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*Looking to the Future...*

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Department of  
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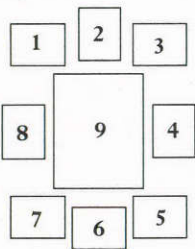
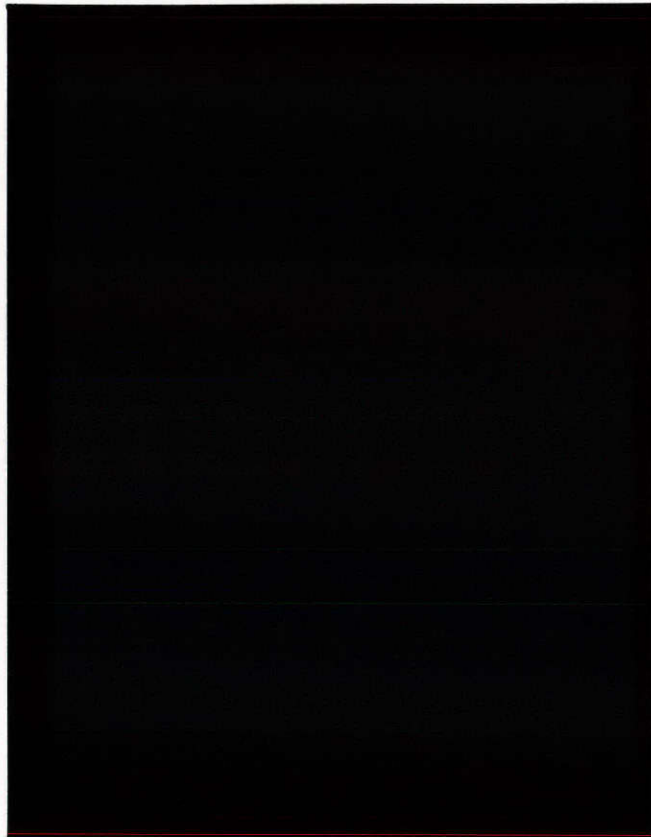
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September 1989  
Austin, Texas

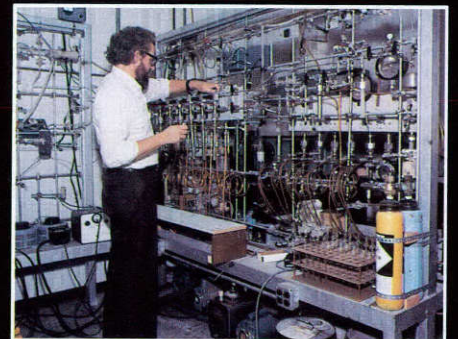
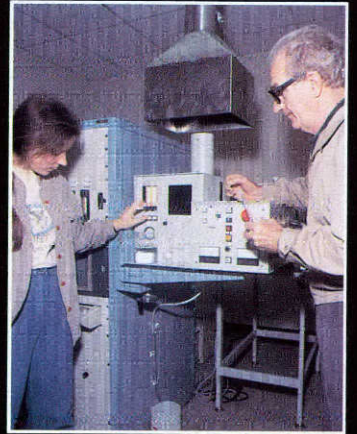
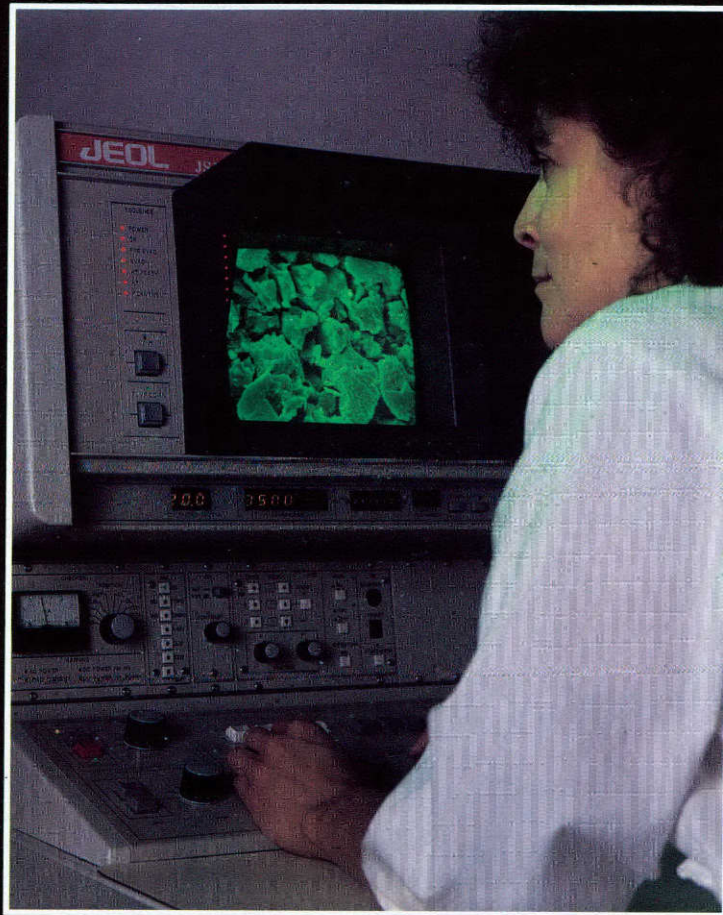
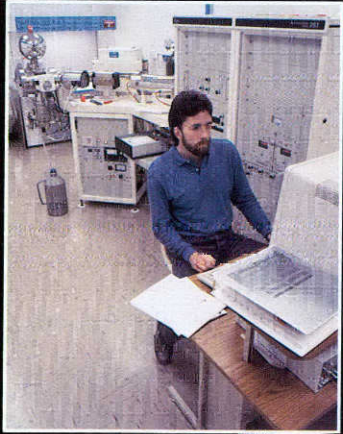
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**Cover descriptions can be found on page 103**

*Equipment shown on opposite page:* 1. Electron Microprobe; 2. Ultraclean Laboratory for U-PB Dating; 3. X-Ray Diffraction Laboratory; 4. Inductively Coupled Plasmaspectrometer; 5. Stable Isotope Laboratory; 6. Experimental Petrology Laboratory; 7. Cathodoluminescence; 8. Solid-Source Mass Spectrometer; 9. Scanning Electron Microscope. (For additional information on the use of the above equipment, see page 103).



## A VIEW OF THE FUTURE

by  
Mark Cloos

Last year, Sam Ellison highlighted the Department's achievements during its first century. In this note, I review some of the key developments during the last 50 years that give us a basis for forecasting a few aspects of what the future holds in the geoscience profession and Department.



For 100 years, the mission of the Department of Geological Sciences at the University of Texas at Austin has been to be the premier earth science teaching and research institution in the state. Our success in this mission has benefited not only Texas, but the entire United States and many foreign countries as well. The teaching and research programs of the Department have historically emphasized soft-rock geology (specifically stratigraphy, depositional systems and basin analysis, vertebrate and invertebrate paleontology, petrology, and sedimentary geochemistry). The overall program is aimed at making sure UT geoscience students have the varied and practical skills required to unravel the stratigraphy of a region, interpret cross-cutting structural relationships, and make geologic maps. Since the 1920s, most of our 7000+ graduates have gone on to work in the oil and gas industry and many have had spectacularly successful and exciting careers.

### *Lift-off: The Last 50 Years*

In 1888, Robert T. Hill, the School of Geology's first faculty member taught UT students the same fundamentals we teach today, but he could hardly have envisioned the specialization of the profession and the importance of technology. Before World War II, the equipment needs of geologists were modest: plane tables and compasses for mapping, microscopes and simple chemistry equipment for lab studies. The technological revolution in the sciences began in earnest during World War II. Of particular importance for the geosciences was the development of sonar and sensitive magnetometers to detect submarines. Following World War II, the new technologies were employed in systematic studies of the ocean floor. By the mid-1950s, the enormous ocean ridges and deep ocean trenches were shown on bathymetric maps and the enigmatic magnetic "stripes" were discovered embedded in the ocean crust. By 1960 it became apparent that the geology of the oceans was fundamentally different than that of the continents. Another key technological development in the 1950s came from the need to detect nuclear explosions. Sensitive seismographs were deployed in a worldwide network and by the mid-1960s it became clear that nearly all earthquakes occur in localized belts that parallel the ocean ridges and trenches. It was the development of these instruments that led to the modern subdiscipline of geophysics.

Geochemistry received its boost from the Apollo space program, which resulted in the return of several hundred pounds of rock samples from the moon. Microanalytical techniques had to be developed to measure the atomic and isotopic compositions of incredibly small pieces of the precious lunar rock. The cost of the needed instruments and of constructing clean-room laboratories was enormous by geoscience standards, but small by the standards of the total Apollo budget. Geochemistry laboratories were created at many universities with direct funding in the form of research grants from the National Aeronautics and Space Administration and the National Science Foundation. While waiting for the return of lunar materials, new technologies were tested by application on samples from the continents. This and other new knowledge about the continents coupled with the ever increasing geophysical probing of the oceans, led to the development of the theory of plate tectonics—a true scientific revolution in the late 1960s. This theory explained many geological and geophysical observations and led to

testable predictions about the age of the seafloor. Since 1968, the Deep Sea Drilling Project has sampled ocean floor sediments and basement rocks which have confirmed predictions of the theory.

Plate tectonics now gives us a first-order understanding of how the Earth works. But in only the most indirect way does it enable us to find natural resources. In fact, the theory really only provides the most rudimentary understanding of most second-order questions, such as what types of sediments should be found at passive margins, what kinds of structures develop in rocks at convergent margins, what type of igneous rock should be produced in volcanoes, or where the next earthquake will occur. The higher order details of how the Earth works will be subjects of keen scientific debate during the next century and beyond. In the process, new insights will be gained into practical problems. Of particular note is the fact that geoscientists in the next century must play the key role in determining the best balance between maximizing our natural resources and maintaining our environment. To do this job properly will require a vastly refined understanding of how the entire Earth works.

### ***Technology, Key to the Future***

The last 50 years have made one point particularly clear: an ability to measure things that couldn't be measured before eventually leads to more understanding (and more questions). The measurement of isotopic ratios in a crystal or of movements induced by a man-made explosion in a seismic reflection experiment exemplify how our abilities to measure small quantities have led to new scientific knowledge with direct practical applications. An ability to measure things precisely leads to the development of quantitative models to explain the measurements. Quantitative models make predictions of entirely new things to observe. New data tests the model and leads to its refinement. We need predictive models to develop strategies for the most cost-effective recovery of oil and gas from a hydrocarbon reservoir, to save lives and property through earthquake prediction, to discover ore deposits that have no surface expression, to determine groundwater flow patterns near landfills or sites for long-term storage of radioactive wastes, and to determine the effects of destroying the world's rainforests or the burning of fossil fuels. Geoscientists trained at UT in the next century must be able to evaluate and develop predictive models that address a wide range of social issues during their careers.

To be a leader in geoscience education requires that the Department be a leader in the use and development of technology. It has been said that Robert T. Hill left the University of Texas in 1890 because the University would not spend a few hundred dollars to purchase a petrographic microscope — probably the most expensive research tool of his day. The need for teaching and research equipment in 1890 was the same then as it is today and will be in the future. Equipment and technical support personnel are the primary factors which enable first-class universities to attract and

keep faculty who are both excellent teachers and researchers. A mass spectrometer has become as standard a piece of university laboratory equipment in a 1988 geoscience department as a petrographic microscope was in 1888. The problem facing geoscience departments today is that a mass spectrometer for isotopic studies of rock chemistry or radiometric dating costs nearly \$400,000. And other instruments are essential, too. An electron microprobe for petrologic studies of mineral composition is \$500,000. A scanning electron microscope (SEM) for biostratigraphic studies of foraminifera is \$100,000. An inductively coupled plasma-spectrometer (ICP) for multi-element water analysis is \$200,000. A CRAY supercomputer for seismic-reflection data processing is millions of dollars. And we still need Brunton compasses, as well as petrographic microscopes that now cost about \$20,000!

Another facet of the needs of our Department in the next century is the repair of these increasingly complex instruments. Most geologists in 1989 are doing well if they can keep up with software developments for their office microcomputer, let alone the repair and maintenance of the complex instruments they use in the lab. Either highly trained technical staff must work for the department or service calls at a rate of about \$1,000 a day are required.

Due to wise action on the part of the Geology Foundation Advisory Council a few years ago, our Department is already a step ahead of most others. Future technology needs will be addressed by the Special Maintenance and Special Operations Endowment Funds which are used to repair and update existing machinery and to provide the critical seed monies needed to attract additional federal, state, university and industry monies for purchase of equipment. This far-sighted action is the cornerstone of the

***With past developments and future problems in mind, what will the Department of Geological Sciences at the University be like in the year 2015, a quarter century away?***

Department's plan for the next century for it will serve to keep the research programs at the forefront and allow students the opportunity to have the kind of "hands-on" experience that is rare at most institutions.

Most major programmatic changes will occur slowly, as they always have, through the hiring of new faculty as senior faculty members retire. With this in mind, several programmatic changes needed for the next century began to take place ten years ago with the addition of faculty in the highly quantitative and applied fields of geophysics and hydrogeology. The Department recognizes the need for additional expertise in organic geochemistry, chemical kinetics, geomorphology, geodynamics, isotope geochemistry, geobiology, and computational techniques.

Several factors point to a need for a revised undergraduate curriculum. A general purpose geologist needs expertise

in all scientific fields and special knowledge in all geoscience subdisciplines. As a result, it now takes the majority of undergraduates five years to complete a BA or BS geosciences degree. Eventually, all-purpose geology training may in itself become a specialized five-year program because of its ever increasing time and knowledge requirements. Another current problem that must be addressed by

the Department is the poor math and science preparation provided in many primary and secondary schools. Encouraging good students to make a career of teaching math and science is a responsibility that requires all UT departments to accommodate the needs of future teachers. We should take note of the fact that the broad science training received by the all-purpose geology major of the 1980s is probably exactly what is needed to produce the best trained elementary and secondary school level physical-science teachers of the future.

At the graduate level, an important need exists to establish a postdoctoral program in the next decade similar to those already widespread and federally funded in biology, chemistry and physics. Postdocs are the people who have most recently completed major research efforts in completing their dissertations. They know the latest techniques in their speciality and are in the best position to identify promising areas of research. The \$50,000 to \$60,000 cost of each person's two year term buys nearly unparalleled knowledge and enthusiasm, but such funding is scarce in the earth sciences.

Though some of the changes needed by 2015 have begun or are in the planning stages, it would take a crystal ball to see what's in store for 2088. Perhaps space exploration will be routine, and field geologists will map and explore for mineral resources on other planets or asteroids for the materials needed for space stations. The Department of Geological Sciences may become the Department of Planetary Sciences. Supersonic transcontinental flights may take GEO 660 students to Antarctica for stratigraphy and sedimentology (it may be a lot warmer if the greenhouse effect is real), to the Alps for structural mapping, and to Japan for volcanology. Whether or not astrogeology is routine, it is certain that the profession will continue to become more specialized. Boundaries between traditional geosciences and chemistry, physics, materials science and biology will




*Scanning Electron  
Microscope photo:  
Elongated crystals of  
calcite and "fuzzy  
dumbbell" splays of  
aragonite deposited  
by sulfurous hot  
springs. A few  
bacteria (small, oval  
bodies) and strands  
of mucus lie upon the  
carbonate minerals.*

*Specimen from  
Bullicane Springs,  
Viterbo, Italy.*

become blurred. Because of the interesting and complex materials in the realm of geoscience, geologists of the future should routinely teach physicists and chemists a trick or two!

Numerous high-technology tools that are now in the beginning stages of development should become widely used by the middle of the 21st century. Examples include 3-D seismic-reflection techniques, space-based platforms to make direct observations of global processes, the use of ion microprobes to date different parts of single crystals, neutron probes to examine atomic arrangements in crystals, sensitive digital seismic networks deployed around the world, core drilling to the base of the crust in both continents and oceans, mass spectrometry with atomic accelerators to measure elements at the parts per trillion levels, gravity probes, hand-held Global Positioning System receivers to determine precise field locations while mapping (these would be banned in GEO 660), direct measurement of the rates of plate motion and deformation in 3-D, powerful computers to store large data bases and to manipulate complex nonlinear equations which simulate geologic processes ranging from diffusion of atoms in crystals to the movements of the Earth's plates, application of molecular evolution approaches in living biological systems to paleontology, and perhaps most important of all, predictive environmental geology. And of course, unforeseen technologies will bring even greater benefits. Someday we may be able to explore and take samples of the deep interior of volcanoes, the epicenters of earthquakes and even the core of the earth.

As you can see, the next century promises to be exciting. The University of Texas has developed a remarkable momentum in its drive to excel. The graduates and faculty will continue their wide ranging accomplishments, many made possible by the support of alumni through the Geology Foundation. But the true push to succeed comes from the students' never ending enthusiasm and probing questions that make us stop, think, and wonder why. 

## More than 100 Years of Teaching...

Last October 13 marked the formal acknowledgment of the retirement of three faculty veterans in the Department of Geological Sciences. Between them, Bob Folk, Ed Jonas and Keith Young have compiled more than 100 years of teaching. The recognition of those years of teaching took place at the Hyatt Regency Hotel, with faculty colleagues, family members, Geology Foundation Advisory Council members, and other friends helping to celebrate the occasion. Bill Fisher extended congratulations to Bob, Ed and Keith, and presented each with an appropriate desk plaque on behalf of the Department. But perhaps the most meaningful expressions of thanks were given by three colleagues who have also accumulated many years of service to the Department. Their comments, printed here in part, reflect the admiration and appreciation felt by faculty, students and ex-students alike.

### *An Adventure-Seeker: Students love his enthusiasm*

Professor Edward C. Jonas retired from active teaching in the Department of Geological Sciences in May, 1988. His entire professional career as a geologist, 34 years, was accomplished in this one Department.

Ed is one of the few UT geology professors who is actually a native Texan. He was born in San Antonio of parents whose immediate roots go back to Germany and France. Some early experiences, neither sought nor expected, had already begun to channel Ed's career into its unique direction and style. Perhaps the most important was his contact with one of his grandfathers, who was a diamond merchant. Even if Ed's love of minerals may not have been genetic, his childhood discovery of gemstones made a big impression on him. Years later he was to design and teach a very popular University course in gemstones.

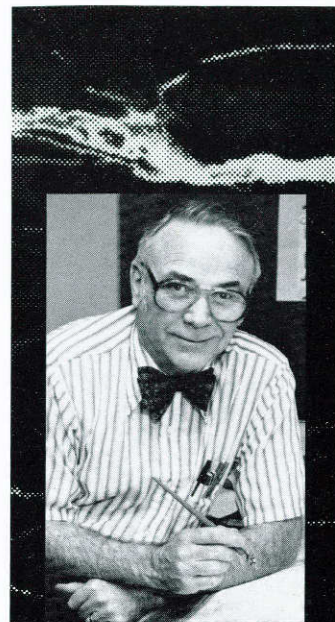
Ed did not start out as a geologist. His BS degree in 1944 was in chemical engineering from the Rice Institute in Houston (now Rice University). The enthusiasm of one of his professors, an authority on the subject of colloids, was influential in steering Ed toward his eventual specialty, the study of clay minerals. But first there was a stint of active duty in the Navy during the later war years. Ed left the Navy as an ensign in 1946, lectured in physics briefly at the University of Houston, and found a job as chemist for the Shell Oil Company where a good friend and mentor was doing research on clay minerals. Despite such close encounters with earth science, in the timescale of Ed Jonas these were all events in the Pregelological Era.

About this time, Ed married Martha Sullivan. After a *glorious* (Ed's emphasis) summer of honeymooning in Europe, they settled down to a long, stable family life. Now they have three grown children. Ed and Martha are an extraordi-

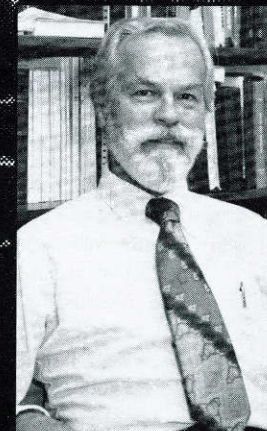
nary couple who have put much effort into filling their home with charm and beauty. In 1967 they trucked a dilapidated old house in pieces out to Manchaca, south of Austin, since then they have spent years restoring it to be like an authentic Texas farmstead of the last century. Their home contains the amenities of gracious Southern living: an outhouse, eight fireplaces but no furnace, wood-burning stove, butter churn, and an antique piano.

It was a fascination with clay minerals that attracted Ed Jonas to the University of Illinois where he received his MS (1952) and PhD (1954) in association with Ralph E. Grim, his major professor. During part of this time he worked for the Illinois State Geological Survey. Ed was an eager but very green, beginning graduate student when he traveled to his first scientific meeting. There he met Professors Ellison, DeFord, Flawn, and Bell who were to become his close associates. Professor DeFord characteristically launched into a discussion of entropy and Fourier synthesis, subjects that a clay mineralogist should know something about. But an experienced clay mineralogist and a young graduate student are not the same thing. Professor DeFord had Ed absolutely terrified!

Shortly after completing his PhD, Ed was to have another scary experience. Upon his arrival as an assistant professor at the University of Texas in 1954, he began to teach the introductory course in physical geology. When one who has had no teaching experience is suddenly thrust into an auditorium facing 250 students, *that* is an exercise in terror. Ed introduced courses in crystal chemistry, x-ray diffraction and fluorescence analysis, mineralogy of shales, and gemstones. In a department with many students but no surplus of professors, he eventually taught nearly every required course in the BS curriculum.



Ed Jonas



Bob Folk



Keith Young

Ed Jonas is an expert in the crystal chemistry of clay minerals. His publications address such subjects as the post-depositional alteration of clay minerals, which lead to interpretations of how and why the clay minerals in recent and ancient sedimentary rocks are different. His research has focused on both the theoretical and applied aspects of the subject. He has studied the bentonites of Texas, and South Texas uranium ore deposits. He was the

Department's first recipient of an NSF research grant. He was a charter member of the Clay Minerals Society, in which he has been twice elected to council membership, and for six years was treasurer. Industry has also recognized and rewarded Ed's expertise. He has been a long-standing consultant to companies that mine the raw materials kaolinite and other clay products.

Ed Jonas, like all geologists, is basically an adventure seeker. And what better way to have adventure than to travel to remote parts of the earth? Ed and Martha look back with nostalgia on his Fulbright-sponsored 18 months in New Zealand. Other adventures don't hold such fond memories. While Ed was attending a Geological Congress in Prague, the Soviets invaded the city. His trip to Iraq was cancelled when war erupted in the Middle East. One can soon gain a reputation as a harbinger of bad fortune this way, and Ed has kept a petition from 1968, signed by 48 members



*Ed and Martha Jonas  
at  
retirement dinner,  
October, 1988*

of the Department, asking him please to *stay home* next time!

One of Ed's chief pleasures has been his many years of contributing to the general welfare of the Department. After Steve Clabaugh retired, Ed continued to upgrade the Barron Collection by negotiations that added to it many valuable gems and gem-quality minerals. He was the graduate advisor for an amazing 11 years, at a critical time of growth and development of the Department's graduate program. Ed is especially fond of working with the undergraduates. He sponsored the Undergraduate Student Geological Society (our local version of USGS) for 12 years, during which period he led many mineral-collecting field trips to Mexico and elsewhere. Students love the enthusiasm he shows as he introduces them to the mysteries of geology and of gemstones.

Professor Edward C. Jonas, you have served us long and well. We are grateful, and we thank you!

*by Leon E. Long*

### *An Outstanding and Unorthodox Teacher*

**R**obert L. Folk is a singular person who combines the talents of an inspiring teacher and innovative researcher, and he executes both roles with an intensity and discipline matched by few peers. On June 31, 1988, after 36 years of service to the Department of Geological Sciences and The University of Texas at Austin, he retired.

Bob was born in Cleveland, Ohio in 1925. He received BS, MS, and PhD degrees from Pennsylvania State College, where he developed an interest in sedimentary petrology under the tutelage of the world-class petrographer P. D. Krynine, and an interest in statistics of sediments under J. C. Griffiths. In 1952, after one year with Gulf Oil, Bob joined UT-Austin, where he first taught structural geology and economic geology. He soon settled into a regular format of teaching sedimentation, sandstone petrology and carbonate petrology. He also taught his share of the senior field course, preferring to teach in the Smithville-LaGrange area, where geologic mapping requires skills in botany, entomology, and woodcraft. Later, at his request, he regularly taught freshman physical geology, where he challenged introductory students and became skilled in the use of a 14-foot yucca stick pointer. He served as the first J. Nalle Gregory Professor of Sedimentary Geology from 1977 to 1982 and as the first Dave P. Carlton Professor in Geology from 1982 until his retirement. He has also been a visiting professor at the Australian National University, the University of Milan, and the Tongji University in Shanghai, and an invited lecturer at dozens of domestic and foreign universities.

Bob's success as a classroom teacher stems from the proper

meld of preparation, organization, dynamic presentation, demand for quality work, and accessibility. Even after decades of teaching, he still set aside an hour before each class to organize and update his lectures, and, like few peers, he regularly met his graduate and undergraduate laboratory sections. Outside the classroom he provides inspiration and academic challenge to students and faculty colleagues. Bob has guided 55 students to their Master's degrees and 15 students to their PhD degrees. He is the recipient of the Mr. and Mrs. G. Moses Knebel Distinguished Teaching Award of the Department of Geological Sciences and the Geology Foundation Teaching Recognition Award; both of which testify that students and colleagues alike acknowledge his outstanding teaching ability.

The many fundamental ideas and concepts in sedimentary geology that Bob has introduced, expanded, or clarified have brought him an international reputation as a sedimentary petrologist *extraordinaire*. His ideas have been presented in more than 100 journal articles and book chapters, many abstracts, and his unadvertised book, *Petrology of Sedimentary Rocks*, now in its sixth printing and 31st year. Many of his papers have become benchmark contributions, and several have won awards. His 1959 article in the *AAPG Bulletin* on limestone classification earned Bob the President's Award from the AAPG. His 1984 paper on travertine from Italy (with former student H. S. Chafetz) in the *Journal of Sedimentary Petrology* earned the Best Paper of the Year Award from the SEPM; and several other papers in the *Journal of Sedimentary Petrology* won Second Best Paper awards or Honorable



Mention. At both national and international meetings he is surrounded by a flock of former students and peers seeking information on his latest research, and almost all of his oral papers are given to standing-room-only crowds. In 1979 the SEPM recognized Bob's sustained superior contributions to sedimentary geology by awarding him the Twenhofel Medal, the society's most prestigious award. Bob is the youngest person to be so honored. The SEPM in 1977 awarded Bob honorary life membership.

Bob's nature is to investigate unusual rocks and unusual phenomena without regard for established dogma, popularity of the topic or the likelihood of funding. How else would he have pursued subjects like the petrography of avian urine, rat droppings, roofing tiles, Bronze-age glass, radiometric dating of mortar in ancient buildings; the rate of abrasion of stone sidewalks by pedestrians; the role of turbulence in controlling the shape of sand

**Bob and Marge Folk  
at  
retirement dinner,  
October, 1988**



bedforms, clouds and galaxies; how to enhance stereo vision; how to enhance cryptic rock textures using pieces of colored paper; and the physics of the depth perception of colors?

Foreign travel and field work has been important to Bob's career and to students and colleagues who traveled with him. He conducted field work on Isla Mujeres, Mexico, at a time when there was only one building on the island. He learned to speak competent Czech for a working visit to Czechoslovakia, and passable Mandarin for a visit to China, where he was a visiting professor, and some Hebrew when he did geoarcheological work in Israel. French escaped him, however, during visits to France and field work on pebble shapes in Tahiti. He returned from Australia with lots of sand and bull dust samples, a billy can, Akubra hat and a smattering of 'strine.' But his semester in Italy as a visiting professor in 1973 proved seductive, and he has since returned many times. During these summers in Italy he became fluent in Italian and his name changed to Luigi. Each summer for a number of years he has introduced graduate students and faculty colleagues to Italian rocks, culture, history and people. Calamari in their ink, tortellini, grappa, amaro, sambuca, cheap hotels, taxi

drivers, fruit peddlers, friendly geologists and laymen, carvings by Michelangelo, paintings by da Vinci, Tuscan and Umbrian villages, Sicilian puppeteers, the Italian riviera, St. Peter's church and dozens of others: who will forget their cultural experiences with him? But these trips to Italy have been scientifically productive for Bob and his companions as well. Important discoveries were made on limestone, dolomite, travertine, ophicalcite, radiolarian chert, and ancient Greek settlement patterns.

Bob's foreign travel has not been without excitement. He survived hepatitis contracted in Mexico, pneumonia contracted in Tahiti, and, with Marge, a crossing of the Simpson Desert in Australia with a guide who brought inadequate supplies of water. He also managed to survive the Russian invasion of Czechoslovakia, gypsy pick-pockets and old-fashioned con men in Italy, and being arrested as a suspected terrorist in Israel. (Well, he was wearing Arab headgear!)

It is said that Bob has idiosyncrasies, many obtained from his mentor, P. D. Krynine. This is incorrect. Krynine reportedly was normal before he took Bob as his student. If repairing a guitar with pickle juice; buying second-hand field boots at Goodwill; rolling dice to determine whether one reads a student's thesis, straightens a corner of one's office, or responds to the chairman's memo; preferring to use a camera without a

lightmeter; getting two months' travel clothes in a carry-on bag; never making a hotel reservation in advance; and staying at hotels where they rent the adjacent room four times a night are things you haven't tried, then perhaps you should. Bob has.

Bob has been fortunate over the years to have the companionship of his remarkable wife, Marge. From their first apartment in the basement of a bowling alley during graduate school days to their present customized but un-airconditioned home, Marge has provided support, encouragement and understanding. She has served as a field assistant in Mexico, Australia, Italy and Israel. Bob has looked much more dapper the past few years since Marge has done his clothes shopping.

The citation on Bob's Twenhofel Medal from the SEPM reads: 'In recognition of outstanding research achievements, a superb performance as a teacher, and the inspiration and effect of his whole career on sedimentary petrology throughout the world.' His students and colleagues are fortunate that his extraordinary contributions have been at The University of Texas at Austin. We look forward to many more years of the same.

*by Earle F. McBride*

## ***A World Authority Dedicated to Students and the University***

**W**e are fortunate to have had Keith Young on our faculty for forty years. During his long career, Keith has been a mainstay in teaching the introductory, undergraduate and field courses, inculcating countless thousands of students in the principles of geology and geologic mapping. Of particular note, I single out the early team teaching of

Keith, Jack Wilson and Charlie Bell in a year-long course on stratigraphy. Textbooks in those days implied a lot of layer-cake, onion-skin-type of stratigraphy. Not so with this three-some. Facies and facies analysis, transgression-regression and how to read the rock record came to the forefront. The concept of "Transfer" came from that fertile interplay: transfer, in brief,

states that rocks are destroyed (eroded) in one region, transferred across the adjacent region, and deposited in a third region. His teaching quality is recognized by his receiving the Houston Oil and Minerals Faculty Excellence Award in 1981.

Keith was born and raised in Buffalo, Wyoming, classic western ranch country at the foot of the Bighorn Mountains. He went to college at the University of Wyoming and received bachelor's and master's degrees in geology in 1940 and 1942. He entered the U.S. Army as a private and ended as an infantry captain with a company heading east across western Europe. We used to swap stories about clearing minefields—but he did it for real, whereas I only did it during training in the Marine Corps.

After service in World War II he entered graduate school at the University of Wisconsin where he completed his doctoral studies in 1948 (record time, I might add). That fall, he came to Texas as an assistant professor and rose through the ranks to professor. In 1982, he was awarded the Third Mr. & Mrs. Charles E. Yager Professorship in Geology.

During his tenure here, he has delved deeply into three major research areas: Mesozoic biostratigraphy, environmental geology and history of geology. These developed in succession as the major focus of his effort but they all were in evidence by the time I arrived on the faculty six years after Keith.

The three threads of Keith's research interlock and weave a continuing pattern of interests and effort. Cretaceous rocks and fossils are the basis of Keith's biostratigraphic interests. Thus Austin and vicinity, as well as most of Texas and Mexico west of Austin that expose these rocks, makes a superb region for study. The Balcones fault zone juxtaposes many of these units to the bewilderment and dismay of the developer who should have consulted an environmental geologist. To understand the plethora of bio- and lithostratigraphic names applied to these rocks, the history of geological exploration of Texas and Mexico provided marvelous insights into individuals and institutions. Keith has regaled many a graduate student in the coffee room with tales from this history.

Environmental geology was early recognized as an important new field in our department and Keith rapidly expanded his interests into that field. Fortunately, Austin has some outstanding examples of what not to do with building sites, road beds, etc. The alternation of good and horrible rock types to build on required a geologist to help. If you haven't done so, you should read the report and study the geologic map of the Bureau's publication on *Environmental Geology of Austin: an Aid to Urban Planning*. Keith's work in that paper has made it a classic in the field, one that is applicable to many areas. Keith also wrote a widely used environmental text: *Geology: the Paradox of Earth and Man*. A 526 page book! A mammoth undertaking all by itself.

During this time his studies of ammonites continued apace. His 225-page GSA Memoir 100 detailed his study of one group

that is used in the zonation of the Fredericksburg (complete with an unspellable as well as unpronounceable name: *Mojsisovicziinae*). He has since documented many other groups that furnish the vital biostratigraphic data for accurate dating of rocks.

Keith is recognized as a world authority on ammonites and their evolution. He has contributed to invited symposia in Canada, Europe and the Caribbean region. He has been a member of the Mid-Cretaceous Working Group of the International Geological



*Keith and Ann  
Young  
at  
retirement  
dinner,  
October, 1988*

Correlation Project since 1975. One of his former students assures me that Keith's gallstones are shaped like ammonites.

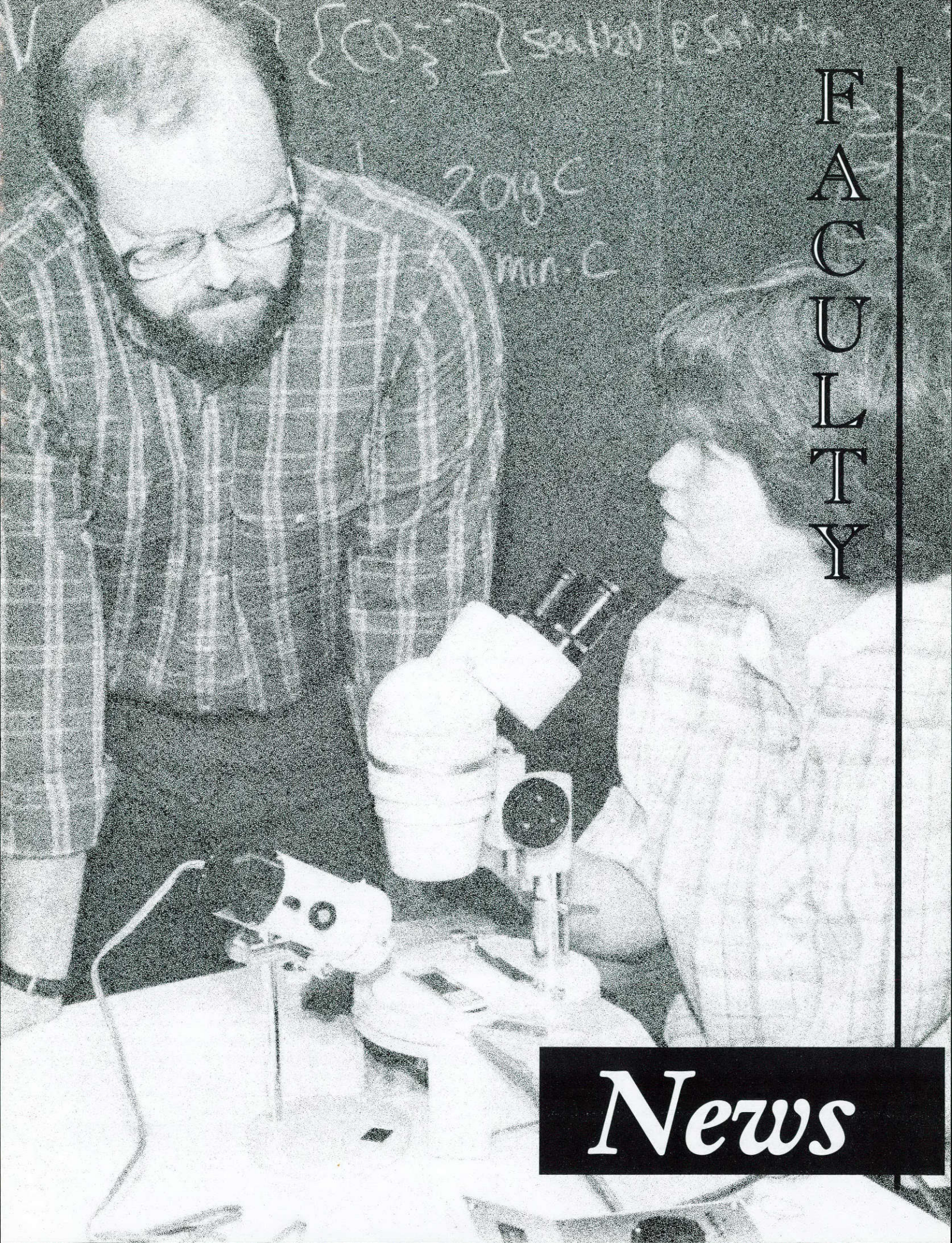
Keith's graduate courses reflect his research interests and the continual flow of his masters (31) and doctoral (16) students detailed numerous areas along the Balcones fault zone and Edwards Aquifer—a veritable mine of basic data for the continuing struggle to develop this region in a rational manner. Many of his students worked in West Texas and Mexico, again pioneering new frontiers. One measure of a teacher is the success of his graduate students. By that standard Keith is clearly first class—not only have they been successful but many return to discuss problems with him. To me, the highest compliment was paid by one of his students who said: "He taught me to think!"

He has served on many departmental and university committees. My vote for his most useful committee service to the department is his long years as a member of the University Library Committee (1955-1970). During that time there was a major move to consolidate all libraries. Keith rallied the faculty to convince the administration that geology in particular required a branch library in its own building. Can you imagine how much time and effort he has saved all of us through the years? He also put in yeoman efforts on the University Grievance Committee, Course and Curriculum Committee (College of Natural Sciences), and the University Research Institute Review Committee.

Keith is the only paleontologist I have known who was a member of the American Geophysical Union. He seemed to be able to read the new issue of the *Transactions* (the predecessor to the *Journal of Geophysical Research*) before I got to it and ask me questions about the structural papers—questions I should have known the answers to!

Keith's contributions to the Department are many as this brief summary has tried to document. I hope his replacement will also be a multi-faceted person.

by William R. Muehlberger 



FACULTY

*News*

# FACULTY

September 1, 1989



## Professors

- Milo M. Backus**, Dave P. Carlton Centennial Professor in Geophysics; PhD, 1956, Massachusetts Institute of Technology: Seismic exploration with emphasis on analysis, seismic modeling and inversion directed toward recovery of stratal geometry and rock properties.
- Daniel S. Barker**, Dave P. Carlton Centennial Teaching Fellow in Geology; PhD, 1961, Princeton University: Igneous and metamorphic petrology, experimental phase relations of feldspars and feldspathoids, origin of granite and alkalic rocks, geochemistry.
- Robert E. Boyer**, Robert E. Boyer Centennial Professor in Geology; Dean, College of Natural Sciences; joint appointment: College of Education; PhD, 1959, University of Michigan: Structural geology, analysis of space photographs, remote sensing, earth science education.
- Richard T. Buffler**, Professor; Senior Research Scientist, Institute for Geophysics; PhD, 1967, University of California, Berkeley: Marine geology/geophysics, seismic stratigraphy.
- William D. Carlson**, William Stamps Farish Chair in Geology; PhD, 1980, University of California, Los Angeles: Metamorphic petrology, reaction kinetics, field, analytical, and experimental studies of metamorphic rocks.
- Ian W. D. Dalziel**, Professor; Senior Research Scientist, Institute for Geophysics; PhD, 1963, University of Edinburgh: Regional geology, plate tectonics and mountain building.
- William L. Fisher**, Leonidas T. Barrow Centennial Chair in Mineral Resources; Chairman, Department of Geological Sciences; Director, Geology Foundation; Director, Bureau of Economic Geology; PhD, 1961, University of Kansas: Energy and mineral resources.
- William E. Galloway**, John E. "Brick" Elliott Centennial Professor in Geological Sciences; PhD, 1971, University of Texas, Austin: Basin analysis, mineral fuels, clastic sedimentology, sedimentary petrography.
- Lynton S. Land**, Edwin Allday Centennial Chair in Subsurface Geology; PhD, 1966, Lehigh University: Isotope geochemistry, diagenesis, low-temperature aqueous geochemistry.
- Leon E. Long**, The Second Mr. and Mrs. Charles E. Yager Professor; PhD, 1959, Columbia University: Geochemistry, isotopic age and stable isotope studies.
- Ernest L. Lundelius Jr.**, John A. Wilson Professor in Vertebrate Paleontology; Director, Vertebrate Paleontology Laboratory (TMM); PhD, 1954, University of Chicago: Vertebrate paleontology, Pleistocene faunas, paleoecology.
- Toshimatsu Matsumoto**, Professor; Research Scientist, Institute for Geophysics, PhD, 1961, Tokyo University: Earthquake seismology, earthquake engineering, geophysics, acoustic emissions.
- Arthur E. Maxwell**, Professor; Director, Institute for Geophysics, PhD, 1959, University of California, San Diego, Scripps Institution of Oceanography: Marine geophysics and oceanography.
- Earle F. McBride**, Wilton E. Scott Centennial Professor, PhD, 1960, Johns Hopkins University: Sedimentary processes, sedimentary petrology, sandstone diagenesis.
- William R. Muehlberger**, Peter T. Flawn Centennial Chair in Geology; PhD, 1954, California Institute of Technology: Tectonics.
- Yosio Nakamura**, Professor; Senior Research Scientist, Institute for Geophysics; PhD, 1963, Pennsylvania State University, University Park: Geophysics, seismology, lunar and planetary physics.
- Amos Salvador**, Morgan J. Davis Centennial Professorship in Petroleum Geology; PhD, 1950, Stanford University: Stratigraphy, petroleum geology, geology of the Gulf of Mexico Basin and the Caribbean area.
- John G. Sclater**, Shell Companies Foundation Distinguished Chair in Geophysics; Senior Research Scientist and Associate Director, Institute for Geophysics; PhD, 1966, Cambridge University: Crustal heat flow, sedimentary basin evolution.
- John M. Sharp Jr.**, Gulf Oil Foundation Centennial Professor in Geology; PhD, 1974, University of Illinois, Urbana: Hydrogeology, environmental geology; relation of groundwater to ore genesis and hydrocarbon migration, hydrology of sedimentary basins.
- Douglas Smith**, Albert W. and Alice M. Weeks Centennial Professor in Geological Sciences; PhD, 1969, California Institute of Technology: Field and chemical studies of igneous and metamorphic rocks, geochemistry, mantle processes.
- James T. Sprinkle**, The First Mr. and Mrs. Charles E. Yager Professor; PhD, 1971, Harvard University: Primitive echinoderms, blastoids, Paleozoic paleontology and stratigraphy of the Arbuckles and Rocky Mountains.
- Paul L. Stoffa**, Wallace E. Pratt Professor in Geophysics; Senior Research Scientist, Institute for Geophysics; PhD, 1974, Columbia University: Single and multi-ship, multi-channel seismic surveys; reflection and refraction seismic modeling, migration and inversion.
- Willem C. J. van Rensburg**, George H. Fancher Professor in Petroleum Engineering; joint appointment: Department of Petroleum Engineering; PhD, 1965, University of Wisconsin, Madison: International minerals and energy economics and policy issues, coal characterization and utilization.
- Clark R. Wilson**, The Shell Companies Foundation Centennial Teaching Fellow in Geophysics, Associate Chairman, Department of Geological Sciences; PhD, 1975, University of California, San Diego, Scripps Institution of Oceanography: Geophysical time series, analysis of multidimensional geophysical data field.

**Adjunct Professor**

**Alan J. Scott**, PhD, 1958, University of Illinois, Urbana: Process sedimentology, depositional systems, basin analysis.

**Associate Professors**

**Mark P. Cloos**, William T. Stokes Centennial Teaching Fellow in Geological Sciences; PhD, 1981, University of California, Los Angeles: Structural geology and tectonics, field, laboratory and theoretical study of subduction zones.

**Gary Kocurek**, Elf Aquitaine Faculty Fellow in Geological Sciences; PhD, 1980, University of Wisconsin, Madison: Sedimentology depositional environments and eolian processes.

**J. Richard Kyle**, Getty Oil Company Centennial Teaching Fellow, Undergraduate Advisor; PhD, 1977, University of Western Ontario: Ore deposits geology, fluid inclusions diagenesis, salt domes, industrial minerals, minerals exploration.

**Sharon Mosher**, Getty Oil Company Centennial Teaching Fellow; PhD, 1978, University of Illinois, Urbana: Deformation mechanisms, strain analysis, mapping with emphasis on complexly deformed terranes.

**Assistant Professors**

**Jay L. Banner** (as of 1/1/90), Dave P. Carlton Centennial Teaching Fellow in Geology; PhD, 1986, State University of New York: Application of field, petrographic and geochemical techniques to understanding processes of fluid-rock interaction.

**Philip C. Bennett**, Getty Oil Company Centennial Teaching Fellow; PhD, 1988, Syracuse University: Hydrogeology, aqueous geochemistry, contaminant transport processes.

**Stephen P. Grand**, The Shell Companies Foundation Centennial Teaching Fellow in Geophysics; PhD, 1986, California Institute of Technology: Geophysics, shear velocity structure of the earth's mantle.

**Michelle A. Kominz**, PhD, 1986, Columbia University, Lamont-Doherty Geological Observatory: Causes of sea level change since Late Cretaceous, tectonic subsidence analysis, geodynamics of basin evolution and eustatic sea level change.

**Martin B. Lagoe**, Dave P. Carlton Centennial Teaching Fellow in Geology; PhD, 1982, Stanford University: Micropaleontology (Foraminifera), stratigraphy, and paleoceanography.

**Timothy B. Rowe**, Bill R. Payne Centennial Teaching Fellow; PhD, 1986, University of California, Berkeley: Vertebrate Paleontology, lower vertebrates.

**Nicholas W. Walker**, John A. and Katherine G. Jackson Centennial Teaching Fellow in Geological Sciences; PhD, 1986, University of California, Santa Barbara: Tectonics, isotope geology, petrology of igneous and metamorphic rocks, crustal evolution.

**Research Scientists**

**Wulf A. Gose**, PhD, 1970, Southern Methodist University: Paleomagnetism, tectonic evolution of Central America, the Gulf of Mexico, and the Caribbean, Magneto-stratigraphy.

**Fred W. McDowell**, PhD, 1966, Columbia University: Geochemistry, geochronology.

**Research Associate**

**Sally J. Sutton**, PhD, 1987, University of Cincinnati: Geology, mineralogy.

**Lecturers**

**Mark A. Helper**, PhD, 1985, University of Texas, Austin: Structural and metamorphic petrology, isotope geochemistry, field geology, Cordilleran tectonics, dynamics of convergent margins.

**W. Paul Mann**, PhD, 1983, State University of New York at Albany: Structure, stratigraphy, Caribbean plate boundary.

**Noel Tyler**, PhD 1981, Colorado State University: Sedimentology and sedimentary petrology, interpretation of genetic stratigraphy including basin and facies analysis.

**Professors Emeriti**

**Virgil E. Barnes**, Professor Emeritus; PhD, 1930, University of Wisconsin, Madison: Stratigraphy; geologic mapping, tectonics, directing compilation of Geologic Atlas of Texas and of 4-quadrant Geologic Map of Texas.

**Fred M. Bullard**, Professor Emeritus; PhD, 1928, University of Michigan: Volcanology.

**Stephen E. Clabaugh**, Fred M. Bullard Professor Emeritus; PhD, 1950, Harvard University: Metamorphic petrology and volcanic rocks of Texas and Mexico.

**Ronald K. DeFord**, Professor Emeritus; MS, 1922, Colorado School of Mines: Stratigraphy of southwestern U.S. and northern Mexico, history of geology.

**Samuel P. Ellison Jr.**, Alexander Deussen Professor Emeritus in Energy Resources; PhD 1940, University of Missouri, Columbia: Resource geology of fuels, coal, oil and gas, subsurface geology, micropaleontology and biostratigraphy of Foraminifera and conodonts.

**Peter T. Flawn**, President Emeritus and Leonidas T. Barrow Chair Emeritus in Mineral Resources; PhD, 1951, Yale University: Economic geology, environmental geology, geology and public affairs.

**Robert L. Folk**, Dave P. Carlton Centennial Professor Emeritus in Geology; PhD, 1952, Pennsylvania State University, University Park: Petrography and origin of recent sediments, Tertiary sandstones of Gulf Coast; Cretaceous and Paleozoic limestones of Gulf Coast and central Texas, sedimentary properties in relation to geomorphology.

**Claude W. Horton Sr.**, Professor Emeritus; PhD, 1948, University of Texas, Austin: Underwater acoustics, magnetotelluric fluctuations, geophysical time series.

**F. Earl Ingerson**, Professor Emeritus; PhD, 1934, Yale University: Geochemistry of igneous and metamorphic studies of the Martian surface, hydrothermal studies, liquid inclusions.

**Edward C. Jonas**, Professor Emeritus; PhD, 1954, University of Illinois, Urbana: Electron and X-ray diffraction of clay minerals, pyroclastic sediments and uranium deposits.

**Wann Langston Jr.**, The First Mr. and Mrs. Charles E. Yager Professor Emeritus; PhD, 1952, University of California, Berkeley: Paleontology of lower vertebrates.

**John C. Maxwell**, William Stamps Farish Chair Emeritus; PhD, 1946, Princeton University: Structural geology.

**John A. Wilson**, Professor Emeritus; PhD, 1941, University of Michigan: Vertebrate biostratigraphy of the Tertiary of the Gulf Coastal Plain, West Texas, and Mexico.

**Keith Young**, J. Nalle Gregory Professor Emeritus in Sedimentary Geology; PhD, 1948, University of Wisconsin, Madison: Mesozoic stratigraphy and paleontology of the U.S. and Mexico Gulf Coast, detailed mapping of the area of the Balcones escarpment, geology of the environment of man.



## News Briefs

**Milo Backus** taught graduate seminars in the fall and spring terms, with an emphasis on practical 'inversion' (i.e. quantitative interpretation) of geophysical data. He 'tutored' a small group of undergraduate students in geophysical data processing in the fall, and taught a small undergraduate class in geophysical interpretation in the spring.

Project Seer (Solid Earth Exploration Research), an industry supported research project continued in its seventh year, at a reduced level. The project is directed toward the development of improved and expanded interpretive information from marine seismic data.

Milo contributed to research workshops on "Sequence Stratigraphy" and "Amplitude versus Offset" at the 1988 meeting of the Society of Exploration Geophysicists in Anaheim.

**Dan Barker** taught the upper-division elective in volcanology and half of the undergraduate course in crystallography and optical mineralogy in the fall, and undergraduate igneous petrology in the spring. There may be fewer undergraduate majors, but their quality is high.

Twenty years after the field work was done, a paper on Holocene carbonatite lavas in Southwest Uganda, co-authored with P. H. Nixon, was completed and accepted for publication in *Contributions to Mineralogy and Petrology*. The long delay was partly a wait for technology to catch up with the demands of identifying a bizarre mineral assemblage in very fine-grained rocks. The Department's electron probe microanalyzer, scanning electron microscope, and automated x-ray diffractometer eventually showed that one lava flow contains, in addition to calcite, apatite, olivine, pyroxene, and magnetite, such goodies as spurrite, monticellite, gehlenite, jennite, thaumasite, rosenhahnite, and reinhardbraunsite! These unusual minerals were worth the effort, because they demonstrate that the Ugandan lava was erupted as a hot liquid containing calcium carbonate but very low contents of alkalis. The only currently active carbonatite volcano, in Tanzania, erupts alkali-rich carbonate. The present is only an imperfect key to the past, if you

don't have many examples in the present.

Dan plans to spend the summer looking at *normal* igneous rocks in Yellowstone, the Cascades, and Montana, on field trips before and after meetings of the International Geological Congress and the International Association for Volcanology and Chemistry of the Earth's Interior.

**Virgil Barnes** completed his 54th year with the Bureau of Economic Geology in August. He continued revising sheets of the Geologic Atlas of Texas that have gone out of print or are in low supply, as well as continuing his tektite research. An expanded version of the plenary address he gave last year on the "Origin of Tektites" when he received the Distinguished Texas Scientist Award 1988 from the Texas Academy of Science was published as the lead article in the first issue of the *Texas Journal of Science* for 1989.

Virgil received the Barringer Award at the Meteoritical Society meeting held in Vienna, Austria during August. He was accompanied by Milla, their three children and spouses, and five grandchildren. This award is in recognition of Virgil's research on tektites and impact structures. He presented the Barringer Address during a plenary session. A paper entitled "Comets and the Origin of Tektites" was given jointly with his son Virgil II, professor of physics, Purdue University, in a regular session.

