddie A. Williamson (B.S., 1969) resides in Katy, Texas, and is Vice President at Amoco in Houston, Texas. He writes, "Wonderful to be back in the great state after three years in Canada, although Alberta is a lot like West Texas but with a lot more ice." Eddie is a member of the Geology Foundation Advisory Council.

James C. Willrodt (B.S., 1977) is a Senior Operations Supervisor with the Exxon Co. International Drilling Organization in Houston, Texas, and writes, "Family is doing fine. Hello to all. I'm still in Houston with Exxon and presently drilling two wells onshore in northeast Thailand."

Clayton Wilson (B.S., 1983, M.A., 1985) lives in Humble, Texas, is employed by Exxon Exploration Company in Houston, Texas, and writes, "I am currently working offshore Brazil. The kids are growing up fast. Emily is (8), Forrest (11), Lance (13), Natalie (15), and Kim (17). If you remember me, send me an e-mail at Clawilson@sprintmail.com."

Douglas Wilson (B.S., 1980) of Spring, Texas, is a Senior Principal Geologist with Vastar Resources, Inc., in Houston, Texas. He writes, "I am still enjoying exploring the Deepwater Gulf of Mexico. Becky and Rachel have been busy with Daisies. Rachel is about to graduate from kindergarten and is looking forward to first grade. She tells me that she likes school, a sentiment that I hope lasts forever. I am a Lieutenant in the Klein Volunteer Fire Department. Becky and I celebrate our wedding anniversary this summer. We were married a few days after returning from 660 in the Travis County Courthouse. Thanks to Becky for making all of my dreams come true."

James Lee Wilson (B.A., 1942, M.A., 1944) was a UT Geology faculty member from 1949 to 1952 and writes, "Still working on Mexican geology, consulting, and enjoying life in New Braunfels, Texas."

Jennifer Wilson (B.S., 1995) is a hydrologist with the U.S. Geological Survey in Austin, Texas, and is "Working on M.S. in UT DOGS in cooperation with USGS."

Kurt J. Wiseman (B.S., 1976) is self-employed in Houston, Texas, and writes, "Betty, Heather, Lisa, and I are spending our time commuting between our ranch in Junction, Texas, and our jobs and school in Houston. I am still looking for a large enough oil and gas field to retire on."

Amy Wood (B.S., 1985) is a programmer/analyst in Austin, Texas.

Robert L. Wood, Jr. (B.A., 1956) is an Occidental Oil and Gas Corporation consultant in Houston, Texas.

Mary Caroline Woods (B.A., 1942) is a retired geologist, formerly with California Division of Mines and Geology, and Editor in Chief of *California Geology* magazine, and writes, "I enjoyed a visit to UT in the spring of 1992, just about the time of the 50th reunion year for my class. Retirement is great, and this year I realized a long-time ambition to visit Nepal and see the Himalayan Mountains."

Thomas J. Worbington (B.S., 1951) is retired in Temple, Texas, and writes, "We moved from East Texas to Temple in August 1997. We like it much better here since we are closer to Austin and my wife's family. We celebrated our 50th wedding anniversary in July 1997 by taking our children and grandchildren to the beach for a week. All had fun. Thanks for the newsletter. We have been retired now for 15 years and are in good health!!"

Charles F. Word (B.S., 1937) is retired in Conroe, Texas, and writes, "No change since last year—year over—retired."

John Worrall (M.A., 1988) is General Manager of Scott Exploration in Roswell, New Mexico, and writes, "I have now worked in the Permian Basin for 12 years, long enough to see a full cycle of oil prices from bust to mini-boom and back to bust. At least it is a lot of fun. Best news for the year for me was the birth of my third child, John IV."

Charles J. Worrel (B.S., 1951) is President of Worrel Exploration, Inc. He writes, "We enjoyed our class reunion last November in Austin, Texas. Nice to see our classmates. Please contact us in San Antonio, Texas, when you pass this way."

David A. Worthington (B.A., 1986) is a registered Senior Geologist with Applied Consultants in Santa Ana, California, lives in Costa Mesa, California, and writes, "Since moving west in 1986, I continue to work as an environmental/geotechnical consultant. California disasters, such as the Loma Prieta and Northridge earthquakes, have kept things interesting. Otherwise, I am vigorously racing bicycles and loving Kimberly...Gotta go...El Niño beckons."

Phil Wyche (B.S., 1951) is retired in Austin, Texas, and a member of the Geology Foundation Advisory Council.

Bob Wynne (B.S., 1957) is an independent geologist in Fort Worth, Texas, and writes, "My son, Mitch, and I are still drilling a few holes each year, South and West Texas mostly. I have three grandchildren, ages (15), (13), and (10), and they're growing up fast."

Cee Yager (B.S., 1984) is a Vice President at Summit Community Bank in Fort Worth, Texas.

John C. Yeager (M.A., 1960) is an independent geologist living and working in Lafayette, Louisiana, and writes, "Things are looking up as getting some wells drilled and completed!"