*Virgil Barnes received the Daniel M. Barringer medal at the 1989 annual meeting of the Meteoritical Society in Vienna. The award recognizes outstanding work in the field of terrestrial impact cratering.*

**Phil Bennett** arrived here in January from the frozen wastelands of upstate New York. The first semester he taught the hydrogeology course, though he's not sure who learned more, he or the students. The rest of his time was spent finishing three manuscripts, two proposals, and one dissertation. The effort resulted in three accepted papers, two funded grants, and one degree.

In the summer Phil continued his field research in Bemidji, Minnesota, with the U.S. Geological Survey. He was there with one student for two to three weeks doing battle with the ticks, black flies, and deer flies at an oil spill site. His research involved examining the effect of petroleum hydrocarbon degradation on the inorganic chemistry of a sand and gravel aquifer. An additional project was to test the theory that ticks are attracted by carbon dioxide. Last year they tried dry ice, but it was a bad year for ticks. Did they end up with better luck this year?

In August Phil traveled to England to present a paper on the complexation of silica by dissolved organic compounds, at the Water-Rock Interaction Conference in Malvern. For fall semester he plans to teach a more-or-less new course on the chemistry of organic substances in water.

**Bob Boyer** enjoyed (perhaps "endured" is a better word) an especially busy year as Dean of the College of Natural Sciences, but inched a bit closer to geology for the first time in nearly a decade. College recruitment, both of young faculty and endowed senior faculty, consumed an inordinate amount of the resources available to the College—especially funds for start-up equipment

needs and for renovations necessary to accommodate the research activities of new faculty members. The College continues to provide a wide spectrum of science courses for all students regardless of their major field of interest. Science courses comprise some 25 percent of the total University course hours during any given semester. This is good news because all students need an appreciation of science and its role in society.

The 1989-90 academic year marks the beginning of an important new era for the College of Natural Sciences. Designated the "planning year," this will be a time of preparation for a major event in science—the twentieth anniversary of the College of Natural Sciences. The theme of the 1990-91 anniversary year is "The Decade of the Nineties—Launching into the 21st Century with Excellence in Science." Plans will be made this year to address special needs in science, enriching the educational experience for all students, and enhancing research programs in science at this University. This college-wide effort will afford an opportunity for fostering interdisciplinary science activities thereby breaking down traditional academic boundaries for the welfare of program development.

Bob is also enthusiastic about the research program established through a cooperative effort of Freeport-McMoRan Inc. of New Orleans, Louisiana, and UT Austin. A \$1 million research grant from Freeport-McMoRan will support the study of the geology of an area in the high mountain belt of Irian Jaya, a province of Indonesia. "This is a tremendous opportunity for faculty and graduate students to study the structural complexity and history of mineralization in one of the last geological frontiers of this world," Bob reports. The project also allows the Department to work with faculty and students of the Institut Teknologi Bandung (ITB), Indonesia. Bob and Mark Cloos traveled to Bandung (on Java about 150 kilometers east of Jakarta) in July to meet with the geology faculty at ITB and to see their teaching and research facilities. A formal agreement was signed amid much pomp and ceremony, establishing the joint program that will promote the exchange of ITB students to the Department for graduate study. Bob credits James R. Moffett, UT geology alumnus and Freeport-McMoRan board chairman, for the foresight necessary to make this project a reality.

Finally, Bob reports that activities in the world of marblemania continue at a hectic pace. At a marble auction in Kansas City last spring, he and Betty witnessed the sale of a 2-1/16" green glass eagle sulphide for \$3,800. The moral is that it is okay to lose your marbles—they will probably bring a high price at auction.

**Dick Buffler** had an exciting and productive year with his activities in the Department and the Institute for Geophysics. Dick's main research focus continues to be the seismic stratigraphy and tectonics of the deep Gulf of Mexico basin and adjacent margins. Studies of the Gulf basement include participating in an NSF-funded project with the University of Houston to fly an aeromagnetic survey over the deep central Gulf in summer of '89 to study the distribution of oceanic crust. Current Mesozoic

projects include a regional seismic stratigraphic study of the Jurassic rocks in the northeastern Gulf with Laura Martin, a Master's candidate. He continues to participate in a joint stratigraphic and structural synthesis of the Gulf with Texas A & M University (TAMU). As part of this project, Carl Fiduk, a PhD candidate, is working with Dick and Bill Behrens on a study of the salt tectonics along the northern continental slope. In addition, Dick supervised a recently-completed PhD project by Paul Weimer on the Mississippi Fan. This fall, Dick will work with Bill Behrens to help coordinate a student training cruise in the northwestern Gulf off northern Mexico in cooperation with TAMU and Mexico.

Activities outside the Gulf included participating last fall on a two-month Ocean Drilling Program cruise (Leg 123) off northwest Australia as a seismic stratigrapher/logging scientist. It was a wonderful opportunity to learn about the geology of a new part of the world, help make some exciting new scientific discoveries, and to have a chance to visit "down under." Dick, along with

Paul Mann, also had the opportunity this past spring to visit Cuba for a week and participate in the First Cuban Congress of Geology in Havana. The main purpose was to present UT's work in the Gulf-Caribbean area. In addition, they wanted to explore the opportunity for future collaboration between UT and Cuban geologists, as the geology of Cuba is a key to understanding the geologic history of the Gulf-Caribbean area.

Although Dick did no formal teaching this past year, he participated in the teaching program by helping direct student research projects. He serves on 16 student committees (five as supervisor), including students from TAMU as well as Rice University, where he is an adjunct professor. Dick will teach the seismic stratigraphy class this fall.

*Robert E. Boyer  
received the 1988  
Richard Owen  
Award from his  
alma mater, Indiana  
University. The  
Owen Award honors  
distinguished  
alumni of the  
department of  
geology based on  
their contributions  
to the science of  
geology.*

**Fred Bullard** commented that the year was a busy one, filled with a variety of activities. Fred spends some time at his University office, and if friends are passing through and do not find him at his office, he insists that they call him at his home (459-5336).

Fred is frequently called upon for information regarding volcanos throughout the world. Recently he was asked to provide photographs of the volcanos of Southern Peru to supplement a study of the potentially active volcanos of the region being made by the Lunar and Planetary Institute (NASA), based on space shuttle photographs. Fred had made a study of the volcanos of Southern Peru while teaching at the Universidad Nacional de San Agustin de Arequipa, and was able to provide "on site" photographs of the volcanos of the region.

Fred and Evelyn spent Christmas with daughter Peggy and family in California (Los Angeles area). They also attended the annual convention of the AAPG in San Antonio in April, where Fred greeted many friends and former students.

Fred and Evelyn will spend some time at Fred's vacation home at Taos, New Mexico, where the 7,000-ft. elevation provides a welcome relief from the Texas summer heat. While in Taos they will visit daughter Thais who operates the Val Verde Resort Complex located in downtown Taos.

For **Bill Carlson**, research highlights over the past year included the publication of three papers on subsolidus pyroxene equilibria arising from his work sponsored by the National Science Foundation and a pair of articles on Precambrian metamorphism in the Llano Uplift. Principal credit for one of the Llano articles goes to the senior author, Mary Nelis, a former Master's student co-supervised by Sharon Mosher and Bill. Another of Bill's students, Cambria (Denison) Johnson, completed her Master's study of the origin of coronal reaction textures in Adirondack metagabbros in the spring; Bill reports that she stirred up a great deal of interest when she presented her research at the May meeting of the American Geophysical Union. Jonathan Blount, a doctoral student, also presented a paper (co-authored with Nick Walker and Bill) at the annual meeting of the Geological Society of America in Denver. Jonathan's work on Precambrian rocks of Chihuahua, Mexico should be finished up by the end of the year. Another student continues study of the early metamorphic history of the Llano Uplift, part of the NSF-sponsored project on the Precambrian geology of Central Texas that Nick Walker, Sharon Mosher, and Bill are directing. Bill appears excited about his newly developed theories on the mechanisms and kinetics of porphyroblast crystallization; he spoke on that research this year at the University of New Mexico, Southern Methodist University, at the annual meeting of the Geological Society of America, and at the fall meeting of the American Geophysical Union in San Francisco. He says that he expects much of his research effort in the coming year to concentrate on improving the understanding of reaction rates and mechanisms in metamorphic rocks.

Most of Bill's formal teaching this year fell into a familiar pattern centered on graduate and undergraduate courses in metamorphic petrology and the graduate course in analytical techniques. "But an extraordinary opportunity," he writes, "was the chance to conduct a graduate seminar course on the kinetics of geochemical processes. The intent of the course was to stimulate original thinking and research on kinetics, and it was thoroughly fulfilled: one or two of the ideas generated in the seminar will probably end up as published articles!"

Two special awards came Bill's way this year. In November, he was elected to fellowship in the Geological Society of America, along with Jack Sharp and fifteen other geoscientists nationwide. In April, he was chosen by students from throughout the College of Natural Sciences as one of six professors in the College to be honored for excellence in teaching. In accepting the award, he noted, "Recognition coming directly from the students is always the most gratifying, and when it is totally unforeseen, as this was, it is all the more so. Knowing that there are many, many superb teachers in the College, I view this fine honor as a personal challenge simply to become deserving of it."

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**Mark Cloos** continued as a William T. Stokes Centennial Teaching Fellow during the 1988-89 academic year. He taught advanced structural geology for graduate students in the fall semester and co-taught the geology of the national parks with Gary Kocurek in the spring semester. This time the parks course

had a preregistration enrollment of 360 students which had to be reduced during registration to 290 because of seating limitations in the lecture hall.

Last summer, Mark and Rhonda took a short "vacation" trip to Moscow and Leningrad to see firsthand what glasnost is all about. They reported that the palaces and churches (rather curious that's where they take the tourists) were most interesting but life for the typical Russian citizen in the cities is very bleak and things are not going to change very fast. In July Mark did his usual stint of field work in the Franciscan, working on the mechanisms of uplift of coherent blueschist terranes in northern California with his long-time mapping cohort, Steve Lipshie. In August, he flew the Pacific for a stop in Australia to experience firsthand the fission track thermochronology laboratory at the University of Melbourne and see his students, Trevor Dumitru and Leslie White. He then had the experience of a lifetime with a two-week field trip into the highlands of Papua New Guinea. This trip was sponsored by the Geological Survey of Papua New Guinea and the U.S. National Science Foundation. The trip focused on the structure and stratigraphy of the Papuan orogenic belt. Australia continental crust extends northwards to New Guinea. The Aus-

tralian plate and overlying passive margin sedimentary rocks became imbricated and uplifted during a collision with an oceanic island arc starting in the mid-Tertiary. The geology was great but the highlight of the trip was meeting the people of the highlands. They lead simple subsistence lives but seem to be quite happy and healthy. Mark found the contrast with Moscow where the people rarely smile and the food is poor quality to be most striking. In September, Mark crossed the Atlantic again, this time to participate in a scientific workshop sponsored by NATO on the role of fluids in subduction zone tectonics. The meeting was held in Tuscany, Italy and involved two field trips. One trip went to the nearby Carrera marble quarries where Michelangelo got his stone. The other was along the coast north of La Spezia, the region where Folk and McBride and now Mosher spend

some of their summers. The fluids meeting was such a great success that Mark now says NATO is no longer going to have to worry about the role of dewatering subduction zones while planning the defense of western Europe. Sometimes seemingly esoteric research does have its unforeseen practical applications.

In April, the big news was the Freeport, Indonesia, Inc. Gunung Bijih (Ertsberg) Project. This research project will involve the study of ore deposits and igneous intrusions in the fold-and-thrust belt of Irian Jaya, Indonesia (if you don't know where Irian Jaya is, it's in western New Guinea). Rich Kyle and Mark flew the Pacific over spring break to visit the site to determine the feasibility of thesis research projects for graduate students—there are some good ones but at present they are all backbreaking and above 12,000' elevation. The project is supported directly by Freeport-McMoRan, Inc. out of New Orleans and is under the overall direction of Bob Boyer. Rich Kyle, Nick Walker and Mark will serve as principal investigators and directly supervise the student participants. Their work will be in conjunction with students and faculty at the Institute for Technology at Bandung, Indonesia's top geology department located in the mountains outside of Jakarta. This project is so big that UT

**Robert E. Boyer  
received the  
American  
Geological Institute  
award for  
outstanding  
contribution  
to public  
understanding of  
geology for 1988.**



almost held a press conference to announce it! More news on this will be forthcoming in the years to come.

Leslie White, Jeff Corrigan, and new graduate student Richard Ketcham have almost got the microscope with computer automated stage, digitizing board, and other peripherals operating for the long-awaited fission track thermochronology laboratory. They are now waiting for the new rock crushing and pulverizing facility to be removed from the boxes and installed in the basement. The goal is to be operational by December.

Mark was elected vice-chair of the structural geology and tectonics division of GSA, and served as associate editor for *Geology*. In his spare time he served as associate chairman of the Department and associate director of the Geology Foundation.

**Ian W. D. Dalziel's** work on cordilleran orogenic processes and the evolution of the southern continents and ocean basins is continuing. The past year has been the year of the 28th International Geological Congress. Ian led the first field trip of the Congress on the Tectonics of the Scotia Arc during January 1989. Twenty-five scientists from ten countries participated. He will convene a symposium, a poster session and a workshop, all on aspects of Antarctic geology at the Congress itself in July. Two UT graduate students are now working at the Institute for Geophysics on dissertation work in the Scotia Arc region. A major proposal for the most detailed marine geophysical study of the Antarctic continental margin yet undertaken has been submitted from UTIG. If funded it would put UT in the forefront of worldwide Antarctic research.

**Ronald DeFord** hasn't found time to "go out to pasture" since his second "retirement" in 1987. He and Marion continue enjoying art museums, stage plays, symphony and opera performances (including overnight stays in Dallas and Houston to see outstanding productions), and lectures at UT.

The AAPG convention in San Antonio in April gave Ronald the opportunity to see many old friends and former students. He and Marion thoroughly enjoyed the Bob Folk Roast. The Red Adair luncheon was of special interest as Marion had watched Red putting out fires in Venezuela in the 50's and in Kuwait on New Year's Day in 1965 or '66.

In 1924 Ronald mapped Cisco Dome in Utah, his first job as a party chief for the Midwest Refining Company. He went on to map in the wilds of southeastern Utah around Bluff and Comb Ridge and Mexican Hat. Meanwhile, drilling on Cisco Dome he found gas. The well caught fire, and the Midwest had trouble capping it. They asked Red Adair's predecessor and mentor in Houston to put out the fire. Ronald's memory doesn't supply the name, but it was Myron Kinley who agreed to for \$10,000—considerable money in those days—and specified by telephone what equipment to prepare. One morning Kinley got off the west-bound Denver-Rio Grande train at the whistle stop siding at Cisco, Utah, and was driven 15 miles to Cisco Dome. He put out the fire and went back to Cisco and got on a train that afternoon to continue his journey to California.

Ronald has been made a 50-year Fellow in the GSA and received a 25-year pin from the AGU.

Attending twice-weekly physical therapy sessions for Parkinson's Disease keeps Ronald on the move; he also successfully completed cataract surgery on both eyes.

The menagerie at home continues to thrive—deer, 'coons, birds, possums, cats, dog and fish. Ronald and Marion plan to spend the summer enjoying them, as well as sorting through the books and papers accumulated during his many years of teaching.

**Sam Ellison** and Dottie traveled to Palmer Lake, Colorado in late September, 1988, to a reunion of next door neighbors of 1941-1944 in Rolla, Missouri. Then they returned to Colorado to attend the 100th Anniversary of the Geological Society of America in Denver. Later they were off to spend Thanksgiving in Atlanta, with their oldest son David and his family where they visited Okefenokee Swamp, Cumberland Island National Park and Jekyll Island, all in Georgia. In April, 1989, they attended the American Association of Petroleum Geologists meeting in San Antonio. They were impressed by the numbers of former students and how well these students have done professionally.

Sam taught Geology 335 (Geology and Resources of Texas), for junior and senior non-geology majors during the spring semester. Requiring the students to use the Texas bibliographies and library books and maps caused much work for the librarians.

Granddaughter Barbara L. Ellison graduated from high school in College Station and as a National Merit Scholar will attend UT in September in the Plan II program.

Sam was elected the 1989-1990 president of the Retired Faculty-Staff Association of the University of Texas. This group of retirees is now well over 500 strong and provides much-needed scholarship aid to current students. Dottie continues substitute teaching at Highland Park School in Austin.

In the 1950's Sam was given a pebble of topaz from Mason County, Texas, while he was at summer camp Geology 660 at Brady. This was in token payment for guiding a gem hunter to a jewelry store where he sold a small tobacco sack of topaz pebbles. Recently a student who had taken the Department's gem cutting course created a delightful gem stone weighing 0.88 carats that will be installed on a ring for Dottie.

***Fred Bullard,  
Ronald DeFord and  
Earl Ingerson were  
all honored as  
50-year members of  
the Geological  
Society of America  
during 1988, the  
GSA's centennial  
year.***

**Bill Fisher** continues to serve as chairman of the Department, director of the Geology Foundation, and Bureau director.

During the year Bill was appointed to the White House Science Council, a 15-member group advisory to the President on science and technology issues. He was also named a charter member of Governor Clements' Energy Council and continues to represent Texas on the Outer Continental Shelf Policy Board, advisory to the Secretary of Interior.

Bill remained active on the National Resource Council of the National Academy of Sciences, co-chairing the new Board on Earth Sciences and Resources, serving as a member of the U.S. National Committee on Geology, and serving as Vice Chairman of the Energy Engineering Board Committee on Liquid Fuels Production Technology. He is involved in the Academy's major

*(continued on page 18)*

## *Chairman's Report*

The 1988-89 academic year launched the Department into its second century. The Department is already on the fast track with an outstandingly diverse array of teaching and research programs supported by a dedicated administrative and technical staff. Here we highlight a few activities and events of the year.

### *Tradition of Faculty Excellence Continues*

The biggest news of the year was the election of Professor John G. Sclater to membership in the National Academy of Sciences and the selection of Assistant Professor Timothy Rowe for a Presidential Young Investigator (PYI) Award from the National Science Foundation. John Sclater is the third member from the Department elected to one of the two National Academies, the most prestigious scientific societies in the United States. He follows J. Hoover Mackin who was also elected in 1963 and Peter T. Flawn who was elected to the National Academy of Engineering in 1974. Sclater is most cited for his work in ocean floor heat flow, and is perhaps best known for the "Sclater Curve," which is the relationship between ocean floor age and water depth. Tim Rowe is the first member of the Department to be honored with a PYI Award. This program was established by President Reagan to encourage young scientists to pursue academic careers in science and engineering. Tim is already widely recognized for his work on the evolution of skeletal development in tetrapods (vertebrates with two pairs of limbs), particularly mammals. Tim's award consists of research funding of up to \$100,000 per year for five years from a combination of federal and matching private funds.

Douglas Smith was awarded the Houston Oil and Minerals Faculty Excellence Award for his outstanding efforts since the spring of 1987 as Graduate Advisor. During his tenure many administrative procedures required for the graduate program were streamlined. In addition, Doug spearheaded the thorough revamping of GEO 298T, the teaching course for all new teaching assistants. Sharon Mosher was awarded the Knebel Distinguished Teaching Award. This award, based upon a vote of the undergraduate and graduate students, recognizes Sharon's concern for quality teaching at all levels in the Department. Bill Carlson was awarded a Distinguished Teaching Award from the College of Natural Sciences. This award, his fifth for teaching since coming to UT, was one of five presented by a college-wide committee of undergraduate students in the College of Natural Sciences.

This year marked the retirement of Professors Keith Young, Edward Jonas and Robert Folk. A retirement dinner in their honor was held in conjunction with the fall meeting of the Geology Foundation Advisory Council. The Department has worked hard to fill the shoes of these three individuals. As part of this effort and looking toward the future, we added two new faculty members in 1988-89 and will add two more in 1989-90. Dr. Steven Grand, who was an assistant professor at the University of Illinois for two years, joined our Department last September. Steve received his PhD from Cal Tech in 1986 and works on earthquake seismology and 3-D seismic tomography. His expertise fills a significant gap in our geophysics teaching curriculum. Dr. Philip Bennett, a hydrogeologist who completed his PhD at Syracuse in fall, 1988, joined the faculty in January. Phil's addition broadens our hydrogeology program with his expertise in aqueous geochemistry and also builds our long-standing programs in sediment diagenesis. Both Phil and Steve give the Department breadth in two critical, up-and-coming fields. This spring a committee chaired by Dr. Ernest Lundelius continued the Department's worldwide faculty search. The University has extended offers of faculty positions to Dr. Michelle Kominz, a geotectonicist with a particularly strong mathematical background and Dr. Jay Banner, a carbonate sedimentologist and geochemist. Michelle completed her PhD at Lamont-Doherty Geological Institute and Jay did his dissertation work at the State University of New York at Stony Brook. We expect Michelle to join us in September and Jay in January.

### *Student Programs Show Success*

The visiting lecturers program was again coordinated by Nick Walker and remains a great success. Over thirty lecturers came to Austin from across the United States for one or two days and gave formal lectures in Technical Sessions or other classes. The endowed lectureship program, again coordinated by Bill Carlson, was responsible for bringing six distinguished lecturers to campus for more extensive visits. In this program, visitors stay for three days to a week and give several lectures.

Undergraduate enrollment dropped to 128 at the end of spring semester, 1989. The number is down from 160 last year and is far from our peak of 825 majors in 1982. Of the 128 students, 83 are officially registered as seniors. It is important to point out that senior status is simply based upon total credit hours at UT, a total which varies from student to student because of transfer credits from other universities or changes in major. The fact that 23 students completed field camp (GEO 660) this summer is the best measure of our current graduation rate, as it reflects the number of students taking senior level geology courses. We continue our special efforts to attract the brightest undergraduate students by mailing brochures to National Merit Scholars from throughout Texas and

offering endowed presidential scholarships. We also recruit within the University by offering general interest courses such as Tim Rowe's "Age of Dinosaurs" and Gary Kocurek's and Mark Cloos' "Geology of the National Parks." Both courses have enrollments approaching 300—all the seats in room 100. The graduate program remains stable at between 170 to 180 students, nearly 50% MA and 50% PhD.

Nearly all our graduate students report success in finding jobs. Most of the recruiting by the major companies continues to be for MA and PhD geologists and geophysicists. This year 20 companies (down from 26 last year) conducted from 1 to 39 interviews (most held 15 to 25) on-campus. Six undergraduate and 48 graduate students participated in on-campus recruitment interviews, resulting in 51 offers of permanent or summer jobs by July. The average monthly salary for permanent MA level was near \$2,600, and for PhD level was near \$2,800. Summer salary offers were about \$500 per month less. The Department's placement program, coordinated by Egídio Leitão, seeks to maximize opportunities for all our students. Summer jobs for undergraduates are particularly scarce and, as always, many students want some geoscience work experience. Please contact Egídio at (512) 471-5172 if you need summer or permanent employees. If you cannot hold on-campus interviews, we will always post notices mailed to us or phoned in.

### ***New Facilities Promote Research***

Regarding our research support and facilities, we have numerous developments to report. We now have a micro-computer laboratory for students and faculty on the 2nd floor with two IBM personal computers, five Macintosh computers and one Sun workstation. Clark Wilson oversees this facility and a graduate student assigned to the lab ensures that all machines stay fully operational for classes and research. Students have access to these machines at all hours. ETHERNET, a high-speed fiber-optics data transmission cable, has been installed throughout the Geology Building. This cable not only enables direct connection to computers across campus but also to computers across the United States. Mark Cloos has established a computer automated laboratory for apatite fission track thermal history analysis. This lab complements other radiometric dating labs in the Department and provides new dated thermal information about oil maturation in basins. A new JEOL SEM installed on the 4th floor replaces one that had poor image resolution and required constant tuning and maintenance and a MacIntosh system was added to the microprobe lab for data processing. Research associate Sally Sutton oversees these heavily used facilities. A high-precision vertical milling machine installed in Eddie Wheeler's basement machine shop expands the shop's capabilities. Eddie has already constructed items ranging from deep-sea heat flow probes for


use on ocean-going ships to intricate plexiglass clean boxes for use in the Department's mass spectrometry labs. An administrative computer network connecting all first floor offices was designed and installed by Scott Schroeder and Bill Woods. A FAX machine added to the main office in June already seems to have brought on an avalanche of electronic mail. Two new 3/4 ton carryalls with special towing packages were purchased for field trips, replacing a carryall and van purchased in 1980 that have over 150,000 miles of wear and tear. Mark Helper supervised the repair and overhaul of the polishing and cutting equipment in the basement lapidary lab. He taught the Gems and Gem Minerals course (347K) for which Glenn and Martha Vargas returned for the thirteenth time to give students expert instruction in gem faceting and polishing. Bill Woods has worked with the Vargases to ensure that their gem and mineral displays are shown at their best in the four large wooden cases constructed by undergraduate student Mike Hill. Cases were also installed in the Geology Library to display some of the Barron Mineral Collection which undergraduate Paul Warren has done an outstanding job curating the last two years. Important projects now underway include the establishment of a rock crushing and pulverizing facility in the old water saw room in the basement and the construction of three geochemistry labs on the 5th floor.

The level of faculty and research scientist funding continues to increase. Nearly all faculty have research grants which support graduate and undergraduate students. These include 19 grants from the National Science Foundation, five from the American Chemical Society-Petroleum Research Fund and nine from individual companies or consortia. Of special note is the recent \$1,000,000 grant from Freeport McMoRan, Inc. to support geological research studies by students and faculty near the Ertsberg (Gunung Bijih) Ore District in Irian Jaya, Indonesia. Robert Boyer is the Director of the UT part of the project which will be in collaboration with the Indonesian Institute for Technology at Bandung. Several students from Indonesia are expected to enroll at UT in the near future. Funding from companies such as Freeport, McMoRan, Inc., federal sources such as NSF, or private foundations such as the ACS not only supports graduate students in their thesis studies, but also provides employment for undergraduates as laboratory and field assistants, enabling both to work on new and exciting geoscience problems around the world. Student projects are underway in 19 states and 20 foreign countries.

As you can see throughout the *Newsletter*, the 1988-89 academic year was one of success and progress. We look forward to our second century with anticipation.

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—by William L. Fisher, *Chairman*  
and Mark Cloos, *Associate Chairman*



project assessing the earth sciences, serving on the project's executive committee.

Bill completed his five-year term on AAPG's executive committee and advisory council, serving this year as chairman of the nominations committee. He is the incoming vice president and president-elect of the American Geological Institute, and during the year was named a councillor to the GSA. Bill is also a member of the National Petroleum Council, the Gas Research Institute Advisory Council, and the U.S. Committee for the World Petroleum Congress.

Bill was co-convenor of the opening symposium of the International Geological Congress held in Washington in July. With completion of the Congress, Bill wound up his three-year term as vice president for institutional participation of the Congress.

As usual in recent years, Bill maintains a busy speaking schedule, giving some 35 invited lectures during the year.

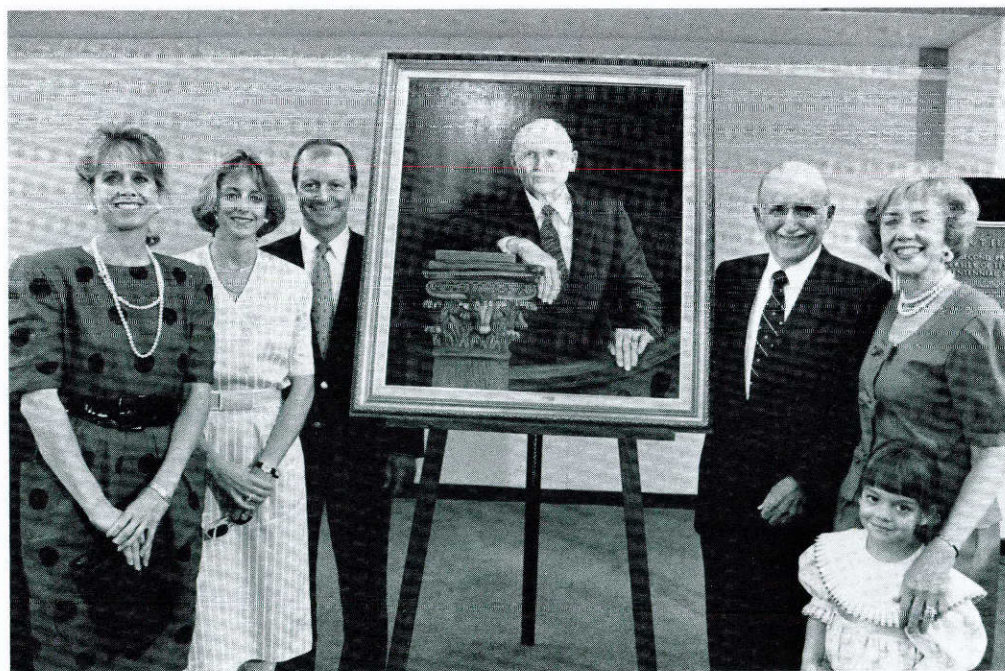
**Bob Folk** has been really thriving on retirement since June 1988, though he spends more time in the Geology Building now than ever before and feels ten years younger. The new SEM is great fun, except when he pollutes it with live bacteria or fragments of 17th-Century Italian violins. And working one day a week at the BEG has also been exciting, actually attacking real problems for a change—mostly he's been working on the Spraberry with Ed Guevara.

Last summer he went to Italy with Paula Noble, who is interested in radiolarian cherts and will be doing her PhD on the Caballos under Martin Lagoë. Bob and Paula had an extremely varied summer, beginning at Portovenere where they were with Karen Carter, Sharon Mosher, and her new student, Tom Hoak. Ellen Naiman Tye and Vicki Pedone joined them for a week as guests. Paula went hiking one day up to the mountaintop at Campiglia and discovered a great succession of Jurassic radiolarian cherts. She insisted that Bob had to come see them so they took the local bus up, but just as they started to examine the cherts a downpour began. For half an hour they tried to take shelter in

a very narrow doorway at the barred entrance to some horse stables, with goats nuzzling them also trying to keep dry. During a brief lull, they dashed down the road and found better shelter—in a small concrete rabbit hutch. Despite the noisome stench, it was at least warm and dry. Shortly, a new little red car drove up and the driver stopped and came over, wondering why they were huddled in with his rabbits. Turned out Franco was very friendly, owned the horse stable also, and gave them a lunch of his own vino (così così), bread, cheese, and raw—yes, totally raw—bacon fat. Politeness kept them from gagging, but they had to eat something to counteract his copious offers of vino. Next day, Franco offered Paula a whole day of free horseback riding while Bob worked (of course). A few days later they went up the coast to Monterosso where Paula discovered some unmapped ophicalcites and they examined the ophiolite-radiolarite sequence.

They then went south for the second phase of field work—looking at modern hot-spring deposits. According to the literature, travertine-depositing hot springs occurred at Viterbo, about 50 km north of Rome, an area with which Bob was totally unfamiliar and located at the edge of a huge caldera. Their arrival was inauspicious—no taxi at the train station. But a kind lady at the station drove them to a hotel in town. Turns out there was a baroque music festival on, so the next night they were in the second row of the concert hall listening to a marvelous all-Vivaldi concert by *I Musici*, arguably the best string group in the world—and in a backwater place like Viterbo!

Monday was the most extraordinary field day in Bob's entire career as a geologist. First they went to the market in the piazza to buy their lunch things. Parked there was a blue truck with a long steel pole, and on the pole a huge impaled roast hog (minus head). The owner, seeing Paula, offered them a few tidbits, so they bought L4000 worth for lunch. It proved to be the best roast pork they had ever tasted, laden with rosemary and other spices—so this was to become an oft-repeated ritual. They took the local bus, got off and by the roadside found a linear outcrop of lithified travertine, with beautiful mammillary aragonite layers (the only other aragonite travertines that have been described petrographically are those in Yellowstone by V. Pursell in 1984, so this was



*A portrait of President Emeritus Peter Flawn was dedicated on May 6. The portrait hangs in the Peter T. Flawn Academic Center. From left: Mrs. Tyrell Flawn Hill, Dr. Laura Flawn and her husband, Dr. Richard Chopp, President Emeritus and Mrs. Flawn, and their granddaughter, Priscilla Flawn Chopp.*

exciting). As they crawled over the outcrop, Paula looked up and found—in the middle of the adjoining grainfield—a huge, ruined Roman bath! It's one thing to have a guidebook and see things already well known to tourists—but to come across one by sheer accident is quite something else. Of course, the Romans had built the bath while the hot springs that formed the aragonite-travertine outcrop were still active. Bob and Paula ate their delicious roast pork by the Roman bath, then started up the road to the modern hot springs. There were a number of cars, vans, etc., parked there, reflectors, movie cameras, a director on a high metal chair—they found out the Italians were filming a movie at the very hot springs they had come to study. Around the springs were great examples of sulfurous high-temperature deposits—fibrous masses of sulfur bacteria, aragonitic pisolites, and crusts—a veritable zoo of exciting geologic features. Bob and Paula explained to two policemen that they were not tourists but American geologists—so one of them (Roberto) invited them to go to his country cottage for a lunch break. He had his own vineyard and a capacious wine cellar with several large vats of wine in various stages of preparation. He gave them a couple of bottles; one was ten years old and sealed literally with a blob of concrete. Can you imagine an American policeman taking strange Italians to his place for lunch? Roberto told them that Italy's most famous voluptuous movie actress, Ornella Muti, was in the film and they got back to the hot spring just as Ornella herself emerged from the trailer in a blue bathrobe. She traipsed into the hot spring pool while cameras rolled and water gushed up. Bob spiraled closer and closer trying to get a surreptitious picture with his ancient Argus camera. Paula skulked down in a hollow, embarrassed at his boorish behavior. As Bob circled closer to the target, the director asked Ornella to come out of the pool, strip off her bathing suit, and cover herself with white mud. Bob was tempted to rush up and yell "Stop! Don't you know that is aragonite?!" Anyway he got a shot of the statuesque Ornella covered from the top of her hair to the tip of her toes in nothing but carbonate mud—certainly the world's most erotic known coated-grain. After the filming was over (Bob hopes he sees the actual movie some day), they sampled the pool sediment and aragonitic terraces, and then started trudging the long hot dusty road back to the bus stop. En route they stopped at a small roadside bar/hotel and got some mineral water to take outside. Next to their table, on a swing, was a baby and its nanny. Who should come out five minutes later but Ornella Muti herself—it was her baby! To be sure, Bob was embarrassed—here she was two meters away from him and he knew she would recognize him as the one who had been skulking around in dirty khakis and a battered field hat, with an ancient relic of a camera. So Bob explained to Ornella that they were not tourists and were American geologists, but all she said to him was "Buona sera." So much for intellectual conversation with a spectacular actress. Well, Bob was totally dumbfounded by all these events happening in one day, but there was one more event yet to come. They left the hotel and went out to find a place to eat, by a "random walk" procedure using license plate numbers. They found a tiny trattoria and went inside. The waiter brought the *Guinness Book of World Records* and said, Look, he was in it—the restaurant with

***Bill Carlson was one of six faculty members to receive the Natural Sciences Council Teaching Excellence Award in spring 1989, based on student nominations and classroom observations.***

the world's record number of pasta dishes: 216. Well, the pasta was mediocre but the experience was memorable. So, from the roast hog, ancient aragonitic travertine outcrop, Roman bath, modern bacterial aragonite at the springs, the policeman's wine cellar, to the naked movie actress covered with aragonite, conversing with her at close range in the bar, and the record-pasta restaurant—surely one does not have many field days like this. So they declared Viterbo an official success, and the SEM showed the aragonite muds, bacterial and travertine deposits to be fascinating and important as well.

Their next field area was Verona, near Venice at the edge of the Alps. Here they scouted out outcrops around Valpolicella, which happens to be famous for wines but also for the Rosso Ammonitico, a red Jurassic limestone with ammonite casts and problematical nodular structures. They visited numerous quarries and got ideas for future studies as well as taking a side trip to Cortina and the Dolomite Alps. Then it was back to Milano, Lago Maggiore, and the flight home. Another great field season in a fascinating country, more rocks to look at and ideas to simmer.

Bob's main research activities right now are directed at studying the Triassic Portoro limestone and its diagenesis (Dianne Pavlicek is completing a thesis on its petrology and geochemistry), on travertines, on quartz-etching in HF, and on bacteria in sediments and rocks with Franz Hiebert. Bob gave talks in Columbus, Ohio, at the midyear SEPM on Portoro aragonite-to-calcite transformation; and in Socorro, New Mexico, and Wichita, Kansas, on quartz etching and travertines. In New Mexico, Steve and Martha Cather took him out to a spectacular travertine quarry with aragonitic onyx deposits. He also went to the GSA in Denver to talk on etched quartz, and to the AAPG in San Antonio to preach on bacterial body counts. At San Antonio, he was the victim of a rabelaisian roast put on by Earle McBride and Lynton Land, and it was great to see all the old friends and students from 35 years of teaching at Texas. Bob feels very fortunate that Sam Ellison had the guts to hire him, a "walk-in" off the street in 1952, for teaching and living in Texas has been a really fine experience. Bob and Marge have enjoyed it very much.

In May 1989 Marge and Bob were off to Italy again, this time with Mary Crabaugh; Steve and Martha Cather went along as guests. They planned to concentrate on the hot springs around Viterbo again, also the carbonates at Verona. Marge and Bob plan a short vacation trip to Ireland after the Italian field work is finished.

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In 1988 **Bill Galloway's** geologic interests shifted from the land of Auz' downunder to the lands of the Vikings and kilts, or more accurately to the North Sea that lies between. With support from the Texas Advanced Research Program and interested companies, Bill and students are testing some of the depositional and stratigraphic concepts developed in the Gulf Coast in the Cenozoic fill of the North Sea basin. Results are tentative at best, but it is obvious that several trips to Scotland and Norway will be necessary. This was, of course, a much-hoped-for conclusion.

A highlight for the year was a two-week invited lecture series at the Research Institute for Petroleum Exploration and

Development (RIPED) in Beijing. The visit also included lectures at the China Petroleum University and China University of Geosciences. During their stay Bill and Rosemary got to tour the major and minor sights of Beijing and environs, including the Great Wall, Ming Tombs (which are built among Precambrian sediments so pristine that even a Cenozoic sedimentologist could feel right at home), Forbidden City, and a multitude of temples and gardens. Chinese cuisine added further zest to this exotic adventure, particularly when provided in the form of a banquet, which typically included twenty or so courses. Bill also brought back a new concept of big departments—the China University of Geosciences has 900 earth science majors at its Beijing campus!

Closer to home, Bill attended the AAPG convention in San Antonio, where he participated in a short course and core workshop and coauthored with students several poster presentations and talks. Between trips, Bill again taught clastic depositional systems, research in basin analysis, and undergraduate petroleum and energy minerals geology courses. Also during the year, Dr. Amparo Ramos, a sedimentologist from the University of Barcelona, visited Austin for six months. Following up on a basin analysis field trip to East Texas, her work demonstrated classic tidal shorezone and shelf facies tucked away in the Queen City Formation of the Tyler Embayment. A paper summarizing results of this mini-research project is in progress. The trend is obviously toward an increasingly international perspective for geology and geologists.

Early in September, **Wulf Gose** attended the Congreso Venezolano de Geofísica in Caracas where he and his Venezuelan co-workers presented three papers on results from their joint paleomagnetic research project. At the southwestern regional GSA meeting in Arlington, Wulf gave a talk on Honduran stratigraphy and was a co-author on a paper by graduate student Mark Gordon dealing with tectonic aspects of Honduras. The application of paleomagnetism to determining the timing and growth rates of salt domes was the subject of a poster display at the annual AGU meeting in Baltimore. Rich Kyle presented some results of his joint work with Wulf on salt dome cap rock at the International Geological Congress in Washington.

Graduate students Keith Klepeis and Dickson Cunningham are measuring their paleomagnetic samples from Tierra del Fuego in an attempt to determine whether the shape of the tip of South America is an original feature or a result of tectonic processes along the northern boundary of the Scotia plate.

As of last September, Wulf shares his paleomagnetic laboratory with Dr. John Kappelman of the Department of Anthropology. John uses magnetostratigraphy for dating strata containing primate fossils (~7-15 Ma). John and Wulf are preparing a joint course in paleomagnetism to introduce anthropology students to this technique.

**Steve Grand** has enjoyed settling into Austin this year. A SUN workstation was installed in January with minimal difficulty, largely through the help of Mark Wiederspahn of the Institute for Geophysics. The computer was used to complete a project on the three-dimensional velocity structure of the mantle beneath North and South America and the northern Atlantic

Ocean. This work resulted in the discovery of an anomalously high velocity slab extending from South America to Canada. This feature can be seen from shallow depths in the Earth to the core-mantle boundary and may be the remains of oceanic plate which has been subducted over the last 150 million years. With PhD student Xiao-Yang Ding, a study of the attenuation properties of the mantle beneath the East Pacific Rise has also been recently completed. Xiao-Yang is now studying the seismic velocity structure near deep earthquake zones. The results of these projects were presented at the annual DARPA meeting in San Antonio and the Spring AGU meeting in Baltimore.

**Mark Helper** reports another busy year of teaching and research. Upon returning from a four week teaching stint in the Durango and Taos areas for the summer field camp, Mark spent much of the remaining summer preparing materials for a nonmajors course in gemology. The class, which in previous years was taught by Ed Jonas, is a popular one for students in fine arts and education but receives students from literally every college on campus. In teaching the class for the first time last fall, Mark reports he learned as much (if not more) than his students. The class also provided him an opportunity to attend the Tucson Gem and Mineral Show this spring, where he learned something of the vagaries of gem valuation and pricing. Mark continues to teach the introductory field methods course during the spring semester and spent many of his weekends this spring with students in the Llano Uplift.

Mark spent a large part of last fall and this spring in the clean laboratory and new mass spectrometer lab collecting isotopic data for a geochronologic study of subduction-related metamorphic rocks in the central Klamath Mountains of northern California and southwestern Oregon. Mark notes that without the new multicollecting mass spectrometer, the data he collected over an eight month period last year would have taken about three years to collect on the old machine. Among the more interesting results of this study, now nearing completion, is an indication that most of the western Klamath Mountains are rootless at depth, comprising a thin carapace resting on Cretaceous and younger materials accreted during Late Mesozoic and Cenozoic plate convergence. He presented results of this research at the GSA meeting in Denver last fall and the GSA Cordilleran section meeting this spring in Spokane.

**Earl Ingerson** has had a rather secluded life this year—but an interesting one. Last fall Earl and Maurine went to the coast to visit Maurine's niece. One of the joys of this visit was a trip down to the wildlife refuge. A ride on *The Whooper* was very interesting. The near-extinct whooping cranes winter in Texas—there are only about forty cranes left. They live in a community group but in small units of a family of three with the parents together and the “chick” nearby some four feet away.

Earl's nephew, Dr. Thomas Ingerson, a physicist with the Observatorio Interamericano de Cerro Tololo in Chile, paid the Ingersons a visit. Another visitor at this time was Dr. Lyle Bechnell, Earl's nephew, who works at the Atomic Laboratory in Los Alamos, New Mexico. The two nephews kept Earl on his toes. In April Earl had another visitor, Mr. Tennyson Myers. He

*Mark Cloos was named as the first recipient of the Donath Medal by the Geological Society of America.*

was a former employee of Earl's when they were at the U.S. Geological Survey in Washington, D.C.

Earl has continued to work on his paper on tektites, even though his health has not been good this year.

**Gary Kocurek** had the usual year of teaching sedimentary processes, depositional systems, and geology of the National Parks, punctuated by a month-long trip to the Sahara in Mauritania in November-December. This was Gary's second trip to Africa, the first being noted by a lack of food and a weight loss of 30 pounds. This time he took food and some people who speak English, graduate student Karen Havholm from UT and Ron Blakey from Northern Arizona University. Unfortunately, Gary's luggage did not arrive and he learned how little one needs to survive in Africa. He apparently enjoyed this venture in the world of blowing dust, sand dunes, camels and Moors, and speaks fondly of dining on camel liver and hump.

The summer was spent half at home and half in the field with graduate students Mary Crabaugh, Chris Swezey, and Edna Yeh. Mark Andreason is nearing the home stretch on his thesis on back-reef rocks of the Permian Basin. Mike Sweet graduated in fine form with his PhD. Karen Havholm is rapidly cornering the secrets of ergs and basins.

On the homefront, Dianna is happily running her company with much travel to Washington and China. A hard winter killed a good number of plants in the yard, but now the garden is best described as "semi-controlled lushness." The newts survived the winter in the pond, and were joined this spring by four Minnesota mudpuppies and wandering toads and bullfrogs. The pigeons produced 14 offspring that were returned to the "wild." The cat population is up to seven, with the addition of a stray gray cat, a stray black cat that wandered in on Christmas Eve, and a one-week-old kitten found in the Kocureks' front ditch. Two weeks of bottle feeding were required for the last arrival.

**Rich Kyle** reports a busy and varied year. He continues to serve as the Department's undergraduate advisor; the number of geological sciences majors is now 128, a figure that he hopes represents a stabilization of the undergraduate enrollment.

As the invited keynote speaker for the annual meeting of the Mineral Deposits Studies Group of the Geological Society of London in December, Rich summarized the past ten years of his research on the relationship of petroleum to Zn-Pb-Ag mineralization in the Gulf Coast. His presentation was well-received and prompted discussion on current developments on the genetic relationships of organic matter and mineralization, as well as geologic comparisons of the North Sea with the Gulf Coast. Rich received a faculty research assignment for the spring semester to work at the U.S. Geological Survey National Headquarters in Reston, Virginia, on sulfur isotope characteristics of the Gulf Coast salt dome cap rocks. This topic has much to contribute to the understanding of sulfur sources and reduction/oxidation reactions in sedimentary environments. Rich also hosted visiting scientists Aroldo Misi of the Federal University of Bahia (Brazil) and Youn-Ho Jang of Samchock Technical College (Korea) with whom he is working on collaborative research projects on ore

deposits geology in their countries.

Probably the most exciting event of the year was the initiation of a long-term research project on the tectonics and ore deposits of Irian Jaya, Indonesia, supported by Freeport Indonesia. The project initially focuses on Freeport's contract of work area in the Ertsberg region and has as its project director Bob Boyer and its principal investigators Rich, Mark Cloos, and Nick Walker. In mid-March Rich and Mark visited the spectacular Alpine terrain with folded and thrust Cenozoic carbonate rocks intruded by young (<5 Ma?) dioritic plutons. Deformation, if not currently active, has only recently ceased. Elevations in the mine area range from 5,000 to over 16,000 feet, with equatorial glaciers on the top peaks. Past and current production has been from copper-rich skarns developed in Eocene carbonate rocks, but the intrusion-hosted Grasberg "porphyry copper" deposit will soon be in production. Three graduate students will start field work on the property this summer, and a joint research agreement has been established with the Technical Institute in Bandung. The project is anticipated to last a minimum of four years and perhaps much longer if the obstacles to regional work can be overcome.

Summer plans include completing the cap rock sulfur isotope studies in Reston and participating in the International Geological Congress. Linda, Brock, and Brett had a busy year, too. Linda looks forward to the year ahead as an editor, a writer, and

also a new member of the board of directors of the Texas Society to Prevent Blindness. Both Brock and Brett look forward to their next year at Austin Montessori School where Brock will be in fourth grade and Brett will be in first grade. After their summer in the Washington, D.C. area, Rich will travel to Indonesia to review progress on the Freeport project.

***Sam Ellison was  
elected president of  
the UT-Austin  
Retired Faculty/  
Staff Association  
for 1989.***

**Martin Lagoe** spent the fall semester on research leave at the UT Institute for Geophysics. He spent the semester co-writing an NSF research proposal on the Cenozoic paleoceanography of the Indian Ocean with Tom Davies and John Sclater. The proposal is part of a joint effort with a British research group headed by Rob Kidd. Funding for the project is hoped for by the end of 1989. Two courses were taught during the spring semester—GEO 380D (Subsurface Stratigraphy) for graduate students and GEO 401 (Physical Geology) for undergraduates. Activities at professional meetings included presentations at the centennial meeting of the Geological Society of America in Denver, the fall meeting of the American Geophysical Union in San Francisco, and the International Geological Congress in Washington. Other professional activities included service as associate editor for the *Journal of Foraminiferal Research*, on the editorial board of *Geology* and as a member of the SEPM Committee on Future Projects.

Three students finished their graduate work during the past year. Michael Cervantes' MA thesis was "Foraminiferal biofacies of middle to late Paleogene Rocks in the western San Emigdio Mountains, California." Mike is currently a petroleum geologist with Amoco in Houston. Sally Zellers completed her MA with a thesis on "Foraminiferal biofacies analysis of the Yakataga Formation, Icy Bay, Alaska." Sally is staying at UT-Austin to work on her PhD. John Tenison's MA thesis was "Biostratigraphy, lithostratigraphy and paleoenvironment of the Etchegoin and San Joaquin Formations, Buena Vista Hills, California." Students

still in the trenches include J. C. Ray (MA-Yakataga Fm. foraminiferal biofacies in an offshore well); Paula Noble (PhD-Devonian/Mississippian radiolaria in west Texas); Ben Sloan (PhD-Eocene foraminiferal biofacies and sequence stratigraphy of the North Sea); Bob Buehring (MA-depositional systems in the Etchegoin Fm., California); and Chris Caran (PhD-paleoenvironmental history of Quaternary Lakes in West Texas).

Also arriving in March was Dr. Anthony Gary from the University of South Carolina. Tony is a post-doc in the Department, working with Martin on a variety of research projects. Of primary importance is the development of an image analysis laboratory for the study of microfossils, sedimentary grains and thin-section textures. Tony and Martin are also working to establish an ambitious research program on modern foraminifera in the Gulf of Mexico. Martin's summer research plans include four weeks of field work in the Gulf of Alaska with Drs. Nick and Carolyn Eyles of the University of Toronto. The field work, this summer with extensive helicopter support, is funded by the National Science Foundation, the Petroleum Research Fund and the National Science and Engineering Research Council of Canada. Major goals for the upcoming year are the development of graduate courses in quantitative stratigraphy and advanced micropaleontology; the establishment of the image analysis laboratory; and putting together some funding from industry to support micropaleontologic research at UT-Austin.

**Lynton Land**, Judy, and Aaron returned to Jamaica yet again in search of more dolomite, the return of *Acropora cervicornis*, and a break from the rigors of second grade. More dolomite was found, but to Lynton's amazement the reef was observed to "breathe." Some of the holes which were drilled were "suckers" and some were "blowers." In one case, in thirty feet of water, seawater was observed to disappear down an open 3-inch-in-diameter hole at a velocity of 83 cm sec<sup>-1</sup>! The corals were found to be on a slow comeback, but another hurricane in September 1988 bodes ill for continuing work during the summer of 1989. Aaron got his "learner's permit" for dive-boat pilotage and has been pestering both parents for something to practice with on Lake Travis (NO WAY!). But the perfect rum-and-lime hasn't been mixed yet, nobody knows where all that seawater is going, and maybe a few corals survived, so it looks like at least another summer in Jamaica will be necessary, although if the hurricanes keep coming there won't be much left to study. The end of the summer found everybody in Australia for a visit to Judy's parents in Melbourne and the International Coral Reef Symposium in Townsville. But because it was winter down under, Aaron had to give up boat driving for kangaroo feeding.

The new mass spectrometer continues to work wonders, opening new vistas (boron isotopes) and sharpening old ones (Jamaican dolomite, what else). And if Luigi will stop putting live bacteria in the new SEM so we have to call in the service man, there are undoubtedly new things to be resolved.

Judy spent much of the year teaching and writing grant proposals at the Texas Memorial Museum. She is developing a small exhibit on endangered species in Texas which uses an

interactive computer. The exhibit will open mid-summer 1989, despite setbacks when the "Goddess" (the old statue from the top of the Capitol building) successfully replaced the Mosasaur in the entrance hall at the Museum. The Mosasaur is being reconstructed on the first floor, and rumors that it will be hoisted atop the Capitol are untrue.

**Leon Long** taught the large introductory course (Geo 303) with Bill Sill in the fall and with Doug Smith in the spring; all told, there were more than 700 students. Leon also gave the graduate course in isotope geology. Then he taught a field course in Central Texas for non-majors, and part of the senior-level field course in Colorado and New Mexico. He gave a paper at the GSA annual meeting in Denver.

Leon's research was tied in with that of his students. The biggest item consisted of using the Rb-Sr method to date the Dokhan Volcanics, late Precambrian basement rocks in the Eastern Desert of Egypt, and attempting to determine ages of diagenesis in associated basin-fill sediments, the Hammamat Group. The latter work is part of an ongoing program to understand the complex behavior of the Rb-Sr isotope system in clay minerals. Beyond that, Leon spent much of the time plugging away at rewriting his introductory geology textbook. He says that writing is very difficult, even with a word processor and even though he has been through all that stuff before. Every particle of writing has to be re-thought just as though it were being composed for the first time.

The biggest excitement came in a trip to Egypt to visit Sinai and the Eastern Desert, and to discuss work with Egyptian colleagues. Leon discovered Egypt to be exceedingly exotic even on this, his second visit to that country. Most of the time he lived with families, and by now has been entertained in 17 different homes ranging from dirt farmers in the Delta to upper middle class in Cairo.

***Bill Fisher was selected to serve on the National Petroleum Council, White House Science Council and Governor's Energy Council. He also co-chairs the Board on Earth Sciences and Resources of the National Research Council.***

**Ernest Lundelius** spent the past academic year teaching Geology 405 (Life Through Time), a seminar on Quaternary problems, supervising graduate students and being chairman of the departmental search committee to fill the two positions left vacant by the retirements of Bob Folk and Keith Young. The new field vehicle for the Vertebrate Paleontology Laboratory which was obtained through the generosity of a number of individuals is a great success. The field program of the Lab in rough country can now go on. Ernie attended a meeting on Quaternary extinctions in August in Sydney, Australia and was also able to study fossil material in a number of museums in Australia which will be a great help in his continuing research on Quaternary vertebrates from that continent. He plans to spend the summer of '89 finishing a couple of manuscripts and doing some field work on Quaternary faunas from the Edwards Plateau.

**John Maxwell's** education in the art of establishing national research policy was considerably advanced by service as an "outside" member of an ad hoc review committee of the National



Sciences and Research Council of Canada. This committee was charged with reviewing a proposal for implementing the Canadian Global Change Program, as a component of the worldwide major study in progress. He hopes other national programs receive the same careful analysis and advice as that developed by the Canadians of this ad hoc committee.

The year marked the receipt of the "gold" 50-year lapel emblem of AAPG, and the eighth and final year as a member of the GSA Foundation. John continues to act as a consultant to the Advisory Committee on Reactor Safeguards of the Nuclear Regulatory Commission, and as a member of a committee advisory to the Gas Research Institute concerning the Gravberg deep gas test in the Siljan area of Sweden. The principal lessons learned here may be that inorganic hydrocarbons do occur, at least in trace amounts, in crystalline rocks, and that deep drilling in such rocks is frustrating and is hazardous to the bank account.

The high point of the year was a trip to Costa Rica during February and March, principally to join a "nature" tour of that beautiful country, but also to talk with geology faculty and librarians about a possible gift of John's technical library. The friendly reception of Americans by the highly literate people of Costa Rica was an agreeable surprise. An escape from Austin's August weather to Telluride, Colorado, was the Maxwells' only other travel.

**Earle McBride** reports that the academic year was quiet in comparison with last summer's field season. In August of 1988, he and grad student John Atkins spent the night stranded in a boat on Laguna Madre after a trip to the "land cut." Their boat motor conked out and they drifted out of the shipping channel and could not attract the attention of passing boats until the next day. Later that month, Earle was in California collecting some samples of beach sand impregnated *in situ* with epoxy resin. His first batch of samples was destroyed by park rangers, who thought the resin poured into the sand was discarded toxic waste, and while attending a second batch of samples he was arrested as a dope smuggler. When he asked the arresting officers why he was considered a suspect, he was told he "fit the APB description of a male wearing blue jeans." In a revisit to Laguna Madre in summer of 1989 some field gear was stolen overnight and the work boats' gas cans were watered.

The academic year was spiced with attendances of the GSA Centennial meeting in Denver, and the GCAGS and AAPG meetings. He and Lynton Land had the pleasure of coordinating a "roast" of Bob Folk just before the AAPG meeting.

This summer Earle taught part of the summer field course and then went to Switzerland and Italy to collect samples for studies of abrasion of sand in high-gradient Alpine streams. He also is working with Duke Picard (University of Utah) and Italian geologists on the origin of sandstone concretions in Tertiary sandstones in northern Italy.

Much of **Fred McDowell's** recent research activity has focused upon two separate projects in Mexico. Now nearing completion is extensive K-Ar dating associated with a study of the

stratigraphy and paleontology of Late Tertiary vertebrate fossil localities in Oaxaca and Chiapas. Fred's collaborator is Dr. Ismael Ferrusquía, professor of paleontology at the National University of Mexico and a former student of Jack Wilson. Dr. Ferrusquía reported on the initial phase of this research at the Denver GSA meeting. The study has already significantly increased the number of fossil localities and enriched the archive of vertebrate remains from southern Mexico. Ultimately, the project will provide much new information about the evolution and migration patterns of Miocene vertebrates as well as on the tectonic significance of continental basins in southern North America.

A study of the geochronology of Cretaceous-Tertiary magmatism across Chihuahua and Sonora was initiated this year. The project involves both K-Ar and U-Pb dating to assemble age relationships along a single traverse in order to test magmatic age patterns that have been developed from very sparsely distributed age data and inferred from plate tectonic models. Two major sampling trips, one to Chihuahua in July 1988 and one to Sonora in November, have provided a mountain of materials awaiting

**Sharon Mosher**  
was selected as  
the recipient of  
the 1988-89  
Knebel Distinguished Teaching  
Award by vote of  
the students in the  
Department of  
Geological  
Sciences.

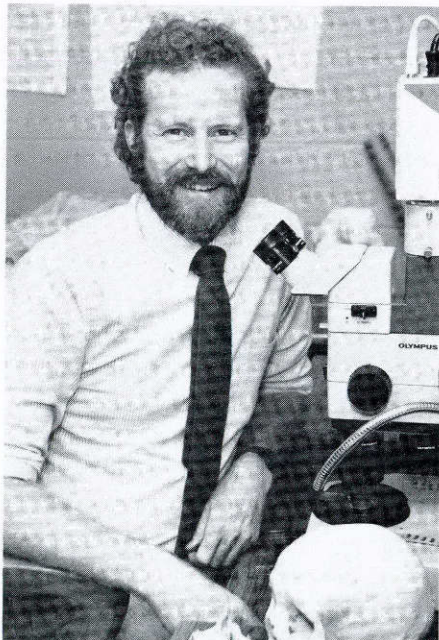


processing and analysis. The invitation to participate in a symposium on the geology of Sonora held in Hermosillo last November provided Fred with a great opportunity to establish contacts with local geologists, many of whom are providing much helpful guidance. Initial results of this effort are being presented at the June meeting of the International Association of Volcanology and Chemistry of the Earth's Interior in Santa Fe, New Mexico.

**Sharon Mosher** had another extremely busy but very satisfying year. Teaching involved structural petrology in the fall, structural geology in the spring, and field camp in the summer. The spring was especially enjoyable for it was the first time Sharon had taught structure since the student enrollment dropped. The students were the best group of students she had ever had in structure. She was also very busy working with her graduate students. Two Master's students (Mike Hall and Gretchen Gillis) finished, and one PhD student (Tom Hoak) passed his comprehensive exam.

On the administrative front, Sharon discovered the joys of serving on the search committee and was very pleased to actively participate in the hiring of two excellent new faculty members. She also served on the equal opportunities committee for the College of Natural Sciences and as vice-chairman of the IGCP national committee for the National Research Council.

Sharon is in the middle of two NSF grants, one on crustal contraction mechanisms at intermediate crustal levels in the Northern Apennines of Northern Italy and one on the evolution of the Precambrian Llano Uplift of Central Texas. Field work in the Llano Uplift was very exciting this year. The structural data coupled with the metamorphic data of Carlson and his students and geochronology of Walker suggest that walking across the uplift is like walking across an eroded remnant of the Himalayas. Every time Sharon went into the field, a new piece to the complex geologic puzzle was found. Fortunately, as the amount of work to be done was rapidly multiplying, a new PhD student, Joe Reese, began work on the Llano project. Sharon also spent some time in Italy working with Tom Hoak in the field. The exciting part of



*Timothy Rowe was one of five UT faculty members to receive the Presidential Young Investigator's award. In addition, he has been awarded the University Dad's Association Teaching Fellowship for spring 1990.*

the Apennine story, however, came from the meticulous strain work of Karen Carter on the hundreds of cores Karen, Sharon, and Tom struggled to drill last summer. It was great to see that all that hard work pay off. Sharon also finished some papers with students, had three published, and saw light at the end of the tunnel on her remaining two DNAG publications. She actually saw galley proofs for the Appalachian Alleghanian paper, and the Precambrian of Texas paper finally went out for official review.

This very productive year ended with Sharon winning the Knebel Distinguished Teaching Award and being elected a GSA fellow, two honors that Sharon appreciates greatly.

**Bill Muehlberger**, with his co-leader, Pat Dickerson, completed a 197-page field trip guidebook to Trans-Pecos Texas for one of the field trips held in conjunction with the 28th International Geological Congress in Washington, D. C. This is the first time since 1933 that the IGC has met in the United States. Neither Bill nor Pat expected that it would be so much

work—or so long! It contains new articles that update knowledge of the Chihuahua and Marathon thrust/fold belts, Big Bend National Park and vicinity, structure of the Franklin Mountains, a tectonic synthesis of the whole region, summary papers on the Delaware Basin and groundwater in northern Trans-Pecos. In addition, there are reprints of recent articles that summarize regions that are important to the field trip. Naturally they are proud of the book. The significant new work summarized in this volume is primarily the product of many graduate students (mostly UT-Austin). Bill says, "Without their work we would still be making wrong pronouncements at many field trip stops."

Teaching a freshman physical geology section after an eight-year hiatus was also a time-consuming effort. However, it was fun and next fall some of the rusty lectures will be eliminated.

The final version, ready for drafting, of the southeast quadrant of the Tectonic Map of North America will be on display at the International Geological Congress meeting this July. Bill hopes the rest will appear by next summer.

**Tim Rowe** is very pleased to have been chosen by the National Science Foundation for a Presidential Young Investigator Award. Tim is the first paleontologist ever to receive this award, which provides 5 years of base funding plus a commitment from NSF for matching funds. The award will provide support for Tim's research on the evolution and development of the tetrapod skeleton. It will enable him to import promising new technology to paleontology, including magnetic resonance imaging, CT scanning, and computer-assisted image analysis and processing. It will also enable Tim to visit important museum collections in Europe, Russia, China, Australia, and South America. Matching funds will be used to help with equipment purchases, as well as postdoctoral and graduate student support.

Tim also received a two-year grant from the American Chemical Society to pursue his research on the Late Cretaceous micro-vertebrates of West Texas. The micro-vertebrate site that he found last year near Big Bend National Park has proven to be very rich, yielding hundreds of specimens representing at least two different kinds of mammals, six different sharks, a snake, several lizards, several different dinosaurs, a multitude of fish, and pollen. Tim will return to the site in August with several students, and if the heat doesn't kill them all, he expects to add substantially to what is already an important collection.

In addition to teaching three courses last year, Tim was an invited speaker at an NSF-sponsored symposium on computers in systematics and paleontology in Denver, and at a symposium on development and mammalian evolution in Fairbanks, and he gave a short course on computerized systematics at Berry College. The terrific research support he received this year will help him pursue these interests further, and train students in these exciting new areas.

**Amos Salvador** was on leave during the 1988 fall semester to be able to devote most of his time to continue writing and

editing material for the volume on the geology of the Gulf of Mexico Basin (GSA) and working on the revision of the *International Stratigraphic Guide* being prepared by the International Subcommittee on Stratigraphic Classification (ISSC) of which he is the chairman. During the spring semester, he combined work on these two projects with the teaching of two undergraduate courses, stratigraphy and energy resources. Work on these projects will continue during the summer interrupted only by attending the 28th International Geological Congress in Washington, D.C., during which he will present a poster session on the Gulf of Mexico Basin and take part in the meetings of the International Commission on Stratigraphy (ICS), the ISSC and other subcommittees of the ICS.

**John G. Slater** was elected to the National Academy of Sciences in April of 1989. He spent most of the year exercising his duties as chair of the ocean studies panel of the National Academy of Science. This involved monthly trips to Washington. The main purpose of the board is to promote the health and visibility of the ocean sciences on the national scene. During his three years as chair, John plans to stress the value of the coastal research to the national needs and to ensure visibility of the ocean research in the understanding of the global processes affecting our planet.

During the past year John's research has concentrated upon building a new heat flow instrument for use in Antarctica and the Gulf of Mexico and investigating both experimentally and theoretically the deformation of ball bearings as a model of aggregate materials under extension.

**Jack Sharp** hit the road this past year—two weeks in China at the 21st IAH Congress, one week in the Canary Islands at a NATO Conference on the hydrologic effects of global climate change, two field trips to Trans-Pecos Texas (one featuring two vehicle breakdowns with Jack and 12 students stranded for a day and a half between Fort Stockton and the Pecos River), the AGU meeting in Baltimore, the AIH meeting in Tampa, GSA in Denver, plus two site reviews at the University of Nebraska and visits to the Desert Research Institute (Las Vegas and Reno), the University of Minnesota and the University of Alabama. He's *not* trying, however, to catch up with Bill Fisher in travel.

Several hydrogeology students finished their degrees—Randy Larkin (now with International Technology), Andy Donnelly (Radian), Curt Black (Jones and Neuse), Ranier Senger (Bureau of Economic Geology), Steve Germit (Hart Crowser in Seattle), and Deb Pfeiffer (Shell in New Orleans). And a promising new group of prospective hydrogeologists will arrive in the fall. They hail from UT-Austin, South Carolina, South Florida, and Texas Tech. Jack and Phil Bennett will be kept busy. One of the most exciting new research projects was the coupling of aerosol dispersal of pollutants to groundwater models of aquifer contamination by student Theresa Brown.

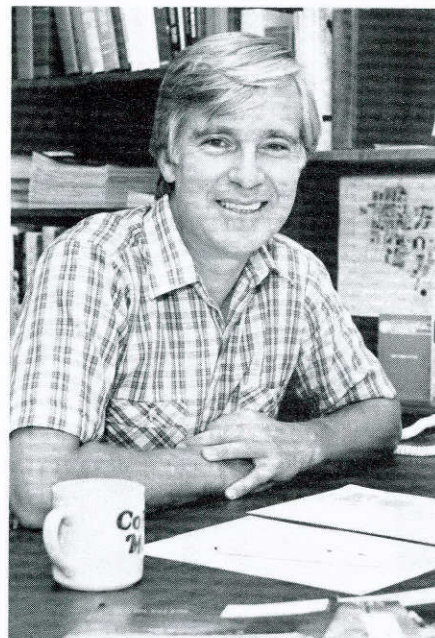
Jack finished his term as chairman of the hydrogeology division of GSA, but he's keeping his hand in the organization as associate editor of the *GSA Bulletin*. He and Charlie Kreidler (Bureau of Economic Geology) are also planning a field trip in

conjunction with the 1990 GSA annual meeting in Dallas. You all come! On other professional fronts, Jack was elected vice president for academic affairs of the American Institute of Hydrology. This organization seeks to sponsor professionalism and certification of hydrologists and hydrogeologists. He's also running for vice president in the International Association of Hydrogeologists.

In his spare time, he was drafted to help coach Little League (definitely *not* based on his talents on the diamond). Gardening, handball, and rowing are still sneaked in whenever possible. Duck hunting was terrible until the last two days of the season—it was too warm up north.

**Doug Smith** reports that the year went well, even though it passed far too quickly. He and Bill Sill began the fall by organizing field trips to introduce the new grad students to the geology of central Texas. More than a dozen faculty participated, and even though the weather was predictably hot, the outcrop discussions

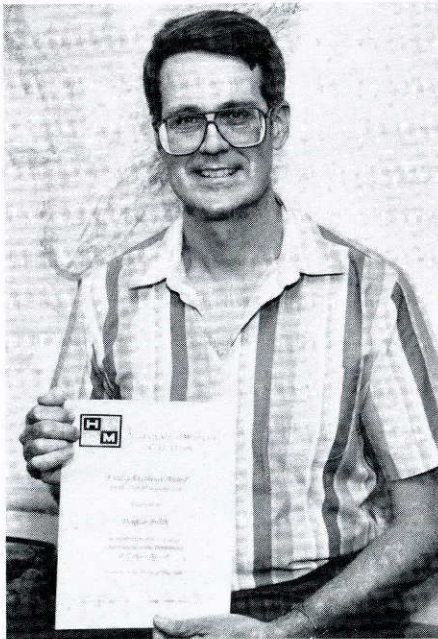
*John G. Slater was elected in April to membership in the National Academy of Sciences in recognition of his distinguished and continuing achievements in original research.*



were brisk; it is clear that regional geologic and environmental problems will continue to provide stimulating problems to students and faculty, despite all the work accomplished by our alumni. Doug's own research and that of grad students working with him remains focused on magma genesis and processes in the mantle. Current students are working in Arizona and Colorado. He is hoping to answer some broad questions about continental evolution by finding out more and more about less and less. Specifically, he is collaborating on studies of trace element zonation of minerals from the earth's mantle, in part by using techniques like PIXE (proton-induced x-ray emission) to analyze the crystals. The results may clarify the processes that form and disrupt the roots of continents. Doug continued as graduate adviser while teaching introductory geology and thermo. He monitors applications and admissions to our graduate program, and reports that the quality of entering graduate students remains high even though the pool of applicants continues to shrink. Doug notes that continued alumni support will be a tremendous help in maintaining the momentum of the Department.

No, **Jim Sprinkle** didn't disappear from the Department last year; his write-up turned in on computer disk disappeared from the Foundation's Mac II and never made it into last year's *Newsletter*. Jim has several old projects still in the mill. One big paper is on Mississippian blastoids from Montana, in press at the Museum of Comparative Zoology, Harvard University, and another is a symposium paper on Cambrian echinoderms, in press with Plenum Publishers. There are also several newer projects. Jim has been working most of the year on Cambrian eocrinoids; he also joined a group from Baylor University working on a new, spectacular, Pennsylvanian edrioasteroid discovery in Oklahoma. Jim also has a brand new project: he submitted an NSF grant proposal last December to work on Early Ordovician echinoderms from the Rockies, and in late May was awarded \$53,000 for this project over the next two years.

Jim taught paleobiology (for the 18th time) and the graduate paleoecology seminar in the fall, plus plate tectonics and earth history (for the 22nd time) and the BA course, introduction to paleontology—fossils, in the spring. He also taught two weeks of



***Douglas Smith  
was the recipient of  
the Houston Oil  
& Minerals Faculty  
Excellence Award  
for 1988-89 based  
on recommendations  
by faculty and  
students in the  
Department of  
Geological Sciences.***

the senior field course in the early summer, before going out to the central Rockies for field work. Jim served on the College of Natural Sciences hazardous materials committee during the year, and also filled in as the Department's undergraduate advisor during the spring.

This past year **Paul L. Stoffa** has continued his work on four major National Science Foundation seismic reflection programs: The first academic marine 3D survey designed to image the accretionary prism offshore Costa Rica; a high resolution large offset two-ship program designed to measure sediment properties offshore Japan; the first seismic transect through the fjords offshore Chile and Argentina; and, a deep crustal seismic imaging program offshore South Carolina and Georgia that employed a geophysical service company vessel equipped with a very large, 10,800 cu. in., sound source and a 6.0 km 240 channel receiving array. Paul also received support from Cray Research Inc. to develop interactive 3D modelling and migration algorithms on

supercomputers and from Landmark Graphics Corporation to integrate seismic workstation imaging technology with super-computing applications. A contract from the Office of Naval Research was also recently obtained to extend conventional 3D seismic reflection profiling to high resolution profiles in the shallow subsurface environment.

**Sally Sutton** had a busy year as keeper of the microprobe, SEM, and XRD, and on various other projects. She is happy to report that all three machines are running well and producing lots of data. She continued working on Witwatersrand quartzites and is beginning a related project on Proterozoic quartzites at Elliot Lake, Ontario. The Witwatersrand quartzites apparently underwent weathering that has been overprinted by metamorphism, but is preserved geochemically in stratigraphically controlled compositional trends. Using the imaging capabilities of the probe it's been possible to distinguish between detrital and metamorphic phases in the quartzite matrix. The Canadian quartzites are reportedly very similar to the Witwatersrand ones, except that the gold hasn't been found yet. With any luck, the black flies will die off before she heads to Canada for field work this August.

Sally is also starting a collaborative project working in the Ouachitas with Lynton Land. They are looking at mineralogical, compositional, and fabric changes associated with diagenesis and low-grade metamorphism in the Stanley Shale. A preliminary survey of the Stanley indicates that it becomes markedly more aluminous with increasing grade.

**Bill van Rensburg** was again invited to the Pacific Rim Minerals Conference as a distinguished lecturer. Students in the Energy and Mineral Resources Graduate Program which he directs, won all three prizes for best paper in mineral economics in 1988. During the previous six years they took two of the three prizes each year.

Bill visited his native South Africa over Christmas and used the opportunity to visit universities and mining companies.

With the clean lab and new thermal ionization mass spectrometer fully operational, this past year was especially productive for **Nick Walker**. U-Pb geochronologic data generated in the clean lab from rocks collected in California, Washington, Oregon, British Columbia, Mexico, and Texas have led to some interesting discoveries and have kindled ideas for future research projects.

In the fall semester Nick co-taught crystallography and optical mineralogy with Dan Barker and in the spring semester taught regional tectonics at the graduate level and mineralogy and petrology to undergraduates. In June, Nick participated in the instruction of the senior field course in Colorado and New Mexico with Mark Helper, Leon Long, and Jim Sprinkle.

Nick continues research in the North Cascades of Washington with Ned Brown of Western Washington University and UT Master's students Mark Longtine and Peter Bittenbender.

Ongoing research in the Llano Uplift in conjunction with Bill Carlson and Sharon Mosher is thoroughly enjoyable and geologically intriguing. Master's student Paul Carpenter and PhD student Bob Roback are making excellent progress toward their degrees.

Nick presented papers at the GSA national meeting in Denver in November and the GSA Cordilleran meeting in Spokane in May. In April, Nick gave an invited lecture at the UT-Dallas.

Field work in the icy North Cascades during August was a welcome and much needed hiatus from the sizzling Texas heat.

Clark Wilson spent the fall semester teaching the undergraduate exploration geophysics course and the graduate linear systems analysis course. Travel in the fall included a trip to Munich, Germany to attend a NASA crustal dynamics meeting. In the spring, he taught the undergraduate course on the structure of the earth, and traveled to the Jet Propulsion Laboratory in Pasadena, California for another NASA meeting. Summer 1989 travel plans include a NASA planning workshop in July, and the International Association of Geodesy meeting in Edinburgh, Scotland in August. Daughters Kirsten and Sissel continue to thrive and to absorb all available free time.


Jack Wilson continues working at the Vertebrate Paleontology Laboratory. He and his last three students, Annie Walton (MA '86), Jim Westgate (PhD '88) and Tony Runkel (PhD '88) have been invited to participate in a Penrose Conference, on Late Eocene-Oligocene climatic and biotic evolution, to be held at Rapid City, South Dakota August 1-5, 1989. Wann Langston and Jack drove to Study Butte in the Lab's new four-wheel drive van to make plans for a field trip prior to the meeting of the Society

**Clark Wilson  
replaces  
Mark Cloos  
as Associate  
Chairman of the  
Department and  
Associate Director  
of the Geology  
Foundation  
for 1989-90.**



of Vertebrate Paleontology to be held in Austin next November 2-4. All VPs will be busy working on that meeting.

Marge and Jack celebrated their 50th wedding anniversary on December 26, 1988. Their three sons and families gave them a "fiesta" at Lake Travis. They recovered by spending a month back at their anti-cedar pollen retreat on Maui.

Ann and Keith Young remained closer to home this past year in order to visit a new grandchild. Keith is already preparing for the Third International (Federico Roman) Cephalopod Symposium to be held in Lyon, France, in July of 1990. Late Jurassic and Early Cretaceous ammonites are still of prime importance. Keith doesn't miss teaching, except for the students. As Henryk Stenzel once said, "Students keep you young." 

## FACULTY PUBLICATIONS

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## DEPARTMENT STAFF

- Joyce E. Best**, Administrative Associate. Supervises Geology Foundation office, handles geology alumni records, serves as editor of the annual alumni *Newsletter*.
- Andrea Black**, Administrative Assistant. Responsible for administrative and budget matters for Project SEER (Solid Earth Exploration Research) directed by Milo M. Backus, acts as liaison for graduate research assistants on administrative matters, and handles preparations for semiannual Project SEER meetings.
- Rosemary Brant**, Senior Office Assistant. General secretarial and clerical work for third floor faculty, including typing exams and manuscripts. Line editing for all Department faculty.
- Ruff Daniels**, Technical Staff Assistant IV. Maintains the Department's field vehicles and equipment. Oversees construction, operation, and maintenance of specialized equipment used by faculty and graduate students in their research.
- Paul A. Desha**, Senior Procurement Officer. Purchases equipment and supplies for Department use, including instructional, research, and administrative areas. Maintains department records of accounts, using on-line computerized accounting system, processes vouchers for departmental expenses, and maintains department inventory records.

- Jane Hamlin**, Administrative Assistant. Secretary to the Chairman. Assists the Associate Chairman and the Executive Assistant. Handles weekly time reports for the staff, prepares vacation/sick leave reports for Personnel Office. Acts as secretary for the Faculty Search Committee. Serves as the Department's Notary Public.
- Jeff Horowitz**, Drafting Technician II. Draws structure maps, graphs and charts for numerous geological publications, including chapters in books. Works directly with the faculty preparing slides and posters for various conferences. Offers student advising on cartographic techniques.
- Betty J. Kurtz**, Senior Office Assistant. Fulfills secretarial duties for the second-floor faculty, including word processing of manuscripts, exams and correspondence.
- Egídio Leitão**, Administrative Assistant. Placement coordinator, contracts and grants coordinator. Handles classroom administration matters including official class rosters and course schedules, grade sheets, and textbook orders.
- Rebecca Ann Page**, Administrative Assistant (Graduate Advisor's Office). Handles administration of the graduate student office, processes teaching assistant/research assistant appointments and applications for admission and support.
- Donna L. Precht**, Student Development Specialist II. Handles undergraduate advising, counseling, evaluation and program development for undergraduate students, and undergraduate recruitment. Processes travel vouchers, student assistant appointments and payrolls.
- Scott K. Schroeder**, Accounting Clerk III. Handles accounting records for Geology Foundation. Provides technical support for Macintosh computers. Provides graphics composition and layout for Department and Geology Foundation.
- David M. Stephens**, Photographer II. Photographer for professional publications and photographic consultant.
- Scott Thieben**, Research Scientist Assistant (Analytical Chemist). Performs chemical analysis of rocks, minerals, and brines. Instructs students individually in analytical techniques.
- J. Eddie Wheeler**, Scientific Instrument Maker II. Assists faculty by designing and building projects for their research, helps with mechanical maintenance of equipment, machining and welding of other assemblies and various other jobs.
- William I. (Bill) Woods**, Executive Assistant. Assists the Chairman and Associate Chairman in the annual preparation of the Department budget, handles all faculty/staff administrative matters, and supervises classified personnel. Serves as contact person with the Physical Plant for all matters relating to the Geology Building.

### Staff Honors and Awards

In December 1988 Karl Hoops received a Staff Excellence Award from the College of Natural Sciences. Faculty and staff nominated staff members from throughout the College, and five recipients were chosen from the group of nominees. Karl has been an employee of the Department of Geological Sciences for over 20 years.

Egídio Leitão presented a paper at the invitation of the organizers of the Brazilian Popular Culture Conference held at UT-Austin in April 1989. His paper was entitled "Brazilian popular music and the military dictatorship in the 70's."

## Karl Hoops Retires

On March 31, 1989, G. Karl Hoops, Technical Staff Assistant V, retired after 22 years of outstanding service to the Department. He produced rock, mineral, and water analyses of the highest quality, providing data essential to faculty and student research. Karl was never satisfied with less precision than that allowed by the available methods, and he constantly strived to improve those methods. He conducted significant original research in addition to generating data for others, and had a significant teaching role in the Department by instructing individual graduate students in the use of analytical equipment and supervising their analyses, but the most valuable lesson students learned from Karl was scrupulous honesty. Data, even when carefully gathered by the best method available, may not be good enough to solve the problem. When we reached that point, Karl taught us that deadends must be recognized, that there is no disgrace in going back to the beginning and trying a new path, and that shortcuts are often futile. His patience, dedication, and honesty made him an excellent role model for the many students and faculty whom he gently guided.

On December 15, Karl was presented a Staff Excellence Award by the College of Natural Sciences, and on the day of his retirement the Department hosted a reception honoring Karl and Alicia at the Faculty Center. Staff, faculty, students, and ex-students wish them health and happiness.



*Guests watch as Karl Hoops cuts cake.*

## Visiting Lecturers Program

An important facet of graduate education in the Department, and a vital adjunct to its research mission, is the program of lectureships underwritten by endowments established through the generosity of several donors to the Geology Foundation. Each year, these lectureships bring to our Department a number of experts in the geosciences, who make extended visits to present a series of lectures in their areas of expertise, and to interact one-to-one with both students and faculty. Some of these visits enrich our academic program with offerings in specialties not represented on the faculty; others bring to our campus the leading lights in fields of particular interest to students and research groups within the Department. All of them confront the faculty and students with up-to-date, stimulating, and often controversial views of our science, and engender the debate and exchange of views that is the central focus of graduate education and research. This year's program brought the following distinguished lecturers to our campus:

- Dr. Mark Harrison**, State University of New York at Albany  
*Edwin Allday Lecturer in Geological Sciences*  
Diverse applications of  $^{40}\text{Ar}/^{39}\text{Ar}$  analyses
- Dr. Ronald Shreve**, University of California, Los Angeles  
*Judd H. and Cynthia S. Oualline Lecturer in Geological Sciences*  
Physics of geological processes
- Dr. Leon Silver**, California Institute of Technology  
*Judd H. and Cynthia S. Oualline Lecturer in Geological Sciences*  
Geochronology, petrology, and tectonics
- Dr. Donald Swift**, Old Dominion University  
*Don R. and Patricia Kidd Boyd Lecturer in Petroleum Exploration*  
Shelf sedimentation and processes
- Dr. John Crowell**, University of California, Santa Barbara  
*Judd H. and Cynthia S. Oualline Lecturer in Petroleum Geology*  
Tectonics and sedimentary basin evolution
- Dr. Farish Jenkins**, Harvard Museum of Comparative Zoology  
*Clara Jones Langston Centennial Lecturer in Vertebrate Paleontology*  
Functional morphology of vertebrates
- Dr. Chris Neuzil**, U.S. Geological Survey  
*Fred L. and Frances J. Oliver Lecturer in Texas Hydrology and Water Resources*  
Properties of low-permeability media



*John C. Crowell*

## VISITING SPEAKERS

### 1988-89 ACADEMIC YEAR

- Keiiti Aki, University of Southern California, "CODA Q: A structural parameter of the lithosphere correlated with seismicity in space and time."
- John Armentrout, Mobil Oil, "A model for deep water deposition of sand."
- Richard Armstrong, University of British Columbia, "Cordilleran Mesozoic magmatic episodes and magmatic belts: Restraints on accretion models" and "Metamorphic core complexes—old and new ideas and discoveries."
- Peter Bird, University of California, Los Angeles, "A computer model of Paleogene tectonics and topography in North America."
- Arnold Bouma, Louisiana State University, "Influence of sea level fluctuations on shallow and deep marine depositional environments, Gulf of Mexico."
- Alistair Brown, Geophysical Service Incorporated, American Association of Petroleum Geologists Distinguished Lecturer, "Stratigraphic interpretation of 3-D data."
- Niles Eldredge, The American Museum of Natural History, "New trends in macroevolution." and "Reproductive and economic adaptation: implications for evolutionary theory."
- Kenneth W. Glennie, retired from Dutch Shell in the Hague, "Desert sedimentary environments, present and past—a summary" and "The two contrasting petroleum provinces of the North Sea."
- Patrick Hesp, Australia, "Development of blowout features in coastal dunes."
- Farish A. Jenkins Jr., Harvard University, "Techniques and traps in vertebrate functional morphology" and "On monotremes and Mesozoic mammal evolution."
- Klaus Keil, The University of New Mexico, "The shallowater, Texas enstatite meteorite: Evidence for early solar system processes" and "Meteoric impact areccias: Implications for asteroid histories."
- Yousif K. Kharaka, United States Geological Survey, Menlo Park, "Application of models to water/rock interactions in sedimentary basins."
- David L. Kidder, University of California, Santa Barbara, "Syntectonic sedimentation in the upper belt supergroup and the nature of middle Proterozoic seawater."
- W. D. Means, University of Albany, "Synkinetic microscopy."
- Brian M. Popp, Indiana University, "An isotopic study of biogeochemical relationships between carbonates and organic carbon in the Greenhorn Formation."

- Bernard Poty, Centre de Recherches sur la Geologie de l'Uranium, Nancy, France, Society of Economic Geologists International Lecturer, "Uranium deposits and the thermal history of sedimentary basins."
- Dick Raymond, retired from the United States Bureau of Reclamation, "Land subsidence and earth fissures in central Arizona."
- Edwin Roedder, Harvard University, "Fluid inclusion investigations of geologic processes" and "Fluid inclusion workshop."
- Rick Sarg, American Association of Petroleum Geologists Distinguished Lecturer, "Carbonate sequence stratigraphy and the controls on carbonate platform development: Case study for the Permian of West Texas—New Mexico."
- Wolfgang Schlager, American Association of Petroleum Geologists Distinguished Lecturer, "Carbonate sequence stratigraphy and the controls on carbonate platform development: Case history for the Permian of West Texas."
- Gerald Schubert, University of California, Los Angeles, "Continental growth and mantle dynamics."
- Raymond Slade, United States Geological Survey, Austin, U.S.G.S. "Studies of the water resources of the Barton Springs part of the Edwards Aquifer."
- Frank S. Spear, Rensselaer Polytechnic Institute, "Metamorphic P-T paths in metamorphic belts."
- Tom Taylor, Shell Development Company, Houston, "Diagenesis of Miocene sandstones at Picaroon Field, offshore Texas: The influence of calcite dissolution on reservoir quality."
- Gregory Wahlman, Amoco, "Subsurface Wolfcampian (lower Permian) shelf margin reefs in the Permian Basin of West Texas and southeastern New Mexico."
- Lynn Walter, Washington University, "Dissolution recycling in recent carbonate platform sediments."
- Steve Wilson, Exxon, "Geology of the Endicott Field, North Slope, Alaska."
- Gian Zuffa, University of Bologna, "Sandstone composition: Key to stratigraphy and provenance of Necho Group, Spain."

**Mobil Exploration & Producing U.S. contributed \$500 to support the visit last February of Dr. Alistair Brown, AAPG Distinguished Lecturer.**

**Additional funds for visiting speakers were provided by Exxon Education Foundation, Shell Oil Foundation, and Phillips Petroleum Foundation. The Department expresses deep appreciation to these donors for allowing the visiting speakers program to flourish.**

B

BUREAU

OF

ECONOMIC

GEOLOGY

The Bureau of Economic Geology continues its work in energy, environmental, non-fuel mineral, mapping, and basic geological research. The 1988 calendar-year report includes descriptions of 19 energy-research projects, 14 projects concerning land, water, and environmental resources, five non-fuel mineral projects, five mapping projects, and six other research projects. Several of these projects as well as other work performed by the Bureau during 1988-89 merit special mention.

The Bureau was named as project manager for a three-year, \$22-million project designed to maximize recovery of natural gas in Texas. The Secondary Gas Recovery project is a cooperative research and demonstration effort involving the Bureau, the Gas Research Institute, the U.S. Department of Energy, and the natural gas industry. Information and methodologies developed in the project will have nationwide implications for increasing natural gas production.

An Applied Geodynamics Laboratory has been established for scale modeling of tectonic and structural processes. The laboratory is equipped for both physical and mathematical modeling. During the next two years the laboratory's work will focus on the location, origin, and evolution of hydrocarbon structural traps formed around salt structures. The AGL is supported by 15 U.S. and foreign national oil companies.

The Central Region Cluster meeting of U.S. Geological Survey (USGS) geologists and state geologists was held in September. The Bureau cohosted the meeting with the USGS. The meeting focused on the national geologic mapping effort, low-level radioactive waste disposal investigations, research into estimates of oil and natural gas reserves, Mississippi River transport of toxic-bearing sediments, and the evolution of sedimentary basins.

The second national symposium on studies related to continental margins was held in May. The symposium was cohosted by the Bureau, the Minerals Management Service (MMS), and the Continental Margins Committee of the Association of American State Geologists. Forty-eight individuals from 21 states attended. Participants reviewed research results from the third and fourth years of fuel and non-fuel mineral studies supported by MMS.

The Bureau continues to attract substantial research support from both public and private organizations. During 1988-89, new funding and research contracts were received from Agip, ARCO Oil and Gas Company, Chevron Oil Field Exploration Company, Conoco, Inc., Elf Aquitaine, Exxon Company USA, Gas Research Institute, Marathon Oil Company, Minerals Management Service, Mobil Research and Development, PETROBRAS, Phillips Petroleum Company, Shell Oil Company, Shiner, Moseley and Associates, Inc., SOEKOR, Ltd., Standard Oil Production Company, Texaco, Inc., Texas Attorney General's Office, Texas General Land Office, Texas Governor's Office, Texas Higher Education Coordinating Board, Texas Low-Level Radioactive Waste Disposal Authority, Texas National Research Laboratory Commission, Texas Parks and Wildlife Department, Total

Minatome Corporation, UNOCAL, U.S. Geological Survey, U.S. Environmental Protection Agency, U.S. Department of Energy, and U.S. Department of the Interior.

Five individuals joined the scientific and research staff during 1988-89. Robert L. Folk, the Dave P. Carlton Professor Emeritus in the Department of Geological Sciences, will conduct research in carbonate petrography. John G. Sclater, who holds the Shell Companies Foundation Distinguished Chair in Geophysics in the Department of Geological Sciences and is Associate Director of the Institute for Geophysics, became affiliated with the Applied Geodynamics Laboratory. Bruno Vendeville, until recently a Post-Doctoral Associate in the Center for Tectonophysics at Texas A&M University, joined the Bureau as a Research Fellow and will work in the Applied Geodynamics Laboratory. Also, Richard Langford, who received his doctorate from the University of Utah, and Sally Zinke, formerly with PanCanadian Petroleum Company, joined the Secondary Gas Recovery Project.

Several members of the scientific and research staff received special recognition during 1988-89. William Fisher was named a charter member of the Governor's Energy Council. Virgil Barnes was selected to receive the Barringer Award at the 1989 meeting of the Meteoritical Society.

Other members of the scientific and research staff also received recognition. Robert Finley was appointed to the National Academy of Sciences' National Council Committee on Undiscovered Oil and Gas Resources. Charlie Kretzler received the 1989 Seagram Foundation Fellowship. Alan Dutton was appointed Technical Chairman of the Hydrogeology program for the 1990 Geological Society of America annual meeting. Three papers by Steve Seni and Martin Jackson were selected for inclusion in "Structural Concepts and Techniques: Detached Deformation," a volume in *The Treatise of Petroleum Geology* reprint series. A paper by Frank Brown was judged one of the "Best of AAPG" at the 1989 meeting of the American Association of Petroleum Geologists. A paper presented by Rick Major and Mark Holtz at the same conference was honored as "Best of AAPG for SPE."

Through June, the Bureau published 34 new research documents, including ten reports of investigations, three circulars, one set of cross sections, one geologic quadrangle map, four special publications, and 15 contract reports. The Core Research Center holdings increased to approximately 925,000 linear feet of well core and cuttings from more than 58,500 wells. Likewise, the Geophysical Log Facility expanded its holdings. More than 10,000 well logs were added to the facility's collection during 1988-89, bringing the total number to about 45,000. These publications, geologic materials, and other data continue to be an extraordinary information base for the public as well as Bureau scientists and research staff.

by Stephen Stubbs, Asst. Program Coordinator

The Vertebrate Paleontology Laboratory has had another successful year. Tim Rowe was named a Presidential Young Investigator and is already using his new resources to begin work on two projects, one on late Cretaceous mammals from the Big Bend region and the other on a study of developmental series of mammals to assist him in investigating their early evolution. For several months the Lab has been the scene of an ambitious project to build a large number of screen bottomed wash boxes to recover the remains of the tiny Cretaceous mammals from West Texas. The early results of screening a small amount of matrix are very encouraging with the recovery of a number of mammal teeth.

Jack Wilson and Wann Langston continue to produce research, Jack on the Eocene mammals from West Texas and Wann on crocodiles and, in a new area for him, on Oligocene trackways from west Texas in conjunction with Bill Sarjeant of Saskatchewan. Ernie Lundelius is continuing his work on Australian and Texas Quaternary mammals. Melissa Winans, the collection manager, is still working on improving the data retrieval system for the collection.

The Lab continues to be the source of material for technical publications by outside researchers as well as the staff. Two this year are papers by Spencer Lucas of the University of New Mexico and E. C. Olson of the University of California at Los Angeles. The collection has been the basis for well over 400 papers since its start.

The Lab is gearing up for the annual meeting of the Society of Vertebrate Paleontology to be held in Austin in early November, 1989. This is the largest professional society of vertebrate paleontologists in the world and, although based in North America, is international in membership. Preliminary data indicate that it will be a very well attended meeting and we are expecting 500-600 people. Many of them will want to use the collections and we need to have the Lab in good order at that time. The Lab is being completely rewired courtesy

of Balcones Research Center Physical Plant.

The new field vehicle which was obtained last year is a great success. Jack Wilson and Wann Langston gave it its initiation to west Texas. In the spring they drove it to Terlingua to make initial preparations for the field trips being planned in connection with the meetings of the Society of Vertebrate Paleontology. They report that it ran well. The director of the Lab has so far been able to drive it a total of one mile!

The Lab will be expanded on September 1 when the Radiocarbon Laboratory will be merged with it. Although this may seem a bit strange to some, radiocarbon dates are important to vertebrate paleontologists who work with Quaternary fossils.

One of the functions of the Lab is to provide specimens and scientific guidance for exhibits at the Texas Memorial Museum. Two new vertebrate paleontology exhibits are underway. One deals with pterosaurs and features the giant *Quetzalcoatlus* from the Big Bend. The other deal with another group of giants, mammoths and mastodons.

Tony Runkel finished his PhD in June 1989. He was supervised by Jack Wilson. Tony's dissertation was a litho- and biostratigraphic study of Eocene sedimentary rocks in the Big Bend region. There are currently 6 graduate students in residence at the lab, working on a variety of projects from Quaternary faunas to dinosaur tracks to mosasaurs to quantitative paleontology.

*Earl Yarmer works on a skeleton of a Cretaceous marine crocodile.*



by Ernest Lundelius Jr., Director

The Institute for Geophysics research vessel, the *Fred H. Moore* was formally sold and ownership transferred from the University of Texas to Nautical Endeavors, Inc of Broussard, Louisiana. The ship will be converted for use as a diving support vessel.

Despite the loss of our own ship, the Institute continues to be a major seagoing institution. The use of "ships of opportunity" has allowed us to utilize facilities closely tailored to our needs without the expense and problems of maintaining highly specialized systems aboard a continuously maintained specialized ship. We have thus been able to direct our efforts toward science aboard a vast range of ships.

Dr. Ian W. D. Dalziel, Senior Research Scientist UTIG and Professor of Geological Sciences was the field trip organizer and leader of a field trip to Antarctica aboard the *R/V Polar Duke*, which was the first field trip of the 28th International Geological Congress hosted by the United States in July 1989. This was the first formal field trip ever to visit the Antarctic continent. The purpose was to study the geology of the Scotia arc region between South America and Antarctica from a global viewpoint, as the trip was attended by 24 persons from 8 different countries. This was the first time in 50 years that the U.S. has been the host to the Congress, a meeting held every 4 years. Dr. Dalziel, co-workers and co-contributors put together a 206 page guidebook prior to the trip now published as part of the 28th IGC series by the American Geophysical Union.

Dr. E. William Behrens was a participant in the fall, 1988, U.S.-U.S.S.R. Bering Sea Expedition aboard the 400' Russian research vessel, the *R/V Akademik Korolev*. This was a joint Soviet-American interdisciplinary research cruise as part of ongoing work under the U.S.-U.S.S.R. environmental agreement. Bill was the American group leader of the sedimentation part of the program. The principal objective of the expedition was to characterize the contemporary condition of the fundamental, oceanographic, hydrochemical and the hydrobiological parameters of marine ecosystems and to assess their assimilative capacity for marine pollution.

Dr. Thomas A. Davies conducted a cruise off the New Jersey continental shelf aboard a Woods Hole research vessel, the *R/V Maritime Explorer*. The objective of the cruise was to obtain piston and vibrocores of the sediments to determine the nature and properties of the sediments in order to better constrain future 3-D seismic experiments in the area, and to validate previous geologic interpretations and better constrain the age and origin of the sediments.

Dr. L. A. Lawver was the chief scientist of a one month cruise aboard the *R/V Polar Duke*. The purpose of the cruise was to take heat flow measurements in the basins around the Antarctic Peninsula. Using a UTIG developed heat flow instrument, 54 successful out of 56 heat flow penetrations were made on eight separate profiles. Also six piston cores were made and 800 km of bathymetric data were collected.

Dr. Yosio Nakamura, Mr. Gary Lux and Mr. Phil Roper carried out an OBS experiment as part of the EDGE experiment off Homer, Alaska. They employed a 43' Seine

fishing boat, the *Northern Light*, as a deployment and recovery vessel.

Dr. Mark Riedesel was a cruise participant aboard Scripps Institution of Oceanography research vessel, the *R/V Melville*. His purpose was to deploy a seismometer into a ODP borehole and an OBS around the periphery to compare the results of the two recording instruments.

Dr. James A. Austin Jr. will participate as chief scientist this fall aboard University of Delaware's research vessel the *R/V Cape Henlopen* during the acquisition of a 3-D high resolution seismic reflection survey on the continental shelf and slope off New Jersey using the HUNTEC® deep towed system owned and operated by Woods Hole Oceanographic Institution.

Dr. Thomas Shipley is presently in the western Pacific aboard the French research vessel the *R/V Le Suroit* carrying out a pre-drilling survey for the Ocean Drilling Program. He has been invited to be a cruise participant aboard the Ocean Drilling Program Leg 130 to study the Ontong-Java Plateau aboard the drilling ship the *D/S Joides Resolution*.

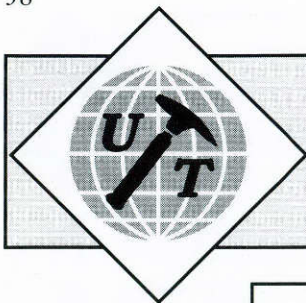
Dr. Paul Mann, Dr. Fred Taylor and students are doing geologic mapping and structural and sedimentological analysis of sedimentary basins in the Caribbean and in Central America. Mann, Dr. Eric Rosencrantz and students are presently carrying out a SeaMarc II high resolution side-scan survey of the Northern Caribbean plate boundary between Jamaica and Honduras in July and August of 1989 aboard the University of Hawaii research vessel the *R/V Moana Wave*.

During the first two weeks of September 1989, Dr. Richard Buffler and Dr. William Behrens of UTIG and Dr. William Bryant of TAMU will conduct a joint student cruise aboard TAMU research vessel, the *R/V Gyre*. This is the first stage of a joint project to study the tectonics and sedimentation of the continental margin offshore northern Mexico in the northwestern Gulf of Mexico. The study area includes the continental shelf, slope and rise off the Mexican state of Tamaulipas along the U.S.-Mexican border. The group has received permission from the Direccion General de Oceanografia Naval to work in Mexican waters. There will be student involvement from the Universidad Veracruzana and scientific observers from the Mexican Navy will participate in the cruise. This is a rare and significant opportunity for a U.S. institution to work in Mexican waters on an international collaboration.

Dr. Yosio Nakamura will be conducting a seismic refraction study offshore Oregon in conjunction with a high resolution seismic survey conducted by Oregon State University. He along with UTIG technicians will deploy and recover UTIG Ocean Bottom Seismometers from the fishing Vessel *F/V Olympic*.

Dr. Cliff Frohlich and Dr. Yosio Nakamura are participating the *N/O Alis* cruise in the south Pacific for the Vanuatu Asperity experiment. The experiment is a joint project with ORSTOM (Office de la Recherche Scientifique et Technique Outer-Mer of France to study seismicity and structure of the subduction zone west of Vanuatu (New Hebrides) islands.

by Patricia E. Ganey-Curry

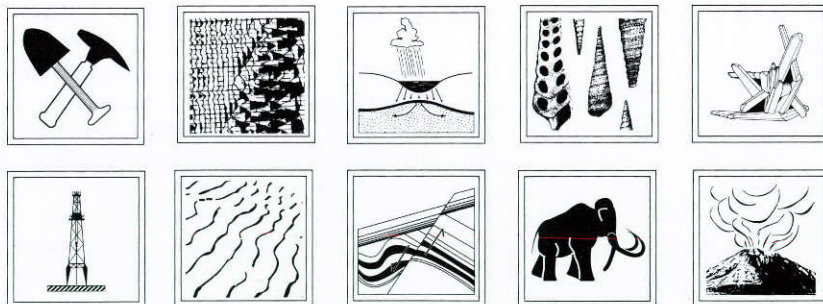


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The Walter Geology Library has had several notable accomplishments in 1988-89, and while a number of challenges remain to be met, this past year is a sign of promise for improvements in services and capabilities.

The decline of enrollment in the Department of Geological Sciences over the past several years matches a national trend in the earth sciences, and has proved to be a mixed blessing. Having fewer students helps to lighten the pressure on declining purchasing power for books and journals, and also alleviates the pressure on space for books, maps, and readers. In particular, the decline in undergraduate students has allowed library staff to concentrate on improving services to advanced users, especially by completing several projects which will improve and upgrade access to our collection.

In staff news, Dennis Trombatore continues to review new books for the newsletter of the Geoscience Information Society. This past spring he also completed work on the report of the General Libraries' Advanced Research Services Task Force, which he chaired. Over the past year, he has compiled or revised collection guides on the geology of the Austin area, the Edwards Aquifer, and general geologic information resources.

Last fall Jim McCulloch's position was reclassified from Library Assistant I to Library Assistant II, better reflecting his skills and increased responsibilities. Jim is also continuing his staff sharing position in the General Libraries Information Systems Office, writing special project programs for the online catalog database.

The half-time map assistant position has recently been approved for reclassification, from Office Assistant to Library Assistant I. Carol Russell, who has been in the position for several years, completed her Master's degree in Library and Information Science, and received her twenty-five year university service award in spring 1989.

The library is fortunate to have a dedicated and enthusiastic staff, and it is due to them that the library is able to achieve success in its endeavors. They made completion of several projects possible.

Peter Kesthelyi, a Library Assistant in the General Libraries Serials Acquisitions Department, undertook a staff sharing project to help process more than twelve cartons of gift materials in Russian and Slavic languages which were donated several years ago by Anatoly Kaplan and A. Richard Smith of Houston. Eric Benedict and Amy Lategola of the Geology Library staff also worked on the project, which was completed in June. When the materials return from cataloging

and binding, they will substantially enhance the library's collections of these scarce and hard to obtain materials.

The new publication Graduate Degrees Conferred in Geology at the University of Texas at Austin, 1897-1988 was completed. For many years the library has wanted to update R.K. DeFord's original thesis lists of 1957 and 1964, and to provide subject indexing. The bibliography indexes by subject, date, and supervising professor all Master's and PhD theses conferred through the Department of Geological Sciences at UT Austin. This project commemorates the Department's centennial year, and the publication is available for \$15.00 postpaid from the Geology Foundation. Proceeds from the sale will go to the Walter Geology Library endowment funds. A coupon announcement appears elsewhere in the newsletter.

The Walter Geology Library continues to be active in exchanging materials, and this past year has shipped to and received materials from Spain, Brazil, Columbia, Italy, and Egypt. The library has also made substantial donations of surplus materials to UT Dallas, UT Permian Basin, UT San Antonio, and Sul Ross State University, in an effort to make more research level materials available to a wider audience.

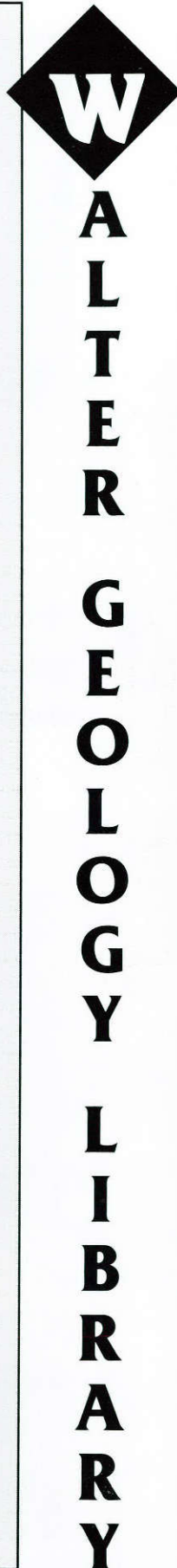
Collection building activities have been largely limited to juggling the funds available in order to maintain the high quality of the collection. Map acquisitions include over 1,000 USGS geologic maps to complete the Miscellaneous Field Investigations series, and a set of maps detailing the legal boundaries of the Edwards Aquifer Recharge Zone.

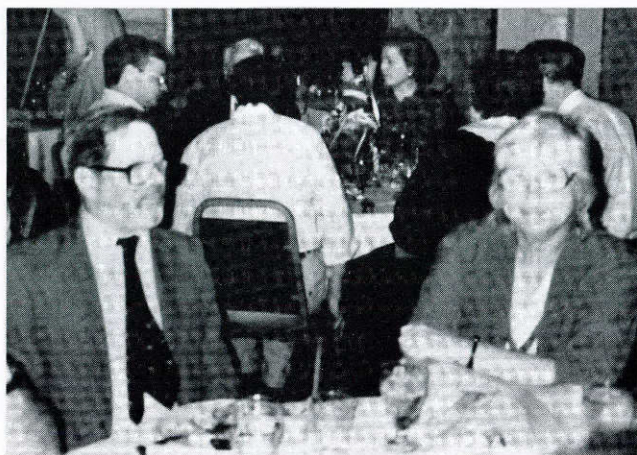
Substantial gifts this year included Bill Muehlberger's donation of materials relating to the WIPP (Waste Isolation Pilot Plant) Repository site in New Mexico, and Robert Carter's donation of site studies from the National Petroleum Reserve project in Alaska.