Francis Scott Zimmer (B.S., 1986) lives in Vernon, New York, is Director of Laboratory/Environmental Consultant of Hygeia of New York, Inc., in Utica, New York, and writes us, "Happy to see so many friends in the last newsletter and look forward to seeing notes again in this one. All is going well. Expanding my work in environmental studies/geology. Still doing a little fossil collecting in upstate New York. Made it to the Paris Museum of Natural History!"

We need your help...

The faculty and students appreciate your continued interest in the Department and Geology Foundation. We are pleased with the enthusiastic response to our request for information to be included in the Alumni News section.

We strive to keep your current address on our mailing list and solicit your cooperation in advising us if you move. If you know of other alumni who do not receive our letters, please send their names and addresses; we would like to add them to our files. Also, if you are interested in receiving a current copy of the Department's Research Report, please contact us at (512) 471-5172.

You have made the Geology Foundation the most important in the Nation, but we still need your financial assistance in many areas—scholarships for worthy students, teaching and research equipment, costs of publishing the newsletter, unrestricted support for the operation of the Geology Foundation, and library needs.

Contributions to the Geology Foundation may be made in the form of cash, stocks, bonds, life insurance, gift annuities, and tangible property such as real estate. Many major corporations will provide matching funds for those contributions made by employees and their spouses. The Foundation staff can assist in the arrangement of the match.

For assistance or information, you may contact Mary Koch at (512) 471-6048 or e-mail at mekoch@mail.utexas.edu.

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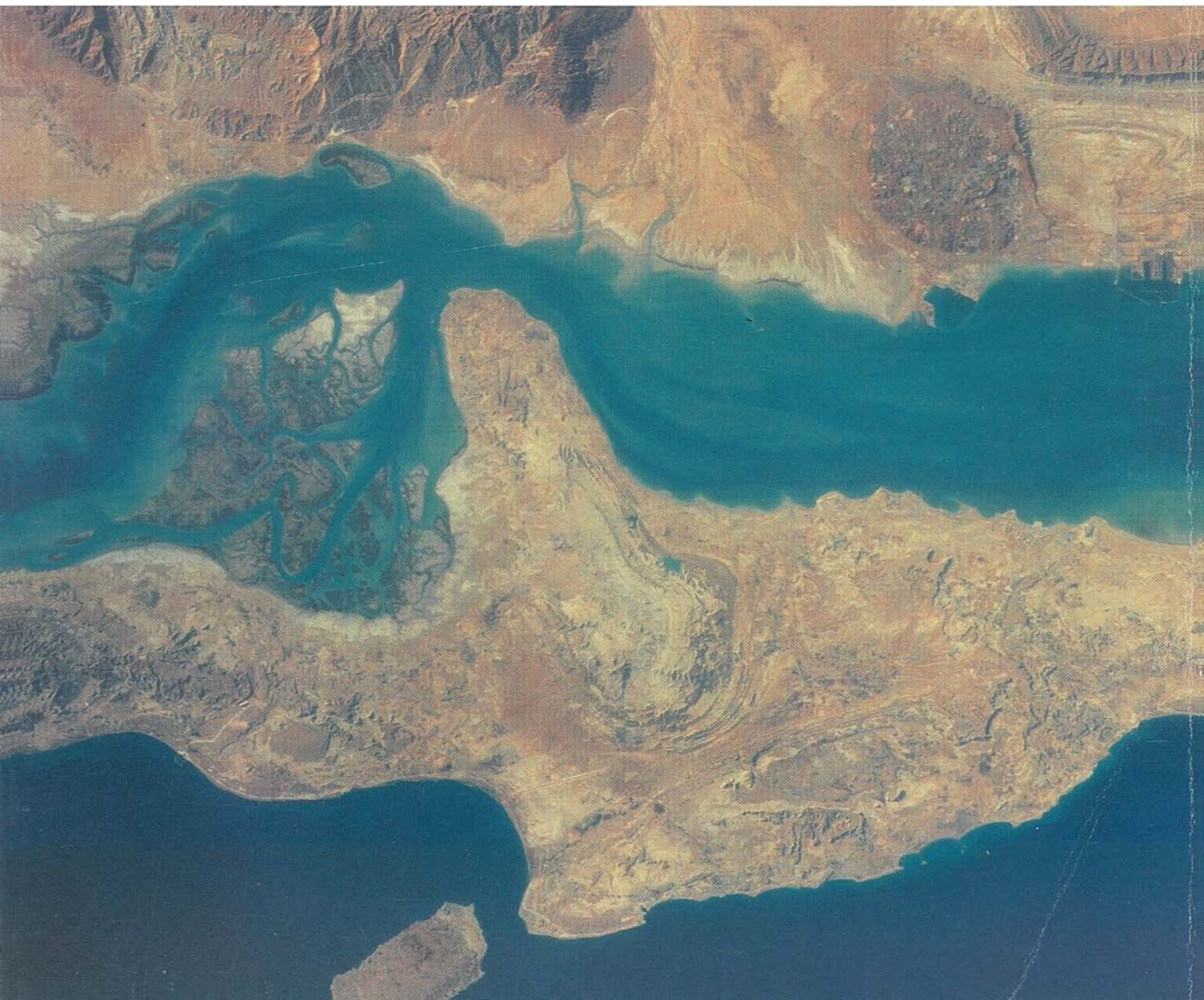
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