During the year a new Packard-Bell personal computer and printer for on-line database searches in GeoRef and other subject databases, as well as two additional terminals dedicated to UTCAT, the General Libraries computer catalog were received. It has been over a year since the card catalog was closed; record conversion and upgrading of UTCAT records is proceeding steadily.

Finally, three new display cases were installed just inside the library, creating a dramatic entrance focus for the Geology Library. In these cases more than forty Barron Collection mineral specimens were placed on permanent display, providing a secure location for display of some of the better specimens from the collection.

**by Dennis Trombatore, Geology Librarian**

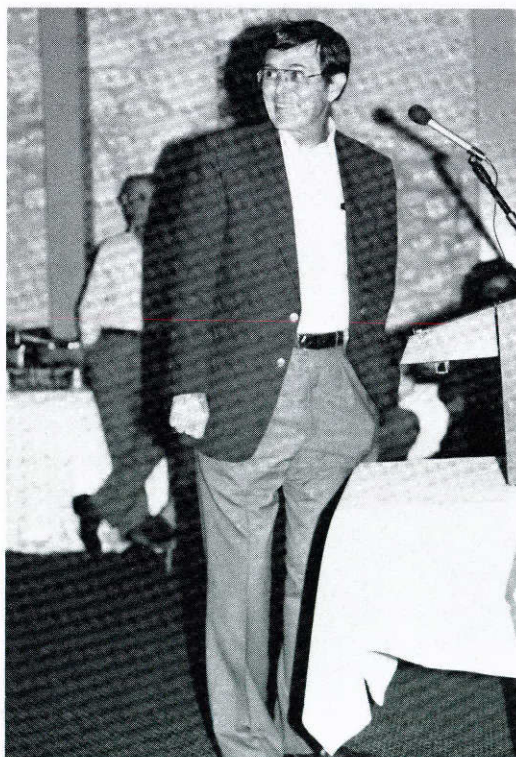




*Bob and Marge Folk prepare for an evening of fun.*

***“Bob Folk is the only man  
who has been to Hell twice  
and was rejected.”***

***— Rafik Salem***



*Clyde Moore gleefully shows incriminating slides of Bob Folk.*



The Cadillac Bar in San Antonio, April 22, 1989. In a crowded private room, 150 people gather for a festive evening. Attention centers on a middle-aged man of slight build, wearing 40's-vintage clothing. Is this a jovial gathering of friends paying homage to their mentor? No, this is Folk Roast, an opportunity to wreak vengeance on Bob (a.k.a. Luigi) Folk.

After several rounds of drinks and a buffet dinner, it began. Lynton Land and Earle McBride started the ceremony with slides of Folk's disastrous office, obsolete equipment, multi-layered chalkboard, and archaic filing system. Then one by one, the ex-students came forward, recounting their dreadful tales and referring to themselves as "the abused." Murray Felsher remembered his years under Folk's supervision as a "six-year slaveship." Among others, former students Harvey Blatt, Clyde Moore, Miles Hayes, Ken Martin, Tony Walton, Vicki Pedone, Steve Cather and Rafik Salem took their turns, telling of bizarre baseball games played with dice, Folk's peculiar swimming attire (longjohns and life jacket), and his uncanny knack for being surrounded by attractive women. And how many of them had been called "oaf" by their esteemed supervisor? Rafik Salem commented, "Bob Folk is the only man who has been to Hell twice and was rejected," referring to Folk's trips some years ago to Hell, Cayman Islands, and Hell, Turkey. (Unfortunately, no one was able to show postcards from these trips, since Folk always demands that they be returned to him so he can keep the stamps.) Folk was not ignored by his faculty colleagues from other schools. Larry Sloss (Northwestern Univ.), Lloyd Pray (Univ. of Wisconsin-Madison) and Donn Gorsline (Univ. of Southern California) contributed to the Luigi-bashing.

With his wife Marge at his side, Folk endured several hours of watching and listening to the charges against him. At last he was given a chance for rebuttal. Apparently his defense was unacceptable—as the finale, he was struck by a barrage of chalkboard erasers thrown by his most recent students. An all-too-brief performance by the Holler Group concluded a memorable evening. (*A videotape of the Roast is available from Earle McBride at a cost of \$22.*)



*Rafik Salem (left) shares Folklore with Skip Davis and Robbie Gries.*

### *A Note from Bill Ward*

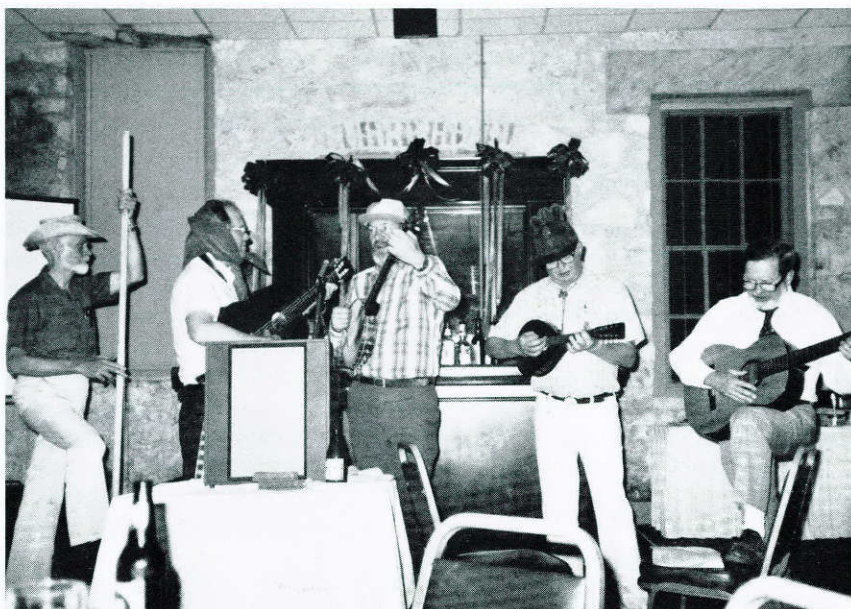
(BS '55, MA '57)

It was curious to hear so much Luigiing at the Folk Roast in San Antonio, inasmuch as the famous Luigi has been part of Folklore for less than half the time Bob has been at UT. I was there when the young Dr. Folk arrived on campus. To tell you the truth, we did not pay too much attention to that event—no trumpets sounded, no band of angels heralded his arrival. We thought all sedimentologists were about five feet tall; old Dr. Damon, Folk's predecessor, must have been no taller than that.

They gave that new boyish-looking professor a big teaching load. I personally had Folk for sedimentation, sedimentary petrology, carbonate petrology, field camp, and—this may surprise you—structural geology. I always knew I must have had a lousy course in structure, because, after all, Folk told us the continents had drifted around on the globe. Boy, what a laugh that was!

This was long before there was a Luigi, long before vino. In those days the strongest thing that touched Dr. Folk's lips was RC Cola. Otherwise he was not much different from the other professors in the GB. Well, maybe slightly different. He *was* the only one to buy his little shoes at the Buster Brown store. And those curious haircuts. We wondered why he must have insisted on blindfolding Marge when she cut his hair. And of course he was always throwing dice and spinning hexagonal pencils to let Fate decide his future. Okay, he *was* different.

One day I went into his office and caught Bob pecking out a letter on his ancient Underwood. He was writing to Cecil B. De Mille, who had just finished the technicolor epic *Ten Commandments*. Bob wrote the great director that he found the need in his work to wear a pharaonic hat, and he wondered if De Mille might not send him one of the ones left over from the movie. The request was denied. After that, Bob went on to become famous for mean size plotted against standard deviation plotted against skewness plotted against kurtosis, for intrapeloobiomicrudites, for calclithites and phyllarenites and volcarenites, for ions boarding a crowded bus, and for a hundred other things, but I always wondered what the world missed when Folk didn't get to wear a pharaoh's hat.

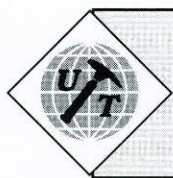


*From left: Page Twiss, Pete Rose, Don Winston, Dick Grant and Luigi perform an old favorite of the Holler Group, "Down in the Mine."*

***"I always knew I must have had a lousy course in structure, because, after all, Folk told us the continents had drifted around on the globe." —Bill Ward***



*A host of former students look on as others take their turns "roasting" Folk. Counterclockwise, from lower left: José Carballo, Kitty Milliken, Annelle Bay Suchecki, Steve Cather, Joe Sullivan, Ted Flanigan, Vicki Pedone, Penny Sullivan, Shirley Peterson Dutton, Patricia Mench Ellis, Alice Spencer, Ellen Naiman Tye.*



## UT/Freeport-McMoRan Researchers Cooperate to Conquer Final Frontier

**I**rian Jaya, Indonesia, is considered one of the final frontiers—as remote, challenging and unexplored as the Antarctic continent. Comprised of the western half of New Guinea and about 12 offshore islands, Irian Jaya is the type of place that anthropologists love. Western influence is still small in this province, which is inhabited chiefly by primitive Irians living in hundreds of tribes. The Star mountains went unexplored by westerners until 1959.

Geologically, this land of swampy lowlands and peaks rising to more than 16,500 feet is virtually virgin territory. Prior to 1965, 90 percent of the province hadn't been mapped and the map of the remaining 10 percent noted only a few of the higher peaks' elevations, some of the rivers and patches of geology. It wasn't until 1986 that the first complete geologic map of the 162,000-square-mile area was charted (on a one-to-a-million scale).

Geologists from the University of Texas at Austin are about to embark on a three-year research project that will give the world its first detailed look at the geologic history and current geology of the high mountain belt of Irian Jaya.

With a \$1 million grant from Freeport-McMoRan Inc. of New Orleans, La., the UT Austin researchers this summer began study of the Gunung Bijih District, a 100-square-kilometer area of mountainous terrain in north-central Irian Jaya. In a joint project involving UT Austin, Bandung Institute of Technology (Java) and geologists with Freeport Indonesia, Inc., the scientists are hoping to discover how rich deposits of copper ore, and the island itself, were created.

"Freeport-Indonesia and the Indonesian government are providing a special opportunity for students and faculty to have access to a critically important area for geologic study," said Dr. Robert E. Boyer, a UT geologist who is dean of the College of Natural Sciences and director of the project. "This grant allows a unique cooperative venture between industry and two major academic institutions, one in the U.S. and one in Indonesia, to study an area that may hold key information—both to the understanding of global tectonic events and to origins of copper mineralization. The combination of geologically very young activity (a few million years old), a critical juncture between crustal plates and access to this remote area make this a truly exciting enterprise."

"We expect to understand this hundred-square-kilometer area in great detail by the end of the time period," said Dr. Mark Cloos, who along with Dr. Richard Kyle and Dr. Nick Walker, is a principal investigator for the project.

Scientists believe that New Guinea



*UT President William Cunningham, Board Chairman and CEO of Freeport McMoran James Robert Moffett and Dean of Natural Sciences Robert E. Boyer*

was pushed up to form a mountain belt when the Australian continent collided with an ocean island arc some 40 to 50 million years ago, making it one of the most recent deformations of its kind. Due to the continuous occurrence of earthquakes in the region, scientists also believe that process of deformation is ongoing.

"Earthquakes in the region tell us that the rocks are still moving around and deformation is taking place," said Cloos. "But the exact pattern of the movement is in question...what type of faulting and how fast is it occurring?"

Graduate students from UT Austin will conduct most of the field work. Geologists from UT Austin and from the Bandung Institute of Technology will do the laboratory work analyses in Austin. It is anticipated that six months of laboratory work will have to be conducted for every month of sample collection and mapping

in the field.

"Making the geologic maps is a matter of people getting out and walking over every inch of ground," said Cloos. "It is an unusual area because the mountain building at the edge of the Australian continent is going on right now. Our understanding of the relationship between the deformation and ore deposit formation will give us the background information needed to find the next ore deposit."

"There aren't many places in the world where someone can go and work on earth science problems that address both academic and applied questions. We are fortunate to have this generous support of out teaching and research programs by Freeport-McMoRan. Basically, we're starting at ground zero, everything that we do is going to be new information."

—Danny Ewald, *UT News and Information Service*





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*News*



# STUDENT ACTIVITIES

Once again the Graduate Student Executive Committee (GSEC) has had a great year. GSEC sponsored a number of social events such as picnics, new student potluck dinners, and holiday gatherings in the graduate student lounge. These occasionally wholesome, but always fun, events proved successful in bringing together the large graduate student (and faculty/staff) population. A survey of graduate needs and desires at the beginning of the spring semester identified several items such as a copy machine for the fourth floor, a new typewriter, student microscopes, and of course a new toaster oven, as much needed. So far we have been able to acquire for the graduate lounge a new toaster oven and popcorn machine. Keeping the lounge stocked with popcorn during finals has boosted both the spirits and metabolism of weary students. We have also reorganized the drafting room to provide more space, and through Bill Woods we acquired a nice IBM typewriter. We also convinced the Campus Copier folks that the fourth floor of the Geology Building is indeed worthy of having its own Xerox machine on a test basis. This comes at no cost to GSEC or the Department, but thus far comes as no use either since they dropped the copier down some stairs during delivery. We are all patiently awaiting installment of a functional copy machine. GSEC was also instrumental in the purchase of a much needed (and thus far fully functional) critical focusing telescope for the fourth floor Nikon photomicroscope. This past fall GSEC participated in reformulating the foreign language requirement for graduate students. Another major accomplishment was the wiring of the entire fourth floor into a computer network that will allow nation-wide as well as Department-wide computer communication.

The members of GSEC are grateful to all the faculty, staff, students, and others who have supported their efforts to improve the quality of life in the Department, and they look forward to continuing in this tradition in the upcoming year.

—Mary Crabaugh, President

## *Undergraduate Student Geological Society*

In April 1989 the USGS went on a field trip to the Llano area to collect rock and mineral samples. The trip was sponsored and funded by Mobil Oil Corporation. Students used the samples to make up mineral sets which Mobil donated to the Boy Scout Jamboree. The Austin Geological Society also contributed to the USGS to assist in making the mineral sets.

Officers for the 1988-89 year:

President	Gregory Warren
Vice President	Vicki King
Secretary	Krishna Bhujang
Treasurer	Michele Mallien
Student Liaison	Patrick Reiss
Graduate Student Liaison	Robert Buehring
Faculty Sponsors	Mark Cloos/W. D. Carlson

## *AAPG Student Chapter*

Officers for the 1988-89 academic year:

President	Leslie Hay
Vice President	Cheryl Richard
Secretary	Rimas Gaizutis
Treasurer	Alana Haveman
Student Liaison	Thomas Ritchie
Graduate Student Liaison	Robert Buehring
Faculty Sponsor	Amos Salvador

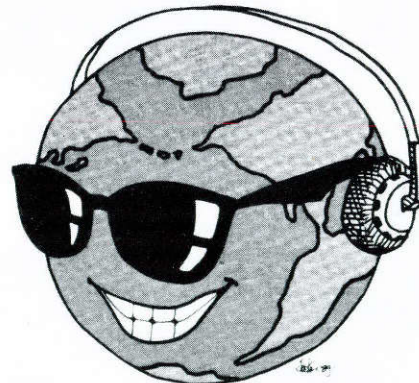
The USGS and AAPG societies continue to sell T-shirts and guidebooks as in years past. The new T-shirt design is now available.

## *UT Geophysical Society*

Officers for 1988-89:

President	Charlie Hewitt
Vice President	Lila Beckley
Secretary	Barry Hibbs
Faculty Sponsor	Clark Wilson

# 4,500,000,000 YEARS...



## AND STILL ROCKIN' UNIVERSITY OF TEXAS GEOLOGICAL SCIENCES

*New design for T-shirts sold by USGS and AAPG*

## Research Assistants 1988/89

### Bureau of Economic Geology

Alexander, Kenneth B.  
 Andreason, Mark W.  
 Avakian, Asten J.  
 Banta, Nancy J.  
 Barton, Mark D.  
 Beckman, Jeffrey D.  
 Black, Jeffrey W.  
 Blodgett, Robert H.  
 Boardman, Sabine K.  
 Brewton, James G.  
 Coleman, Janet M.  
 Cogswell, Thomas L.  
 Crabaugh, Mary C.  
 Czebieniak, Andrew  
 Diggs, Timothy N.  
 Eustice, Rachel A.  
 Ferris, Malcolm  
 Gao, Guoqiu  
 Garber, John L.  
 Lin, Shing-Tzong  
 Lynch, Leo F.  
 McCullough, Matt L.  
 Phillips, Nestor

Rosen, Michael R.  
 Single, Robert S.  
 Tsai, Heng  
 Williams, Elayne D.  
 Williams, Thomas A.

### Institute for Geophysics

Cunningham, William C.  
 Davis, Scott G.  
 Denny, Walter M.  
 Dunbar, John A.  
 Farr, Mark R.  
 Jervis, Michael A.  
 Kessinger, Walter P.  
 Klepeis, Keith A.  
 Lamar, Michael E.  
 Lee, Tung-Yi  
 Martin, Laura A.  
 Mueller, Ralph D.  
 Nagihara, Seiichi  
 Oberst, Jurgen P.  
 Oh, Jinyong  
 Winkler, Hugh V.  
 Wood, Warren T.

### Department of Geological Sciences

Agee, William N.  
 Aguirre-Diaz, Gerardo  
 Atkins, John E.  
 Awwiller, David N.  
 Beardsley, Reginald H.  
 Beckman, Jeff  
 Bernitsas, Nikolaos  
 Carter, Karen E.  
 Chiang, Shou-tung  
 Crabaugh, Jeff P.  
 Crabaugh, Mary C.  
 Ding, Xiao-Yang  
 Dworkin, Stephen  
 Eustice, Rachel  
 Fiduk, Joseph C.  
 Finn, Christopher J.  
 Gao, Guoqiu  
 Garber, John L.

Gordon, Mark B.  
 Graebner, Mark J.  
 Havholm, Karen G.  
 Hibbs, Barry J.  
 Hiebert, Franz  
 Honda, Hiromi  
 Johnson, Cambria D.  
 Lund, Holly J.  
 Lynch, F. Leo  
 Macpherson, Gwendolyn L.  
 Manchester, Janet  
 Roback, Robert C.  
 Simmons, James L.  
 Sweet, Michael L.  
 Walter, Robert D.  
 Wang, David Y.  
 Xue, Liangqing  
 Yeh, Edna T.  
 Zellers, Sally D.

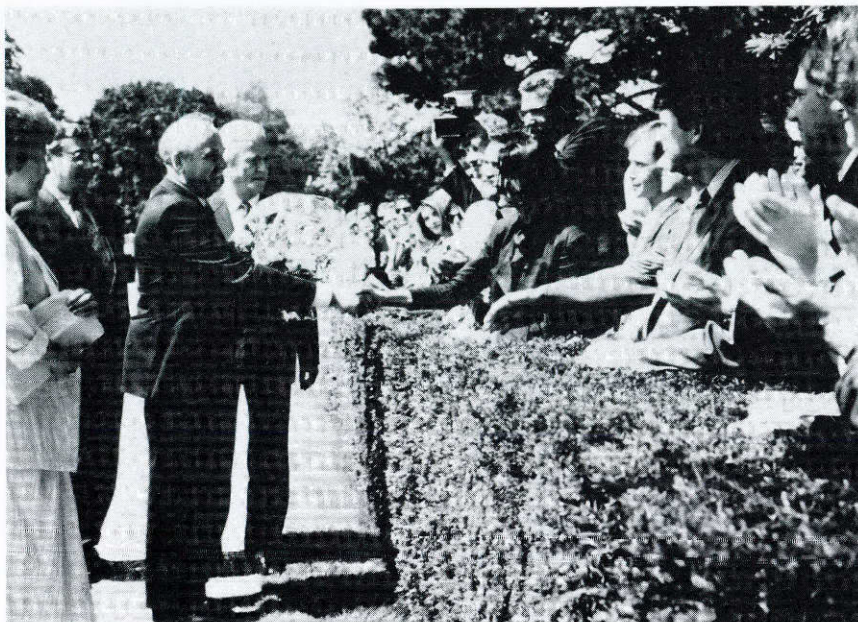
## Teaching Assistants 1988/89

Kenneth B. Alexander  
 Mark D. Barton  
 Gordon L. Bell  
 Sevin I. Bilir  
 Peter E. Bittenbender  
 Jonathan G. Blount  
 Sean T. Boerner  
 Lars E. Borg  
 Robert L. Buehring  
 Paul S. Carpenter  
 Karen E. Carter  
 Janet M. Coleman  
 Jeffrey D. Corrigan  
 Todd A. Council  
 Jeffrey P. Crabaugh  
 William D. Cunningham  
 Linda L. Davis  
 Stephen I. Dworkin  
 Rachel A. Eustice  
 Malcolm A. Ferris  
 William M. Fitcher  
 John J. Genuise  
 Gretchen M. Gillis  
 Nina T. Harun  
 Barry J. Hibbs  
 Thomas E. Hoak  
 John P. Huelsenbeck  
 Ronald A. Johns  
 Keith A. Klepeis  
 Julie A. Kupecz  
 Michale E. Lamar  
 Tung-Yi Lee

Xijin Liu  
 Mark W. Longtine  
 Michal O. Maler  
 Matt L. McCullough  
 Timothy P. McMahon  
 Ralph D. Mueller  
 Paul J. Noble  
 Lee S. Potter  
 Jerry C. Ray  
 Joseph F. Reese  
 Anthony C. Runkel  
 Elizabeth T. Schwarze  
 Perry S. Shyr  
 Benjamin J. Sloan  
 Colleen P. Stapleton  
 Christopher S. Swezey  
 John A. Tenison  
 Rickard S. Toomey  
 Stacey A. Tyburski  
 Danny E. Westphal  
 Dana L. White  
 Thomas A. Williams  
 Edna T. Yeh  
 Sarah D. Zellers

As in years past, the 1989 Petrography Contest challenged graduates and undergraduates in the Department with a diverse selection of the faculty's favorite hand samples and thin sections. Nine undergraduates and 19 graduate students spent an April evening matching wits, hand lenses, and optical microscopes against specimens ranging from kimberlites to blueschists to travertines. Competition in the undergraduate division was intense, with the top four finishers separated by only five points out of a possible 80. Senior Lauren Browning came out on top, earning a \$250 cash prize and immortality in the form of her name inscribed for posterity on the award plaque that hangs in the optical microscopy lab. Next to her name is that of the graduate winner, Robert Roback, who finished ahead of his competitors by a large margin. That is a difficult feat and an unusual occurrence in the history of this tightly contested competition. Roback, a PhD student working with Prof. Nick Walker, will use his \$1000 award to support field work for his dissertation—or so he said.

*by William D. Carlson*



*Photo taken on the Presidential Palace Grounds as Gorbachov departs from his visit to Bonn.*

*Far left, Raisa Gorbachov; third from left, Mikhael Gorbachov; fourth from left, Richard von Weizaker, president of West Germany; second from right, Franz Hiebert.*

*“I feel it is a scientist’s responsibility to stretch beyond the lab and field to involve himself in policy debate and decision making...”*

## Geologist Rocks Political Group

Franz K. Hiebert, (MA '88, PhD aspirant) spent six days in Bonn and Berlin this June as a member of the Aspen Institute Young Leader Study Group on the future of a “Common European House.” The international group, which included East and West German, Soviet, Polish, Hungarian, Czech, French, British, Scottish, and American members, met with prominent European political leaders to discuss issues confronting the movement toward creating an integrated and cooperative European community. The Aspen Institute is a private research foundation which sponsors studies and meetings on the role of science, technology, communications, humanities and the environment in governance and international relations.

The study group convened in Bonn during Mikhael Gorbachov’s historic visit to West Germany and had the opportunity to meet him during his departure ceremony. West-German President Richard von Weizsäcker and Foreign Minister Hans-Dietrich Genscher were among the many politicians with which the study group also met for discussions. “I found it exciting and not surprising that a major concern in Europe and a recurring theme of this conference was the rising importance of environmental protection in European and East-West relations,” Hiebert said. “It is a highly visible and charged issue in Europe, one that may equal military strength as the primary foundation of foreign policy in the near future.” Hiebert’s dissertation research on the role of bacteria in sedimentary systems has applications in environmental science, and he has worked as a scientist for several years with a local environmental biotechnology firm. On his role as the only scientist in the study group Hiebert said, “I’m honored to participate. I feel it is a scientist’s responsibility to stretch beyond the lab and field to involve himself in policy debate and decision making, especially in the scientifically sophisticated arena of environmental issues. Plus, without the little relief I provided from pure politics, the rest of the study group would have argued themselves hoarse long before they did anyway.” The group will meet next in Washington, D.C.

**Grad Student Studies Policy, Greets Gorbachov**



# Degrees

*The  
University of Texas  
at Austin*

*Department of  
Geological Sciences*

*1988-89 Academic Year*

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***Bachelor of Arts, August 1988 (7)***

Dina Mai Bloomer  
Suzanne Mary Champeny  
Sigrid Jackson Clift  
Hershal C. Ferguson III  
Raul Miguel Saenz  
Theresa Ann Theisen  
Jefferson B. Williams

***Bachelor of Science, August 1988 (18)***

Richard William Behal  
Robert Lawrence Buehring  
Marc Edward Curliss  
Steven Milton Fluke  
Cynthia Lee Fong  
Andrew William Hennessey  
Larry Allan Isgur  
Jack Scott Jones  
Laszlo Peter Keszthelyi  
James Gregory Lozano  
Kevin Todd McKinney  
Richard Joe Nelson  
Steffen Sastrup  
Mark Steven Shield  
Thomas Scott Staerker  
Vincent Donald Swadis  
Bruce David Wik  
Anthony Earl Yates

***Bachelor of Arts, December 1988 (5)***

Christopher M. Haas  
Robert Alan Keeler  
Patrick Rowan Laughlin  
James Nolan Piper  
James Troy Reid

***Bachelor of Sciences, December 1988 (9)***

Matthew Roy Brenna  
Casey C. Cornett  
David Alan Evans  
William Darrin Gathright  
Khib A. Kugler  
David Anthony Lloyd  
Alicia Dee Simpkins  
Michael Allen Starcher  
James Douglas Ward

***Bachelor of Arts, Spring 1989 (7)***

Moulay Abdellah Alaoui  
John Cain Carter  
Phyllis Carol Cunningham  
Carla Everett Gardner  
Jacob Francis Kons  
Suanne Larance  
Gary Philip Sawicki

***Bachelor of Science, Spring 1989 (6)***

Lila Meta Beckley  
Tauna Renee Daulong  
Alana Lynn Haveman  
Victoria McMillin King  
J. Thomas Portwood  
Suzanne M. Mechler

**Undergraduate Enrollment  
(Fall 1988)**

Total Department Majors: 129  
Geophysics Majors: 19 (15%)  
Male: 83 (64%)  
Female: 45 (36%)  
Minority: 6 males, 2 females  
(6% of total enrollment)

**Undergraduate Majors by Class (Fall 1988)**

Seniors	77
Juniors	27
Sophomores	12
Freshmen	13

Majors with GPA of 3.0 or better - 26  
Majors with GPA of 3.5 or better - 9  
Total BA degrees awarded - 19  
Total BS degrees awarded - 33

**Master of Arts, August 1988 (8)****Aguirre-Diaz, Gerardo**

BS, Geology, 1982, Universidad Nacional Autonoma de Mexico

Eocene and Younger Volcanism on the Eastern Flank of the Sierra Madre Occidental: Nazas, Durango, Mexico.

Supervisor: Fred W. McDowell

Committee Members: Daniel S. Barker, Leon E. Long

**Black, Curtis W.**

BS, Geology, 1981, The University of Texas at Austin  
Hydrogeology of the Hickory Sandstone Aquifer, Upper Cambrian Riley Formation, Mason and McCulloch Counties, Texas.

Supervisor: John M. Sharp

Committee Members: Lynton S. Land, Raymond M. Slade

**Chieruzzi, Gianni O.**

BS, Civil Engineering, 1979, Carnegie-Mellon University  
MS, Geotechnical Engineering, 1981, Stanford University

Geochemical Flow Modeling of the Supergene Alteration of Porphyry Copper Deposits.

Supervisor: J. Richard Kyle

Committee Members: Charles W. Kreitler, Larry Lake

**Copeland, William B.**

BA, Geology, 1984, University of Tennessee  
Structural and Metamorphic Constraints on Fault Displacement between Coherent Blueschist Terranes near Ball Mountain, Eastern Belt, Franciscan Complex, Northern California.

Supervisor: Mark Cloos

Committee Members: William D. Carlson, Sharon Mosher

**Heubeck, Christoph E.**

Vordiplom, Geology, 1985, University of Wurzburg  
Geology of the Southeastern Termination of the Cordillera Central, South-Central Hispaniola, Greater Antilles.

Supervisors: Mark Cloos and Paul Mann

Committee Member: Earle F. McBride

**Nance, Hardie S.**

BS, Geology, 1978, The University of Texas at Austin  
Facies Relations and Controls on Artesia Group Deposition in the Matador Arch Area, Texas.

Supervisor: William R. Muehlberger

Committee Members: Gary Kocurek, Jay Raney

**Pfeiffer, Deborah S.**

BS, Geology, 1984, University of Nebraska-Lincoln  
Temperature Variations and their Relation to Ground water Flow, South Texas, Gulf Coast Basin.

Supervisor: John M. Sharp

Committee Members: Earle F. McBride, Charles W. Kreitler

**Travis, Deborah S.**

BS, Geology, 1985, Brown University  
Chronostratigraphy, Depositional Rates, Continental Margin Progradation, and Growth-Fault Dynamics

within the Tertiary Wedge, San Marcos Arch, Northwest Gulf of Mexico.

Supervisor: William E. Galloway

Committee Members: L. Frank Brown, John G. Sclater

**Master of Arts, December 1988 (12)****Michael A. Cervantes**

BS, Applied Earth Science, 1984, Stanford University  
Foraminiferal Biofacies of Middle to Late Paleogene Rocks in the Western San Emigdio Mountains, California.

Supervisor: Martin B. Lagoe

Committee Members: William E. Galloway, Nick Walker

**Ruurdjan deZoeten**

BS, Geology, 1985, University of Wisconsin-Madison  
Structure and Stratigraphy of the Central Cordillera Septentrional, Dominican Republic.

Supervisor: Earle F. McBride

Committee Members: Mark Cloos, Paul Mann

**Andrew C. Donnelly**

BS, Geology, 1986, The Pennsylvania State University  
Meteoric Water Penetration on the Frio Formation, Texas Gulf Coast.

Supervisors: John M. Sharp and Charles W. Kreitler

Committee Member: Lynton S. Land

**Steve J. Germiat**

BS, Geology, 1985, University of Wisconsin-Madison  
An Assessment of Future Coastal Land Loss in Galveston, Chambers, and Jefferson Counties, Texas.

Supervisor: John M. Sharp

Committee Members: William E. Galloway, R. A. Morton

**Michael S. Hall**

BA, Geology, 1986, Pomona College  
Oblique Slip Faults in the Northwestern Picuris Mountains of New Mexico: An Expansion of the Embudo Transform Zone.

Supervisor: Sharon Mosher

Committee Members: William D. Carlson, Mark Helper

**Randall G. Larkin**

BS, Geology, 1986, University of Texas at Austin  
Hydrogeologic Controls on Underflow in Alluvial Valleys - Implications for Texas Water Law.

Supervisor: John M. Sharp

Committee Members: Clark Wilson, Graham Fogg

**Karen J. Meador**

BS, Geology, 1982, University of Texas at Austin  
Geologic Evolution of the Northern Newfoundland Basin.

Supervisors: Milo M. Backus and James A. Austin

Committee Member: Leonard F. Brown

**Matthew J. Parsley**

BS, Geology, 1983, Texas Tech University  
Deposition and Diagenesis of a Late Guadalupian Barrier-Island Complex from the Middle and Upper Tansill Formation (Permian), East Dark Canyon, Guadalupe Mountains, New Mexico.

Supervisor: John K. Warren

Committee Members: Robert L. Folk, Don Bebout

**Rafael Ramirez-Serafinoff**

BS, Geology, 1984, Universidad Nacional de Colombia

Stratigraphy of the Tertiary of the Middle Magdalena Basin (Colombia), Central and Northern Parts.

Supervisor: Amos Salvador

Committee Members: Mark Cloos, Eric Rosencrantz

**Jeffrey A. Sauve**

BS, Geology, 1985, Michigan State University

Near-Surface Velocity Reconstruction and Diving Wave Tomography: Erawan Field, Gulf of Thailand.

Supervisor: Milo M. Backus

Committee Members: Clark Wilson, Charles Denham

**Philip M. Weatherill**

BS, Geology, 1985, University of Sheffield

Seismic Stratigraphy and Tectonic Evolution of the Stord Basin, Northern North Sea.

Supervisors: William E. Galloway and John G. Sclater

Committee Member: Halfden Carstens

**George Zemlicka**

BS, Geology, 1986, University of Michigan

Source Process Study with the Inclusion of the Effects of Near-Source Bathymetric Structure for Submarine Events in the Gulf of California.

Supervisors: John G. Sclater and Fumiko Tajima

Committee Member: Yosio Nakamura

**Doctor of Philosophy, December 1988 (5)**

**John A. Dunbar**

BS, Geology, 1977, Virginia Polytechnic Institute and State University

MS, Geology, 1979, Virginia Polytechnic Institute and State University

Kinematics and Dynamics of Continental Breakup

Supervisors: John G. Sclater and Dale S. Sawyer

Committee Members: William R. Muehlberger, Clark R. Wilson, Eric B. Becker, Martha Withjack

**Richard J. Erdlac**

BS, Geology, 1974, University of Pittsburgh

MS, Geology, 1979, University of Pittsburgh

Structural Development of the Terlingua Uplift, Brewster and Presidio Counties, Texas.

Supervisor: William R. Muehlberger

Committee Members: Sharon Mosher, Amos Salvador, Christopher Henry, George A. Thompson

**Mark R. Farr**

BS, Geology, 1978, University of Texas at Austin

MS, Geology, 1983, University of Toronto

Compositional Variation of Late Dolomite Cement as a Guide to Parent Fluid Flow Directions in the Bonne terre Formation, Missouri.

Supervisors: J. Richard Kyle and Lynton S. Land

Committee Members: John M. Sharp, Harry H. Posey, Lynn M. Walter

**Anthony C. Runkel**

BA, Geology, 1983, University of Minnesota

MS, Geology, 1986, University of Montana

Stratigraphy, Sedimentology, and Vertebrate Paleontology of Eocene Rocks, Big Bend Region, Texas.

Supervisor: Ernest L. Lundelius, Jr. and John A. Wilson

Committee Members: Gary A. Kocurek, Christopher D. Henry, James Stevens

**Peter R. Tauvers**

BS, Geology, 1979, City College of New York

MS, Geology, 1982, University of Vermont

Structure Sections through the Marathon Basin, Trans-Pecos Texas--Implications for Basement-influenced Deformation.

Supervisor: William R. Muehlberger

Committee Members: Mark Cloos, Robert L. Folk, Christopher Henry, David Wiltschko

**Master of Arts, May 1989 (9)**

**Martin L. Albertin**

BS, Geology, 1986, Indiana University of Pennsylvania

Interpretations and Analysis of Guaymas Basin Multi-Channel Seismic Reflection Profiles: Implications for Tectonic History.

Supervisor: John G. Sclater

Committee Members: Richard T. Buffler, Fumiko Tajima

**Tonia J. Clement**

BS, Geology, 1981, University of Texas at Austin

Hydrochemical Facies in the Badwater Zone of the Edwards Aquifer, Central Texas.

Supervisor: John M. Sharp

Committee Members: Lynton S. Land, Howard Liljestrand

**Timothy N. Diggs**

BA, Geology, 1983, University of Virginia

Sedimentology and Structural Geology of the Housatop Mountains/Castle Mountain Area, Marathon Basin, Trans-Pecos Texas.

Supervisor: Earle F. McBride

Committee Members: William R. Muehlberger, James T. Sprinkle

**Cambria D. Johnson**

BS, Geochemistry, 1985, Duke University

Origin of Olivine-Plagioclase Coronal Textures from the Adirondack Mountains, New York State.

Supervisor: William D. Carlson

Committee Members: Mark Cloos, Doug Smith

**John W. Kuehne**

BS, Geology, 1982, University of Kentucky

Water Storage Contributions to the Excitation of Polar Motion

Supervisor: Clark R. Wilson

Committee Members: Cliff Froehlich, John M. Sharp

**Holly J. Lund**

BA, Geology, 1982, California State University/Chico

Marine Dolomite in a Fore-Reef Hardground, Discovery Bay, Jamaica.

Supervisor: Lynton S. Land

Committee Members: Robert L. Folk, John K. Warren

**James D. Prikryl**

BS, Geology, 1984, University of Texas at Austin

Origin of Salt Dome Limestone Cap Rocks in the U.S. Gulf Coast.

Supervisor: J. Richard Kyle

Committee Members: Lynton S. Land, Harry Posey

**John A. Tenison**

BFA, College of Art, 1973, Maryland Institute

Biostratigraphy, Lithostratigraphy, and Paleoenvironment

*Graduation day has finally arrived for Mike Rosen, front left, who received his PhD degree in May.*

of the Etchegoin and San Joaquin Formations, Buena Vista Hills, California.

Supervisor: Martin B. Lagoe

Committee Members: William Galloway, Amos Salvador

**Sarah D. Zellers**

BA, Geology, 1984, University of Rochester  
Foraminiferal Biofacies Analysis of the Yakataga Formation, Icy Bay, Alaska.

Supervisor: Martin B. Lagoe

Committee Members: William Galloway, Ernest L. Lundelius

**Doctor of Philosophy, May, 1989 (8)**

**Emilio Flores-Espinoza**

Ingeniero Geologo, 1975, Instituto Politecnico Nacional  
MA, Geology, 1983, University of Texas at Austin  
Stratigraphy and Sedimentology of the Upper Cretaceous Terrigenous Rocks and Coal of the Sabinas-Monclova Area, Northern Mexico.

Supervisor: Earle F. McBride

Committee Members: Amos Salvador, Keith Young, Willem van Rensburg, M. Dane Picard

**Julie A. Kupecz**

BS, Geology, 1979, University of Oklahoma  
MS, Geology, 1984, Colorado School of Mines  
Petrographic and Geochemical Characterization of the Lower Ordovician Ellenburger Group, West Texas.

Supervisor: Lynton S. Land

Committee Members: Robert L. Folk, J. Richard Kyle, Charles Kerans, J. Fred Read, Don G. Bebout

**Peter J. Oberst**

Diplom, Geology, 1982, Westfalische Wilhelms Universitat, West Germany

Meteoroids near the Earth-Moon System as Inferred from Temporal and Spatial Distribution of Impacts Detected by the Lunar Seismic Network.

Supervisor: Yosio Nakamura

Committee Members: Clifford A. Frohlich, Jan D. Garmany, David V. Hinkley, Victor G. Szebehely

**Jose U. Ricoy**

BS, Petroleum Engineering, 1971, Universidad Nacional Autonoma de Mexico

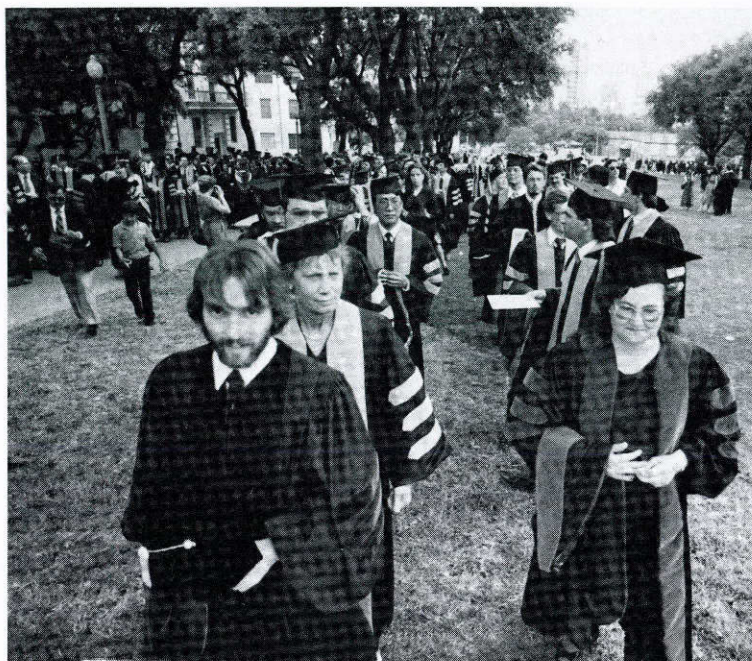
MA, Geology, 1976, University of Texas at Austin  
Tertiary Terrigenous Depositional Systems of the Mexican Isthmus Basins.

Supervisors: Leonard F. Brown and Alan J. Scott

Committee Members: Earle F. McBride, Myron H. Dorfman, William L. Fisher

**Michael R. Rosen**

BS, Geology, 1982, Haverford College



MS, Geology, 1984, University of Rochester  
Sedimentologic, Geochemical, and Hydrologic Evolution of an Intracontinental, Closed-Basin Playa (Bristol Dry Lake, CA): A Model for Playa Development and Its Implications for Paleoclimate.

Supervisors: John K. Warren and Lynton S. Land

Committee Members: Robert L. Folk, Gary Kocurek, W. J. Schweller

**Rainer K. Senger**

Pre-Diploma, Geology, 1978, Universitaet Karlsruhe, West Germany

MA, Geology, 1983, University of Texas at Austin  
Hydrodynamics of Gravity Driven Flow Systems in Sedimentary Basins: Example of the Palo Duro Basin, Texas.

Supervisors: Charles W. Kreitler and John M. Sharp

Committee Members: Lynton S. Land, Randall J. Charbeneau, F.W. Schwartz

**David A. Wark**

BS, Geology, 1978, University of Michigan - Ann Arbor

MA, Geology, 1983, University of Texas at Austin  
Field, Geochemical, and Isotopic Constraints on the Genesis of Rhyolite Ash-Flow Tuffs and Related Rocks of the Tomochic Volcanic Center, Sierra Madre Occidental, Mexico.

Supervisors: Fred W. McDowell and Douglas Smith

Committee Members: Daniel S. Barker, Leon E. Long, G. Land Farmer

**Paul Weimer**

BA, Geology, 1978, Pomona College

MS, Geology, 1980, University of Colorado  
Sequence Stratigraphy and Depositional History of the Mississippi Fan, Gulf of Mexico.

Supervisor: Richard T. Buffler

Committee Members: William Galloway, Gary Kocurek, Leonard F. Brown, Arnold Bouma

# Scholarships

## Undergraduate

### Bloomer Fund for Motivated Students

Douglas Bowling	1988-89
Sigrid Clift	Summer 1989
Devon Fletcher	Spring 1989
James Piper	Fall 1988
Doris Lee Tischler	Spring 1989

### W. F. Bowman Endowed Presidential Scholarships

Lauren Browning	1988-89
Charlotte Bryant	Summer 1989
Jacob Kons	1988-89
Cheryl Richard	Summer 1989

### W. K. Clark Memorial Endowed Presidential Scholarship

J. Scott Hudson	1988-89
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### Continental Oil Company Scholarships

Namho Baag	Fall 1988
Krishna Bhujang	Fall 1988
Jose Flores	Fall 1988

### R. H. Cuyler Endowed Presidential Scholarships

Charlotte Bryant	1988-89
Ricky Boehme	Spring 1989
Timothy Crump	Spring 1989
Aura Guevara	Spring 1989
Teri Hamilton	Spring 1989
Cheryl Richard	Spring 1989

### Enserch Scholarships

Michael Starcher	Fall 1988
Gregory Warren	Fall 1988

### Guy E. Green Endowed Presidential Scholarships

Drake Fason	1988-89
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### Charlie and Eunice Haas Endowed Presidential Scholarships

Karen K. Bergeron	1988-89
Stuart G. Johnson	1988-89

### Fred E. and Nora V. Haas Endowed Presidential Scholarship

Richard S. Goldsmith	1988-89
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### Marathon Oil Company Scholarships

Victoria King	Spring 1989
Thomas Richie	Spring 1989
Gregory Warren	Spring 1989

### John H. and Lujza P. McCammon Endowed

#### Scholarships

Phyllis Cunningham	Fall 1988
Alicia Simpkins	Fall 1988
Cheri Teisberg	Spring 1989

### Mr. and Mrs. L. F. McCollum Endowed Scholarships

Doug Bowling	Fall 1988
David Evans	Fall 1988
Thomas Ritchie	Summer 1989
Rakan Zahawi	Spring 1989
Ricky Boehme	Fall 1988

### Frank W. Michaux Scholarship

Aura Guevara	Fall 1988
Michael Ueber	Summer 1989
Rakan Zahawi	Spring 1989

### Carroll C. Miller Endowed Presidential Scholarship

Philip Teas	1988-89
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### Mobil Scholarships

Jose Flores	Spring 1989
Owen Martin	Spring 1989
Michael Perales	Spring 1989
Robert Salinas	Spring 1989

### Pennzoil Scholarship Fund

William Barnard	Spring 1989
Devon Fletcher	Fall 1988
Thomas Ritchie	Fall 1988

### O. S. Petty Geophysical Fund Scholarships

Carlos Estrada	Fall 1988
Cheri Teisberg	Fall 1988

### Louis and Elizabeth Scherk Geology Scholarship

Rimas Gaizutis	Summer 1989
Jorge Guzman	Summer 1989
Gaby Hargita	1988-89
Eric Harris	Summer 1989
Eric Matzel	Summer 1989
Scott Rubin	1988-89
Robert Schulz	Summer 1989
Danny Taylor	1988-89

### F. W. Simonds Endowed Presidential Scholarship

Hillary Tulley	1988-89
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**Sun Oil Co. Fellowship**

Annessa Green	Fall 1988
David Lloyd	Fall 1988
Doris Tischler	Fall 1988

**Udden Memorial Scholarship Fund**

Gregory Warren	Spring 1989
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**Glenn and Martha Vargas Gemological Scholarship**

Monica Istvan	Spring 1989
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**F. L. Whitney Endowed Presidential Scholarships**

William Barnard	Spring 1989
Ricky Boehme	Spring 1989
Robert Brackett	1988-89
Carlos Estrada	Spring 1989
Eric Matzel	Spring 1989
Matthew Wilson	1988-89

**Charles E. Yager Undergraduate Field Scholarships**

Ricky Boehme	Summer 1989
S. Drake Fason	Summer 1989
Ronald Houston	Summer 1989
Gregory Warren	Summer 1989
Michael Whittaker	Summer 1989

**AFMS Gives Earth Science Grants**

In spring, 1988 Dr. Joe Granata, professor of geology at San Jacinto College in Houston, contacted the Geology Foundation with the news that he had been presented a prestigious award by the American Federation of Mineralogical Societies. As a part of this award, the AFMS allowed Dr. Granata to designate two earth science grants in the amount of \$2,000 each for two years, to graduate students at the schools of his choice.

Since Dr. Granata had been recommended for this honor by the Mineral and Gem Society of Clear Lake City, he selected the University of Houston at Clear Lake City to receive one of the grants. He generously chose UT Austin as the second grant recipient. Dr. Granata stated, "I will always feel a certain amount of fondness and sincere obligation toward my alma mater. The University of Texas is a great institution and has certainly made me what I am today." Dr. Granata received his MA in 1977 and his PhD in 1980, both in the area of Latin American Studies.

A primary objective of the AFMS is to assist graduate students in continuing their education and furthering their knowledge of geology and mineralogy. Jonathan Blount, a PhD candidate, was selected by the Department to be the recipient of the award for 1988-89. Jonathan, a student of Bill Carlson, received both Bachelor's and Master's degrees from East Carolina University. After receiving his Master's degree, Jonathan worked for three years as a geologist for Mobil Oil, then entered UT in 1985.

**Bookout Scholarship Funded**

Beginning in September 1989 the Department will have a new scholarship to present to a deserving senior. The John F. Bookout, Jr. and Carolyn Bookout Scholarship in Geological Sciences has been funded in the amount of \$1,500 for 1989-90 by the Bookouts' son, John III. Mr. Bookout's commitment is to fund a scholarship in this amount for ten years. This award is specified for a student who is not concurrently receiving any other scholarship.

John F. Bookout, Jr. is a Distinguished Alumnus of the University of Texas at Austin and a Distinguished Graduate of the Department of Geological Sciences.

**Houston Geological Society Awards**

The Houston Geological Society Outstanding Student Award for 1988-89 was given to Jacob F. Kons, of Richardson, Texas. Jake received a BA in Geology in May, 1989. Now a commissioned officer in the Navy, he plans to attend flight school in Pensacola, Florida. He hopes to serve as a naval flight officer and eventually continue his studies in geology.

Jake, who has a 4.0 in geology and a 3.75 overall GPA, was nominated for this \$150 award by the Department. He has previously been the recipient of three UT endowed presidential scholarships, was twice designated a UT College Scholar, and has been on the Commanding Officer's Permanent Academic Honor Roll NROTC since 1987. He was honored by inclusion in the National Dean's List and Outstanding College Students of America and received both the Reserve Officer's Association Award for Achievement in the Arts and Sciences of National Defense and the Navy Jesse Jones Scholarship. In addition, he is a member of several UT honor societies.

The Houston Geological Society Undergraduate Foundation Scholarship recipient for 1988-89 was Lila Beckley. Lila received a BS in geophysics with a minor in mathematics in May, 1989. She was nominated for this \$1,000 award by the HGS Undergraduate Scholarship Trustees.

After graduation, Lila plans to work professionally in her field while concurrently earning a Master's degree. Her focus of study will be tectonics and the crust and upper mantle structure. Since 1987, she has worked at the Institute for Geophysics on a model of the tectonic evolution of Southeast Asia. Her GPA is 3.83. Lila is a member of three UT honor societies and has received many merit scholarships. She is also the editor of a German-language newspaper for high school students.

# Scholarships

## Graduate

**Edwin Allday Chair in Subsurface Geology Grant**  
Holly Lund Fall 1988

**American Federation of Mineralogical Societies  
Scholarship**  
Jonathan Blount Fall 1988

**Amoco Foundation, Inc.**  
Becky Coel 1988-89  
Alan Fuqua 1988-89  
Mark Graebner 1988-89

**Arco Scholarships in Geophysics**  
Sean Boerner Fall 1988  
Christopher Swezey Spring 1989

**Arco Designated Scholarship**  
Michael Rosen Spring 1989

**L. T. Barrow Chair in Mineral Resources**  
Richard Sams Spring 1989

**Wayne F. Bowman Endowed Presidential  
Scholarship**  
Ben Sloan Summer 1989  
Colleen Stapleton Summer 1989

**Jesse L. Brundrett Endowed Presidential Scholarship**  
Gretchen Gillis Fall 1988

**Fred M. Bullard Professorship Grant**  
Gerardo Aguirre Summer 1989  
Lars E. Borg Summer 1989  
Bruce Turbeville 1988-89  
Lee S. Potter Summer 1989

**Dave P. Carlton Teaching Fellowship in Geology  
Grant**  
Paula Noble Summer, 1989

**Dorothy Ogden Carsey Memorial Scholarship**  
John Tenison Fall 1988

**Chevron Designated Scholarship**  
Janet Coleman Fall 1988

**Conoco Fellowship**  
Harris Cander 1988-89

**Ronald K. DeFord Field Scholarship Fund**  
Gerardo Aguirre Spring 1989  
Gordon Bell Spring 1989  
Peter Bittenbender Spring 1989  
Lars Borg Spring 1989  
Janet Coleman Spring 1989  
Linda Davis Spring 1989  
Ronald Johns Spring 1989  
Keith Klepeis Fall 1988  
Mark Longtine Spring 1989  
Paula Noble Spring 1989  
Robert Roback Spring 1989  
Colleen Stapleton Spring 1989  
Christopher Swezey Spring 1989

**Michael Bruce Duchin Memorial Endowed  
Presidential Scholarship**  
Michael Maler Fall 1988

**John E. "Brick" Elliott Academic Activities Fund**  
Robert Buehring Fall 1988  
Michael Cervantes Fall 1988  
Janet Coleman Spring 1989  
Robert Colgan Fall 1988  
Jennifer Glasford Spring 1989  
Steven Miller Spring 1989  
Edna Yeh Fall 1988

**Exxon Education Foundation Scholarships**  
Bill Agee Fall 1988  
Gerardo Aguirre Fall 1988  
Denise Apperson Fall 1988  
Gordon Bell Fall 1988  
Jonathan Blount Fall 1988  
Becky Coel Spring 1989  
Janet Coleman Fall 1988  
Gene Colgan 1988-89  
Scott Davis Fall 1988  
Ruurdjan deZoeten Fall 1988  
Steve Dworkin Fall 1988  
Emilio Flores Spring 1989  
David Froelich 1988-89  
Gretchen Gillis Fall 1988  
Peter Hennings Fall 1988  
Ronald Johns Fall 1988  
Richard Ketcham 1988-89  
Julie Kupecz Fall 1988  
Randall Larkin Fall 1988



Tung-Yi Lee	Fall 1988	<b>H. Tod Sutherland Memorial Scholarship</b>	
Michael Rosen	Fall 1988	Janet Manchester	Summer 1989
Phillip Rowel	1988-89	J. C. Ray	Summer 1989
Tony Runkel	Fall 1988		
Michael Sweet	Fall 1988	<b>Texaco Scholarship Fund</b>	
George Zemlicka	Fall 1988	Peter Hennings	Spring 1989
		Michael Maler	Fall 1988
<b>Getty Oil Company Centennial Chair Grant</b>		<b>Texas Oil &amp; Gas Corp. Leadership Award</b>	
Jonathan Blount	Summer 1989	John Tenison	Fall 1988
Cambria Denison Johnson	Summer 1989		
<b>Hogg-Cullinan Scholarship</b>		<b>Texas Utilities Designated Scholarship</b>	
Ronald Johns	Fall 1988	Charles Hewitt	1988-89
<b>Hogg-Sharp Scholarship</b>		<b>Union Oil Foundation Fellowship</b>	
Rick Toomey	Fall 1988	Christopher Swezey	Spring 1989
<b>John A. and Katherine G. Jackson Centennial Teaching Fellowship Grant</b>		<b>Union Pacific Foundation Scholarship in Geology</b>	
Mark Longtine	Fall 1988	Janet Manchester	Fall 1988
Peter Bittenbender	Fall 1988	<b>Arno P. (Dutch) Wendler Professional Development Fund</b>	
<b>Howard R. Lowe Fund in Vertebrate Paleontology</b>		Steven Cardimona	Spring 1989
Mary Amy Sheldon	Fall 1988	Becky Coel	Spring 1989
<b>J. Hoover Mackin Memorial Scholarship</b>		Janet Coleman	Spring 1989
Jennifer Glasford	Fall 1988	Cambria Denison Johnson	Spring 1989
<b>Minority Scholarship Fund</b>		Michael Lamar	Spring 1989
Debra Williams	Spring 1989	Michael Maler	Spring 1989
<b>Mobil Oil Designated Scholarship</b>		Jurgen Oberst	Spring 1989
Tom Cogswell	Spring 1989	Robert Roback	Spring 1989
Julie Kupecz	Fall 1988	Michael Sweet	Spring 1989
<b>Joyce Bowman Payne Centennial Teaching Fellowship Grant</b>		Bruce Turbeville	Spring 1989
Jonathan Blount	Spring 1989		
<b>Pennzoil &amp; Pogo Producing Company/William E. Gipson Scholarship</b>			
Paul Carpenter	1988-89		
<b>Phillips Petroleum Fellowship</b>			
Gretchen Gillis	Fall 1988		
Livia Squires	Fall 1988		
<b>Wilton E. Scott Centennial Professorship Grant</b>			
Emilio Flores	Spring 1989		
<b>Shell Oil Foundation Distinguished Chair in Geophysics Grant</b>			
Sean Boerner	Spring 1989		
<b>Sohio Petroleum Scholarship</b>			
Nicholaus Bernitsas	1988-89		



### New SEM Spurs Department's Research Efforts

The new JEOL T330-A scanning electron microscope arrived in November, and is producing great images. Its capabilities are much appreciated by a wide variety of users. This SEM has enabled researchers to work at much greater magnifications than on the old SEM and new X-ray and backscattered electron detectors make this a truly versatile instrument.

—by Sally Sutton



## STUDENT SPEAKERS

### TECHNICAL SESSIONS

#### Fall 1988

- Bill Agee, "Relation of Sulfide Mineralization to Anhydrite Cap Rock Formation at Hockley Dome, Harris County, Texas."
- Martin A. Albertin, "Tectonic History of the Guaymas Basin, Gulf of California."
- Jeffery D. Beckman, "Stratigraphy of the Caballos Novaculite, Marathon Basin, West Texas."
- Michael A. Cervantes, "Foraminiferal Biofacies in Middle-Late Paleogene Rocks of the San Emigdio Mountains."
- Mark Erwin, "Rb-Sr Dating of Clay diagenesis, Palo Duro Basin, Texas."
- Emilio Flores Espinoza, "Stratigraphy and Sedimentology in Coal Beds of the Upper Cretaceous Terrigenous Rocks of the Sabinas Monclova Area, Northern Mexico."
- Jennifer L. Glasford, "Depositional Architecture of the Triassic Bulgo Braidplain System, Blue Mountains Regions, Sydney Basin, Australia."
- Susan D. Hovorka, "Sedimentology of Salt."
- Cambria Denison Johnson, "Intergranular Diffusion Kinetics of Natural Coronal Textures."
- Randall G. Larkin, "Hydrologic Controls on Underflow in Alluvial Valleys."
- Holly J. Lund, "Quaternary Marine Dolomite Cement in a North Jamaican Fringing Reef."
- Gwendolyn L. Macpherson, "Trace Elements in Gulf Coast Formation Water."
- Michael Maler, "Pull Apart Graben near Boquillas Canyon, Big Bend National Park, Texas."
- Janet E. Manchester, "Petrology of Eclogite Xenoliths from the Sullivan Buttes Latite, Chino Valley, Arizona."
- Michael R. Rosen, "Sedimentological and Hydrodynamic Evolution of Bristol Dry Lake, California: A Model for Playa Development."
- Michael L. Sweet, "Eolian Dune Airflow Dynamics: Implications for Dune Spacing, Morphology, and Migration."
- Sarah D. Zellers, "Foraminiferal Biofacies Analysis of the Yakataga Formation, Northeastern Gulf of Mexico."
- George Zemlicka, "Earthquake Source Process Study in the Gulf of California."

#### Best Speaker Awards

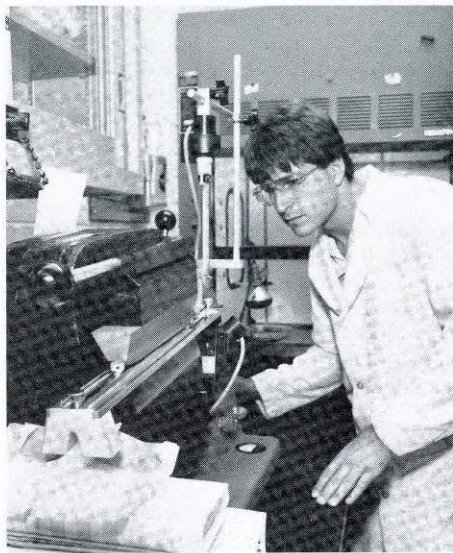
Each semester the graduate students vote to select the Best Technical Sessions Speaker. Names of those selected are engraved on a plaque in the graduate student lounge. Best Speaker for fall 1988 was Mike Maler and for spring 1989 was Chris Small.

#### Spring 1989

- John E. Atkins, "A Petrogenic Study of Porosity Reduction and Other Forms of Early Diagenesis in Unconsolidated Holocene Sands."
- Jonathan Blount, "Geochemistry and Tectonic Significance of Precambrian Meta-Igneous Rocks of Chihuahua, Mexico."
- Sean T. Boerner, "The Implications of Dilation for Internal Deformation in Simple Analogue Models of Extension by Block Faulting."
- Rebecca J. Coel, "Geochemical Associations of Gold in a Subarctic Placer Deposit."
- Janet M. Coleman, "Depositional Systems and Sequence Stratigraphy of the Lower Oligocene Vicksburg Formation."
- Guoqiu Gao, "Petrography and Geochemistry of Arbuckle Dolomites, Slick Hills, Southwestern Oklahoma."
- Roberto Gutierrez, "Seasonal Variations in Satellite Orbits and their Geophysical Sources."
- Walter Kessinger, "Navigation and Seismic Processing for the Costa Rica 3-D Data Set."
- Julie A. Kupecz, "Petrographic and Geochemical Characterization of the Lower Ordovician Ellenburger Group, West Texas."
- Lawrence E. Mack, "Sandstone and Shale Diagenesis in the Gulf Coast Tertiary: Sr Isotope Evidence."
- Laura A. Martin, "Seismic Stratigraphy and Geologic History of Jurassic Rocks, Northeastern Gulf of Mexico."
- Jurgen Oberst, "Where do Meteorites Come From?—A Study of Impacts Detected by the Lunar Seismic Network."
- Dianne J. Pavlicek, "Geochemistry and Petrography of the Upper Triassic Portoro Limestone, Liguria, Italy."
- Jeffrey G. Pittman, "Description of Dinosaur Tracks and Tracksites of the Gulf Coastal Plain, with Discussion of the Stratigraphy and Paleontology of the Glen Rose Formation."
- James Prikryl, "Origin of Salt Dome Calcite Cap Rock at Damon Mound, Texas: A Petrographic and Geochemical Model."
- J. C. Ray, "Paleoenvironments and Chronostratigraphy of the Upper Miocene—Pleistocene Yakataga Formation, Northeastern Gulf of Alaska."
- Rainer Senger, "Hydrodynamics of Gravity-Driven Flow Systems in Sedimentary Basins: Example of the Palo Duro Basin, Texas."
- Christopher Small, "Mid-Ocean Ridges—How they Work."
- John A. Tenison, "Biostratigraphy and Paleoenvironment of the Subsurface Etchegoin Formation, Southwestern San Joaquin Valley, California."
- Warren T. Wood, "One and Two Dimensional Seismic Velocity Inversion in the Domain of Intercept Time and Ray Parameter."



# Student Job Program



*Paul Warren performs rock crushing and mineral separation duties for Nick Walker.*

— by Mark Cloos

In 1987, Thomas Burke provided seed monies to establish the Student Job Program in the Geology Foundation. The program's goal is to provide undergraduate students the opportunity to obtain geoscience work experience by working in research projects of faculty and research scientists as laboratory and field assistants.

This year the program supported three students.

Paul Warren, a double major in geological sciences and molecular biology, worked for Nicholas Walker performing crushing and mineral separation of rocks from the Llano region of central Texas and the Cascades of eastern Oregon. The separations require utmost care and cleanliness because the zircons are dissolved and then analyzed for the isotopes of uranium and lead on the Department's solid-source mass spectrometer.



*Sally Sutton (right) trains Matt Wilson to use the SEM.*

Matt Wilson, a sophomore, was trained in the use of the new JEOL SEM by Research Scientist Sally Sutton. Matt spent the spring semester training and assisting faculty and graduate students to magnify images of microfossils, pore cements and etched quartz up to 40,000X.

Chris Shorey, a sophomore, worked for Mark Cloos performing X-ray diffraction studies of clays from the California coast ranges. Chris crushed and separated the samples, placed them on mounts, adjusted the X-ray diffractometer and identified the minerals from the diffraction patterns he had produced.

The Student Job Program is yet another way in which the Department promotes undergraduate teaching by enabling students to have hands-on work experience. The continuation and growth of this valuable program depends on alumni contributions.



*Mark Cloos teaches Chris Shorey to perform X-ray diffraction studies.*



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*News*



*Jerry W. Box*



*Robert D. Ottmann*



*James C. Patterson*

## MEMBERSHIP CHANGES

**T**he Geology Foundation Advisory Council welcomes three new members to its ranks in September 1989. They are Jerry W. Box of Dallas, and Robert D. Ottmann and James C. Patterson, both of Houston.

**Jerry Box** is vice president of exploration for Oryx Energy Company, formerly Sun Exploration and Production Company. A native of Montgomery, Louisiana, Jerry received his BS degree in geology from Louisiana Tech University in 1961 then served as an officer in the U.S. Air Force from 1961 to 1966. He returned to Louisiana Tech and received his Master's degree in 1968. After graduation he began working for Sun as a geologist in Beaumont, and continued through the years serving as exploration geologist, senior geologist, and an associate professional geologist. In 1976 he was promoted to district manager of the Rocky Mountain District in Sunmark Exploration, and in 1980 was named vice president of exploration, Sun Texas Division. In 1981 he became manager of domestic exploration's western region and was transferred to Denver. He returned to Dallas as vice president of domestic exploration in September 1986 with the relocation of the western region office. He is an active member of several professional organizations, including the AAPG where he serves on the membership committee. Jerry also serves on the board of directors of the Dallas Museum of Natural History and Aquarium. He and his wife, Marianna, have a daughter and a son.

**Bob Ottmann's** career spans 38 years, all with Exxon. He began working for Humble in 1951, shortly after receiving his BS degree in geology from the University of Texas. He has held numerous positions in Texas, California, Oklahoma, and Louisiana. Since 1986 he has been exploration geologic coordinator, headquarters technology, exploration department, in Houston. In that capacity he has had the opportunity to visit the Department on

recruiting trips for Exxon. Bob and his wife Ora have a daughter, Judith, who received a BS in journalism from UT in 1981, and a son, Jeff, who received his BS degree in geology from UT in 1977.

**James C. Patterson** received his BS degree in geology from the University of Arkansas in 1950. After a few years with National Geophysical Company, he was employed by Conoco in 1954 in their North American exploration organization. Further promotions took him to Los Angeles, New York, London, and Cairo. In 1980 he became general manager of international exploration, and in 1986 assumed his present position as vice president of North American exploration. Jim is a member of SEG, AGU and the American Petroleum Institute, among other professional organizations. He and his wife Marjorie have two daughters and a son.

The addition of these three members gives added breadth to the industry representation on the Advisory Council. Last March, Council members accepted with regret the resignation of long-time member Howard Lowe, of Coupeville, Washington. Howard's varied business interests no longer allow him time to participate in Council activities as he would like. The Advisory Council and all those in the Department express thanks to Howard for serving since 1980, and especially for his strong support of the vertebrate paleontology program.

Nine members were reappointed to additional three-year terms: Eugene Ames Jr., David S. Birska, L. Decker Dawson, David S. Holland, Charles J. Hooper, John A. Jackson, Ken G. Martin, Judd H. Oualline, and Don B. Sheffield.

Members of the Advisory Council as well as faculty and students in the Department were saddened by the death of Mr. J. Ben Carsey Sr. Mr. Carsey had been a member of the Advisory Council since 1972 and an honorary life member of the Council since 1981 (see *In Memoriam*).

## ADVISORY COUNCIL ACTIVITIES

Activities of the Advisory Council during 1988-89 continued to focus on building enrollment. A survey is being sent to representatives of many companies in the energy industry to determine their needs for geologists and geophysicists for the next five or ten years, as well as to find out the type of training most valuable to the companies. Results of this survey will help determine the types of courses offered in the Department over the next few years.

At the spring Council meeting, Bill Gipson was presented with a plaque to thank him for serving as chairman of the Advisory Council from 1987 to 1989. He will continue to serve as a member of the Council. Mr. Rodger E. (Tim) Denison was elected to serve as chairman for 1989-90.



*Mr. Don Boyd presents a plaque to Mr. Bill Gipson in appreciation for Mr. Gipson's two years of service as chairman of the Geology Foundation Advisory Council.*

Also at the spring meeting, the Council agreed to recommend to the Board of Regents the renaming of two funds in the Geology Foundation.

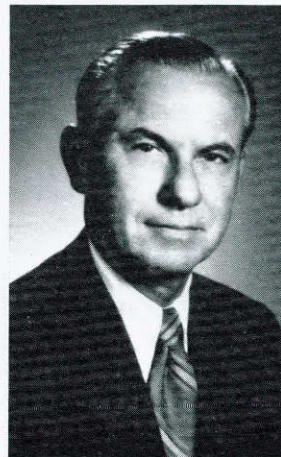
The Geology Foundation Special Maintenance Fund was started by the Council in 1986. The purpose of the endowment was to provide income which could be used to repair and maintain equipment used in the teaching and research programs of the Department. At the same time, the Geology Foundation Special Operations Fund was established, for the purpose of providing income for the purchase of new equipment. During the past year, Mr. J. Don Langston made a substantial contribution to the Special Operations Fund to help ensure its continued growth toward the stated purpose. Because of his generous contribution and interest in the fund, the Advisory Council voted to rename the fund in Mr. Langston's honor.

Shortly after the death of Mr. J. Ben Carsey Sr., his family inquired about an appropriate fund designation for the generous memorial contributions which had been donated to the Geology Foundation by Mr. Carsey's many friends and family members. The Council determined that it would be most fitting to add the

Carsey memorial contributions to the Special Maintenance Fund, and that Mr. Carsey's name should also be added to the fund.

On August 10, 1989, therefore, the Board of Regents formally approved the J. Ben Carsey Sr. Special Maintenance Fund and the J. Donald Langston Special Operations Fund.

## *Wes Ogden Scholarship Pledged*



*Wes Ogden*

Mr. William W. Ogden of Houston has pledged the amount of \$10,000 from family and friends of his father, Wes Ogden, to endow the Wes Ogden Memorial Scholarship in Geophysics. The Wes Ogden Scholarship would provide funds for students with strong academic performance and financial need at either the undergraduate or graduate level. Preference would be given to students expressing a desire to apply their geophysical training in practical applications within the oil and gas industry.

Wes Ogden received a BS degree in math from UT in 1937. In 1939 he began his career with Shell Oil Company and continued with that company until his retirement in 1979. Most of his career was spent in mid-continent exploration in Texas, Louisiana and Oklahoma, with foreign assignments in Holland, Turkey, Canada and Australia.

Wes was a long-time member of the AAPG and the Geophysical Society of Houston. He was also active in SERVE, the Shell Employees and Retirees Volunteer Effort, tutoring elementary school students in the Houston Independent School District in mathematics.

Upon retirement from Shell Oil Company, he founded his own geophysical consulting company in Houston. He remained actively involved in geophysical exploration for a number of independent oil and gas exploration companies until the date of his death on April 28, 1989.

Friends of Wes Ogden are invited to support the establishment of this fund in his memory. When the minimum endowment level of \$10,000 has been reached, the fund will be submitted to the Board of Regents for approval as an endowed account. It is hoped that an initial scholarship from the fund can be made in fall 1990.

# Geology Foundation Advisory Council

Effective September, 1989



## Chairman

**Dr. Rodger E. Denison**, Mobil Research and Development Corporation, Box 819047, Dallas, TX 75381

## Vice Chairman

**Mr. David S. "Scotty" Holland**, President and Chief Executive, Pennzoil Exploration and Production Company, P. O. Box 2967, Houston, TX 77252

## Members

**Mr. Charles W. Alcorn Jr.**, President, Alcorn Companies, P. O. Box 2879, Victoria, TX 77902

**Mr. Eugene L. Ames Jr.**, President, Venus Oil Company, 2100 NBC Building, San Antonio, TX 78205

**Mr. Larry M. Asbury**, Vice President, Exploration, Arco International Oil and Gas Company, 2300 W. Plano Parkway, Plano, TX 75075-8499

**Dr. David S. Birsa**, General Manager of Exploration, Chevron U.K. Limited, 2 Portman Street, London W1H, OAN, England

**Dr. Richard R. Bloomer**, Bloomer & Associates, Inc., 132 Devonian Building, 310 N. Willis Street, Abilene, TX 79603

**Mr. Jerry W. Box**, Vice President for Exploration, Oryx Energy Company, P. O. Box 2880, Dallas, TX 75221-2880.

**Mr. Thomas M. Burke**, Consultant, 8519 Manhattan Drive, Houston, TX 77096

**Mr. Weyman W. Crawford**, Executive Vice President, Elf Aquitaine Petroleum, Allied Bank Plaza, 1000 Louisiana, Suite 3800, Houston, TX 77002

**Mr. L. Decker Dawson**, President, Dawson Geophysical Company, 208 S. Marienfeld, Midland, TX 79701

**Mr. George A. Donnelly Jr.**, President, The Eastland Oil Company, P. O. Box 3488, Midland, TX 79702

**Mr. Thomas E. Fanning**, Vice President, Domestic Exploration, Marathon Oil Company, P. O. Box 3128, Houston, TX 77253

**Dr. Peter T. Flawn**, 3718 Bridle Path, Austin, TX 78703

**Mr. James H. Frasher**, Consultant, 14751 Quail Grove, Houston, TX 77079

**Mr. William E. Gipson**, Managing Director of Exploration, Pogo Producing Company, P. O. Box 61289, Houston, TX 77208

**Mr. Joseph N. Gittelman**, General Manager Exploration, Shell Western E&P Inc., P. O. Box 576, Houston, TX 77001

**Mr. George M. Harwell**, Consultant, 14918 River Forest, Houston, TX 77079

**Mr. Larry R. Hensarling**, President, Tee Oil, Inc., P. O. Box 52343, Suite 800, Lafayette, LA 70505

**Mr. Charles J. Hooper**, President, Texana Petroleum Corporation, 3355 W. Alabama, Suite 840, Houston, TX 77098

**Mr. John A. Jackson**, President, Katie Petroleum Company, Forest Plaza III, 12221 Merit Drive, Suite 460, Dallas, TX 75251

**Mr. J. Donald Langston**, 78-6880 Kuhinanui Street, Kailua-Kona, HI 96740

**Mr. Vance M. Lynch**, Vice President, Scientific Computing Services, Unocal Science and Technology Division, Unocal Corporation, P. O. Box 76, Brea, CA 92621

**Mr. Ken G. Martin**, Martin Energy Company, 201 Holiday Boulevard, Suite 106, Route 8, Box 6000, Covington, LA 70433

**Mr. Harry A. Miller Jr.**, 300 West Wall, Suite 600, Midland, TX 79701

**Mr. Michael B. Morris**, 3108 Reba Drive, Houston, TX 77019

**Mr. Judd H. Oualline**, Consultant, 214 Blalock Road, Houston, TX 77024

**Mr. Robert D. Ottmann**, Exploration Geologic Coordinator, Headquarters Technology, Exploration Department, Exxon Co. U.S.A., P. O. Box 2180, Houston, TX 77001

**Mr. James C. Patterson**, Vice President, North American Exploration, Conoco Inc., P. O. Box 2197, Houston, TX 77252

**Mr. Scott Petty Jr.**, 711 Navarro Street, Suite 235, San Antonio, TX 78205

**Mr. W. F. Reynolds**, J. C. & W. F. Reynolds Oil Producers, 700 MBank Building, Wichita Falls, TX 76301

**Mr. George W. Schneider Jr.**, #10 Cicero, Austin, TX 78746

**Mr. Don B. Sheffield**, President and CEO, Halliburton Geophysical Services, Inc., P. O. Box 36306, Houston, TX 77036-6306

**Mr. Robert K. Steer**, 9061 Briar Forest, Houston, TX 77024

**Mr. William T. Stokes**, Consultant, 7703 Southwestern Boulevard, Dallas, TX 75225

**Mr. Eddie A. Williamson**, Division Exploration Manager, Amoco Production Company, P. O. Box 3092, Houston, TX 77253

**Mr. Phillip E. Wyche**, 126 Firebird, Austin, TX 78734

## Honorary Life Members

**Dr. Thomas D. Barrow**, Consultant, 1010 Lamar, Suite 400, Houston, TX 77002

**Mr. Don R. Boyd**, Independent, 1720 The Six Hundred Building, Corpus Christi, TX 78473

**Dr. Samuel P. Ellison Jr.**, 5948 Highland Hills Drive, Austin, TX 78731

**Mr. John L. Loftis Jr.**, 11919 Broken Bough, Houston, TX 77024

**Mr. O. Scott Petty**, 711 Navarro Street, Suite 235, San Antonio, TX 78205

**Mr. Edd R. Turner**, 900 West Main Street, Kerrville, TX 78028

**Mr. Joseph C. Walter Jr.**, Walter Oil & Gas Corporation, Suite 204, The Main Building, 1212 Main Street, Houston, TX 77002

**Mr. Charles E. Yager**, 3801 Potomac, Fort Worth, TX 76107

*Mr. Don R. Boyd, Honorary Life Member of the Geology Foundation Advisory Council, is a candidate for president of the American Association of Petroleum Geologists. Don is from Corpus Christi and this year was made an Honorary Member of AAPG.*

# Gifts

*To all  
donors  
we express  
our deepest  
appreciation  
for their  
generous support*

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 O. Scott Petty  
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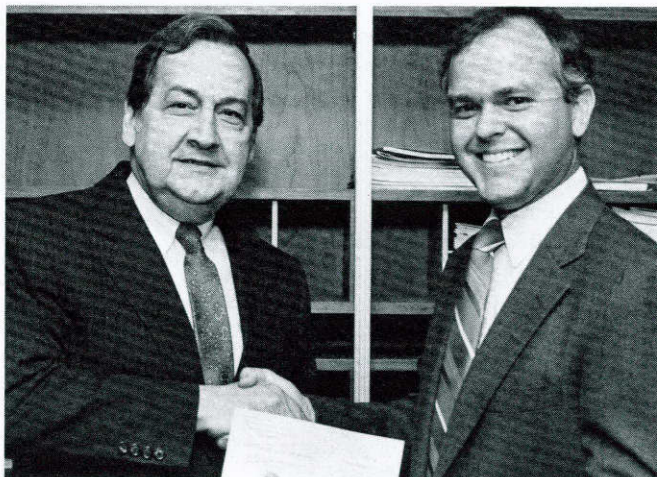


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June 1, 1988  
thru  
May 31, 1989***

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*Dr. Bill Fisher receives a check for the Department from BP Exploration Inc., presented by Robert Ruggiero (BS '75, MA '85)*

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Department of  
Geological  
Sciences  
June 1, 1988  
thru  
May 31, 1989***

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# GEOLOGY FOUNDATION ENDOWMENT ACCOUNTS

(June 1, 1988-May 31, 1989)

<i>Fund</i>	<i>Goal</i>	<i>Endowment</i>	<i>Fund</i>	<i>Goal</i>	<i>Endowment</i>
<b>Edwin Allday Centennial Chair in Subsurface Geology</b> Income supplements salary and research program of recipient	Unspec.	\$590,000	<b>Hal H. Bybee Memorial Fund</b> Student field support, or support of students researching geologic issues related to public policy	Unspec.	\$ 25,470
<b>Edwin Allday Lectureship in Geological Sciences</b> To provide for guest lecturers in geological sciences	\$203,716	\$ 69,804*	<b>Hal P. Bybee Memorial Fund</b> Faculty use—research, travel, study, etc.	Unspec.	\$395,128
<b>Alternative Energy Research and Development Fund</b> For study of energy sources other than petroleum	\$187,250	\$187,250	<b>L. W. Callender Memorial Fund</b> Departmental use, unrestricted	Unspec.	\$ 50,200
<b>E. M. Barron Trust</b> For support of the Barron Mineral Collection	Unspec.	\$ 99,877	<b>Dave P. Carlton Centennial Professorship in Geology</b> Income supplements salary and research program of recipient	Unspec.	\$440,740
<b>Leonidas T. Barrow Centennial, Chair in Mineral Resources</b> Development of program of excellence in mineral resources; income supplements salary and research program of recipient	Unspec.	\$848,926	<b>Dave P. Carlton Centennial Professorship in Geophysics</b> Income supplements salary and research program of recipient	Unspec.	\$460,694
<b>Bloomer Fund for Motivated Students</b> Financial aid for students not qualified for scholarships	Unspec.	\$ 48,572	<b>Dorothy Ogden Carsey Memorial Scholarship Fund</b> Geology scholarships, any level; special consideration to micropaleontology students	Unspec.	\$ 80,645
<b>Leslie Bowling Professorship</b> To attract persons from industry and government for short-term appointments on the faculty	Unspec.	\$ 68,306 <sup>+</sup>	<b>J. Ben Carsey Sr. Special Maintenance Fund</b> Maintain teaching and research equipment	\$250,000	\$ 64,125
<b>Wayne F. Bowman Endowed Presidential Scholarship</b> Unrestricted geology scholarships	Unspec.	\$ 91,494	<b>S. E. Clabaugh Fund in Hard-Rock Geology</b> To support research in hard-rock geology	Unspec.	\$ 23,602
<b>Don R. and Patricia Kidd Boyd Lectureship in Petroleum Exploration</b> To provide for guest lecturers in petroleum exploration	Unspec.	\$ 42,000	<b>W. Kenley Clark Memorial Endowed Presidential Scholarship</b> Geology scholarships, any level	Unspec.	\$ 42,700
<b>Robert E. Boyer Centennial Professorship in Geology</b> Income supplements salary and research program of recipient	Unspec.	\$280,064	<b>Robert H. Cuyler Endowed Presidential Scholarship</b> Undergraduate (upper-division) and graduate scholarships	Unspec.	\$ 45,264
<b>Brahman Energy Scholarship</b> Senior field course scholarships	Unspec.	\$ 15,370	<b>Morgan J. Davis Centennial Professorship in Petroleum Geology</b> Income supplements salary and research program of recipient	Unspec.	\$572,535
<b>Jesse L. Brundrett Memorial Endowed Presidential Scholarship</b> Graduate student scholarships	Unspec.	\$25,250	<b>Ronald K. DeFord Field Scholarship Fund</b> Field studies for graduate students	Unspec.	\$145,299
<b>Fred M. Bullard Professorship</b> Excellence in teaching, income supplements salary and research program of recipient	Unspec.	\$ 57,092 <sup>++</sup>	<b>Alexander Deussen Professorship in Energy Resources</b> Development of program of excellence in energy resources; income supplements salary and research program of recipient	Unspec.	\$120,255
			<b>Michael Bruce Duchin Centennial Memorial Endowed Presidential Scholarship</b> Scholarship for Master's candidate with preference toward general geology	Unspec.	\$ 31,700

\* \$133,912 in addition pledged from Allday Estate.

+ Does not include \$41,069 held in unitrust.

++ Does not include \$45,261 held in unitrust.



<i>Fund</i>	<i>Goal</i>	<i>Endowment</i>	<i>Fund</i>	<i>Goal</i>	<i>Endowment</i>
<b>Elf Aquitaine Petroleum Faculty Fellowship in Geological Sciences</b> Income supplements salary and research program of junior faculty member	Unspec.	\$103,000	and distributed from there at the end of the fiscal year to each of the six scholarship accounts. Geology holds two of the six accounts.		
<b>John E. "Brick" Elliott Centennial Professorship in Geological Sciences</b> Income supplements salary and research program of recipient	Unspec.	\$250,541	<b>Hogg-Cullinan</b> Scholarship in petroleum or field geology in honor of Joseph S. Cullinan	Unspec.	\$39,320
<b>Samuel P. Ellison Jr. Endowment Fund</b> For Department <i>Newsletter</i> and support of faculty-alumni functions	\$100,000	\$63,131	<b>Hogg-Sharp</b> Scholarship in petroleum or field geology in honor of Walter Benona Sharp	Unspec.	\$39,320
<b>Energy and Mineral Resources Fund</b> Support of programs and students in energy and mineral resources	\$100,000	\$23,855	<b>Houston Oil &amp; Minerals Corporation Faculty Excellence Awards</b> In recognition of outstanding service and special contributions to the teaching and research programs	\$40,000	\$40,000
<b>William Stamps Farish Chair in Geology</b> Income supplements salary and research program of recipient	Unspec.	\$338,500	<b>F. Earl Ingerson Graduate Research Assistance Fund in Geochemistry</b> Research assistance to graduate students in geochemistry	Unspec.	\$12,900
<b>Peter T. Flawn Centennial Chair in Geology</b> Income supplements salary and research program of recipient	Unspec.	\$635,220	<b>John A. and Katherine G. Jackson Centennial Teaching Fellowship in Geological Sciences</b> Income supplements salary and research program of junior faculty member	Unspec.	\$107,000
<b>Geology Foundation Advisory Council Centennial Teaching Fellowship in Geological Sciences</b> Income supplements salary and research program of junior faculty member	\$50,000	\$50,000	<b>Carolyn G. and G. Moses Knebel Teaching Awards</b> Annual Distinguished Teacher Award, Innovative Improvement and New Course Development	Unspec.	\$71,399
<b>Getty Oil Company Centennial Chair in Geological Sciences</b> Income supplements salary and research program of recipient	Unspec.	\$755,987	<b>Clara Jones Langston Centennial Lectureship in Vertebrate Paleontology</b> To provide for guest lecturers in vertebrate paleontology	Unspec.	\$20,000
<b>Miss Effie Graves Memorial Fund</b> Department needs (faculty support, student aid, special equipment, etc.)	Unspec.	\$23,033	<b>J. Donald Langston Special Operations Fund</b> Purchase teaching and research equipment	\$250,000	\$127,839
<b>Guy E. Green Endowed Presidential Scholarship</b> Geology scholarships, any level	Unspec.	\$28,298	<b>Wann and Marietta Langston Research Fund in Vertebrate Paleontology</b> Faculty research in vertebrate paleontology	Unspec.	\$87,114
<b>J. Nalle Gregory Professorship in Sedimentary Geology</b> Development of program of excellence in sedimentary geology; income supplements salary and research program of recipient	Unspec.	\$108,786 *	<b>Jack K. Larsen-Mesa Petroleum Co. Fund in Sedimentary Geology</b> Support of the Department's program in sedimentary geology	Unspec.	\$109,468
<b>Gulf Oil Foundation Centennial Professorship in Geology</b> Income supplements salary and research program of recipient	Unspec.	\$220,000	<b>Howard R. Lowe Vertebrate Paleontology Endowment</b> Support of student field work in vertebrate paleontology	Unspec.	\$25,883
<b>George S. Heyer Memorial Fund</b> Any purpose of the Foundation	Unspec.	\$84,570	<b>J. Hoover Mackin Memorial Scholarship Fund</b> Graduate geology scholarships	Unspec.	\$20,060
<b>William C. Hogg Memorial Scholarship Fund</b> General information: The total Hogg endowment in the sum of \$235,918 for all of the scholarships (a total of six) is carried in one Common Trust Fund account. The income is credited to one expendable account			<b>John H. and Lujza P. McCammon Endowed Scholarships</b> Upper-division undergraduate scholarships	Unspec.	\$10,555
			<b>Mr. and Mrs. L. F. McCollum Endowed Scholarships</b> Geology scholarships, any level	Unspec.	\$17,724

\* Does not include \$400,000 held in trust.



<i>Fund</i>	<i>Goal</i>	<i>Endowment</i>	<i>Fund</i>	<i>Goal</i>	<i>Endowment</i>
<b>Frank W. Michaux Scholarship Fund</b> Geology scholarships, any level	Unspec.	\$ 10,366	<b>Wilton E. Scott Centennial Professorship</b> Income supplements salary and research program of recipient	Unspec.	\$212,000
<b>Carroll C. Miller Endowed Presidential Scholarship</b> Geology scholarships to students pursuing careers in energy industries; preference to students from South Texas	Unspec.	\$ 29,673	<b>The Shell Companies Foundation Centennial Chair in Geophysics</b> Income supplements salary and research program of recipient	Unspec.	\$810,000
<b>Fred L. and Frances J. Oliver Lectureship in Texas Hydrology and Water Resources</b> To provide for guest lecturers in water resources	\$ 25,000	\$ 25,000	<b>The Shell Companies Foundation Distinguished Chair in Geophysics</b> Income supplements salary and research program of recipient	Unspec.	\$815,000
<b>Judd H. Oualline Endowment Fund</b> For special needs of the Department	Unspec.	\$ 14,097	<b>Frederick W. Simonds Endowed Presidential Scholarship</b> Scholarships to undergraduate (upper division) and graduate students	Unspec.	\$ 25,710
<b>Judd H. and Cynthia S. Oualline Centennial Lectureship in Geological Sciences</b> To provide for guest lecturers in geological sciences	Unspec.	\$ 24,972	<b>William T. Stokes Centennial Teaching Fellowship in Geological Sciences</b> Income supplements salary and research program of junior faculty member	Unspec.	\$109,000
<b>Judd H. and Cynthia S. Oualline Centennial Lectureship in Petroleum Geology</b> To provide for guest lecturers in petroleum geology	Unspec.	\$ 26,656	<b>Structural Geology and Tectonics Fund</b> For support of faculty and student research and structure and tectonics	Unspec.	\$ 43,950 *
<b>Ed Owen-George Coates Fund</b> Publication of geological research related to Texas by faculty and graduate students	Unspec.	\$103,722	<b>H. Tod Sutherland Memorial Scholarship Fund</b> For summer research support for graduate students	Unspec.	\$ 32,465
<b>Bill R. Payne Centennial Teaching Fellowship in Geological Sciences</b> Income supplements salary and research program of junior faculty member	Unspec.	\$ 59,900	<b>David S. Thayer Memorial Scholarship Fund</b> Senior field course scholarships	Unspec.	\$ 26,360
<b>Joyce Bowman Payne Centennial Teaching Fellowship in Geological Sciences</b> Income supplements salary and research program of junior faculty member	Unspec.	\$ 53,400	<b>Tobin International Geological Map Collection</b> For purchase of maps and photos, storage and viewing facilities for these items	\$100,000	\$ 70,432
<b>Pennzoil and Pogo Producing Companies—William E. Gipson Scholarships</b> Scholarships for UT graduates seeking Masters degrees at UT	Unspec.	\$ 89,400	<b>Udden Memorial Scholarship Fund</b> Geology scholarships at any level	Unspec.	\$ 10,665
<b>O. Scott Petty Geophysical Fund</b> Development of program of excellence in geophysics	Unspec.	\$123,693	<b>Glenn and Martha Vargas Gemological Scholarship in Geological Sciences</b> Scholarship for students interested in gemology or mineralogy	Unspec.	\$ 15,100
<b>Wallace E. Pratt Professorship in Geophysics</b> Development of program of excellence in geophysics; income supplements salary and research program of recipient	Unspec.	\$145,379	<b>Vargas Endowment for Gems and Gem Mineral Instruction</b> For course-related materials and instruction on gems and gem minerals	\$ 19,000	\$ 19,000
<b>Louis and Elizabeth Scherck Geology Scholarship</b> Undergraduate (upper division) and graduate scholarships	\$100,000	\$100,000	<b>Various Donors (General)</b> Unrestricted funds for furtherance of basic geological education, research, graduate study, field work, travel, Foundation operation costs, etc.	Unspec.	\$ 17,500
			<b>Joseph C. Walter, Jr. and Elizabeth C. Walter Geology Library Fund</b> Acquisition of books, maps and other library materials	Unspec.	\$169,912

\*Does not include additional pledge of \$60,000.



<i>Fund</i>	<i>Goal</i>	<i>Endowment</i>
<b>Albert W. and Alice M. Weeks Centennial Professorship in Geological Sciences</b> Income supplements salary and research program of recipient	Unspec.	\$141,989
<b>E. A. Wendlandt Fund</b> Purchase of books and journals in German or English translations	Unspec.	\$ 6,795
<b>Arno P. (Dutch) Wendler Professional Development Fund</b> Support of graduate student presentations at professional meetings	Unspec.	\$ 93,980
<b>Francis L. Whitney Endowed Presidential Scholarship</b> Geology scholarships, any level, paleontology and stratigraphy preferred	Unspec.	\$ 40,929
<b>Francis L. Whitney Memorial Book Fund</b> Purchase of paleontological books for library	Unspec.	\$ 11,461
<b>John A. Wilson Professorship in Vertebrate Paleontology</b> Development of program of excellence in vertebrate paleontology; income supplements salary and research program of recipient	Unspec.	\$105,257
<b>Charles E. Yager Undergraduate Field Scholarship Fund</b> Support of students taking senior field geology	Unspec.	\$43,458
<b>Mr. and Mrs. Charles E. Yager Professorships</b> Three professorships in any discipline for faculty who participate in field instruction; supplements salary and research programs of recipients	Unspec.	\$351,501

**Total value of endowment (including gifts, matches and reinvestments), May 31, 1989: \$12,314,587**



### *Gregory Trust Established*

Mrs. J. Nalle Gregory of San Angelo has established the Mary Elizabeth Gregory Charitable Remainder Trust in the amount of \$400,000. Upon termination of the trust, the corpus and any accumulated or undistributed income will be added to the J. Nalle Gregory Professorship in Sedimentary Geology. Upon distribution of the corpus, the professorship will be redesignated as the J. Nalle Gregory Chair in Sedimentary Geology.

The J. Nalle Gregory Professorship was established in memory of Mrs. Gregory's husband in April 1977 by contributions from family members, friends, and members of the Geology Foundation Advisory Council. Mr. Gregory was a member of the Advisory Council from 1960 until 1969, when he was elected an honorary life member. Mr. Gregory was an independent geologist in San Angelo from 1936 until the time of his death in October 1974.

## NEW ENDOWMENTS

The Board of Regents approved a new endowment entitled the Glenn and Martha Vargas Endowment for Gems and Gem Minerals Instruction in August, 1988. Mr. and Mrs. Vargas, who also endowed the Glenn and Martha Vargas Gemological Scholarship in Geological Sciences, want the income from this endowment to be used for course related materials and instruction on the subjects of gems and gem minerals. Mr. and Mrs. Vargas have visited the Department for the since fall, 1976 to teach faceting in the gems and gem minerals course, GEO 347K. Their generous endowment will allow this course or a similar course to continue to be taught in future years with ample funds for equipment and instructional materials.



*Karl F. Hagemeyer Jr.*

Family and friends of the late Karl F. Hagemeyer Jr. this spring established the Karl F. Hagemeyer Jr. Memorial Endowed Presidential Scholarship, which was approved by the Board of Regents on August 10. Karl's son, Karl III, and daughter, Jean Ann, and a number of friends have contributed almost \$26,000 to the endowment of the Hagemeyer Fund. The fund will provide an annual scholarship of \$2,000 for either undergraduate or graduate students in general geology, with preference being given to students from Brazoria or Kerr counties, Texas.

Karl received his BS degree from UT in 1949. He worked for Union Oil Company in Louisiana until 1956, when he joined Texas Crude. He later moved to Houston and became a petroleum exploration consultant in 1978. He died on May 14, 1988.

Karl was always a familiar face at UT alumni functions, and was proud of the fact that both his children are UT grads: Karl III, a BS in 1977 (now a surgeon in Kerrville), and Jeanne, a BS in communications in 1984, followed by a BS in physical therapy from UT Health Science Center. Jean Ann is a physical therapist for the Austin Independent School District.

This endowed presidential scholarship is a fitting and lasting tribute to Karl, as well as a scholarship fund of lasting benefit to the Department of Geological Sciences.

## In Memoriam



**J. Ben Carsey Sr.**

**J. Ben Carsey Sr.** (BA '46) died in Houston on October 2, 1988. He was born in Williamson County, Texas on April 19, 1902 and grew up in Dallas. After attending the University of Texas, in 1925 he became a petroleum geologist for Humble Oil and Refining Company, where he participated in oil exploration in Texas, Louisiana, California and Alaska. He attended the Advanced Management Program of the Harvard Business School in 1950 and served as chief geologist for Humble Oil until 1955, when he became exploration advisor. He retired in 1961. In 1960 he was an AAPG distinguished lecturer. He was president of the Houston Geological Society in 1965 and the American Association of Petroleum Geologists in 1967. The AAPG awarded him honorary membership in 1966. He was a member of the University of Texas Chancellor's Council, the Geological Society of America, the Petroleum Club and was a founding member of All-American Wildcatters.

After his retirement from Humble, in 1962 he began working with his son, J. Ben Carsey Jr., as an independent geologist. His first wife, Dorothy Ogden Carsey, shared his interest in geology until her death in 1969. Ben married Janet Mireau Longley in 1972.

In April 1980, Ben received the Department of Geological Sciences' highest honor, the title of Distinguished

Graduate of the Department. Such recognition was well deserved because of his many accomplishments in the petroleum industry as well as his loyalty to the University. His work on the Geology Foundation Advisory Council, which he joined in 1972, was further recognized in 1981 when he was made an honorary life member of that group. Memorial contributions made to the Geology Foundation in Ben's memory were added to an equipment fund which has now become the J. Ben Carsey Sr. Special Maintenance Fund.

Mr. Carsey is survived by his wife Janet Carsey; children J. Ben Carsey Jr. and Dorothy Sumner of Houston, Patricia Longley Erisman of Fort Worth and William L. Longley of Austin; and four grandchildren.

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**Bryan D. Collins** (BS '50), affectionately known by his many friends as B.D., touched hundreds of people's lives with his living example as a faithful and loving Christian, husband, father, grandfather, and friend. He loved and served people and gave of himself at every opportunity as he faithfully served God and his country.

B.D. was born May 4, 1923 in San Antonio and died April 4, 1989. He grew up in San Antonio and graduated from Breckenridge High School. He entered the Army Air Corps and served with great distinction. He was assigned to the 15th Air Force in North Africa and Italy as a combat aircrew member in the Consolidated B-24 Liberator Heavy Bomber (464th Bomb Group, 779th Bomb Squadron). He participated in over 20 combat missions over enemy-occupied territory, including several raids on the Ploesti oil fields in Rumania. On one raid his aircraft was damaged by enemy fire and the crew was forced to bail out over enemy-occupied territory. B.D. made his way west on foot until he encountered Yugoslavian partisans, who escorted him to the Adriatic Sea; he subsequently returned to U.S. lines via submarine. No crew member who survived such an ordeal was required to return to the bombing raids, but due to the shortage of aircraft engineers, B.D. returned and survived two more narrow escapes.

He attended the University of San Antonio, Trinity University, and graduated from the University of Texas, Austin in 1950. At that time the supply of geologists exceeded the demand, so at the urging of friends he applied for a position with the newly-organized U.S. Air Force Security Service where he was employed for over 30 years, based in San Antonio but traveling over the world and serving five years in Germany. During this time he received many awards including 15 outstanding and superior performance ratings. He retired in 1982 as civilian deputy director of operations, Electronic Security Command. At retirement the Air Force presented him with an award for meritorious civilian service.

Although his career took him away from geology, B.D. had great affection for the University and kept in touch with the geology department through the *Newsletter*.

B.D. is survived by his wife of 40 years, Joanne; two daughters and sons-in-law, Karen and Heinz Roesch of Greenwich, Connecticut and Shelley and Reagan Simon of Kyle, Texas; a son, Bryan P. Collins; five grandchildren, Cara, Stefan and Christoph Roesch, and Lindsey and Amanda Simon; two brothers, Harry Collins Jr. of New Braunfels, Texas and Thomas Collins of San Antonio.

—Charles Motz (BS '60)



**Carroll E. Cook**

**Carroll E. Cook** (BS '23, MA '32), age 92, died on January 27, 1989 in Austin. Born in Yoakum, Texas on October 30, 1896, he was raised in Sinton. While at UT he was a member of Phi Beta Kappa and Sigma Xi. A veteran of World War I, he served in the U.S. 1st Army, Battery B, 61st Coast Artillery Corps in South Carolina and France (1917-18). In December, 1922 he married Marion Polk Clarke (BA '22).

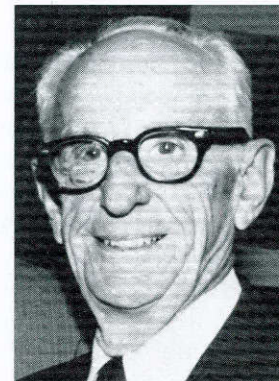
Mr. Cook was one of the pre-eminent surface geologists in the United States. As a long time employee of Humble Oil and Refining Company and Standard Oil of New Jersey he played a predominant role in the development of the East Texas field as well as numerous plays in West Texas and South Louisiana. He headed exploration operations for Standard in Europe in 1939, headquartered in the Hague, moving offices to Paris, Vichy, Rome, Haifa, and Cairo as World War II developed. As Rommel approached Cairo, Mr. Cook left there and returned to New York. He then worked in Venezuela, Peru, Brazil, and eventually Buenos Aires as head of operations in Argentina, a post he held until 1947. After leaving South America, he made his home in New York City and worked at his company's world wide production headquarters until his retirement in 1961.

After retirement, he and his wife moved back to Austin, where they resided near the University and Mr. Cook

worked as a geological consultant. They traveled extensively throughout the world until Marion Cook's death in 1984. Carroll Cook was a longtime supporter of the University of Texas Geology Foundation, the UT President's Associates and was a member of the American Association of Petroleum Geologists.

Mr. Cook is survived by one son, Mr. Carroll Clarke Cooke Sr. of Houston; six grandchildren, Mr. Clarke Cook and Miss Elizabeth A. Cook of Austin, Mrs. Virginia C. Hickson of Nacogdoches, Mrs. Patricia C. Mijares, Mr. Edwin D. Cook, and Mr. Phillip A. Cook of Houston; two great-grandchildren, Samantha and Meredith Hickson of Nacogdoches.

**Billy M. Easley** (BS '48) passed away on May 31, 1988. For many years he was a geologist in Corpus Christi, and since 1979 had operated Easley Oil and Gas Inc. He is survived by his wife, Helen Becker Easley.



**C. Wayne Holcomb**

**Charles Wayne Holcomb** (BS '37) died in a Houston hospital on October 3, 1988 at the age of 74. He was a former resident of Houston and Corpus Christi and had lived in Columbus, Texas since 1976 when he retired from Exxon Co. USA. He began his career in 1937 with the Humble Oil Co. as a micropaleontologist and later was an exploration geologist in the South Texas and Gulf Coast divisions. During World War II he served as a photo-intelligence officer on Guam. He was a certified petroleum geologist, a member of the American Association of Petroleum Geologists, a member of the First Baptist Church of Columbus, a past president of the Columbus Rotary Club and snare drum player for the Columbus Community Band. After retirement he presented talks on the geology of Colorado County to area Rotary clubs and teachers' groups.

He is survived by his wife, Katherine Skinner Holcomb; a daughter and son-in-law, Sarah and Charles Sawin of Claremont, California; and four granddaughters.

—Katherine Holcomb

**Myron Thornburg Morris** (BA '47), an employee of Exxon for 38 years, passed away on April 4, 1989. Mr. Morris resided in Metairie, Louisiana.

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**Royce Evans Oualline** (BA '48) died on December 30, 1988 at the age of 66. He was a member of the Houston Geological Society, the American Association of Petroleum Geologists, the University of Texas Ex-Student's Association, Lambda Chi Alpha, and a charter member of St. Martin's Episcopal Church. Through most of his career he worked as an independent geologist. Mr. Oualline also served as mayor of Hedwig Village near Houston. As a fighter pilot with the Army Air Force in the European theater in World War II he received the Distinguished Flying Cross and other decorations.

Mr. Oualline is survived by his wife, Valeria Jackson Oualline; children R. Evan and Muffet Oualline, all of Houston; brothers Ellis A. Oualline Jr. of Conroe and Judd H. Oualline of Houston.

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**Van Alvin Petty III** (BS '40, MA '41) died on March 24, 1989 at the age of 74. A member of the South Texas Geological Society, the American Association of Petroleum Geologists, the Scientific Research Society of America and numerous civic and professional organizations, Mr. Petty was also an aficionado of jazz, the Hill Country, and the UT Longhorns. Before attending the University, he worked in the family business, Petty Geophysical Engineering Co. After earning his Master's degree, he worked with Navarro Oil Co. and Union Production Co. before rejoining Petty Geophysical in 1942 as vice president and director. He resigned to become an independent consultant in San Antonio in 1955. Mr. Petty was listed in *Who's Who in the South and Southwest*, *Who's Who in Finance and Industry*, and *Personalities of the South*.

He is survived by his wife Maxine; a sister, Mary Estelle Petty of San Antonio; three daughters, Christine Pa of Kauai, Hawaii, Patricia Zinsmeyer of San Antonio and Maxine Kenney of Boerne, Texas; six grandchildren; and four great-grandchildren.

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**John Stark Rice** (BA '29) of Port Arthur passed away on February 4, 1989. Mr. Rice retired from Texaco in Port Arthur after 40 years of service. He is survived by his wife, Kathleen and son, John Rice Jr.

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**Robert Arnold Sheldon** (BS '37) died February 4, 1989 at age 72. Born November 11, 1915 in Westerly, Rhode Island, he graduated from Alamo Heights High

School in San Antonio. He completed his UT degree with honors in 1937 and married Norma Archer in 1940. They immediately moved to Bogota, Colombia where Mr. Archer worked for Tropical Oil Co. as a field geologist. In 1949 he became manager of exploration for Standard Vacuum Petroleum Co. in Indonesia. They returned to the States in 1955 when he became the New York exploration manager for Mobil Oil. From 1965 until his retirement in 1968 he worked in the Paris, France office of Mobil Oil, and upon retiring moved to Austin. During his retirement he did consulting and authored *Roadside Geology of Texas*, a text for the traveling layman, published in 1979. Throughout his career he took great interest in the Department of Geological Sciences and kept in touch through the *Newsletter*.

Mr. Sheldon was predeceased by his son, Robert Archer Sheldon in 1970. He is survived by his wife Norma; his daughter Kay Williamson of Brownsville, Texas; three grandchildren; and his sister and brother, Marguerite Schaezler and William K. Sheldon of San Antonio.

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**Joe Earl Smith** (BS '48, MA '49) died on March 28, 1989 after a prolonged and courageous fight with leukemia, first diagnosed in 1979. Joe attended Lamar College in Beaumont before World War II, enlisted in the Marine Corps, and enrolled in geology at the University in 1946. He was a well-respected geologist in the Texas Gulf Coast petroleum business.

Joe is survived by his wife, Mary Alice Smith of Austin (UT '43), and by his daughters Ann (Mrs. Craig Freiburger, UT '73) and Barbara (Mrs. David Blaisdell, BS '78), and by five grandchildren. Joe Smith had a great affection for the University and much appreciation for the education and training in geology which he received.

—Bob Grayson, BS '48

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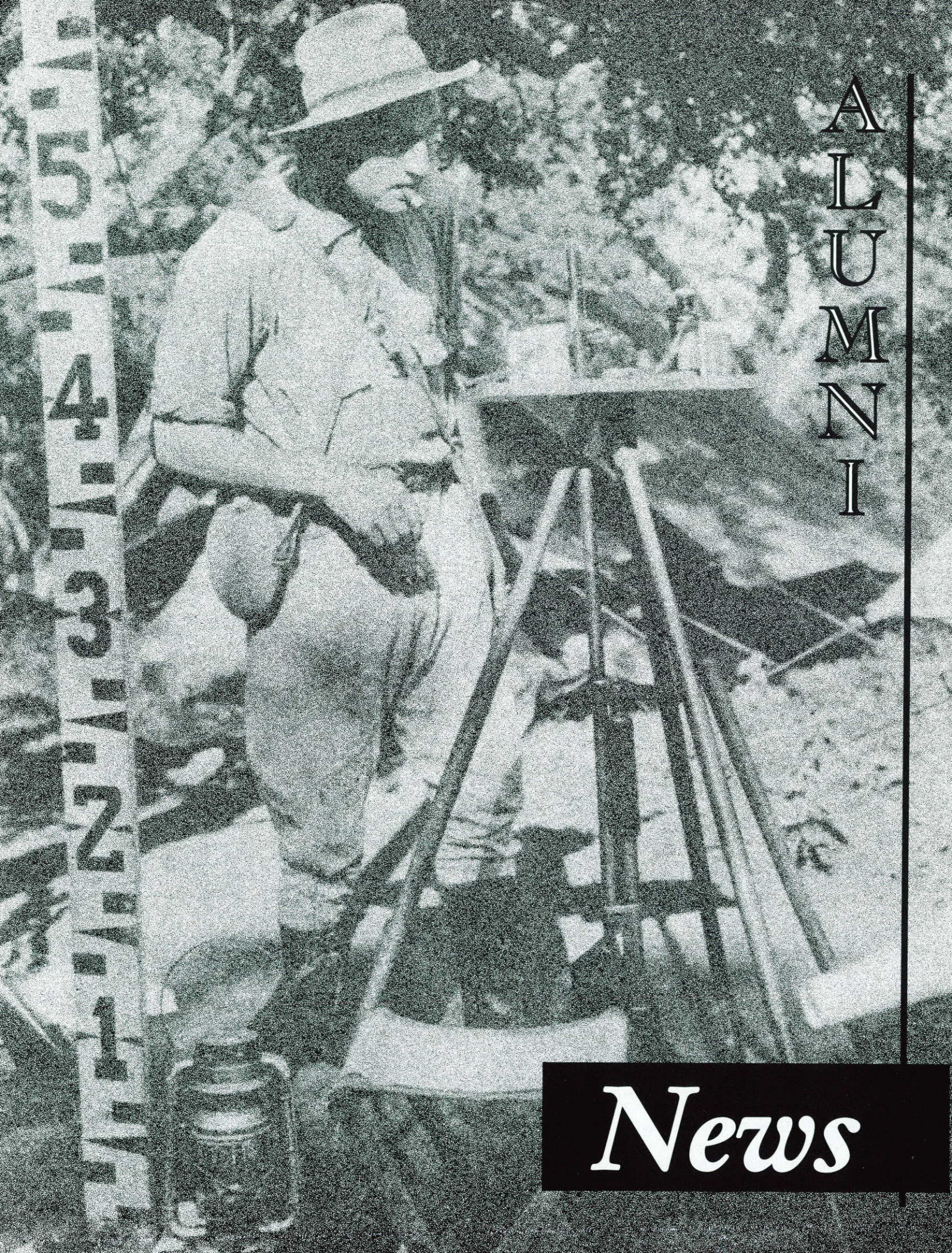
**Hunter Yarborough Jr.** (BS '40), chief executive officer of Hunter Yarborough and Associates and executive vice president of Global Exploration Inc. died in June 1989 in Houston. After graduating from the University with highest honors, his graduate studies were interrupted by World War II, in which he served as an officer and aviator with the U.S. Navy. Following the war he worked for Humble, in both the exploration and research programs in geology, geophysics, and geochemistry.

Mr. Yarborough was a fellow of the Geological Society of America, a member of the American Association of Petroleum Geologists and the professional fraternities Sigma Gamma Epsilon and Rho Kappa. He twice served as a distinguished lecturer of the AAPG, and was a two time recipient of the A. I. Levorsen Memorial Award.

Mr. Yarborough is survived by his daughter, Tracey Williams; sister Frances Holt; grandchildren Tyler and Ciera Williams; and nieces Frances and Anne Holt.

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*News*

- Patrick Leon Abbott** (MA '66, PhD '73) is a professor of geology at San Diego State University in California. He very much enjoyed a recent visit to central Texas to co-lead an AAPG field trip with Chock Woodruff. In San Diego they are beginning preparations for hosting the GSA Annual Meeting in October 1991. He hopes to see many Austin colleagues at "the Big One—1991."
- Edwin V. Acker** (BS '56) still lives in Tilden, Texas where he is a rancher and independent geologist.
- Samuel C. Adair Jr.** (BS '56) has taken time out from enjoying retirement life at Walden-on-Lake Conroe, Texas to do geophysical consulting work for several Exxon affiliates. He recently spent three months with Esso Norge in Stavanger, Norway.
- G. Baxter Adams Jr.** (BS '51, MA '67) says "Apples sell better than gas prospects these days!" He still likes to explore the Texas Gulf Coast, but spends most of his time growing and selling apples and putting in new orchards in Medina, Texas. Baxter and his Love Creek Ranch were featured in the July 1989 issue of *Texas Highways*.
- J. Wesley Adams** (BA '48) lives in Conroe, Texas, where he has found that, "Life on the golf course sure beats the hectic commute to Houston."
- Jim W. Adams** (BS '51) enjoys living in Midland working with Exxon as a geological advisor. He was field trip chairman for a West Texas Geological Society field trip to the Guadalupe Mountains in October and was recently elected first vice president of the Society for 1989-90. He writes that he would like to have visits from all friends coming west.
- Floyd Adcock** (BS '55) is still working Gulf Coast exploration for Banner Petroleum in Houston and is looking forward to a better 1990.
- Bill Akersten** (BS '64, MA '67) is keeping busy as associate professor and curator of vertebrate paleontology at Idaho State University where he is setting up a quaternary institute and search committees. The museum has been booming, with over 100,000 visitors last year. He will be in Austin for the Society of Vertebrate Paleontology meetings and says, "Y'all come up and see our dinosaurs, y'hear."
- Charles W. Alcorn Jr.** (BS '52) lives in Victoria, Texas and is chairman of Alcorn International. The companies he is associated with continue to search for oil and gas in the U.S. and offshore in the Philippines with reasonable success. He continues to serve on the Geology Foundation Advisory Council and is finishing his second year as chairman of the Texas Mid-Continent Oil and Gas Association.
- Robert H. Alexander** (MA '56) lives in Columbus, Ohio and is president of Clinton Oil. He spent 13 years with Pominex Inc., the last 11 as president. In 1988, Pominex was acquired by Clinton Gas Systems and in January 1989 was merged into the Clinton Oil Co. Clinton operates 1200 wells in Ohio and Pennsylvania and drills 40 or 50 new wells per year.
- Khalifa M. Al-Hinai** (MA '77), a planning engineer with Shell, has recently been transferred to the UK, where he lives in London.
- Dave Alt** (PhD '61) is a professor of geology at the University of Montana in Missoula. He writes, "I am valiantly continuing my struggle with the rocks in the northern Rocky Mountains, but now I think they are gaining on me."
- Nancy Jenswold Anderson** (BA '50) owns/manages an urban planning consulting firm in Dallas. Business is going well, with about half the practice in environmental impact studies. While vacationing in Norway, Denmark, Germany, and Austria she hopes to find the homes of ancestors. Upon her return, she will resume operation of the Brandenburg House Bed & Breakfast in her restored 100-year-old home in Cedar Hill.
- Payton V. Anderson** (BS '45) and his wife, Evelyn, live in Midland. They have three daughters and nine grandchildren. He is a partner in W. D. Anderson and Sons and is still active in oil and gas exploration, travel, and golf.
- Rick Anderson** (MA '83) lives in Plano, Texas where he is a consultant with Arco Oil and Gas Co. He recently published his second paper in *Geophysical Prospecting*. By spring, 1990 he expects to have his PhD from UT-Dallas.
- Thomas H. Anderson** (MA '67, PhD '69) is "madly administering and having fun doing field work in Sonora and Zacatecas, Mexico as well as in the northern Blue Ridge and Great Valley of the Appalachians." He is chairman of the department of geology at the University of Pittsburgh and lives in Washington, Pennsylvania. His wife Tanna is coaching high school and college tennis. Sara has finished her freshman year at the University of Michigan, and Garrett is a junior in high school.
- Edgar P. Armstrong** (BS '51) still lives in Houston, where he is district manager of engineering for the Gulf Coast at the Internal Revenue Service.
- Robert N. Arrington** (BS '51, MA '54) is a consultant in Houston, where he is still active in computer work. For the past two years he has been chairman of the Lotus 1-2-3 Special Interest Group, a PC users group.
- Sara Avant-Stanley** (BS '78) writes from New Orleans, "Rick and I are back again in the Big Easy. If you're ever this way, do stop by."
- Byron Bachschmid** (BS '83) works in subsurface geology in southeastern New Mexico for the Siete Oil and Gas Co. He lives in Roswell.
- Abhaya (Ajay) R. Badachhape** (MA '88) recently transferred from petrophysics into geophysics at BP Exploration and is now involved in geophysical analysis with an emphasis on modeling and AVO. He moved to Houston in 1987.
- A. C. Baker** (BS '51) is an independent geologist in Wichita Falls, Texas and reports himself "surviving."
- Carol Swenumson Baker** (BS '84) is in seismic data processing at Exxon in Houston. Her husband Rodney is with Amax Oil and Gas as a landman.
- Ernest T. Baker Jr.** (BS '55) is a senior geologist for the USGS. His children, Ken (27) and Laura (23) are now both living in Austin, along with Ernest and his "same wonderful wife" of 28 years.
- W. F. (Bill) Baker** (BS '51) and his wife Virginia love the life in the Emerald Bay community on Lake Palestine near Bullard, Texas. They spend their time golfing and fishing, and visiting with friends and grandchildren.
- James M. Balogh** (BS '72) and his wife Charlotte have another daughter as of January 1989, Nicolette Diane. She and her sister, Brigitte Arianna, have "added joy to a time of unemployment. Brigitte (3) is definitely going to be a singer and entertainer and is grateful to have a new addition to her audience." Jim is an independent geologist in Houston.
- Ben Barrow** (BS '51) lives on the family ranch, and continues to improve his portion of it. He is working with another retired geologist to build a historical museum in nearby Utopia, Texas and is active in the Lions Club. He and his wife recently spent two months in Alaska.

**Robert Bartels** (BS '85) is glad to be back in Austin, and works for an environmental and engineering consulting firm, Jones and Neuse Inc. He reports that the work load in the environmental field is incredible.

**Jerald H. (Jerry) Bartley** (BS '37) still works, although fewer hours per day, as an independent oil operator and satellite imagery analyst in Midland. He is "now a producer in Great Basin of Nevada (basin and range area)(completely faulted/volcanic): used satellite imagery for lead-in/radiometrics and magnetotelluric applications for location detail."

**Joe Beard** (BS '42) is an independent petroleum geologist living in Wichita Falls, Texas.

**Robert E. Beatty Jr.** (BA '50, BS '54) is a geological consultant in San Antonio and enjoys golfing.

**Ralph Beaver** (BS '58) says "Howdy to everyone; how's Steve Clabaugh?" He lives in Fort Worth.

**Gray E. Bebout** (BS '81, MA '84), is starting a post-doctoral fellowship at the geophysical laboratory of the Carnegie Institute in Washington D.C. He will continue his study of fluid and mass transfer in subduction zones.

**Bryan D. Beck Jr.** (BS '39), a petroleum geology consultant in Beaumont writes, "Married to Catherine Ludgate 48 years—three grown sons—six grandchildren (3&3). Enjoy fishing and hunting and talking about the 'good old days.' Would enjoy hearing from any of the attendees of the 1938 geology summer camp held in Brady, Texas. Matter of fact, would like to hear from any of the 38/39 geology bunch. It's later than we think."

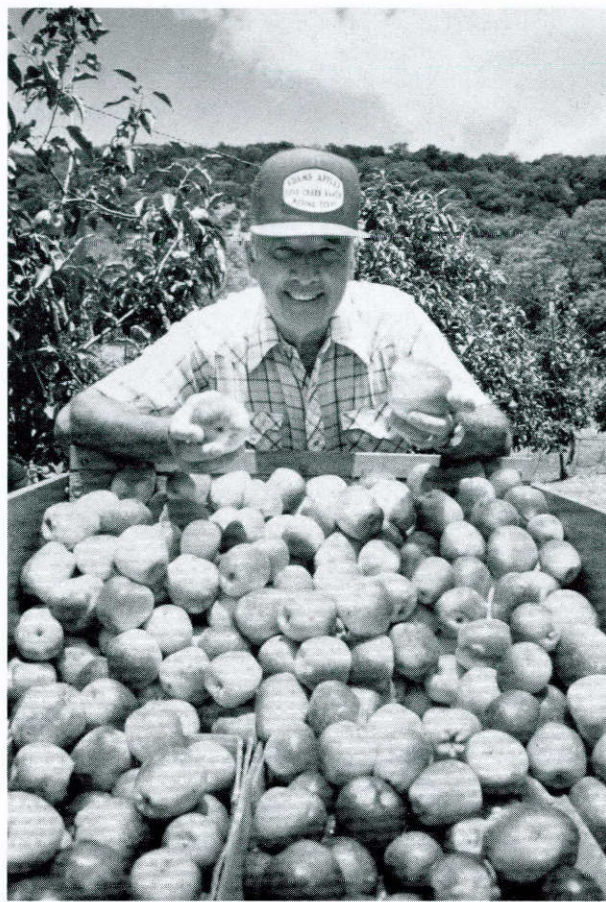
**Fred H. and Teresa Harkrader Becker** (BS '83; BS '83) live in Slidell, Louisiana. "We are expecting our first baby in July! We are excited and nervous at the same time." Fred is still party chief at Shell. Teresa is still interpreting at Amoco and will continue working for the smaller production business unit in New Orleans despite Amoco's transfer to Houston.

**Lynn S. Beeler** (BS '62) is a senior programmer with CLR Incorporated in Carrollton, Texas. He spends his spare time coaching girls' soccer teams.

**Sidney S. Bell** (BA '46), self-employed silversmith in Tully, New York, taught silver carving/engraving courses at gunsmithing school in Trinidad, Colorado over the summer of 1988. He is

**"Apples sell better than gas prospects these days!"**

**G. Baxter Adams Jr., geologist and apple grower, as featured in Texas Highways, July 1989.**



now engraving guns with gold and silver inlay and is working on a collector's series of belt buckles. He writes "Rocks and geology seem remote," and plans to hunt elk for ten days on horseback in New Mexico despite numb legs from a spinal operation.

**Walter E. Belt Jr.** (BS '43) comments, "Health and outlook good. Enjoying retirement." Walter lives in Flatonia, Texas.

**Lesley Bendig** (BS '85) is in management consulting for Arthur D. Little Far East in Singapore.

**Billy S. Bennett** (BS '49) is retired in Highlands, Texas.

**Tim B. Berge** (MA '81) and his family live in Bogotá, Colombia. "*Nosotros gustamos Colombia, tienen muchos oportunidades para exporación.* Hey Al, you would like it here! All exes welcome anytime; please visit us if you are in the area. Vicki, kids and I wish you all *buena suerte.*"

**Mark J. Berlinger** (BA '82, MA '84) has been with BP America (formerly Sohio Oil) since his graduation, first in exploration and production strategic planning, and now in environmental engineering at a refinery. He is having fun

with his job and new house in Lima, Ohio. When not working, he enjoys sailing with his wife, Dominique.

**Earl H. Bescher** (BS '40) enjoys retirement, traveling, and "doing what I want to do," but misses his semiannual visits to the geology department to meet graduates who plan to work for Exxon. He lives in Kingwood, Texas, where he reports, "all things are excellent."

**Aimee Beveridge** (BS '87), attending the University of Southern California in Los Angeles, misses everyone in Austin. She is finishing her Master's degree on the paleomagnetism and depositional environment of the Vaqueros and Rivicon formations in Ventura County, California.

**R. Bryce Bezant** (BA '74) recently moved back to Houston following the trend of consolidation among oil companies. After two years with Amoco, he has spent eight years with Fina as a petroleum engineer. He is married with two children.

**Don G. Bilbrey** (BS '53, MA '57), formerly of Gulf Oil, writes from New Orleans, "I'm still enjoying my retirement. I play golf three to four times a week and

carry a three handicap, not bad for an 'old' man! The rest of my time involves rearing a sixteen-year-old daughter, Karen, which became somewhat more complicated with the death of my wife, Eva, in April 1988."

**Shelley Rice Billings** (BS '84), a software engineer, works for DSC Communications Corp. in Plano, Texas. She is "happy working on digital switching systems, owning our new home, and expecting our first baby in February."

**David S. Birsa** (PhD '77) moved to London, England in March to become general manager for Chevron's UK and northern Europe exploration operations. He is enjoying the experience. David continues his service on the Geology Foundation Advisory Council.

**W. T. Biskamp** (BS '54) retired in January and now writes and sells real estate with his wife, Mona. 1988 was a busy year for the Biskamp family: "Have a one-year-old grandchild (finally). Number three getting married—only two kids still single. Mona had a heart valve operation last April, but is okay."

**Curt W. Black** (BS '81, MA '88) is a senior hydrologist with Jones and Neuse Inc. in Austin.

**Barbara J. Smith Blaisdell** (BS '78) moved to Calgary, Alberta, Canada in July, 1988. "The beauty of the Canadian Rockies is out our back door. A wonderful place to raise our family—Bryan turns four in November '89, and our latest Canadian addition, Robyn, was born in May '89." Barbara is busy as a full-time mom and Dave continues to work for Mobil.

**Harvey Blatt** (MA '58) has a book, *Principles of Stratigraphic Analysis*, due out at the end of 1989. "Revision of *Sedimentary Petrology* and *Petrology* is underway, as is Ouachita research on mineralogic changes during the shale-slate-phyllite transition. Second grandchild due in July, 1989." He is now the third oldest person in the geology department at the University of Oklahoma, where he is a professor.

**Robert H. Blodgett** (PhD candidate) is in Austin continuing work on his PhD. "My dissertation is very near completion and I hope to graduate this fall. If all goes well I will be working full time at the Bureau of Economic Geology for the 1989-90 academic year while looking for a permanent employer."

**Patricia Bobeck** (MA '85), who speaks French, Spanish, and Chinese, works

as a translator and interpreter through her company, Geotechnical Translations. The company continues to attract a wide variety of clients. This year she achieved her accreditation from the American Translators Association and was elected to the Board of Directors of the Austin Area Translators and Interpreters Association. She and her husband, Bob Kinney, recently bought a house in Austin where their son, Dennis, now almost three, "fills up the huge back yard with little-boy energy."

**Neil T. and Linda Merritt Bockoven** (MA '76, PhD '80; MA '80) now live in Midland, Texas. Neil transferred to Exxon's production department there in July 1988. Linda resigned her position at Exxon to be a full-time mom to Allison (3) and Eric (1).

**Dan Bodner** (MA '85) is still project manager at Weiss Associates in Oakland, California, a no-longer-small groundwater consulting company which now has 60 employees. He has been doing quite a bit of business management for the company, including directing the personnel department. He says "We're always looking for qualified people!"

**Billy H. Boggs** (BS '54), a district manager for the Texas Water Commission has been stationed all over Texas since 1967: Austin, Pecos, Deer Park, Kilgore, and now since 1985 in San Antonio. After 10-15 years there, he will consider retirement.

**G. Pat Bolden** (BS '51) is retired from Shell and now works as a consultant in Midland, "writing papers, giving talks on wrench faulting using landsat and seismic, plus building on Lake Spence."

**Steven Bond** (BS '74, MA '82) is a geologist for the Aroima Mining Company in Georgetown, Guyana.

**John D. and Nancy Brown Boon** (att. '38-'41; BS '39) celebrated 50 years of marriage in February. "I regretted very much not getting to Austin for my 50th graduation anniversary in April. Jack has been retired from the University of Texas at Arlington for nine years."

**Silverio Bosch** (BS '74, MA '75) is an independent petroleum geologist in Corpus Christi. "Business is slowly recovering but the attrition of industry personnel in the exploration field is alarming—nobody left around to do business with! Lisa and I were blessed with the birth of Matthew Christopher on June 22, 1988—all are healthy."

**Don R. Boyd** (BS '58) is "enjoying good health and waiting patiently for better

times in the oil patch." He is an independent petroleum geologist in Corpus Christi, and an Honorary Life Member of the Geology Foundation.

**Felicia Boyd** (MA '82) lives in Lutz, Florida and is a hydrologist with Geraghty and Miller Inc.

**Walter A. Boyd Jr.** (BS '53) will retire as chief reservoir geologist for Columbia Gas Transmission Corp. in January 1990. He will continue to make his home in Houston.

**Walt V. Boyle** (BS '54, MA '55) conducts hydrocarbon exploration in the Permian Basin for SWE&P. He lives in Houston. "Saw Dr. Ellison and Dr. Folk at the 1989 AAPG Convention in San Antonio—they never looked sharper and younger."

**Richard G. Bozanich** (MA '78) is a regional consulting geologist for Amoco Production Co. in Denver.

**David Bozeman** (BS '51) is "still interested in geology, but spend almost all my time in pursuit of other interests. Happily, being a geologist has made that possible." He lives in Stafford, Texas and occasionally works as a consultant, but is really "happily retired."

**Robert W. Bradley Jr.** (BS '56) writes, "with the help of Charlie Meeks (BS '52) 'the world's greatest geophysicist,' and chairman of the board of Meeks Petroleum Inc., I remain alive and well in Slidell." Robert is a consulting geologist.

**Philip Braithwaite** (MA '58) has transferred again, this time back to the Mobil technical services center in Dallas. He is "getting used to the new organization with all its changes in progress." The rest of the family is doing well in their careers. Philip and Barbara are enjoying their new sailboat.

**Robert F. Brandt** (BS '57) teaches geology at the University of Houston downtown campus and Houston Community College. He does geophysical consulting on the side. He is "still stunned by oil industry collapse and loss of professional senior geophysicist position in 1986. Making ends meet (and thoroughly enjoying it) by part-time teaching of geology, petroleum geology, and oceanography."

**Charles M. Brasier** (BS '83) is now a medical representative of Lederle Laboratories in Houston. "Next stop should be New Jersey on the way to Lederle International and an overseas position."

- Robert L. Breedlove** (MA '35) is an independent geologist and producer. He has drilling interests in Arkansas, New Mexico, New York, and Texas, and lives in Greenwood, Louisiana.
- Tom Breedlove** (BS '54) is a consultant living in Lafayette, Louisiana.
- Ben M. and Anne L. Brigham** (BS '83; BS '84) live in Dallas, where Ben is busy in exploration with Rosewood Resources. Anne is in her second year at SMU Law School, specializing in oil and gas and environmental law.
- Thomas W. Broadhead** (MA '75) has retired as special publications editor for the Paleontological Society and as director of the Tennessee Governor's School for the Sciences. He continues his work on fossil crinoids and is pursuing experimental studies on taphonomy. He is an associate professor of geology at the University of Tennessee in Knoxville.
- David B. Brock** (BS '65) is an independent petroleum geologist in Corpus Christi, "back working at generating drilling prospects again."
- M. H. Brock** (BS '56) is self employed in Edna, Texas. He writes: "Had a recent occasion to participate in a well with ex-classmate and geologist Harry Burke. Hope his structural geology course has not escaped him!"
- Ken Brook** (BS '67) is president of Desert Ventures Inc. in Reno, Nevada. He reports, "mineral exploration consulting business relatively good this past year and my fingers are crossed for it to continue the same."
- Gerald R. Brooks** (BS '58) lives in Bossier City, Louisiana where he works for Marlin Exploration.
- Charles Douglas Brown** (BS '84) is still a production development geologist for Oryx Energy Co. (formerly Sun Exploration and Production Company), working onshore South Texas Gulf Coast properties. He lives in Corpus Christi.
- Gib Brown** (BS '76), a consulting geologist in Amarillo, comments, "I still can't decide what's put me in the poorhouse, this business or my four kids who eat constantly."
- Wallace E. Brunson** (BS '42, MA '54) is retired in Houston, but keeps an office as an independent geologist. He likes to travel.
- James Elwood (Woody) Bryant** (BS '43, MA '48) moved to Fredericksburg, Texas in August, 1988 and still does prospecting work and prospect origination. "Hello to old classmates—drop by if you come through the hill country. We are in the '89 phone book."
- Leonard C. Bryant** (BS '57) is an independent geologist in Helotes, Texas.
- Julius A. Buchanan** (BS '41) is living in Tyler and enjoying retirement and volunteer work.
- Terrie L. Buratti-Jordahl** (BA '84) is a research supervisor for Graphics Information Inc. in Austin.
- Ray A. Burke** (BS '47) retired as executive vice president for energy resources after 38 years with the Unocal Corporation. He has been a member of the board of directors since 1966 and was decorated in 1987 by the Kingdom of Thailand for pioneering work in establishing a natural gas industry in that country. From 1967 to 1973 he served on the Geology Foundation Advisory Council. Ray lives in South Laguna, California.
- Robert W. Bybee** (BA '41), a petroleum consultant in Houston, writes "Elizabeth and I celebrated our 50th wedding anniversary the first weekend in June 1989 at a 'dude ranch' at Bandera, Texas. About eighty members of our families and a few close 'ole' friends joined us for two days to make it an extra special event!"
- W. J. Cage Jr. and Susan Kiefner Cage** (BS '50; BA '50) are both retired from Chevron. They report, "Everything still going well in Boerne (Texas)."
- Frank Kell Cahoon** (BS '57) works as an independent oil operator in Midland. He is busy being a new member of the Texas Higher Education Coordinating Board.
- Jorge Marques T. Camargo** (MA '82) is employed by Petrobras in Brazil. "This year we moved from Rio de Janeiro to Natal, a nice small city in northeast Brazil with wonderful beaches and sunny days all year. I'm now in charge of Petrobras exploration district of the Potiguar Basin."
- Donald H. Campbell** (MA '62) continues his work at the Construction Technology Labs in Skokie, Illinois. He is kept busy by cement and concrete microscopy: "Litigational microscopy has many applications in my profession—pipeline, dry docks, basements, high rises, etc. Long live microscopy!"
- Donald M. Campbell** (BA '55) writes, "I've been retired for one year and am interested in part-time work in the Germantown, Gaithersburg, or Frederick, Maryland area." If exes in that area know of any opportunities, please contact him in Damascus, Maryland.
- Alvin Candela** (BS '41) is semi-retired in Galveston. He has turned 70 and is blessed with good health. He is concerned about the oil spills in Alaska and the Gulf, and particularly about the effect of such spills on the California coastline in the event of earthquakes. On the brighter side, he comments, "Oil prices have increased to \$20 per barrel. This should help Texas!"
- Joel C. Carlisle** (MA '55) retired to his ranch in Jewett, Texas in 1986. He still enjoys doing some geological consulting work, but spends most of his time raising registered Longhorn cattle. "Dee and I are also involved in developing a new synthetic breed called Salorn. Would love to hear from other UT exes or have you drop in."
- Marvin T. Carlsen** (BS '52) is retired, living in Midland. "I now garden for exercise and keep a 2-1/2 year old granddaughter on weekdays, so I'm wondering how I ever had time to work before retiring! Best wishes to all you exes and staff!"
- Steve Carlson** (MA '84) is an exploration geophysicist for Unocal, still looking for oil and gas prospects in the Miocene trend, offshore Texas. His wife Jenny is "still plugging away at PhD in clinical psychology at the University of Houston." Their daughter Erin Iris was born January 3, 1988.
- A. T. (Toby) Carleton** (BS '51, MA '52) reports "Second attempt at retirement has now failed." He retired from Pogo Producing Co. in January 1989. In May he went to work for Energy Exploration Management Co. as vice president of the mid-continent region. He lives in Midland.
- A. L. Carroll** (BS '49) is retired and living in San Antonio, Texas.
- Richard F. Carroll** (BS '80) reports that he is an exploration geologist for Ultramar Oil and Gas Ltd. in Houston. "I'm still employed in the oil industry, I'm still single and enjoying it, and I'm still trying to get rich."
- Robert (Bob) Carter** (BA '43, BS '48, MA '48) is retired and makes his home in Austin. "Mary and I took UT's *D-Day to the Rhine* trip and recommend it highly to you WWII types."
- Jack C. Cartwright** (BS '51, MA '55) continues as an independent in Midland, a family business in which three of his four children work. They participate in a few wells and do investing. "Looks

like our class will be approaching forty years since graduation soon."

**Dwight E. Cassell** (BS '55, MA '58), division geologist for Plains Petroleum Co. in Houston, writes, "Was really good to renew old UT friendships at this year's AAPG convention in San Antonio. Hope to do it again in San Francisco in '90. The oil patch is still struggling to recover. We have had some moderate success, but a big hit would surely brighten up some dour faces. Linda and I are making progress on our property out near Dripping Springs. The barn is nearly finished.

ating oil and gas acquisitions and starting them towards an exploration program." He lives in Spring, Texas.

**Edward C. Cazier III** (MA '84) transferred to Anchorage, Alaska with BP Inc. in September 1988 after four years in offshore Gulf Coast exploration. Working production geology on Prudhoe Bay field is a big change, he says, and requires adapting to new logs. His wife Suky gave birth to a healthy baby girl, Maria Isabella, on February 11, 1989.

**Michael A. Cervantes** (MA '88) works for Amoco Production Co.. "In addition to

Miocene and younger sediments, and his family is doing well.

**Jenny Burgen Chapman** (MA '84) writes, "After several years in New Mexico Barry and I continued our westward migration and are now in Nevada. The Desert Research Institute is an exciting and challenging place to work. Most of my time is spent on a variety of studies related to arid zone hydrogeology. One advantage to Las Vegas is that we have seen many old Austin friends who have been in town for conventions."

**Walter Chatham Jr.** (BA '48, MA '50), retired in Mineral Wells, Texas writes, "No news, so just say hello to everybody."

**C. A. Chimene** (BS '50) is president of the Laahnz Corporation in Houston. His paper on Walker Creek Smackover Field, South Arkansas was selected by the AAPG for presentation at the International Geological Congress.

**Joe Christie** (BS '61) lives in Austin and is president of the Christie Gas Corporation.

**Stephen Claypool** (BS '78) is a petroleum geophysicist with Kerr McGee. He reports, "My wife Sharon is just finishing her residency in Ob/Gyn. We have a wonderful two-year-old daughter and a boy due in August." He would like to locate Robert (Kent) Claypool, BS '77.

**Kelton Cloud** (BS '73) is a consulting geologist in strategic petroleum working primarily in Texas and Kansas. His wife JoBeth teaches 6th grade science. "Joel and Kristin are getting bigger by the minute. Joel is now taller than me, but I can still take him in a game of hoops."

**Donald B. Clutterbuck** (MA '58) says, "Being a producer as well as an end-user has been a roller coaster ride this year. Overall business has been good! Family is in great shape. House is quiet with sons gone, so wife and I can get around a bit now. Oldest son John is with a law firm in Houston and Jim will graduate from Rice University this spring." Don is president of AFG Energy Inc. in Houston.

**Joel Coffman** (BS '83) "After years of fretting and chasing after the oil business," Joel now enjoys his job as a car salesman at Pioneer Lincoln Mercury Nissan in Lubbock. He hopes to run into fellow '83 alumni.

**H. Grady Collier Jr.** (BS '49), an independent and consulting geologist, served SIPES Foundation during 1988 as di-



*In the early 1920's, UT geologists get field experience in hydrogeology. (Pennsylvanian-Ellenburger fault contact at mouth of Big Saline Creek)*

Maybe next year we can get started on the house."

**Steve and Martha Cast Cather** (MA '80, PhD '86; BS '81, MA '86) write from San Antonio, New Mexico: "Steve has enjoyed his first year working as a field geologist for the New Mexico Bureau of Mines—he actually gets paid to drive around in the hills and look at rocks. We just returned from spending three weeks in Italy with Dr. Folk—an entertaining and enlightening experience. Now I know how field geology is supposed to be done—well-fortified by cappucino, pasta, and chianti!"

**Charles A. Caughey** (BS '69, MA '73) says "Corporate restructuring provided me with the initiative to become an independent geologist. I'm currently working with a small private company evalu-

ation in East Texas, I am shopping for a house in Houston.

**Henry (Hank) Chafetz** (PhD '70) is a professor at the University of Houston. "Most things are going well in Houston, certainly wouldn't object if temperature was 10-15° cooler July-Sept. Research going well (I hope), still mainly dabbling in carbonates. Travertines are fun, going to Yugoslavia to collect from Plitvice Lakes area. Janet doing well, Josh (9-1/2) is tearing up Little League, etc. Great to see old hands at Folk's retirement roast."

**Ralph S. Chamness** (BS '57), chief geologist for Texasgulf Inc. in Aurora, North Carolina, is still involved with near-shore sediments, phosphate mining, and groundwater geology. He enjoys the easy fossil hunting in the

- rector and this year received its outstanding service award. He is currently concentrating on searching southern Louisiana, on- and offshore, for drillable prospects. Grady lives in New Orleans.
- James W. Collins** (BS '56) lives in Corpus Christi and operates Collins Resources Inc. as a geologist and oil operator.
- Sean Conlon** (MA '85) is the proud father of a baby girl, Kelsey. He is an investment banker (oil and utilities group) in San Pedro, California.
- John D. Cooper** (MA '64, PhD '70) co-chaired a carbonates symposium, coled a field trip to the southern Great Basin, and edited the guidebook and symposium volume for the 1989 annual meeting of the AAPG/SEPM this May in Palm Springs. He continues as professor of geology at California State University in Fullerton. The second edition of his book, *A Trip Through Time* should be out by the November GSA meeting. His family is doing fine, and he hopes to see many exes at the 1990 AAPG/SEPM meeting in San Francisco.
- Casey C. Cornett** (BS '86) married fellow geologist Susan Kendrick Schwarz (also BS '86) on December 3, 1988. She works for Columbia Gas in Houston. Casey is working with his Dad, "trying to figure out how to turn on a computer!" He urges fellow geologists to "keep picking away, times is a'changin'."
- Frank Cornish** (MA '75) is district exploration geologist for Texas Oil & Gas Corp. in Corpus Christi. He is presently working in the Late Pleistocene terraces of the Nueces River, recently contributed to *Typical Oil and Gas Fields of South Texas* (Toro Grande), and will soon have another article in *Texas Highways*. His wife, Judi, just bought a 21' sailboat and is making repairs. Their sons Dante (10) and Darian (8) are both Scouts and are doing well in school.
- Bill C. Cotner** (BS '53) is owner of Meadco Properties in Midland. "No drilling with the low oil price."
- Jerry Covington** (BS '43) is president of Covington Inc. in Midland and says, "The years are rolling mighty fast now. Best regards to all the old classmates."
- R. Wilson Cozby Jr.** (BS '61), a pediatric dentist in Tyler writes, "Ray and Chris are married; UT senior Drew goes to law school this fall; UT sophomore Gleith is a communications major. I am running, biking, aerobic-ing, and swimming trying to stay alive. Come to beautiful Tyler for a visit."
- Bill Crawford** (BS '62) continues to work in the expanding field of production geophysics as a senior geophysicist for the Hunt Oil Co. in Dallas. He reports, "Everyone in the family doing well."
- Frederick E. Crawford** (BS '83) recently passed the board exam and is now a registered public surveyor with Bryson and Associates in Austin. He resides in Buda.
- Ronald W. Crockett** (BS '69) is offshore exploration manager for the Pelto Oil Co. in Houston, where he has worked for the past six years. He concentrates on offshore lease sales and the farmout market. "When not at work, Carolyn keeps me busy remodeling our turn-of-the-century house."
- Paul Crumpler** (BS '57) is "still struggling with agriculture. Barbara and I had 36th wedding anniversary. We have six grandchildren. Having a happy but poor life. I would sure like to know what happened to an old buddy—Malcolm Kitchens." Paul's ranch is in the Wichita Falls area.
- Thomas M. Culbertson** (MA '47) is retired in San Antonio. He comments on the Edwards Aquifer: "It's a great resource that is not fully appreciated by the Chamber of Commerce. Wish I could get the Bureau of Economic Geology interested."
- Steve Cumella** (BS '77, MA '81) is working as a geologist for Chevron Overseas Petroleum Inc. He transferred from Denver to San Ramon, California in October, 1988.
- Russell W. Cumley** (BA '31, MA '31) is retired in Austin.
- Hugh W. Curfman** (BS '48), an independent geologist in Lafayette, Louisiana, says "Had a good year with SIPES. Last son graduating from SMU in May. Have some good large gas plays for sale, can't find financing."
- Thomas B. Curlee** (BS '50) lives in Norman and works as an independent petroleum consultant in Oklahoma City. He met fellow Texas Ex Doug Burton (engineering) on the golf course. "That makes two exes in Norman."
- Harris P. (Koop) Darcy** (BS '51) is an independent in Houston. He has spent time recently studying the Bible with former geologist Dr. Carl Baugh, who is known for his discoveries in the Glen Rose Formation. Koop says, "I have discovered that creation, including man occurred about 4004 BC."
- Michael D. Davis** (BS '85) currently works in the Virginia underground storage tank program as the assistant to the program manager. He writes, "If there are any Texas alumni in the Richmond area, give me a call. While Virginia is a wonderful place to live, there's no place like Texas. I hope to return someday in the near future. Best of luck to all UT grads."
- Ross M. Davis** (BS '80) is a geologist in Houston.
- William H. Davis** (BA '41) is retired in San Antonio.
- Leslie A. Dedeker Jr.** (BS '55) is "still working South Texas onshore for Union Exploration Partners Ltd. as an area geophysicist." He lives in Houston.
- Frederik E. Dekker** (MA '66) retains his position as exploration manager of the Asia Pacific district in the international division of Unocal Corp. He continues to travel a lot to the Far East, and "was able to take Jan along on trips to Bangkok and Australia. Enjoyed meeting old friends at AAPG in San Antonio." Fred lives in Santa Monica, California.
- Charles DeLancey** (BS '40, MA '42) is retired from Exxon and lives in Houston. He reports, "went half way around the world to participate in a wedding in Lucknow, India. Added several weeks to tour India. Anything you hear about India is true. Fascinating."
- William D. DeMis** and **Mary K. Nelis** (MA '83; MA '84) live in Houston. Bill is an exploration geologist with Marathon Oil Co. and Mary is expecting their first child in August.
- John Lane Denson III** (BA '49, MA '50) is the chaplain for the Vanderbilt University Medical Center Institute for Treatment of Addiction in Nashville, Tennessee. He also has a private practice in substance abuse and spiritual direction counseling. He retired from the church in August, 1988.
- George P. Derry Jr.** (BS '49) is a consulting geologist in Corpus Christi. He writes, "In 1986 I suffered from the heart disease cardiomyopathy. In February 1987, at age 62, I underwent a heart transplant at St. Luke's hospital in Houston with Dr. Frazier performing the surgery. I then had leishmaniasis in my legs. This is a rare and unusual disease transmitted by the small sand fly. After a long recovery I am doing well and back in my office working part time. Thank the Lord for the miracle of

life. Also, I'm so grateful to the donor and his family who generously gave me a new heart and a new life."

**Paul E. and Vicki Verross Devine** (MA '80; MA 80) announce the birth of a son, Brian Ellis Devine, on February 14, 1989. The Devines live in Denver.

**William H. (Bill) Devine** (BS '48) is a consultant in Houston.

**John Dietrich** (MA '54) is lunar samples curator for the Johnson Space Center in Houston, where he keeps track of 63,593 samples of moon rock. The JSC is one of sixty laboratories in the world that study moon rocks.

**Mike Dildine** (BS '72) lives in Houston where he is manager of economic studies for Conoco.

**Kathleen Sue Roosa Dillon** (BA '81) is a geologist with Brito Petroleum in Houston.

**H. L. (Dutch) Dodd** (BS '56) is manager of field studies for Sonat Exploration Company in Houston.

**Gary and Jennifer Kraft Donnan** (BS '84; MA '84) were married in October of 1987 and live in Houston. After getting his MA at New Mexico State University, Gary took a job with an environmental firm, ERM Southwest. Jennifer is still working for Conoco and has been working offshore California for almost two years. Gary, Peter Tavers (PhD '88), and Joe Greenberg (MA '86) all play in the same ice hockey league in Houston. Jennifer and Gary say "Hi to all of the profs there that we know. We think of all of you often."

**George A. Donnelly Jr.** (BS '40) is president of the Eastland Oil Company in Midland, Texas, and is actively involved as a member of the Geology Foundation Advisory Council.

**Gene C. Doty** (BS '54) has retired from his job as a hydrologist with the USGS. "All in all, another pleasantly unbusy year—retirement does work if you try. Wife and family are well." His first grandchild had her second birthday in August.

**Mike E. Douglas** (BS '58) lives in San Antonio.

**Jim Doyle** (BS '73, MA '76) lives in Houston, where he is a senior geologist for BP Exploration.

**Larry Doyle** (BS '50) is with the NITRE Corporation in San Antonio advising the Air Force on its nationwide hazardous waste cleanup. After five years as head of the U.S. membership of the International Association of Hydrologists, he is looking forward to turning

over the reins at the 28th International Geological Congress in Washington D.C. this July. Larry and his wife Giovanna enjoy being repatriated after so many years living foreign.

**Robert E. Doyle** (BS '55, MA '57) is owner and president of American Energy Reserve Consultants in Houston, working primarily with utility companies and other large end users of natural gas. The company recently completed two relatively large gas supply contracts with utility companies in Pennsylvania and New York.

**John G. Drake** (BS '74) is an exploration geologist with TXO Production Corporation in Corpus Christi.

**Jack Drodody** (PhD '78) is "still doing formation damage studies for Milpark's domestic and international divisions in Houston; we have our own SEM-EDS system now, so I stay busy in spite of the dismal rig count."

**Thomas V. Dubois** (BS '77) is "still in the oil biz in Corpus Christi—now associated with Beach Exploration Inc." He is an independent geologist, and fishes whenever time allows, "which isn't often enough." He sends best wishes to all.

**Ralph C. Duchin** (MA '55), independent, is still consultant to Zinn Petroleum Co. in Houston. He is in the process of designing a home in Tucson, Arizona.

**William E. (Bill) Dunaway** (MA '62) is an independent geologist in Kingwood, Texas.

**Rob Dunbar** (BA '75) is an associate professor of geology at Rice University. He just returned from sabbatical in New Zealand at Victoria University of Wellington. He married Robyn Wright of the University of New Mexico last June. "Robyn is moving to Houston to take a faculty position at Rice; we will also be masters of Baker College. I have good funding for Antarctic and Peru/Chile geology. Send me some good students!"

**Bill Dupré** (BS '68, MA '70), associate professor of geosciences at the University of Houston, has "survived a year as associate chairman." His wife has survived a year of teaching first grade and his children another year of school. "To celebrate, the family is off to Greece in search of Elaine's Hellenic roots!"

**Marie Durbin** (BS '87), an associate geologist with Hunt Oil in Dallas is "gaining exposure to all facets of petroleum exploration. Particularly enjoying the

computer applications end of it—using some pretty slick software programs."

**Connie Mayes Dyer** (BA '58), a homemaker in Houston, says "another year of Cub Scouts, Little League, and PTA! Will it ever end? Our family's had a good year, grown children included, and we consider ourselves blessed. Enjoyed seeing so many old friends at the AAPG convention this spring."

**Lynn C. Eads** (BS '57) is a geologist and partner in TennTex Oil and Gas in Corpus Christi. "Drilling a few wells and finding some production. Still looking for the 'big one' to hit. Would like to see old UT friends—have lost contact with so many."

**Fred A. Ealand** (BS '48) retired from Exxon in August 1986. "Enjoying retirement to its fullest—our triplet grandchildren were one year old on my birthday, April 13, and are growing like weeds."

**Richard D. Edson Jr.** (BS '83) is a computer programmer with the Bureau of Economic Geology in Austin. "Last year I became a professional frequent flyer and acquired over 200,000 miles traveling to favorite spots in Texas. I have used the free tickets and some of the mileage to study carbonate depositional systems with my scuba buddies in Belize, Cozumel, Venezuela, Trinidad, Tobago, Spain, Morocco, and Italy. My favorite spots were the Mayan ruins in Guatemala, Angel Falls, and diving in Tobago."

**Mark Eidelbach** (BS '51) is a partner in Mark IV Energy in San Antonio. He recently observed his infant granddaughter, Jessie Lee Pitluk, giving "the good old Hookem Horns sign—this is proof you can't breed the UT out of them, since her mother, Ellen Eidelbach Pitluk, received her degree from A&M."

**Gus K. Eifler Jr.** (BA '29, MA '30) continues his consulting business in the same office in MBank Tower in Austin where he has been since 1974.

**Ralph I. Ellsworth** (MA '49) is semi-retired and enjoys living in the Lakeway area of Austin, playing some golf, and watching UT athletics. He also does some consulting.

**Peter A. Emmet and Lisa Richards Emmet** (MA '83; BS '81) live in Houston. Lisa is a geologist with American Exploration engaged in development and near-production exports. She loves her job and was recently promoted. Pete is making progress on his seismic





study of inverted extensional basins in Indonesia and expects to receive his PhD from Rice University in May 1990. Spencer, who is now two years old, is learning very sophisticated ways of saying "No, I don't want to...."

**Richard J. Erdlac Jr.** (PhD '88) is writing papers for publication. He is presently unemployed, but continues structural investigations on his own in the Big Bend region. Richard lives in Midland.

**Don Erickson** (BA '77) still lives in Littleton, Colorado.

**David A. Evans** (BS '88), a junior geophysicist with Digicon Geophysical Corp., sends this message: "There is a gleam of light at the end of a long tunnel; I'm living proof that hard work at the University of Texas (noted for its outstanding geology program) does pay off! And yes, you can get a job in the geosciences with only a BS."

**Jim Evans** (MA '65) is president of the Orleans Exploration Company Inc. in New Orleans. "Still in oil and gas exploration. Shannon is busy with river-front streetcar and floodwall."

**Rizer and Hildegard Everett** (BS '37, MA '69; BA '37) reaffirmed their marriage vows on June 26, 1988 at the Congregational Church in Austin, the same church in which they were married in 1938. Their children and their spouses and six grandchildren were present at the ceremony. More family members and friends attended the reception that afternoon, held in Symphony Square. In September, Rizer and Hildegard attended a reunion of people who worked together in Indonesia in the 50's and 60's. During the rest of the year they kept up their numerous activities in community groups and national organizations. Rizer writes, "I call myself an intermittently employed consulting geologist. However, I do enjoy the time that I now have to devote to hobbies, travel, and visits with friends and family."

1919:

*Joe C. Lynch, Joe S. Ware, Reno Stinson, Robert L. Cannon, Arthur H. Deen, Prof. F. L. Whitney, Jos M. Dawson, L. T. Barrow*

**Norman Ewbank** (BS '43) is retired and lives in Midland. "I recently bought a computer. This is the first time in my life that I have been intimidated and humiliated by an inanimate object. Luckily the little Macmonster is user Macfriendly, or I would be in real Mactrouble."

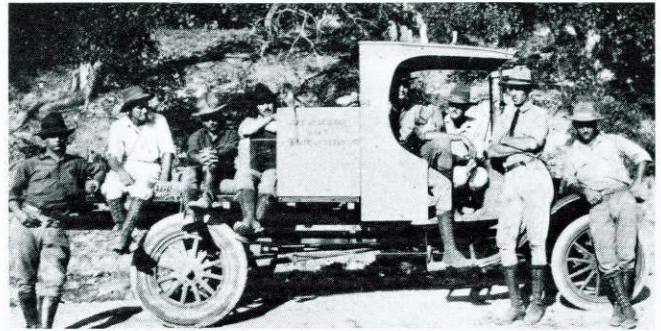
**Robert H. Fakundiny** (MA '67, PhD '70) is the state geologist and chief of the Geological Survey of New York in Albany. He writes "I had a nice visit in Austin in May as guest of the Bureau of Economic Geology during the Minerals Management Continental Margins Meeting. For old times' sake I quaffed a ceremonial beer at the new Schultz' Biergarten. Sorry to see that the Alamo Lounge has been torn down."

**George H. Falk** (BS '57) is an independent, "still relaxing on the lake in Seguin waiting for the oil business to improve."

**Thomas E. Fanning** (BS '56) is vice president for domestic exploration at Marathon Oil Company in Houston, which he says "enjoyed a respectable year despite continued pressure on budgets." He is pleased to be on the Geology Foundation Advisory Council, where he is making the most of the opportunity to renew old friendships and establish new ones.

**Dorman N. Farmer** (BS '50) is owner of Fargo Exploration Co. in Abilene. He comments, "Drilling has slackened in

*The Ford:  
UT geologists travel  
in style  
and show  
school spirit, too.*



1921:

*Elwell, Reed, A. E. Getzender, Carroll E. Cook, James Lester Priddy, Baker, L. T. "Slim" Barrow, Charles D. Vertrees*

the Abilene area, but optimism is rising. We are looking forward to a better year."

**Murray Felsher** (PhD '71) is publisher and editor of *Washington Remote Sensing Letter* and *Washington Federal Science Newsletter*, and president of Associated Technical Consultants in Washington, D.C. "Enjoyed all the Folkian retreats at the Folk Roast at AAPG. Son Harry graduated as a nuclear engineer and is beginning his MS at Texas A&M of all places. Rest of the family is fine. Hope to see you at the International Geological Congress in Washington."

**Scott E. Felt** (BA '87) started his own insurance agency, Scott E. Felt and Associates, in the north Dallas area. His agency specializes in group health and life markets, and soon will also handle property/casualty and auto insurance.

**William J. Fennessy** (BS '48), formerly of Exxon, writes "golfing and watching the Horns play football, in addition to an occasional trip to Las Vegas, make for a wonderful retirement." He lives in Conroe, Texas.

**Richard C. Finch** (PhD '72), a professor of geology in Cookeville, Tennessee is "still interested in Central American geology. In June I am leading a two-week geological excursion to Guatemala for the third summer in a row. In July I will spend about ten days in Honduras as a consultant to the Peace Corps. My wife Janis will be traveling

with me on this trip. Too bad I couldn't go with her on a six week trip to India earlier this year."

**Harvey L. Fischer** (BS '59) is still doing geophysical consulting and selling real estate in Midland. "Call me if you need help in either category."

**Dorothy Yates Fisher** (BA '27) is retired in Rosenberg, Texas.

**Goldoni E. Flack** (BS '51) is retired and lives in New Orleans. "Ruth and I are enjoying retirement after all those years of work. The hours are long and the pay is short, would not have it any other way."

**Sterling H. (Chip) Fly III and D'nese Young Fly** (BS '80, MA '85; BS '80) moved to Artesia, New Mexico last year when they took jobs with Yates Petroleum. They and their two sons are enjoying New Mexico and the small town lifestyle in Artesia, but Chip says, "the decision to leave Texas was an agonizing one, and I had to assure my forefathers that I'd be back someday. Meanwhile I'll go elk hunting."

**Jay and Cathy Kantenberger Flynn** (BS '84; BS '84) write from Houston, "Jay's former company Geosource has now merged with Halliburton-owned GSI and he's pleased to discover some old UT buddies are now new coworkers. Cathy's still working Ireland for Conoco and lucks out on an occasional overseas trip. We're both excited about an upcoming backpacking vacation in the Grand Tetons this summer."

**Graham E. Fogg** (PhD '86) is an associate professor in the department of land, air, and water resources at the University of California at Davis.

**Hewitt B. Fox** (BA '47, BS '48, MA '48) is president of Hewitt B. Fox Inc. in Corpus Christi. "We have almost completed the work necessary to bring our producing properties up to maximum productivity or plug them and are encouraged by the growing interest in our new drilling prospects despite unstable markets for oil and gas and an unfavorable tax structure."

**Nancy E. Frank** (BS '82) is a geologist for the Texas Water Commission hazardous and solid waste enforcement section in Austin.

**William D. (Dick) Frazell** (MA '35) is "still doing what I like best—looking for deep oil and gas in south Louisiana." Dick lives in Lafayette.

**Annabelle Bannahan Friddle** (BA '45, MA '50) continues to live in Aztec, New Mexico.

**Jack Q. Frizzell** (BS '50) is president of the Enrich Oil Corporation in Abilene. He hasn't enjoyed the enforced slowdown in drilling prospects, but has enjoyed travels with Pat, three kids, two daughters-in-law, one son-in-law, and seven grandkids. "Master-Charge loves us. However, back to exploring East and West Texas—and doing better than before."

**Paul B. Garrison** (MA '79), a consulting geologist in Billings, is "trying to survive after one year of independence. Serving as past president of the Montana Geological Society and chairman for the 1989 MGS field conference and symposium."

**A. J. Garza** (BS '78) and his wife Cindy, announce "the second addition to our family (Kate Morgan). Jared (2.5 years) is still keeping us hopping. Work is also keeping me busy, but still having fun." John is a senior production geologist for Mobil in Houston.

**Leroy Gatlin** (BS '48, MA '50) is an independent petroleum geologist in Oklahoma City. He is "having fun with surface chemistry," and wants to know if UT is teaching this as a separate course. "You should or you are behind the times." His youngest child is now a senior in high school.

**Ray H. Gedaly** (BS '81) is a geophysicist with Exxon USA in Houston.

**P. O. Geddie** (BS '38) of the Geddie Oil Company in Austin is "still drilling a few wells."

**Clem George** (BA '47, MA '48), self-employed in Midland, "just returned from a nice trip to Spain."

**Steven J. Germiot** (MA '88) completed all requirements for the MA in early October and promptly departed for Seattle in search of a cooler, temperate climate. He soon found employment with Hart Crowser Inc., a geotechnical and environmental consulting firm with offices in Seattle, Anchorage, Portland, San Francisco and Richland, Virginia.

**John Crispin Gholston** (BS '83, MA '87) is an exploration geologist with Marathon Oil Co. in Midland.

**Mary K. Gilkison** (BS '80) is a geologist with Converse Consultants in Pasadena, California.

**Louis deA. Gimbrede** (MA '51) has been retired as professor emeritus from the University of Southwest Louisiana since 1978. He spends summers at his home at Thousand Islands near Alexandria Bay, New York, and welcomes

visitors there. "Still kicking along just as though I had good sense!"

**William E. Gipson** (BA '48, MA '49) took partial retirement from Pogo Producing Co. in April 1989, but will remain awhile as managing director of exploration. Bill continues to be active on the Geology Foundation Advisory Council. He resides in Houston.

**Paul Giraudin Jr.** (BS '48) is retired in Corpus Christi. "Trying hard to keep up with the times; writing a few nostalgia stories; making heaps of sawdust in the shop; doing much church work; hoping to find time to do a bit more domestic traveling before it's too late!"

**Georgette Covo Goble** (BA '44) is a community volunteer in Waco, Texas. She writes "My Aggie husband and I enjoyed an '89 spring vacation to Vicksburg, Natchez and New Orleans. With a combined family of six children, five spouses, and six grandchildren we stay very busy and definitely not retired."

**Charles A. Goebel** (BS '80) is a senior geologist for Arco International in Plano, Texas. He is glad to be back in the States after nearly five years overseas. He'd like to hear from other exes coming through the Dallas area.

**Michael H. Golden** (BS '78) is a geophysicist with Marathon Oil Co. in Houston.

**Eugene M. Goltz** (BS '49) is "still trying to find, acquire, develop, produce, and sell commercial quantities of oil and gas. Please come visit me when in Abilene!" He is an independent petroleum geologist.

**Sipriano Gonzales** (BS '86) recently received a Master's degree in computer science and is moving from Corpus Christi to Dallas to take a job as a systems analyst with JC Penney.

**W. Leonard Goode** (BS '53) is a consulting geologist in Midland.

**Philip P. Goodson** (BA '84) is a geologist and manager of environmental drilling services for International Technology Corporation in Austin.

**Edwin R. (Win) Goter** (MA '73) is now manager of the mid-continent division of Shell Western Exploration and Production Inc. "We have just returned from an overseas assignment of 2-1/2 years to a Royal Dutch operating company, Satawak Shell Berhad in Miri, Satawak, East Malaysia on the northwest coast of Borneo. The job and living conditions were very good and we were able to travel extensively



*Charles Weiner (BA '48), Leroy Gideon, Jack Wilson (Professor Emeritus), Mary Gideon, and Nita Weiner "Hook 'em!" at Kula Lodge, Maui in January, 1989.*

throughout Southeast Asia. This experience has left us with a lot of good memories."

**Volker C. (Charles) Grasso** (BS '49) is retired in Oklahoma City.

**C. DeVearle Gray** (BS '56) is "still weathering the spot market storm. Went through the takeover game in '88 but still in business and healthy. Continue to enjoy the *Newsletter*; a class act." He is senior vice president of exploration for CXY Energy Inc. in Dallas.

**Robert W. Grayson** (BS '48) is retired in Austin.

**Willard R. (Will) Green** (MA '55) of Midland opened Green Energy Resources in February 1989. He does consulting, prospect generation and sales, and property valuation.

**Charles J. Greene** (BS '75) is working with the ground water conservation section of the Texas Water Commission. "Made it down to San Antonio for AAPG. Chilled out at T-Bird Winterfest. Still hanging in south Austin (all the good people live south, bubba)."

**Jeremy T. Greene** (MA '84) is a geophysicist with Arco Oil and Gas in Houston. He and his wife Lynn have a new baby girl, Michelle Lynn Greene. "Her older sister Lauren (3) is trying to teach her bad habits already."

**Charles R. (Dick) Grice** (BS '46) is retired. He writes from Midland, "Ann and I are still enjoying life, mostly visiting children and grandchildren."

**John C. Gries** (PhD '70), chairman of the department of geology at Wichita State University in Kansas has had a busy second year as department chair. "Managed to teach field camp and make trips to Tunisia and Belize between paperwork stints. Daughter Lynn starts college this fall. Good to see lots of friends in San Antonio and Denver this last year."

**Robbie Gries** (MA '70) is an independent/consultant in Denver, Colorado. "Oil business seems to be creeping back up:

got three wells drilled last year, and will be in three more in '89. Moved office downtown, it's amazing who is still here! Five weeks in Europe last fall culminated in a tectonic conference in Bordeaux where I gave a talk. Brought Lynn home from sixteen months abroad! She heads to Lewis and Clark this fall. She is in Cost Rica now (she has the travel bug bad)."

**Ariel Dale Griffin** (BS '57) continues to live in Houston.

**Roy H. Guess** (BA '39, MA '40) a consulting geologist and Hereford breeder, writes from Casper, Wyoming, "I continue full time at two professions. It's difficult to turn wildcat prospects (although Wyoming abounds with excellent ones), so I have found a niche supplying geological expertise to several law firms—sometimes as an expert witness and sometimes in estate evaluations. Environmentalists' overkill results in ever-increasing federal regulation and higher costs. In the Hereford business, artificial insemination has worked very well for Leni and I, but now we've successfully used 'embryo transfer' and expect to use 'clones' within two years. Both businesses are high tech. What an exciting world it is!"

**Marco Guzman-Speziale** (MA '85) expects to get his PhD this year from New Mexico State University, but "the big news is that Patricia and I just became parents. Our son Pablo was born on November 2, 1988."

**Susan Williams Haas** (BS '86) is a flight attendant for American Airlines. She and her husband Steve enjoy living in Charlotte, North Carolina, and appreciate its proximity to the Blue Ridge and Smokey Mountains.

**Walter T. Haenggi** (MA '57, PhD '66), a consultant to Dow Chemical in Houston, is "still pursuing a checkered career in 'industrial' geology. Current activities are geothermal energy devel-

opment, geology of salt and related structures, and a little oil and gas. Not enough time to do any of them right."

**Bill F. Halepeska** (BS '52) writes from Midland, "last year has been good to me—almost too busy to find time for fishing and enjoying three granddaughters." Bill is a self-employed geologist and petroleum engineer. He is currently finishing a study of the Bone Spring producing area of southeast New Mexico.

**Curry Hall** (BS '54), senior geologist for Wintershall Corporation in Houston, says, "our company has 'restructured' and moved headquarters to Houston. Still looking for drilling prospects along the Gulf Coast."

**C. Clyde Hamblin** (BS '50) is a self-employed petroleum landman and producer in Midland. He writes "have had the privilege of having my six-year-old granddaughter live with us the past year. They say that will keep you young. Don't know about that, but it does keep you at home and pooped. Still go to the office, but don't do too much work."

**Henry R. Hamman** (BS '59, MA '61) is an independent in Houston, "still drilling a few wells and looking for good Louisiana and Texas Gulf Coast prospects."

**John W. Hampton Jr.** (BS '53) owns John W. Hampton and Son in Wichita Falls, Texas.

**Marc W. Harder** (BS '83) works as a hydrogeologist in Greenville, South Carolina and recently received his MS in geology from the University of South Carolina.

**J. V. Hardwick** (BS '40) lives in Midland and is retired.

**Robert W. Hare** (BS '79) is a geologist with the Adkisson Estate, where he manages royalty properties and reviews drilling prospects. He lives in Fort Worth.

**Louis H. Haring Jr.** (BS '38), president of Haring Energy Company in San Antonio, is participating in a few drilling prospects and is "traveling as much as possible to see this old world."

**David H. Harrington** (BS '51, MA '53) is a consulting geologist in Houston.

**Margaret Hart** (BS '83) is a hydrologist for the Texas Water Commission in Austin and is pursuing her master's degree at UT. "I hope to be done by August 1990. In the meantime I'm having a great time working on a variety of water resource and protection projects."

**Richard E. (Rick) Hart** (BS '74) is manager of geology with Ladd Petroleum Corporation in Houston. "The depressed oil and gas business continues to haunt us but recent price stabilization will certainly help. Ladd Petroleum has continued to remain active in the expanded Yegua trend of southeast Texas. Anyone with expanded Yegua prospects, please feel free to give me a call. The highlight of the AAPG 1989 annual meeting in San Antonio was observing Dr. Bill Muehlberger with his original sombrero design at the Night in Old San Antonio."

**Eric K. Hass** (BS '78) works for Mobil Oil as a staff production geologist in Denver: "moved from the Gulf Coast to the Rockies—couldn't be happier!"

**Laurence H. Hawes** (BS '51) is retired from Arco Oil & Gas Company. He reports, "retirement is great, but I have less time it seems than before I retired. Have worked three contract projects for Arco. Looking forward to having grandson Cory visit for the summer from Massachusetts."

**Hugh Hay-Roe** (MA '52, PhD '58) is a consultant in Kingwood, Texas. "Greatest accomplishment during last twelve months: becoming a grandfather. I still feel like Rip Van Winkle whenever we visit not-so-li'l ole Austin. Always looking for more contributions to the column on the back page of *Geotimes*—send funny wordgoofs you run into, preferably geological."

**Edward Fabra Haye** (BS '51), president of Benchmark Exploration Inc., announces "married last daughter off last spring with big wedding and bash."

**J. Don Haynes** (BS '56) and his wife Kathy are moving to Wimberley after living and working in Corpus Christi for 26 years. Don, a petroleum geologist, will work out of a log library in San Antonio and will be able to spend some time in Austin.

**Kristopher K. Hefton** (BS '78) is an associate geologist for Freeport-McMORan Gold Company in Tucson, Arizona.

**James H. Helland** (BS '43) lives in San Antonio and is president of Inland Ocean Inc. He comments, "with oil prices reaching subsistence levels and the hope natural gas prices will soon increase, those of us who still try to explore for these 'goodies' might again prosper."

**William Brent Hemphins** (BS '58, MA '62)

is a senior geological statistician in the applied math-stat group of the engineering department at Chevron in Richmond, California. "I wrote in the last *Newsletter* that Chevron had forgotten I was a geologist—now it's real! Received a patent (two more coming?) for predicting if drill pipe will become stuck. Working on basin reconstruction and qualitative stratigraphy. Traveling too much! I hear from a few of the old crew who found my address in the *Newsletter*. I appreciate that very much as it brings up old memories."

**John D. Henderson** (BS '37) is retired in



John L. Stripling, BA '40, sent us his reminiscences of Summer Field Camp in response to last year's *Newsletter*:

"Thanks so much for the irreplaceable photograph of the 1940 Summer Field Camp at Brady, Texas. And a very special thanks to Julius Buchanan and Wilford Stapp for providing the original photo and identification. It brought back a flood of memories to me and surely to the others who were a part of the camp. I'm certain that none of us will ever forget the very special interest and concern shown us by two of UT's greatest professors, Dr. Robert "Red" Cuyler and Dr. Fred M. Bullard. They were truly outstanding.

Some of the unforgettable memories are:

The huge stone warehouse in Brady with its corrugated iron roof, where we worked, ate and slept.

Inside the improvised field kitchen where Tom and Sam prepared such delicious meals out of plain fare.

And showering after a rough day in the sultry hills of Brady, later sitting around in our summer underwear with tired feet propped up to rest.

Working past midnight with sweaty palms to complete field notes and work on our area maps. (It was sheer disaster if the old drawing pen you used suddenly sent a blot of India ink inside the contour lines.)

Voracious biting chiggers in the Brady hills, forcing us to resort to a painful remedy: kerosene soaked strips of cloth bound tightly around our ankles.

Dallas, where he keeps busy with residential holdings and his ranch in Stonewall County, Texas.

**E. R. (Bob) Henningsen** (BS '57), associate professor of geology at Tarleton State University in Stephenville, Texas retired in June. "All good things come to an end," he explains, "have a new

boat to break in and also new grandchildren to visit. Looking forward to a lot of travel and new geology in the field."

**Larry Hensarling** (BS '56) is president of Tee Oil Inc. in Lafayette, Louisiana. "Completed a major sale of producing properties in Tee Oil to Presidio Oil in November 1988. Currently working on the purchase of offshore Louisiana producing properties and looking for investors for both exploration and production projects." Larry still finds time to serve on the Geology Foundation Advisory Council.

**Reid Hensarling** (MA '81) is a geologist at Tee Oil Inc. in Lafayette. They are working with major oil companies on offshore producing properties, and feel that much of the future of the independent oil business lies offshore. They hope to drill onshore, too, soon.

**Charles W. Henslee** (BS '51) has retired

from Maxus Exploration Co. in Houston after thirty-eight years. He is enjoying playing more golf, getting up late, and traveling.

**Harold T. Henslee** (BS '51) writes from Amarillo that his son finished at the Presbyterian Seminary of Austin in May. "The oil and gas business is still very slow regardless of a price increase. We need some incentives to attract outside investments. I still have faith in our industry and our profession to overcome our problems."

**James G. Herblin** (BS '52), independent geologist in Kenner, Louisiana, says,

conducts geologic and hydrologic investigations associated with current and former hazardous waste management facilities in California, Arizona, Nevada, and the Pacific Rim area.

**Charlie Hewitt** (BS '88) is currently a graduate student at UT-Austin. "My Master's thesis topic, 'Hydraulic transport properties of the saturated zone of a reclaimed lignite surface mine' is being generously funded by TU Electric. The fieldwork will keep me stomping around the East Texas lignite belt for another year or so."

**E. R. (Ted) Hewitt** (MA '51) is vice presi-

**Janice Lorraine Hill** (BS '89) writes from Aurora, Colorado: "Our lives are upside down here. John has been transferred to Amoco's research center in Tulsa, Oklahoma where he will act as a liaison between the research and exploration groups. Our effective date is August 6. In the meantime, we're awaiting the arrival of #2 child, selling our house, and planning a move with a six-week-old and two-year-old Caitlin. There is never a perfect time to move! We had a great reunion in March at the wedding of Marshall Titus and Susan Bajza."

**Nolan Hirsch** (BS '44) lives in Midland, where he is an independent. "Nothing much going on these days. Really slow, still participating. At the office every day, waiting for industry to pick up."

**Larry Holcomb** (BS '75) is a regional geologist for BHP Petroleum Inc. in Houston. He is presently leading exploration programs in the Smackover and East Texas and southwestern Louisiana Yegua. He writes, "With the birth of our first child David I'm becoming expert on a new kind of sand pile."

**William C. Holland** (BS '81) has moved to Houston to join Hall Houston Oil Company as a senior geologist. "Still looking for that elephant oil field. Chocolate Labs hunting very well now. Extremely happy being back in Texas."

**H. W. (Bill) Hollingshead Jr.** (BS '57) is exploration/exploitation manager, western division, for Pennzoil in Houston.

**Melody R. Holm** (BA '75) and her husband Stan Cadwell are geological consultants in Casper, Wyoming. They also actively buy and sell oil properties. "Our boys, three years old in July, are getting to be loads of fun and full of (mis)adventure. Life in the Rockies is great, and we'd welcome visitors anytime!"

**Lee Holt** (BS '49, MA '50) is a retired geologist and consultant hydrogeologist in Port Aransas. "New profession—sculpture emphasizing geologic themes—Earth rhythms, Mars scape, 2089, and gulf life (fish and fowl)."

**James W. Hood** (BS '48) is enjoying retirement in Salt Lake City. "Doing a minimum of professional work, just to keep my hand in. Have been working on our old house, traveling a bit and researching family history. Found some wonderful Hood family photographs circa 1858! Unfortunately, great-grandpa

No air conditioning either inside our quarters or in the station wagons, so we were always hot and sweaty.

After what seemed like a small eternity, we finally left Brady for the most fun part of the course, touring parts of Arkansas, New Mexico, and Texas Mexican border and Gulf Coast.

We traveled in three 1938 vintage Ford V-8 station wagons, not all that common in 1940. These had wooden panel sides, windows that did not always close. They were also open-ended so often arms and legs dangled outside during travel. Roads were often poor and dusty, so judging by present standards, one would think that progress was slow. But due to a chronic disregard for posted speed limits and a pre-arranged police motorcycle escort, we would go flying through towns with scarcely a reduction in speed.

Time was of the essence and Drs. Cuyler and Bullard made the most of it. The one exception that I recall was when they took our convoy on a 100 mile detour so one of the students could visit his mother who was in the hospital with a terminal illness. (That unselfish gesture I will always remember.)

As I like to recall, we traveled far and learned much hands-on geology during the summer of 1940, as much about ourselves and our great teachers as about subject matter. There were good times and laughter, yet there was a special kind of foreboding hanging over us. The war in Europe was getting out of hand. Soon most of us would be trading dusty field gear for army khaki or navy blue, leaving ample time to reminisce."



"It looks as if the oil business may be getting a little better. Maybe that's just my wishful thinking. I hope everyone is doing fine, because it only has one way to go."

**Jon Herwig** (MA '82) is manager of geology for ERC Environment's geohydrology group in San Diego, California. He

is dependent of S. N. Phelps and Company in Greenwich, Connecticut. "Still doing financing in oil and gas. Pricing uncertainties make fearless forecasting difficult."

**Charles H. Hightower Jr.** (BS '56) is an independent petroleum geologist in Lafayette.

Hood was a Yankee in Indiana.”

**Ben Hooper** (BS '80), who still works for Chevron as an exploration geologist, writes from Houston, “Kelly Anne (our second) was born in April 1989.”

**Edward Hooper** (BS '82) is a Master's student at the University of Queensland in St. Lucia, Australia. He reports, “I am really getting stuck in to my Master's project on fluid migration in growth faults and I am beginning to figure out life upside down.”

**Eleanor M. Hoover** (BS '56) is a geological associate at Exxon USA's eastern exploration division in Houston. “Enjoyed the Folk roast in San Antonio.”

**D. Scott Hoskins** (BA '87) is a laboratory technician and marketing representative in Dallas.

**Bill Howard** (BS '82) is a geological consultant in Houston. “I've finally got out on my own. I have lease and seismic dollars, so I'm generating and looking for ideas on the Gulf Coast, Texas and south Louisiana. I'm doing as much consulting work as possible to keep the wheels turning.”

**William Parke (Bill) Hudson** (BS '75) is president of the Star Placer Corporation in Dewey, Arizona. Star Placer mines sand, gravel, and gold. “Raising money is tough, but surface mining again is fun.”

**Ed Hughston** (MA '50), an independent in Taos, New Mexico, continues to do some consulting work for the Dico Group of Dallas and New York “on situations developed during the boom years—meaning time for lots of skiing and tennis.”

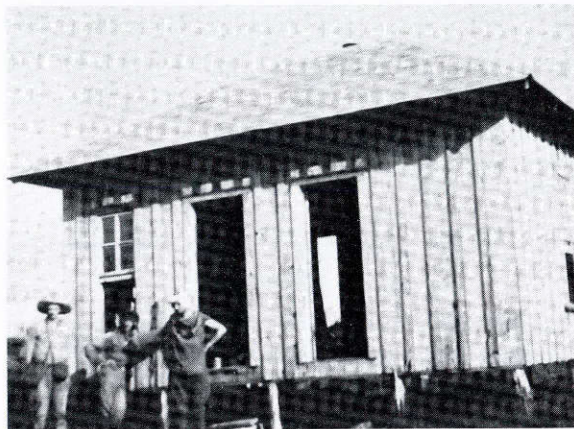
**Emmett A. Humble** (BA '49, MA '51) writes from Houston, “Enjoying a busier-than-expected retirement! Doing a little international consulting, traveling and building a new home—one large enough to hold all the ‘collectibles’ of 37+ years.”

**Allen E. Humphrey** (BS '49), a resident of Dallas, had a heart attack in 1987, but reports that his golf is regaining vigor. He is retained by the Humphrey Oil Corporation as a consultant and exploration executive. The corporation participates in thirty-five tests annually in Texas, Oklahoma, Kansas, Louisiana and New Mexico. Allen “follows with great interest fellow geologists and University of Texas programs.”

**Steven D. Hulke** (MA '78) is a senior geologist at the Hunt Oil Company of Dallas. He lives in Midland.

**Elvin M. Hurlbut Jr.** (BS '43) is retired in

Tyler and writes “Virginia and I and our two cats, Tommie Shoes and Rudolph Sylvester Valentino are fine. Both cats adopted us. Tommie is a female American shorthair (alley cat). Did not know Rudolph's breed till I went to a cat show and learned it is Norwegian Forest Cat, a breed I highly



“Home for three weeks”

Summer  
field  
camp  
housing  
in 1920

recommend. Tommie is ornery, Rudolph sweet. *Cats Magazine* may publish my story about them. It's amazing how much one can learn when one has time to read.”

**Daniel C. Huston** (MA '87), a geophysicist for Unocal Corporation in Brea, California, has a paper in *Geophysics* August 1989 issue called ‘Seismic Line Intersection Mis-tie Analysis.’”

**Joe A. Hybner** (BS '52) is semi-retired in Corpus Christi, and is still enjoying ranching, golf, and dabbling with the oil and gas game.

**Susan Ide** (MA '86) now lives in Santa Barbara, California, where she says, “Business is booming...love to hear from anyone who wants to visit or job info.” Susan is a hydrologist with Woodward-Clyde Consultants.

**Judy Ingram** (BS '81), previously a reservoir engineer at Mobil in Denver, recently transferred to New York to work as a supply analyst. She visited Austin in June to attend the wedding of her “best Texas buddy,” Anne Smith (BA '83).

**Logan Irvin** (BS '79) is a geologist with Clayton W. Williams Jr. Inc. He is working the upper Gulf Coast and enjoys living in San Antonio.

**Carl B. Irwin** (BS '39) is retired from the U.S. Navy. He reports “I am enjoying life and good health in San Antonio, and I had the great pleasure of visiting with Evelyn and John Tuohy (BS '39) in their new retirement home in Canyon Lake, Texas. My number three son is actively into hard-rock geology in

Nevada and other western states. Happy 50<sup>th</sup> to my classmates.”

**Paula Ivey** (BA '84) moved to Australia in 1985, where she worked for the South Australian Department of Mines and Energy's oil and gas division. In 1987, she was a geologist with Tarcoola Gold Limited, a gold exploration company.

Her article on the Australian gold industry appeared in Dun and Bradstreet's 1987 yearbook. Paula is back in Austin as president of Access Australia, an import/export and market consulting company which she started in 1988.

**J. R. Jackson Jr.** (MA '40) is a consultant in Houston. He reports, “life about the same: grandkids growing up, travel, work, golf. Enjoyed seeing many old friends at AAPG in San Antonio—but for sure oil business will get better.”

**Joe L. Jackson** (BS '56) is an engineering geologist in Choctaw, Oklahoma. “After many years and moves in Texas and California, the furniture is now nailed to the floor in Sooner Land.”

**John A. Jackson** (BA '40) is president of the Katie Petroleum Company in Dallas. He continues to to serve on the UT Geology Foundation Advisory Council.

**Russell W. Jackson** (BS '76) is an independent geologist in Tyler, Texas.

**S. L. Jackson** (BS '79) continues working for Exxon USA. He is currently in upstream planning and analysis, a job which he says is “very demanding, but has provided a lot of perspective on the status and future of our industry.” His family is doing well in Houston, but they miss Midland.

**Laurel E. Jacobs** (BS '84) is a geologist with Wainoco Oil and Gas Company in Houston.

**Otis James** (MA '52) is a self-employed petroleum geologist and oil producer in Gainesville, Texas.

- Jim Janssen** (BS '79) works for Oryx in Dallas. He reports, "a fairly quiet year for Linda and me. It's amazing how a baby (Andrew) slows down your life-style. It was good seeing everyone at Marshall Titus' (BS '79) wedding."
- Borden Edward Jenkins** (BS '78) is an independent petroleum geologist in Corpus Christi.
- Alice Domingues Jobs** (BA '23) still lives in Kerrville. One son and his family live nearby, three other children and their families live elsewhere in Texas, and one is in Louisiana. Her brother Louis Domingues (UT '22) and his wife live in Kerrville, too.
- Charles B. Jones** (BS '51) retired from his position as supervisory geologist for the U.S. Department of the Interior in January 1989. He continues to live in Tulsa with his wife of 43 years, Norma. After a total of 20 years of service as a federal employee and 17 years in private industry, he says, "Thanks be to God for an exciting career in geology."
- Ann C. Johnson** (BA '86) is a graduate gemologist for Gem Creations of Aurora, Illinois. She resides in Orlando, Florida.
- Morris L. Johnson** (BS '50), an independent geologist in San Antonio, reports, "no discoveries."
- John Edgar Johnston, III** (MA '77) was recently promoted to deputy director and deputy state geologist at the Louisiana Geological Survey in Baton Rouge. He is also newly married to his longtime girlfriend who teaches experimental statistics at LSU. "Otherwise, everything's the same—still raising dogs, nephews, and hell."
- Charles E. Jones** (BS '51) is retired in Houston. He says he can be reached at the golf course, where he plays every sunny day.
- Charles R. Jones** (BS '50) retired from his geological consulting business in 1988. He and his wife enjoy their extra leisure time traveling, at their central Texas farm, and at their cabin in Ruidoso, New Mexico.
- J. Phil Jones** (BS '64) is vice president of corporate strategy at the Bracken Energy Company. He is excited about the possibilities for clean-burning natural gas. "We at Bracken Energy are seeking to captivate the attention of the utilities and end users to invest in drilling for new natural gas reserves. The timing is right." His family is fine, he says, and "son Chris, a student at Baylor, plans to be wed at year end."
- Luther G. Jones** (BS '58) is in the civil service at Kelly Air Force Base in San Antonio. "I enjoy the *Newsletter* but wish more people would write in. I worked with a fellow grad for ten years before I knew he also was a trekker at Marathon and the James River."
- Richard D. Jons** (BS '56) is an independent geologist in Midland.
- Frank C. Kallina** (BS '39) is a retired independent geologist in San Antonio. For the last two years he has been confined to his home because of a serious illness.
- James Douglas Kallina** (BS '53) is president and owner of JDK Inc., a division of Seismic Ventures Inc. in Stafford, Texas. He currently has a non-exclusive seismic survey underway in Live Oak City, Texas using a Halliburton Geography Services Inc., crew.
- Edwin N. Kasper Jr.** (BS '51) has resigned from the Canadian Imperial Bank Group and is "pursuing retirement interests. It is nice to be able to participate in the Ex-Student Association's *Up Date* series during the summer. Grandson and granddaughter are fun to be with and another is expected near the end of September 1989. Cozumel scuba was great this March."
- Steven G. Katz** (PhD '75) writes: "I'm general manager of the laboratory instruments group at Harrop Industries, Columbus, Ohio, responsible for a line of test equipment for the ceramic industry. Connie and I still enjoy living in our Victorian home in Granville, Ohio, where we've opened a bed and breakfast. Call if you're in the central Ohio area."
- Lee Scott Kelly** (BS '86) lives in Tampa, Florida, where he is a youth minister. "While working with high school students, I still manage to do some fossil collecting in the Pliocene and Pleistocene of Florida. More Texans should come here and enjoy the depositional settings at the beautiful beaches here."
- Kevin M. Kelly** (BS '82) is the program manager for the Hawaii Undersea Research Lab in Honolulu.
- Christopher G. S. Kendall** (postdoctoral work, '66-'68) is a professor of geology and marine science at the University of South Carolina. He does research on sea level changes, on developing an expert system to describe oil fields, and on carbonates of Lea Stocking Island, Bahamas. He worked with Texaco over the summer.
- Elizabeth Merritt Kenley** (BA '39) "attended the Class of '39 half century reunion, but didn't see many geologists. We do see Houston geologists frequently and enjoy their company. Like most retirees we travel quite a bit, but seem to restrict our trips to the U.S.A now."
- Edward R. Kennedy Jr.** (BS '48, MA '49) is a consulting geologist in Midland.
- Leon A. Kent** (BA '41, MA '50) enjoys retirement life in Houston, and spends his time playing golf and traveling.
- Allan R. Keown** (BS '58), a resident of El Paso, married his high school flame after thirty-seven years. He is "still in handwriting identification business tracking down the bad guys. This type of crime (forgery) has no season. Business is good—love my work. I read the *Newsletter* from cover to cover—absolutely a superb publication."
- Don Kerr Jr.** (BS '60) is president of Kerr Construction Services in Houston.
- Laszlo Keszthelyi** (BS '88) is "finding out that California geology is nuts: everything is still moving!" He is a graduate student in the planetary sciences at Caltech in Pasadena.
- Howard W. Kiatta** (BS '58) is an independent petroleum geologist in Houston.
- Robert J. Killian** (BS '77) is a geologist and partner in The Gulf Tide Oil Company in Houston. "Expecting our first child this summer."
- David L. Kirchner** (BS '74) lives in Phoenix, Arizona where he established his consulting company, Basin and Range Hydrologists in 1987. He is an advisor to the Commission on Arizona Environment and president of the Arizona Hydrological Society. In 1988 he married Kathy Doyle, a fellow geological consultant who he says is "pretty and nice." David also announces the creation of a new cartoon strip featuring the "famous desert dweller, Dusty Dawg." He is "grateful and thankful to have been able to study under the best professors at the best academic institution in the country."
- Thomas Kirkpatrick** (BS '84) is a computer geologist for Exxon in Houston. He writes: "Getting married in August. Still driving that 1970 Dodge. Learning to play the saxophone."
- Don Kirksey** (BS '60) still lives in Oklahoma City. "After twenty-two years with Tenneco Oil Co., which afforded me a wonderful career in geology including living in Europe and Alaska, I have decided to seek a new career as a result of my company being sold. Have a lot of ideas but the right new career

hasn't developed yet. Enjoying semi-retirement."

**Teresa Klump** (BS '85) is an engineering technician at the Texas Water Development Board and lives in Austin. She comments, "unemployed in my de-greed field (geophysics), as most of us oil pigs are."

**Walter Lynn Knighten** (BA '51) is retired in Tyler.

**W. F. Knode** (BS '57) is a consultant in Abilene.

**Warren Krams** (BS '59) writes: "Twenty years ago I founded Computer Professionals Company, a Houston-based computer consultant company that assists other companies to develop customized computer software. Because of my geology background and interest, our primary area of expertise is in the oil industry. This has permitted me to remain involved with geologists and the oil patch. So if any of my old geology buddies need some computer expertise, please give me a call."

**Erwin K. Krause** (BS '49, MA '54), enjoying his retirement in Houston, comments, "After three Windstar and three Princess cruises, have concluded this is more fun than well-sitting on an offshore rig or looking through a microscope all day."

**J. David Krause** (BS '53) is owner of Dave Krause Pontiac-Toyota-Dodge in Denton, Texas. "Automobile sales business is about like everything else—*tough*. Bessie and I both will be pulling for a big improvement in both our Horns and our Cowboys."

**Jeff Kremer** (BS '79) is self-employed in Dallas.

**Edward J. Krish** (BS '71) continues as an exploration geologist for Kerr-McGee Corp. in Reno, Nevada, where he was transferred to join the Great Basin gold rush. "The adjustment to the desert environment from the north woods of Minnesota was hard for wife Judy at first, but she loves the new area now. Son Robert has successfully completed his first year of college at OU."

**Ted B. Lacaff** (BS '50), an independent in Midland, writes: "Still hanging in there. (Granddad said, 'You'll get use'ta hanging if you hang long enough.') Still enjoying family, friends, New Mexico mountains, and the 'oil biz,' in that order."

**Laurel Lacher** (BA '86, BS '87) is a graduate student in the department of hydrology and water resources at the University of Arizona in Tucson.

**Leon M. Lampert** (BS '51, MA '53) is a geologist and vice president of Dalport Oil Corp. in Corpus Christi. "Still trying to find production in South Texas and southeastern New Mexico. Our daughter Ellen lives in Denver, son Wayne, an attorney, is in Oakland, California, and Gail, who is married with two children, lives in Minot, North Dakota. My humdrum existence consists of skiing ten or twelve days in the winter and playing tennis the rest of the year."

**Randy Larkin** (BS '86, MA '88), a geohydrologist at International Technology Corporation in Austin, is "mainly involved with groundwater flow and contaminated transport modeling. This is a great time for earth scientists working in the environmental field. Greetings to all!"

**Barry W. Lassiter** (BS '86) works in urethane research and development in Dallas.

**Kent E. Laughery** (BS '53) is vice president of mineral resources for Baroid in Houston. "Exploration activities have been severely reduced over last few years. Went from thirty geologists worldwide to two. Development and mining operations down also due to markets. Wife Lea and five grown sons and their families all healthy."

**Patrick Rowan Laughlin** (BA '88) lives in Houston, where he works for the Rowan Drilling Company in offshore drilling. "Stable for '89, hopefully. Forty-four rigs working worldwide at present."

**J. Earle Lawless** (BS '51) comments, "Being over the hill is obvious, but knowing when I was on top of the hill wasn't." He is a consultant in Corpus Christi.

**Jeff Lawton** (MA '81) is a staff geophysicist for Conoco Inc. in Houston.

**H. Louis Lee** (BS '54, MA '58) reports, "We've been in our new home on Lake Travis for about a year now. Should have come back to Austin a long time ago. Working oil and gas from Austin is no problem. The business is slowly getting better as more and more companies find they must replace their shrinking reserves."

**Joseph W. Lee** (BS '50) is a geologist in Dallas.

**Ernest F. Lenert** (BS '36), who is seventy-five and lives in Santa Monica, is more than busy with his large plant collection (bromeliads, cacti, succulents, orchids and begonias). After working

for 23 years as a subsurface geologist in Venezuela, he "retired" at age forty-five. He says he misses Texas, but "not enough to leave California."

**Raymond Leonard** (MA '77), a consulting geologist with Amoco, is now living in Houston. He spent the past year directing Amoco's application to the 12th Norwegian license round and was an AAPG Distinguished Lecturer on the geochemistry of the Norwegian shelf in the spring of 1989. His wife Margaret and children Ben, Daniel and Anya are well and enjoying life back in the States.

**Warren Leve** (MA '52) is president of FWL Inc. in Jacksonville, Florida. "We now have offices in Ft. Lauderdale and Charleston, South Carolina. Hopefully we soon may be able to open offices in Texas and get to see some of our old friends."

**Robert A. Levich** (MA '73) was promoted to chief of the technical analysis branch of the U.S. Department of Energy's Nevada Operations office. "I am responsible for analysis of technical data for the Yucca Mountain proposed radioactive waste repository site, as well as performance assessment, technical data base, review of technical reports, development of international technical programs and other technical activities. Uel Clanton (BS '55, MS '60, PhD '68) and Dick Crawley (MA '69, PhD '75) are also with the Yucca Mountain project. We're looking for good technical program managers. Phone if interested!" Bob lives in Las Vegas.

**David M. Levin** (BA '78) is the owner and president of DML Exploration in San Antonio. "Have expanded in every direction in the last year! Added a geophysicist to the firm and a baby (Blair) to the family. DML Exploration bought production and expanded operations to cover four counties (soon to be four countries!). I am currently editor of the *Bulletin of the South Texas Geological Society* and seek papers on Gulf Coast and South Texas geology for publication, so please write." David was included in this year's Who's Who in Finance and Industry, 26th edition.

**C. Russell Lewis** (BA '73) is a district geologist with the Texas Water Commission in Corpus Christi. He comments, "Sea level is rising. Visit the beach before it visits you."

**Dana L. Lewis** (BS '81) is a geophysicist with Marathon Oil in Houston.

**Charles V. Liebscher** (BS '46) is retired in



San Diego. "Enjoying the wonderful San Diego weather. Very seldom does the temperature exceed 85°. We need no air conditioning where we live, only three miles from the Pacific Ocean. My heart will forever remain in Texas, but I do not plan to move back. The summers are too hot and humid to enjoy playing golf." Charles and his wife, Ingrid, plan to make a several month visit to Germany, where he lived for 20 years.

**Walter S. Light Jr.** (BS '77) is an exploration geologist in Houston.

**John F. Ligon** (BS '81) is president of Sandalwood Oil & Gas Inc. and lives in Houston.

**Tung-Hung Thomas Lin** (MA '84) is a geologist and geophysicist for the Bridwell Oil Company in Wichita Falls, Texas.

**Eugene Lipstate** (BS '49) lives in Lafayette, where he is vice president of exploration for Northwest Oil Co., and president of Lipstate Inc. "Oil business keeps limping along, and so do I. Expecting fourth grandchild in June."

**Nancy Green Lister** (BA '55) says, "We're all fine and busy. Ray is working hard in real estate development. Chip is doing temporary work and looking for a permanent job in his field. Gregg will graduate in 1989. Yeah! Two out of college! David is a sophomore at Ole Miss and really likes Mississippi. Hello to everyone!"

**George Livesay** (BS '79) is an area geophysicist for Unocal in Midland.

**Erwin R. Lochte Jr.** (BS '56) says, "During the industry slowdown have been thoroughly enjoying our hill country ranch. Am warily optimistic about the future of the oil and gas industry in Texas, particularly the gas industry." Erwin is an independent petroleum geologist in San Antonio.

**Allen C. Locklin** (BS '54) is president of Locklin Oil Co. in Tyler. "Nancy (Summers) and I have been married 35 years. Daughter LeeAnn and her husband Scott Shaver have given us three lovely granddaughters, Lindsey, Claire and Macy. Scott, a geologist (BS Texas Tech), is an engineer with Conoco. Goes all over the world. His wife Lisa teaches in Houston and is expecting our next grandchild in June. We are still very active in exploration in face of all the bad times. Fortunate and very blessed. Our best to the Foundation and all our UT friends."

**John L. Loftis Jr.** (BS '40) is an independ-

ent petroleum geologist in Houston, and an Honorary Life Member of the UT Geology Foundation Advisory Council.

**John M. Long** (MA '78) is "doing business as usual" in San Antonio, where he is a freelance petroleum geologist.

**E. William Longmire** (BS '50) enjoys retirement in Carrollton, Texas. "Playing a lot of golf and doing some course rating for Texas Golf Association. Like to fish but finny friends take a vacation when I go to the lake."

**Jack Loocke** (BS '74, MA '78) reports "In January I began working for my former professor and thesis supervisor, Ralph Kehle, at Hershey Oil Corporation in beautiful Pasadena, California. We are exploring for oil and gas in West Texas and western Canada along with Joe Jaquot, another UT grad (MA '78)."

**Robert G. Lovick** (BS '51) is a consulting geologist in New Orleans. "All is well—I notice those who are left have a lot more time to visit."

**Carol MacDonald Lucas** (BS '74) is a consultant with American Caledonian Energy and lives in Houston. "Heather and Justin are doing well. Chuck has his own company which I'm also involved in."

**Lester E. Ludwick** (BS '50) continues to live in El Paso, having retired in 1986 after 36 years in the oil and gas industry. He enjoys retirement and "still likes to keep up with happenings in the oil and gas industry and UT's role in education and the industry."

**Barbara A. Luneau** (MA '84) is a research geologist with RPI International in Boulder. "Hello to all my grad school friends. I enjoyed seeing some of you at the GCAGS convention. I especially enjoyed hearing about you in the last *Newsletter*. My husband, Jerel McGuffin and I will have enjoyed the arrival of our first child by the time this is published."

**Vance M. Lynch** (BS '51) is still working for Unocal as vice president in charge of scientific computing in Brea, California. He is still heavily involved in exploration from a computer applications standpoint. He reports, "Have hired architect to build retirement home on ten-acre site twelve miles west of Georgetown, Texas. Retirement from Unocal is only a few years away."

**Charles J. Mankin** (BS '54, MA '55, PhD '58), professor of geology at the University of Oklahoma in Norman, was awarded the AIPG's Martin Van Cou-

vering Memorial Award for 1988. He also received the AAPG Public Service Award in 1988.

**Steve Mann** (MA '82) writes, "Jennie and I spent four and a half years in Saudi Arabia, ten months out of work, and now two years in Tuscaloosa with the Alabama Geological Survey. We now have three beautiful daughters, Jessica, Elena, and Heather. We are happy here, but the urge to move back overseas keeps cropping up. We'll see."

**C. W. (Chick) Marquis** (BS '49) has been a full-time retiree since 1985. "Living part-time in Irving, Texas and most of the time at Cedar Creek Lake, where Mondays are as much fun as the other days of the week."

**George W. Marshall Jr.** (BA '48) is still enjoying his retirement in Houston. "Regards to all. Thank you for the *Newsletter*."

**Sabin W. Marshall** (BS '52) is manager of geology for Texas Gas Transmission in Houston. Texas Gas Transmission was bought by Transco in April.

**David Martens** (BS '84) is in his fifth year at Unocal in Houston as an exploration geologist. He is also finishing his thesis work at the University of Houston. The Martens' are expecting their first child in September.

**Jeffrey G. Martin** (BS '84) is president of Martin Energy Co. in Covington, Louisiana. "We're fighting the tide actively generating prospects in southern Louisiana. Although it is somewhat trying, we have been successful in selling those that we've pounded the pavement with."

**Mark A. Martin** (BS '79) is "still self-employed after eight years. Received a kidney transplant February 5, 1988. Remember to be a donor, make a miracle happen! Made new Glenrose gas discovery in Panola County, Texas. Named the field after my late father, Bill Martin. Hi Ann Hoadley and Rob Conti."

**Todd A. Mason** (BA '87) is a commercial real estate broker with the Horne Company in Houston.

**Paul R. Mayo** (BS '50) an independent in Abilene, is "hoping for increase in crude oil price while exploring for channel sands in Lower Permian and Cisco."

**Robert L. McBroom** (BA '51) is a consulting geologist and professor of English at Midwestern State University in Wichita Falls. "Hello to everybody, the survivors especially!"

**William E. McBroom** (BS '40) is semi-retired in Vernon, Texas, but "still looking at dealing deals and traveling to places with interesting geological phenomena. Dr. Bullard had a lot of influence in this area with me."

**Lon and Ann Boggs McCarley** (MA '79; BA '75, MA '78) write from Denver, "Ryan (now 2) has a baby sister, Beth Emily, born December 31, 1988." Lon is still working for the Anschutz Corporation and Ann is still enjoying her role as full-time mother.

**Duncan McConnell** (Instructor, 1937-41) is professor emeritus at Ohio State University and now resides in Temple, Texas. His 1974 prediction of a new class of mineral, phosphates with sheet structure, was confirmed last year, and his current interest is cardiovascular research.

**Dick McGehee** (BA '55) is a professor of physical education at Southeastern Louisiana University in Hammond. He spent the fall semester of 1988 as a Fulbright Lecturer in physical education at Escuela Superior del Profesorado (National Teachers College) in Tegucigalpa, Honduras.

**Wayne Eugene McIntosh** (BS '56) reports: "Still commuting between Dallas and Washington, D.C. where I have been consulting on a project that was to last about one year and is now going on five. Building up a lot of American Airlines Advantage mileage. When this project ceases will enjoy using the mileage to travel with my wife Hazel and visit family and friends. Son Scott still at UT. Told him to apply for home-stead exemption."

**W. N. (Mac) McKinney Jr.** (BS '60, MA '63) is manager of new ventures for Sonat Exploration in Houston. "After working nothing but the offshore Gulf of Mexico for the last eleven years, I was promoted to work the onshore continental U.S. I'm now back looking at the same plays I worked 22 years ago."

**John F. McKnight** (MA '63, PhD '68) is a geological associate for Exxon's eastern production arm. He has lived in New Orleans since 1985, when he was transferred from minerals exploration in Reno to oil and gas. "All four children have left the nest. Marylee is a broadcast journalist, Jim and Forrest are in the Navy, Carolyn is a junior at Southwest Texas State University in San Marcos. Regards to all."

**Mike McLeod** (BS '86) is a graduate student

in the geology department at the University of California at Davis. He reports, "There's plenty of work out here in northern California for Bachelor's or Master's in environmental, hydro or engineering geology." He says Nevada Au mines are attracting people, too.

**Jude McMurry** (MA '82) emigrated to Canada in 1987 with her husband, who is now tenured at the University of Winnipeg. She writes, "In a freak accident last fall, our normally docile Siamese cat bit my legs severely, confining me to bed for almost a month. This resulted in a new complication for me—pregnancy...try explaining that to your veterinarian. Now I'm in a race to complete my dissertation before the baby arrives in July—and am learning that biology works at a faster pace than geology."

**Milo McMurtry** (BS '57) is "working towards replacing the 'little inch line' this summer in Pennsylvania. Am in Washington each weekend, most of the time in the Smithsonian. Part of the family was up last weekend and I was told I spent too much time looking at the rocks. Will probably be up here the rest of the year. Am re-learning American history ... D.C. is a fantastic place to visit. Am enjoying the work knowing the price of oil will go up someday." Milo's permanent address is in San Antonio.

**Jerald E. McQueen** (BS '61, MA '63) is vice president of Medallion Oil Co. in Houston.

**A. D. McRae** (BS '42) is retired from Mobil Oil. He enjoys living in Horseshoe Bay, which is near Marble Falls, Texas.

**Clifford R. McTee** (BS '54) is president of the Solana Corporation in Corpus Christi. He spends three quarters of his time on subsurface geology and one quarter on ranching, "or vice versa as necessity dictates." He now has a granddaughter, Taylor Marie, who was two in June.

**J. L. Meadows** (BA '30, MA '30, PhD '37), a member of the Port Arthur Lion's Club, is "doing very well, especially when you consider my age: 81 years! I have just become a great grandfather." He would like some news of Jake Patton (BA '32, MA '32).

**Joe N. Meadows** (BA '62) is an attorney in Waco, Texas.

**John A. Means** (MA '47) reports "Have retired twice; back to work with Southwest Resources in Dallas, working the Gulf Coast area." He continues to

make his home in Richardson.

**Robert D. Mebane** (BS '36) is semi-retired in San Antonio. "Have about quit looking for oil. Playing with 'advertisements' and grandchildren."

**Mario L. Messina** (BS '59, MA '62), CEO of the Messina Group of Companies, headquartered in Dallas, writes, "Our oil field chemical business continues to expand worldwide. Messina International has just completed a joint venture with the Russians and Hungarians. The new company is called '21CCI' (21st Century Chemical International). Jenny, my wife, has opened her second restaurant."

**Daniel N. Miller** (PhD '55) writes from Boise, Idaho, "Esther and I are still surviving here, waiting for the industry to become revitalized and catch up to the needs of the nation. There are still vast reserves of oil and gas waiting to be discovered in the northern Rocky Mountain region and we are doing our best to make this happen while we are still able."

**Harry A. Miller Jr.** (BS '41), independent geologist, is "still fighting this so-called 'oil business.' Drilling with cable tools to 1400 feet—big deal and good wells." Harry still lives in Midland, and continues his activity on the Geology Foundation Advisory Council.

**Michael Reed Miller** (BS '80) is a geologist with Environmental Testing Systems Inc. in Austin. "Made the switch from petroleum industry to environmental. ETS deals in leak detection for underground storage facilities (mainly hydrocarbons) and groundwater protection—the search for hydrocarbons continues. Hi to ex-GDS people."

**R. Dick Miller** (BS '52) retired from Geomap in July and lives in a new home about eleven miles northwest of Georgetown, Texas. "Enjoy the country life and plan to travel and do a lot of rocking on the front porch."

**Wayne D. Miller** (MA '57), independent consulting geologist, comments, "No major professional changes in the last year. Still trying to sell drilling deals. Have at least some wells drilled and completed in the last year. Enjoyed seeing some UT exes and profs at AAPG national meeting in San Antonio. Carole and I are busy moving into our new house in Midland."

**Martha Bybee Mills** (BA '49) and her husband Herbert 'Skip' Mills (A&M '51), the owners of Mills Exploration in Houston, are generating prospects on



*Easter morning, 1965  
near Chihuabua, Mexico*

*Don Reaser  
Russ Clemons  
Walt Haenggi  
Jim Bones  
Bill Muehlberger  
John Gries*

*"The early morning cup of  
coffee before hitting the road  
again."*

the Texas Gulf Coast. "Market is slow, but that's not 'news.'"

**Richard A. Mills** (BS '50) retired from Felmont Oil Corp. in September, 1988 after 15 years of service. He now consults on offshore projects and in Central America. Richard lives in Houston.

**Erminie Hunter Minard** (BA '50) is the UIL coordinator and mathematics teacher at Alvin High School in Alvin, Texas. She teaches algebra and geometry and trains the number sense, calculator, science, and scholastic bowl teams. "Living on the beach right on the Gulf at Surfside, Texas."

**Robert J. Moffatt** (BS '41) a petroleum consultant in Shreveport, Louisiana, writes, "Have a bumper crop of grandchildren (eight), two of them in college! Oil and gas in our area like Death Valley—nothing happening. Couldn't stand the 'garbage' in AAPG any longer—resigned after 40 years as a member. SIPES is more satisfying. All my family still healthy and aging gracefully."

**James R. Moffett** (BS '61) is chairman and CEO of Freeport-McMoRan Inc. "Have a great opportunity for Freeport-McMoRan, in a joint research agreement with UT, to study geology of Irian Jaya, Indonesia. Great to do business with my old pals!"

**Terry D. Moody** (BS '86) is a project manager for International Technology Corporation in Austin.

**Charles Gardley Moon** (BS '40, MA '42, PhD '50) is retired from Exxon and lives in Houston, "just puttering around."

**Sara F. Moore** (BA '79) is a third-year law student at Texas Tech University in Lubbock.

**Terry L. Moore** (BS '80), geophysicist in Oklahoma City, says, "Still at OXY in OKC. Oldest daughter Jessica gradu-

ated June 2 from Roosevelt High in San Antonio and will start at Southwest Texas State University in the fall (I'll talk her into UT yet). She and I enjoyed our visit to UT and the geology building. Daughter Sarah (12) lettered in track, and I'm still coaching her fast-pitch softball team. Son Cyrus (8) competed in the local Special Olympics and attends gymnastics weekly. Wife Beverly is supporting us all."

**Suzanne (Suzy) Moore-Mayne** (BS '80), a water resource specialist with the hazardous waste program in New Mexico writes, "Married Dr. Tony Mayne, director of the Santa Fe Metropolitan Water Board, last summer and joined him in Santa Fe in October. Enjoying my marriage, work with the state, and access to a truly beautiful part of the country."

**Bob Moran** (PhD '74) "married Philadelphia Cousins last spring (1988). Continue to operate my hydrogeology/water quality consulting firm, Moran and Associates." Bob and his wife live in Lookout Mountain, Colorado.

**Duane E. Moredock** (BS '58) is a consulting geologist in Denver. "Still working surface sections in southwest Kansas, Oklahoma and northeast New Mexico. Visited a Lower Cretaceous section (outlier) at Fort Supply, Harper County, Oklahoma that was measured and described by Dr. F. M. Bullard in 1928. Since he measured that section a well has been drilled on the outlier. They created a beautiful exposure, with a road!"

**Francis W. Morgan** (BA '39) is a consulting geologist in El Dorado, Kansas.

**Julian (Hank) Morgan** (BA '49) writes, "retired from Ashland Exploration Inc. November 1, 1988 after 39 years as a petroleum geologist, practically all spent onshore with South Louisiana

Exploration, the last six with Ashland. Future plans undecided at the moment." Hank lives in Houston.

**Henry M. Morris** (BS '40) is retired in Amarillo, Texas.

**Marion Morris** (BS '82) is a staff geophysicist for Mobil Exploration Norway Inc. in Stavanger, Norway.

**Michael B. Morris** (BS '47) has "no significant business or personal news. I'm still serving on three corporate boards of directors and doing a little management consulting." He lives in Houston and serves on the Geology Foundation Advisory Council.

**Robert Morris** (BS '86) is a business programmer/analyst with Texas Instruments in Plano, Texas. He recently graduated with an MS in information science from UT Dallas. He and his wife, Cathy, have moved to Richardson.

**Susan J. (Deutsch) Conger Morris** (BS '70) is a consulting geologist/paleontologist in Houston.

**Brian R. Mosely** (BS '85) is an environmental geologist with Maxim Engineers in Dallas.

**Charles Motz** (BS '60) writes, "Finally finding time to enjoy my thirteen grandchildren and do a little rock-hounding when I can get the time. Saddened by the death of my dear friend Bryan D. Collins (BS '50) in April." Charles lives in New Braunfels, Texas.

**Charles P. (Chick) Mueller Jr.** (BS '60) is president of Mueller Oil and Gas Corporation in San Antonio. "Nothing much changed. Still evaluating deals for myself and clients. All shallow to intermediate prospects welcome."

**Harry W. Mueller III** (PhD '75) is "Still at the Exxon Lab, still in Houston, still working on carbonates. Still making the occasional boondoggle overseas.

Jackie is still raising Dobermans—if you want one, give me a call. Jamie (10) and Kristen (6) are both still in their terrible twos. Fortunately, both like school, so we may be able to get them off to college at an early age.”

- John Murphy** (BS '85) is an environmental geologist in Austin. He comments, “Life is short; make it count! (Mark 8:36)”
- Pat J. Murphy** (BS '53) is chief geologist at the Neumin Production Company in Point Comfort, Texas.
- Robert Murray** (MA '85) accepted a position with Science Applications International Corp. as a staff geologist in Las Vegas.
- Pat Murta** (BA '41) lives “quietly” in Tulsa with his wife Betty. “We keep in touch with ‘Le Monde’ through our twelve children and their burgeoning families. Plenty of books to read and VCRs to watch and walks to take.”
- James Muslow** (BS '41) is president of the Muslow Oil and Gas Company in Shreveport, Louisiana.
- Matt Meyers** (BS '83) is an exploration geologist with Fina Oil and Chemical Company in Tyler, Texas. He is “prospecting and trying to bring a computer-aided exploration system on line.”
- Robert M. Myers** (BS '85) is a lieutenant in the Air Force stationed in Okinawa, Japan. He reports, “I’m currently honing my geological interpretation skills by flying area studies over 500 mph at altitudes of 500 feet or less all over Japan, Korea, and the Philippines. It’s hard to see some smaller features, but at least I cover a lot of ground in my reconnaissance vehicle, the venerable F-4 Phantom fighter/bomber.”
- Richard A. Neeley** (BS '86) hopes to finish his Master’s degree at UT-Arlington by December. He works for Mobil in Dallas.
- G. Allan Nelson** (BS '47) writes from Denver, “Looking forward to returning to Austin for the first time in 38 years for the third reunion of the famous class of 1947. This will be in the fall of 1990, Dr. John Wilson, chair.”
- Ken Nemeth** (MA '76) is exploration manager at O’Sullivan and Scully Inc. in Houston. He writes, “I survived the downturn and loss of employment. I’m grateful to all those who helped. I’d appreciate news of the Clabaugh-McDowell ‘Mexican Mob’ of '74-'76.”
- Paul Neville** (BS '85) reports, “Just finishing my commitment to the U.S. Army.

I did enjoy my last job as range operations officer, but it is time to get on with my life and I will be going to grad school at the University of New Mexico; that is, after a month’s respite in Australia.”

- Richard A. Nicholas** (BS '68) returned to UT after 20 years to complete a PhD in educational administration, “All requirements except dissertation will be complete in May, 1989.” He expects to return to a position in college administration and lives in San Antonio.
- David C. Noe** (MA '84) has moved to Boulder, Colorado. “I’m back in the saddle again, working for RPI in Boulder. We are currently finishing up a fantastically interesting regional study of the Smackover Formation in Mississippi, Alabama, and Florida. Our database is fantastic, and I was fortunate enough to serve as lead stratigrapher on the project.”
- Isaac W. Norman** (BS '48) is executive vice president of Bishop Petroleum Inc. in Houston.
- Carol Doran Northern** (BS '84) is a geologist with NUS Corporation in Tucker, Georgia.
- A. P. Noyes Jr.** (BS '55, MA '57) lives in Metairie, Louisiana, and operates Pete Noyes Inc.
- Bob R. O’Brien** (BS '52, MA '56) is continuing his “quest for reaching the highest point of every state. At the end of this summer I should have 49. Guess which one I lack!” Bob teaches at San Diego State University.
- Michael Ochoa** (BS '85) is a teacher of math and science at the Department of Defense dependent schools in England. He and his wife, Kitty, have a new son, Campbell Anthony, born May 9, 1988. Michael is working on his Master’s degree during the summer back in the States. “The beer and ale flow freely and I’ve taken up home brewing—Miller, beware!”
- Curtis Allen O’Dell** (BS '85) is a system engineer with Electronic Data Systems, financial products division, in Richardson, Texas. “I convert banks in the southern and western U.S. to the INFORM and COMPETE banking systems, which run on IBM Systems 36, 38 and AS/400.”
- John F. O’Donohue** (BS '50) is president and CEO of Coastline Exploration Inc. in Houston.
- Freeman L. Orman** (BS '41) is a consultant in Fort Worth. He would like to know if there are any plans in the works for a

50th reunion of his class in 1991.

- John S. Orr** (BS '59) is president of the Bexar County Royalty Company in Billings, Montana. He thinks “Montana beats living in Houston or Midland.”
- John Osmond** (BA '47) is a consulting geologist in Denver. He comments, “Based on the annual report on the activities of classmates I should have studied how to make golf balls and suitcases instead of geology. Those businesses look more profitable.”
- Clair R. Ossian** (PhD '74) is senior principal research geologist for the research and technical services division of Arco in Plano, Texas. He is “still surviving the crunch. My projects remain interesting with Alaskan field work, seismic stratigraphy, and travel in West Africa. Though money is tight, the opportunities for innovation and leading-edge research are still here—and the challenges are still exciting.”
- Geneva Risinger Oswald** (BA '37) is still commuting between Chicago and Texas. “Enjoy the news of the department and ‘old’ classmates.”
- Robert D. Ottmann** (BS '51) is geologic coordinator in the exploration department at Exxon Company USA in Houston. “Enjoyed the UT alumni breakfast at the AAPG in San Antonio. The convention was great fun. I have enjoyed establishing new friendships with the faculty on recent recruiting trips. My UT roots have grown deeper.” Bob joins the Geology Foundation Advisory Council in September.
- Donald Eugene Owen** (MA '51), professor of geology at Indiana State University in Terre Haute, has two granddaughters and recently taught his 33rd summer field course. “Hopeful of completing and publishing 12 paleogeographic and onlap maps of North America *soon*.”
- Robert (Bob) M. Owens** (BS '51) is a consulting geologist in Houston. He lives in Cypress, Texas.
- Rick Paige** (MA '88) is a geologist with Shell Oil. He and his wife, Sarah enjoyed their first year back in Houston, but, he says, “We share a trait common to many UT grads—we miss Austin and the Department.”
- Jeffrey J. Palmer** (MA '82) is a geologist for Exxon Company USA in New Orleans.
- Tim Parks** (BS '88) is working on an MS in geology at Texas Tech University in Lubbock.
- Gaston H. Parrish** (BA '20), who has been retired since 1963, writes from Corpus Christi, “It’s always a pleasure to re-

ceive the geology *Newsletter*."

**J. F. Patterson Jr.** (BS '52) is a consultant in Bellaire, Texas.

**Jacob L. Patton** (BA '32, MA '34) is an independent and consulting geologist in Tyler. "I'm still around at 80 and doing very well—am still a consultant for a large trust in Dallas. Edith and I are well and go to see our children and grandchildren in Dallas and Houston as often as possible."

**Tom S. Patty** (MA '68) is still a consultant/petrographer for Erlin, Hime Associates in Austin. He comments, "After 29 years in Austin I have witnessed the changes at UT-geology as well as the city of Austin. With all three children married or away from home, my wife Joann now has been able to travel with me to professional meetings and to good vacation sites."

**Bill R. Payne** (BA '40, MA '41) has "nothing of real interest to report. Getting a little older, not necessarily wiser. Enjoying life every day, spending lots of time at house in Horseshoe Bay, but still mostly in Houston."



*Kerrville's Hill Country Geoscientists viewing a cropping of a Caprinid Reef in the Lower Glen Rose Formation. "Old retired geologists never die, but just keep rock picking away."*

**Steve Payton** (BS '78) lives in Midland, where he is president of Ausland Production Company, which operates and acquires oil and gas properties. "Also diversified into the ostrich breeding business, currently two mature birds and hoping for eggs this year."

**Jack L. Penick** (BS '42) is president of Penick Exploration in Houston. "Still putting a few deals together. Will get two development wells drilled by the end of this year. These are the so-called 'cinches' that you hear so much about in the oil patch. If any of you Longhorns have a close-in prospect, I have the investors. But do it soon—I'm about ready to retire."

**Benjamin J. Petrussek** (BA '42) is enjoying his retirement from Amoco and continues

to live in Metairie, Louisiana. "Doing some traveling and do appreciate the USA more every time I return from a foreign visit. Louisiana is the state of unceasingly amazing, unpredictable politics!"

**Robert W. Pettigrew** (BS '52, MA '54) is a geological associate with Exxon in Corpus Christi.

**George B. Pichel** (BS '51), retired in Dana Point, California, reports that "after six and a half months cruising the west coast of Mexico with my wife, we decided we like geriatric cruising and will set off next February for a two-year cruise of the South Pacific on our 37 ft. sailboat."

**W. R. (Bob) Pickens** (BS '57, MA '59) says, "Guess one's 30th anniversary is reason enough to write a note! Solving geology puzzles from bits of data is still exciting. Thanks to the Department for the foundation of an enjoyable life. Family is well: Will is married and in London, Dan is married and in Austin explaining why tigers die, Ellen will marry in the fall, and Mary is getting

her Colorado Co. place ready for our retirement." Bob lives in Houston.

**James N. Piper** (BA '88), a research scientist associate at UT's Applied Research Lab in Austin, is "Damn glad to be employed!!"

**Gerald S. (Jerry) Pitts** (BS '54) is president of Pitts Energy Co. in Midland. "We have continued to stay active drilling and completing eight wells in 1988. Thanks to a Bell Canyon development area in Ward County, well number fourteen was just completed. We found a new San Andres Field in 1988 and will commence our fifth well in May. This activity has kept my three sons, who are my partners, very busy. Hope oil prices remain at \$19.75/barrel."

**Phil Pitzer** (BS '54), an independent oil

operator in Breckenridge, Texas, is also associated with the Caddo Creek Corporation. He remarks, "My stomach is awfully tired of this Arab roller coaster!"

**William A. (Bill) Poe** (BS '48) hopes others enjoy retirement as much as he does. "Between golf, painting (I prefer oils) and yard work, with an occasional trip to Austin and Sherman to visit the boys, there isn't much time for anything else—especially worrying about the future. I appreciate the Department making the effort to keep up with all of us. Keep up the great work." Bill lives in Houston.

**Morris E. Pollock** (BA '62) is president of Marrock Petroleum Exploration Inc. in Phoenix, Arizona.

**Nick Pollard** (BS '84) is a reservoir geologist at MidCon Corp. in Houston. "Trying to stay one step ahead of the reorganization man. Is this business ever going to be strong again?"

**Keith S. Pollman** (MA '83) writes, "I seem to be one of the last of the early 80's generation of UT graduates to remain in Denver. I continue to work as a hydrogeologist for an environmental consultant and am still involved with the evaluation and clean up of Rocky Mountain Arsenal. My wife and I have also devoted some time to the care and feeding of another UT alum, John Curchin (MA '85).

**John M. Pope** (BS '86) is an environmental claims representative for the Travelers Companies in Houston.

**Charles E. Porter** (BS '49, MA '51) is retired but still does some consulting in Jackson, Mississippi. "After 25 years of reading about them, finally saw the Mayan ruins of the Yucatan. Plus limestone like I ain't never seen before. Dr. Ellison 'aged' them for me. Geology and cultural relationship absolutely astounding. Food even better than TexMex, believe me. Working on plans for a longer visit—if the knees hold out, that is."

**Robert B. (Bob) Porter** (MA '51) writes, "When I do work it is for my son, Rob, who stays pretty busy. I keep plugging along and we even sell a deal every now and then. Polly and I have lots to be thankful for: five wonderful grandchildren! One of 'em is Longhorn number 55, Turk McDonald; watch him on TV this fall. Better yet, watch the 'Horns in Austin. See ya there for the Penn State game in September." Bob is an independent geologist in Midland.

**J. Dan Powell** (PhD '61) "recently escaped from being manager, reservoir geology for Core Laboratories, Dallas to chief geologist for Hargal Mining Partnership, Fort Worth. Spending most of time in southern Appalachians on Pt-Au project. and part time on oil and gas exploration in West Texas. Dorothy and family well."

**Ron R. Pressler** (BS '76) is senior professional geologist for the Amerada Hess Corporation in Houston, "actively pursuing several Wilcox projects along

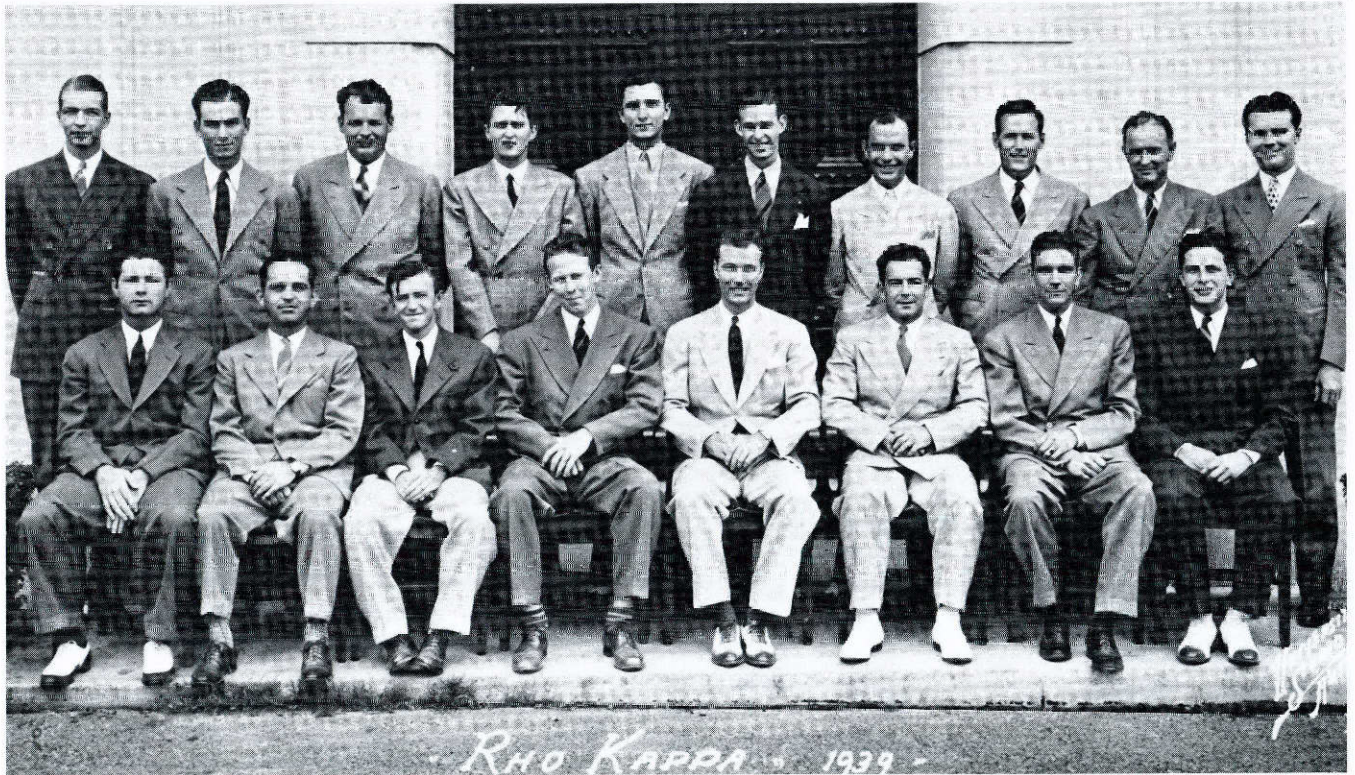
pendent exploration endeavor. So far, lots of fun—not much money!"

**Leo Pugh** (BS '52), vice president of sales at the Gulf Coast Geo Data Corporation, reports in from Houston, "oil hub of the world. Still selling and trading seismic data to all the active oil finding companies. Hope to see old friends in Austin this fall. Family doing fine."

**Stan Pyndus** (BS '50) is president of the Spot Market Corporation, working in gas marketing. He recently "lived through a trip to Katmandu," and en-

**W. A. (Al) Ratcliff** (BS '50) still enjoys living in Onalaska, Texas, "in the Piney Woods," after three years. He says, "My wife and I travel some and 'bum around' a lot. Best regards to all my old friends at UT."

**Donald F. Reaser** (PhD '74) is still teaching at UT-Arlington and working as a geological consultant in the Dallas-Fort Worth area. Recently he served as a member of a geotechnical group with the Texas National Research Laboratory Commission for placement of the



*"Back in 1938 a group of dedicated future geologists from the school decided that we needed an organization which was for the purpose of fun loving, leaf picking, and beer guzzling whenever needed. I am not sure, but I think it went out of existence after 1940 when most of us graduated." Rho Kappa members, left to right: Front row: Whitfield Outlaw, George Musselman, Van Petty, Jr., Hunter Yarborough, Dub Yarborough, Jack Jackson, Harry Loehr, Herbert Eitt. Back Row: Kemp Solcher, Jimmy Windman, Taylor Cole, Harold Powers, Joe Ward, V. Zay Smith, Bryan Beck, Gerald Stafford, Gordon McNutt, Earl Bescher.*

the Texas Gulf Coast while seizing the opportunity of an improved South Texas gas market to develop a couple of recent Wilcox/Lobo field discoveries."

**John W. Preston** (BS '70) is a partner in the Tourmaline Exploration Company in Houston. He writes, "Finished packing up LL&E onshore Texas properties for sale end of 1988. They had given up on Texas and were heading back to the swamps. Joined UT classmate Jerry Gips (BS '70) in an inde-

joys living in his new home in Houston.

**James Ragsdale** (MA '60) is "still exploring in the Gulf of Mexico for the Italian national oil company, Agip. Lots of Plio-Pleistocene turbidites." Jim lives in Houston.

**Rick Railsback** (BA '74) is district geologist for DeKalb Energy in Corpus Christi.

**Walter K. Rainbolt Jr.** (BA '57) is president of Dynamic Exploration in Lafayette.

**Clyde M. Rascoe** (BS '49) is president of Merit Oil Co. in San Angelo.

superconducting supercollider near Waxahachie. In July he and his wife Bette attended the 28th International Geological Congress in Washington D.C. where he presented a poster session on the geology of Sierra Catorce, San Luis Potosí, Mexico.

**Scott C. Reeve** (BS '70), senior staff geologist for Shell in New Orleans, asks, "Mardi Gras, Jazz Fest, the French Quarter Festival, and an active oil business...what more could one ask?"

- Jeffrey C. Reid** (MA '73) is chief geologist for the North Carolina Geological Survey in Raleigh. His daughter Sarah is now ten and son Eric turns six in September.
- Charles B. Renaud** (BS '49, MA '50), an independent geologist in Midland, enjoys travel. "We have been enjoying European vacations with the Flying Longhorns. France—Monte Carlo—Sea Goddess last summer, and will visit Moscow, Leningrad, and Berlin this summer."
- M. Allen Reagan** (BA '50), retired in Houston, is "traveling a lot. Director of a small neighborhood bank. Hunting and fishing whenever in season. Enjoying more grandchildren."
- Paul K. Richard** (BS '87) is an operations geologist with Seitel Inc. in Houston. "Not much to say except the job is going great and the company is heading for another banner year. Still like to escape back to Austin for a little R&R now and again."
- James V. (Jim) Richards** (BS '56) is still consulting for Weeks Exploration in Houston for special projects and also operates as an independent. "We have made two new discoveries this year. Our Christmas stores have grown to nine with the addition of Dallas and El Paso. Looking forward to football season—I'm still playing with the UT alumni band every year."
- James (Jim) Richards** (BS '58) is self-employed in Midland, developing drilling deals in West Texas and growing wine grapes in northern California.
- Frank M. Richardson** (BS '57) of Houston is "still enjoying my work (as geophysical advisor) at Elf Aquitaine. Children all attending various Texas universities. Wife Jean has turned author, with one children's book published and another scheduled in the next few months."
- Gary Don Richter** (BS '79) resides in Houston.
- Wade C. Ridley** (BS '53, MA '55) is president of Ridley Oil Corp. in Tyler. "The biggest news is that we're still here in business. Son Tom is working with me running the land department while son Clark, a graduate of UT medical branch, is in last year of residency at U.S. Naval Hospital, San Diego, California. Have enjoyed working on Development Board at UT-Tyler."
- R. Barrett Riess** (BS '86) will complete an MS degree from Stephen F. Austin State University in Nacogdoches this fall. "Then it is on to a job search in the petroleum industry."
- Ray S. Risner** (BS '78) is a geologist/hydrologist with the hazardous and solid wastes permits section of the Texas Water Commission. Since graduation he has worked for the Bureau of Economic Geology and Espy Huston and Associates in Austin, and in the oil business in Shreveport. He and his wife Kathy, daughter Christina (8) and son Travis (2) live in the Western Oaks subdivision of Austin, where Ray is on the recreation committee. He coaches his daughter's softball team, the Lady Longhorns, at Oak Hill Optimist.
- Mary Sue Marsh Roach** (BA '48) taught earth science in Putnam City Schools for eighteen years and retired in May, 1988. She lives in Oklahoma City.
- Virgil H. Roan** (BS '49) is a self-employed geologist in Ardmore, Oklahoma. He is "semi-retired."
- Roland S. (Rock) Robertson** (BS '55, MA '56) is an independent geologist in Corpus Christi.
- Edwin C. Robinson** (BS '50) retired from Unocal International in July, 1986 and moved to Carlsbad, California with his wife, Edith. "Am thoroughly enjoying retirement. Have made four trips to Peru since June 1988 as a consultant."
- C. William Rogers** (BS '61, MA '63) writes, "My wife Cynthia and I are still in Lafayette and enjoying it. Oldest daughter Kim is married and living in Dallas, Jennifer is in school at Northeast Louisiana University and son Chuck has an outfitting business in Glenwood Springs, Colorado."
- James J. Roskopf** (BS '75) is an account executive with the McCall Agency Inc. in Plano, Texas. "I am involved in the sale of commercial insurance, primarily pollution liability coverages. This is a lot like geology! I'm looking for prospects, working up proposals, and trying to get someone to spend money on my proposal."
- Lucy Owings Ross** (BS '50) is president of Deltex Royalty Company in Colorado Springs, Colo.
- Robert Brooks Ross** (BS '50) is vice president of exploration with Partners Oil Company in Houston. "Have gotten into antiques and collectibles with wife, Velma, as a hobby. Partners is putting together offshore deals with some success. Would like to hear from UT classmates."
- Sally Rothwell** (MA '87) has worked for BP Exploration in Houston since January 1988 as an exploration geologist.
- Peter D. Rowley** (PhD '68) writes, "I continue geologic mapping and related studies on the Caliente Caldera Complex, Nevada, and on the Iron Springs mining district, Utah. Mary has completed her second year of PhD work at the University of Colorado in environmental geochemistry." Pete is a geologist with the U.S. Geological Survey in Denver.
- W. Wayne Roye** (BS '51) is an independent petroleum geologist in Midland.
- Robert W. Ruggiero** (BS '75, MA '85) writes, "Alex and I miss Kim so very much; we are managing well. The warm expressions of love and sympathy have been a source of strength for us and our family. British Petroleum has had a tremendous year. We made high bid of 110 offshore tracts in the OCS sale 118. I have been promoted to senior geologist and will transfer to control as business coordinator." Bob lives in Houston.
- Jimmie Norton Russell** (BS '52, MA '54) continues as a geologist for the Texas Water Commission in Austin.
- Floyd F. Sabins** (BS '52) was promoted to senior research scientist, Chevron's highest research category, in 1988. He also made several trips to Saudi Arabia to do field work and teach a remote sensing course for Aramco. Floyd lives in Fullerton, California.
- Jack S. Sanders** (BS '57) is a petroleum geologist in Dallas with DOE/EIA. "Nothing exciting—still playing oil and gas statistics with an occasional geologic bent."
- Ken Sands** (BS '78) writes, "still working East Texas." Ken lives in Tyler.
- Judith A. Schiebout** (PhD '73) continues as director of the LSU Museum of Geoscience in Baton Rouge. She stayed busy with her Big Bend research and work with visiting scholar Suyin Ting from China. On July 1, the museum opened with a Dinotrek show of robotic prehistoric animals. She notes that her parents are well.
- Frank Schloeder** (BS '78) has started a new exploration and production company, Xavier Exploration. "The key to success in the oil business is to crawl before you walk and walk before you run! So far this philosophy has paid off well. Pam is finishing her MBA at OSU in December and we are enjoying Tulsa. July 31, 1989 marked 10 years!"
- George Schneider** (BS '57) is an independent geologist in Austin. He has been commuting to Denver on a part-time

basis in order to work with Taurus Petroleum Inc. "Continuing to be involved in south Louisiana and Texas Gulf Coast exploration. We hope the rise in oil prices will increase enrollment in the geology department!" In spite of his busy schedule, George continues to serve on the Geology Foundation Advisory Council.

**Louis I. Schneider Jr.** (BS '60) is moving up at Teledyne in Houston: he was recently promoted to senior vice president. "Now responsible for all operating geophysical services."

**Paul E. Schnurr** (MA '55) was exploration manager for NGC Energy Co. in Fairfield, California until his retirement in June. This is his third retirement in four years, and he says he is "looking into other ventures to occupy my time. I hope the department at UT weathers the travails of the petroleum geology industry."

**Milt Scholl** (BS '47, MA '48) is retiring this year after twenty-seven years teaching junior high school. He is "looking forward to a welcome change," and to seeing more of his four "tremendous" grandchildren. Milt lives in Chula Vista, California.

**Bill Schomburg** (BS '59) writes from Houston that his daughter Kelly is graduating from UT in December and her sister Karen will be a sophomore at UT. Both received scholarships from Elf Aquitaine Petroleum, where Bill is a senior geophysicist.

**Clarence C. Schroeder** (BA '40) enjoys retirement living in San Antonio.

**Margaret Smith Schuehle** (BS '40) is retired in Midland. She comments, "Still enjoying the *Newsletter*, but finding fewer familiar names."

**Frederick E. Schultz** (BS '47) is retired in Ojai, California.

**Rubin A. Schultz Jr.** (BS '61) is still with the State Department of Highways and Public Transportation in Corpus Christi. "Another year has gone by and everything is about the same here. Plenty of work with the state department maintaining our bridges. Nancy and I are planning our annual trip to Maui again this summer (our fifth trip to the islands)." Rubin is a maintenance construction superintendent.

**Christy M. Schweikhardt** (BS '83) is an exploration geologist for American International Energy Corporation in Houston.

**Eugene P. Scott** (BS '56) is "still attempting to resolve and bring about a 'fair share'

settlement, under the Mineral Interest Pooling Act of the State of Texas compulsory pooling laws, to the very lengthy 'force' pooling hearing proceeding matters before the Railroad Commission Oil and Gas Division/Austin concerning the Exxon-Lichtenberger mineral fee 797.9 acre section, being the entire J. Poitevent Survey

wise. Be sure to get a guide. Not many fish, but large—the three largest brown trout I ever caught, eight pounds and two six-pounders. Family count now two children (living) and four grandchildren."

**Kenneth O. Seewald** (graduate student '61-'64) is owner of Seewald Energy Co. in San Antonio, and lives in Boerne. He

#### *Summer Camp, 1919*

1. L. A. Lueke
2. G. H. Parrish
3. G. M. Knebel
4. B. H. Hoskins
5. L. T. Barrow
6. Frank E. Cave
7. Geo. E. Clements
8. Dave Harris
9. Dr. H. P. Bybee
10. Carl Welhausen



No. 223, A-915, Seven Sisters, East Field, Duval County, Texas involving seven deep drilled/completed well bores and four deep sour natural gas producing separate reservoirs of the deep expansionist depositional zone/interval belonging to the Upper Wilcox sandstone rock units and eight separate non-participating royalty interest share tracts of land. Hopefully this is the year, for it's indeed been a rather long and arduous ordeal to say the least." Eugene is an independent/consulting petroleum geologist in Corpus Christi.

**John E. Seale** (BS '41) is retired but still does a little consulting in Houston.

**Louie Sebring Jr.** (BS '41, MA '47) is an independent geologist in Corpus Christi. "Not doing much. May be retired and don't know it. Hope to be around long enough to see the majority of Congress realize that a viable domestic energy industry is an acceptable alternative to complete dependence on foreign energy sources with attendant security risk. Imagine that the rest of the country will realize it first. The rest of the world already knows it. Recent trip to Great Barrier Reef and trout fishing in New Zealand a highlight of the past year. Reefs aren't that hard to find. Just get a boat with a deep keel. Fishing in New Zealand was very demanding both physically and skill-

and his wife Mary write, "enjoyed working with the South Texas Geological Society to help make the national AAPG convention a memorable one for all of those attending. We look forward to seeing all our friends from UT at the national conventions. Our son, Kenneth Wayne, has returned from Africa (Western Geophysical) to join Seewald Energy Co. We're also expecting a third generation to join us in late September (first grandchild). Hope to see many of you in Corpus Christi for the GCAGS and in San Francisco next June for the national AAPG."

**Charles R. Sewell** (MA '55, PhD '63) is owner of Sewell Mineral Exploration in Tucson. "Louise and I set up field camp at Montello, Nevada summer '88 and probably will still be exploring there most of 1989—come see us in Tucson or Montello. Ralph and Sally Duchin did this spring and we had a ball remembering! Chuck will get to speak at high school reunion in June, so it's back to Arkansas for a week. Our best wishes to you all!"

**George B. Sewell** (BS '54), consulting petroleum geologist in Denver, is developing horizontal drilling prospects "for those wanting lower risk and better reserves per well." He urges, "Give a call when in the Denver area for a beer and/or a sail on a lake. Hang in there,



things are looking up."

**John S. Shambaugh** (BS '49, MA '51) is retired and lives in The Woodlands, Texas. "Wish I had some special news to report. Hope no news is good news! Thank you so much for the good work you do in the *Newsletter*."

**William W. Sharp** (BS '50, MA '51), an investor and petroleum geologist in Dallas writes, "Lots of projects to be completed and the best of life is now. Still traveling when time is available." His daughter, an attorney, was recently included in *Outstanding Young Women of America*. Bill notes that he appeared in this year's *Who's Who in the Southwest*, *Who's Who in Finance and Industry*, and *Who's Who in the World*.

**Stephen L. Shaw** (BS '71, MA '74) is a senior staff geologist for Meridian Oil in Midland. "I am continuing to be active in the West Texas Geological Society. I was in charge of the program for our luncheons last year, and I'm treasurer of the society this year. I saw several old friends this year (some as speakers for WTGS), and I always enjoy them."

**F. Carlton Sheffield** (BS '63) writes, "Tenneco E&P shut their doors in '88 but opened new ones for 26 ex-employees in the formation of Newfield Exploration Co. We opened on June 2, 1989 in Lafayette, specializing in offshore Louisiana federal waters. Come by and see us."

**Jerry and Gay Salinas Shelby** (BA '57; BS '57) live in Amarillo. Jerry writes, "We built a vacation (log) home in South Fork, Colorado in May of 1988 and have enjoyed trout fishing and snow skiing during the season. Consulting business remains slow, but we remain active—me pursuing a hobby of fly tying and Gay in tennis. She and her doubles partner were ranked #1 in the state in women's 3.5 doubles and second in women's 4.0 doubles last year. Have a good year!"

**George H. Sherrill** (BS '50) is an independent in San Angelo who is "staying busy. Still a few people looking for places to drill wells in the Permian Basin. Family well and prospering. Three grandchildren and another on the way. Thanks, UT."

**J. David Shetler II** (BS '84) is a geologist for Oryx Energy Co. in Dallas.

**Elgean Shield Jr.** (BS '53), president and CEO of Shield Development Corp. in Houston, says "Son Mark Shield, recent UT geology grad, now on *Western*

*Atlas* in Gulf of Mexico running quality control. The *Atlas* is Western Geophysical's newest and biggest 3-D marine seismic vessel."

**Mark S. Shield** (BS '88) has worked for Western Geophysical on their flagship M/V *Western Atlas* since graduation. "As a field geologist, I am responsible for data quality control for wide array 3D marine seismic surveys. Areas of exploration are the Gulf of Mexico and the Beaufort Sea, Alaska. My wife (employed by Nynex) and daughter (3 1/2) and I still reside in Austin. Sailing is our foremost hobby."

**Elisabeth A. (Toni) Short** (BS '86), after three years as an assistant geophysicist at Standard Oil in Houston, is now an aerospace engineer on the professional technical staff at Princeton University. She manages the research and technology transfer program of the Navier-Stokes supercomputer and fluid dynamics laboratories. Currently, she is involved in doing experimental work in the field of fluid dynamics and developing a prototype supercomputer for CFD applications.

**Clint Simmons** (BA '82) is a geologist for Minahan Oil Company in Corpus Christi.

**Scott Simmons** (BS '87) is a Master's student in geology in Dallas. "I am finishing my thesis at SMU, working in the Permian of the Bighorn Basin of Wyoming."

**Samuel J. Sims** (MA '57) is "continuing to keep amazingly busy as a consulting geologist to the local limestone, stone, and cement industries." He continues to live in Bethlehem, Pennsylvania.

**R. Sam Singer** (BS '61), manager of reserves and acquisitions for Pennzoil in Houston, comments, "Same job, same cycle, sorry to see friends sold."

**Harry H. Sisson** (BS '40) is retired in Houston. "With the advances in medical science, Nancy and I keep active with work, daily walking, church work, family, and friends. We enjoyed our vacation trip last June to Salt Lake City, Jackson Lake Lodge, the Grand Tetons, Yellowstone National Park, the Big Horn Mountains, and Mt. Rushmore. Fortunately, our trip preceded the great fire in the national park area. We continue to enjoy the *Newsletter*. May your 89-90 be a good one."

**Steve Slaten** (BS '82), a hydrogeologist for the U.S. Environmental Protection Agency in Dallas writes, "I enjoy very much my work in hazardous waste

cleanup. The oil business is far from my mind. Bonnie and I take little Sam (2 years old) to Austin whenever possible to fish, swim, and enjoy life."

**Marriott Wieckhoff Smart** (BS '57) is director of the library/information center at Cyprus Minerals Co. in Englewood, Colorado. "Cyprus Minerals is aggressively acquiring properties and is a success in the mining industry. High copper prices have helped a lot. Doing research for acquisitions and markets is a lot of fun, especially in a successful company."

**Tommy T. Smiley** (BS '51) is retired in San Antonio, and "just enjoying life and Texas!"

**Brian A. Smith** (PhD '86) still works for Bechtel National, but now lives in Puerto Rico studying groundwater contamination in a karst aquifer. "Lots of great caves here."

**Bruce Dixie Smith** (BS '58) is a partner in Fulbright and Jaworski in Houston. "I am still practicing admiralty law in Houston. My wife, Marja, and I travel as time and circumstances allow. 1988 was a good year and 1989 has prospects of being even better."

**Charles Smith** (BS '78) lives in Gonzales, Texas, where he is a geologist for Southern Clay Products. He recently received an MS in geology from Stephen F. Austin State University in Nacogdoches.

**Daniel L. Smith** (BS '58), executive vice president of Texoil Co. in Houston, has had an "enjoyable year as president of the 4,600 member Houston Geological Society." He also was glad to see faculty members and other friends at the San Antonio AAPG convention.

**Debra Smith** (BS '82) keeps busy marketing and transporting gas from onshore/offshore Texas and Louisiana in her customer service position with Transcontinental Gas Pipe Line Corporation in Houston. "Although I'm not actively exploring for natural gas, I'm actively moving it to end-users and markets along the East Coast."

**Glenn C. Smith** (BS '53) is an independent in Edmond, Oklahoma. He has been "relaxing, waiting on the market for prospects to rebound...enjoying traveling, particularly our increasing time in South Padre Island."

**Mark Smith** (BS '74) is an insurance property adjuster for Aetna Casualty and Surety Company in Houston.

**Virginia (Jinny) Lang Smith** (BA '82) teaches junior high earth science in the

Fort Worth ISD. "Daughter #1 in college, #2 in high school, #3 out of diapers! I am also indulging myself in artistic expression(s) again."

**Edmund D. Sneed** (MA '55) is region exploration manager for Marathon Oil Co. in Houston.

**Deana Sneyd** (BS '84) has been an exploration geologist with Homestate Mining Company for two years. She received her MS in geology from the University of Tennessee, and married a fellow graduate student, Randy Kath, in December 1988. They live in Rapid City, South Dakota, "a nice place to visit but too cold for my thin Texas blood. We'll be moving back south within the next year or so."

**John L. Snider** (MA '55) continues to enjoy retirement life in Pineville, Louisiana, keeping busy with playing golf and the gem, rock, and mineral club of central Louisiana.

**John L. Snyder** (faculty, '57-'62) is now the program director for volcano and mantle geochemistry at the National Science Foundation in Washington DC. "Busy year with GSA committee work, visits to grantees, and expanding opportunities for paperwork provided by NSF. Looking forward to seeing some Texas types at the International Geological Congress in Washington this summer."

**William C. Sojourner Jr.** (BS '54) is president of the Sojourner Drilling Corporation in Abilene.

**Howard Speer** (BS '56) is first vice president of Dean Witter Reynolds in Dallas. His son Matt, an A&M graduate, is teaching in Egypt for one year before going to graduate school at the University of Oregon. His son Michael will graduate from the University of Colorado in December.

**Steve Speer** (MA '83) is division geologist for Yates Petroleum Corp. and lives in Roswell, New Mexico. "Everything here is going just fine. Therese and I have TD'd our family at three children: Sarah (7), Janine (4), and Eric (1)—and I thought the Road Warriors were wild! Work is semi-constantly at a hectic pace as the Yates are quite aggressive. Consequently we get to drill many of our prospects as well as acquire acreage. Chip and D'Nese Fly (BA '77, BS '80, MA '85; BS '80) are now on our staff, both are doing well and are fully into the swing. It's nice to have fellow UT people: we try to keep things stirred up and half crazy. Hello to all

and hopefully an economic 1989!"

**Fred D. Spindle** (BS '49) writes from Sugar Land, Texas, "The first three years of retirement have passed about like my first three years with Ohio Oil Co.—very busy and very little pay. Turns out retirement is like any other job. You have to work at it to get the most out of it, but we are learning. Best wishes to one and all."

**Scott Dunbar Spradlin** (BS '75, MA '80) is senior supervisor of geology for Exxon Co. USA in Houston. "Now supervising southeast Texas—coastal trend. Outside activities are really heating up. I'm currently vice president of our community association and treasurer of the Kingwood Association. In January, I ran and was elected to the Humble ISD board of trustees. James Miller (MA '88) is working on Conroe field with Exxon. It's great to see UT exes in the hallways."

**Theodore E. Stanzel** (BS '56), a consultant in Houston, is "keeping up with the energy business and enjoying as much of the good life as I can."

**Anne St. Clair** (MA '79) and **Kirk Holland** (MA '73) welcomed the arrival of their first child in October—Cameron Fox Holland. Anne writes, "I have 'retired' to try my hand at motherhood after ten years in the groundwater and hazardous waste business with Radian Corporation. Kirk is a VP with Radian. Besides being a dad, his time has been spent this year developing business for services and software in Europe." Anne, Kirk and family continue to live in Austin.

**Frederick L. Stead** (MA '50) is still consulting in Dallas.

**Walter Stein** (BS '52, MA '52) is "still hunting (with some success) oil along the Muenster Arch in Cooke County." Walter is an independent in Dallas.

**Sheree Stewart** (BA '84) is a hydrogeologist with HDR Engineering Inc. in Tampa, Florida.

**Mike Stinson** (BS '83) lives and works in Houston. He writes, "Cindy and I just had our second child. No more big climbs for me for awhile. It was interesting to note that the cover of the '85 *Newsletter* was a very nice climb called 'urban assault,' which was the inspiration for Mark Martin's (BS '79) and my climb of the geology building in '83. How about the north face in '93, Mark?"

**Bill St. John** (BS '58, MA '60, PhD '65), after 7 1/2 years as president of Primary

Fuels Inc., is now a consultant in Houston. He specializes in international oil and gas. "May not be as lucrative but bet it will be more fun. Wife Nancy is secretary, accountant, chief financial advisor, and due to graduate from the University of Houston in December with a finance degree."

**Preston A. Stofer** (BA '57) continues to expand his aquaculture interests while "trying to survive the real estate business in Port O'Connor, Texas."

**William T. Stokes** (BS '50) writes from Dallas, "With the oil business slow, Fifi and I have been traveling. We enjoyed New Zealand and Australia. Part of my time has been taken as secretary and board member of the Dallas Petroleum Club. Have enjoyed very much my association with the University of Texas, especially being a member of the Advisory Council for the Geology Foundation. Bill Fisher is such an outstanding person to work with. We can be proud of our geology department at UT."

**Winston L. (Skip) Stokes** (BS '57), senior staff landman for Tenneco Oil in Houston, reports, "The sale of Tenneco was a 'shocker' but now have new opportunities. Kathryn and I are expecting our first grandchild; we are looking forward to many fun-filled days."

**Ted Stout** (BS '85) says, "After *finally* leaving UT in May '87 I worked for a year in a lab at the Texas Industries cement plant near Dallas. I just recently got a job with the Park Service at Independence National Historic Park in Philadelphia. My goal is to get a ranger position at that park that has some geology!" Ted lives in Philadelphia, Pennsylvania.

**Tom W. Stovall** (BS '57) is president of Valley Surveyors Inc., a job which keeps him traveling throughout Texas." He lives in Weslaco.

**Michael Stowbridge** (BS '82) says, "I'm working here in Austin with Keith Graham Jr. at Keith Graham Oil Co. Living in Austin again, since January 1, reminds me of the good friends and good times I had at UT."

**Robert E. Stowers II** (BA '86) and his wife Lisa are back in Texas after two years in Mississippi. They are "looking forward to seeing our old friends and a new and improved Longhorn football team." Robert is a geotechnician with Exxon Co. International and lives in Spring, Texas.

**Michael W. Strickler** (BS '78) is vice presi-

dent of exploration for Hardy Oil and Gas USA in Houston. "We survived the attempted sale of our company last fall which was never consummated largely due to the \$12.75/barrel oil price. Instead, our former parent decided to spin us off into a new publicly traded company (London stock market) and it's pretty much business as usual (whew!)."

**John L. Stripling** (BA '40) writes, "Along with wife, Margie, I have recently re-acquired a lake home at DeCordova Bend, southeast of Fort Worth. We visit there about twice a week, keeping track of the geology and the fauna and flora. It's very relaxing, including some tennis and golf. Oh, the joys of retirement! Always look forward to the *Newsletter*."

**Mary Moczygemba Stulting** (BS '82) did "everything from geology to mud engineering—got out of the oil field six weeks before the bottom fell out in 1986." She earned her BBA in accounting from UT-San Antonio in 1988 and joined the Austin firm KPMG Peat Marwick as a staff accountant in the audit department. However, she says, "I will always be a geologist at heart."

**Martin Stupel** (BS '88) is a quality control geophysicist for Western Geophysical in Houston.

**Paul D. Suddath** (BS '76) is an independent geologist in Abilene.

**Charles Sullins** (MA '71) lives in Oklahoma City, where he is learning the independent oil business and working in the society log library. "The sale of Tenneco cost many of us our jobs. Hope to stay in OKC and work for an independent company, *not* part of a large conglomerate."

**Leonard J. Svajda** (BS '40) was a dentist in Texas and California before he retired to Corpus Christi. He wonders "if any other town of 1,020 people in Texas produced four UT geologists: W. E. Belt (BS '43), Ben Petrusek (BA '42), Jerome F. Svajda (my brother, BS '40), and I are all from Wallis, Texas. Our other claim to fame for Wallis is that in the 1936-40 era the town had more beautiful girls than any other place in the Houston area. Saved us guys a lot of money on gasoline selling at 12.5¢ a gallon."

**James B. Tartt** (BS '48) is enjoying retirement in Houston, "doing mainly the things that I want to do. Thanks for the *Newsletter*."

**Rusty Tarver** (BA '87) is seeking an MS in

geology at the University of Mississippi on a marine mineral technology center fellowship. "Working specifically on marine placer deposits offshore of Nome, Alaska and on heavy minerals in the sediments of Mississippi Sound."

**George Woods Taylor** (BA '49) is "fully retired to the ranch. Having more fun than a high school boy. Flying privately about once a week; with Confederate Air Force twice a month, March thru October. Have new ski boat and water-ski in between flights. Bowl two nights a week and hardly have time to sleep. Those of you who are bored with retirement, stop by and I'll show you how to enjoy life." George lives near Georgetown, Texas.

**Dick Teel** (BS '39) is employed by Petroleum Information as a consultant, primarily working on new applications for well data and production. "My oldest son, Dick Jr. and I had a successful leopard safari in Zimbabwe. My sixth safari and first leopard to fill out the big four of African dangerous game. Have enjoyed seeing former UT friends at AAPG conventions in Houston and San Antonio." Dick lives in Houston.

**C. B. (Tim) Thames Jr.** (BS '53, MA '57) is a retired attorney and independent producer. "Have finally retired from law practice and moved back to the family home in Hearne, Texas. Plan to do a little consulting, manage my production, and a lot more fishing. North Dakota was too far away to allow much campus visiting, but now that will change. Best wishes to all old friends."

**Billy D. Thomas** (BS '49) continues to live in Austin, and took early retirement from the Texas Railroad Commission in May 1987. He recommends it.

**M. Gary Thompson** (BS '75, MA '77) has been with Exxon for 12 years and has been with the company's Alaska interest group, where he is currently geology coordinator, since 1986. "Leigh and Holly (age 6) doing fine." Gary lives in The Woodlands near Houston.

**T. J. Thompson** (BS '57), owner of Toro Exploration Co. in Dallas, sends best wishes to all in the Department. "Thanks for everyone's continued excellent efforts in getting the *Newsletter* out to everyone."

**Bert C. Timm** (MA '41) comments, "College underclassmen haven't changed much in 48 years, but geological science surely has. It's a rewarding challenge seeing light of understanding

come in their eyes." Bert is a consultant and professor at Collin County Community College in Plano, Texas.

**Charles Payson Todd** (MA '86) is a geophysicist with Exxon Exploration and Research in Houston.

**Robert Joe Tondou** (MA '76) started his geology career with Getty Oil in Houston in 1975. After working as an independent for a year, he became a general partner in Lexington Exploration Company, over which he acquired sole control in 1981 and renamed Tondou Energy Corporation. His most recent project was completion of a coal fired cogeneration power plant in Filer City, Michigan, the largest and first of its type in the state. Joe is a native of nearby Manistee, Michigan. Joe, his wife Linda, and children Austin (7) and Ashley (3) live in Houston.

**C. Brian Trask** (MA '72) has moved from the coal section to the environmental studies section of the Illinois State Geological Survey, where he is an associate geologist. "Am now working in the overburden materials as far as oil, gas, and coal are concerned. Just completed a siting study for a synchrotron that will be built at Argonne National Laboratory near Chicago. Am now involved in a study to help Champaign County site a landfill." Brian lives in Champaign, Illinois.

**Traci Elaine Trauba** (BS '85) is an environmental claim representative with The Travelers Insurance Companies in Houston.

**Everette J. Travis** (MA '51) is retired in Buchanan Dam, Texas, where he enjoys the geology of the Llano Uplift. He recently "checked out the geology of southern Spain, Rock of Gibraltar, and Morocco. Just like Dr. Bybee said!"

**Lloyd R. Travis** (BA '48) lives in Houston and continues to work as a geophysical consultant for a number of oil and gas companies. He finds, "the work is still a challenge as the companies that I consult for are drilling numerous wells."

**Robert F. Travis** (BS '57) is vice president of exploration for Royal Oil & Gas in Corpus Christi. His daughter, Debbie Neuberger (MA '88) is now a working geologist. "I don't think anything could make me more proud."

**Arthur J. (Art) Tschoepe** (BS '51) is an independent geologist and oil operator in Corpus Christi. "SIX daughters all graduated from the University of Texas, and we are now enjoying eight beautiful grandchildren."

**John D. Tuohy** (BS '39) writes from Canyon Lake, Texas, "Still sitting out here in the hill country trying to raise flowers, fruit trees, etc. out of Lower Cretaceous limestone—and fighting a losing battle with the deer. Sorry not to have seen any of the class of 1939 geologists at the reunion—maybe at the 2014 meeting."

**Michael Jan Turk** (BS '83) is currently stationed in Bangkok, Thailand, working as a geophysicist for Unocal's Gulf of Thailand concessions. He plans to attend the SEG convention in Dallas this fall.

**Neil L. Turner** (PhD '70) continues to work in Amoco's international section studying carbonates in China, New Zealand, and Norway. Neil lives in Katy, Texas.

**John T. Twining** (BS '48, MA '54) writes from Houston, "Jeanne and I are still enjoying retirement. We do a little traveling now and then, I tend to my greenhouse full of cacti and other succulents, and spend some time playing with my computer. We both do a lot of reading."

**L. J. Tydlaska** (BA '49, MA '51) continues his consulting business in Metairie, Louisiana, but is mostly retired.

**Robert Chan Tysor** (BA '52) is chief geologist for Bayport Operating in Houston.

**James R. Underwood Jr.** (BS '49, MA '56, PhD '62) is a professor of geology at Kansas State University, now serving 27 months as program manager for NASA's planetary geology-geophysics program. "It has been life in the fast lane and very challenging and interesting both professionally and personally. We should be back in Manhattan for the 89-90 academic year. Margaret Ann and the girls are fine."

**Scott Underwood** (BS '85) writes, "I got rid of my dog, kept my wife and made room for a 46 pound, three-year-old boy." Scott is a geologist with Hall Southwest Water Consultants in Austin.

**Robert D. Valerius** (BS '59), an independent petroleum geologist in Corpus Christi is "stayin' alive."

**Bruce Van Allen** (MA '78) is a minerals analyst for Tenneco Minerals Co. in Lakewood, Colorado.

**Amy Wharton Vanderhill** (BS '83) writes, "Things have really changed at our house with the arrival of Catherine on March 12, 1989. She weighed 7 lbs. 3 oz. We are enjoying watching her learn and grow. Mobil is downsizing again

and change is constant. However, production geology is fun and my project, Russell Clearfork Field, is interesting. Hope to hold on as long as possible."

**James B. (Jim) Vanderhill** (PhD '86), production geologist at Mobil since July, 1988, reports, "am nearing completion of a geologic study of Keystone Colby Sandstone field. I am keeping busy working on house, lawn, and garden and watching Ceili (pronounced káylee) grow." The Vanderhills live in Midland.

**Tracy Vaught** (BS '77) owns two restaurants in Houston. She has operated Backstreet Café for five years, and recently took over Prego. Tracy is "still single, no children."

**Van N. Veenstra** (BS '74) is a division supervising geologist for Exxon Company, USA, in Corpus Christi.

**David W. Vernon** (BS '79) is a consulting geologist for Baruch-Foster Inc. in Dallas. He is "engaged to be married to Miss Dee Ann Wampler (formerly of Amarillo)."

**Joseph W. Versfelt** (BA '84) writes from Coral Gables, Florida, "After graduation from UT, I went to Duke University for an MS in geology and studied Dr. Rosendahl's 'Project Probe,' the East African Rift seismic survey. Thesis was on basement controls on rifting in Lake Malawi and Lake Tanganyika rifts. Recent article in *Nature*, January 26, 1989. Saw Dr. Muehlberger at A&M rift symposium in April. Have worked at Texaco for one year." Joe travels frequently in Brazil and western Africa.

**Charles Vertrees Jr.** (BS '51) "retired from Sun Exploration and Production Co. in December 1988. Will continue to live in Dallas where we have been since moving from Midland in 1970. Both daughters now graduated (Baylor and TCU) and in work force."

**Harry A. Vest** (MA '59) is retired from Conoco and does consulting in Houston. "We had a fine time seeing and visiting with a lot of our old friends in San Antonio at the AAPG. Hope to be in San Francisco for the next one. We will have all three boys at UT next fall, but none in science. Cheers!"

**Robert B. Vickers Jr.** (BS '47) retired in Abilene, remarks, "No special changes in lifestyle. Family the same. Time proceeds."

**Kenneth Daniel Vogel** (MA '85) is senior geologist, geological operations, offshore Alaska division for Exxon in

Houston. "I have recently completed an assignment involving well site work in Alaska, California, and GOM. I am presently involved in seismic interpretation and well stewardship in the GOM. Ryan and Eric celebrated their 4th and 2nd birthdays and Laura and I are happily awaiting the arrival of our third child in late December."

**William Vrana** (BA '39) is a consulting petroleum geologist in Corpus Christi. He is "reviewing some of the older areas."

**Martin James Wachel Jr.** (BS '56) continues to work in the partitioned neutral zone in Kuwait. He is a management representative to the cost control committee at Texaco.

**William R. (Bill) Waddell** (BS '38) lives in Houston. An independent geologist, he is "still doing a little work. Drilled one well last year and may drill two this year. Am spending more time at our lake house and with the grandkids. Have become a rosearian and a photographer."

**A. H. Wadsworth Jr.** (BS '41, MA '41), an independent geologist and oil producer in Houston, has "a renewed interest in exploration, back looking for prospects. Still politicking and striving for a more favorable exploration environment."

**Robert B. Waggoner Jr.** (BS '56) is "hanging on" in Columbus, Ohio. "Had my right lung removed April 1988. Presently I am 'clinically well' and feel good. Have a few pet exploration projects that need checking out here in Ohio. All four kids are grown and doing well. Barbara is still taking good care of me."

**Sandra Waisley** (MA '77) reports, "My husband and I quit the oil and gas business after working for 15 and 11 years respectively. At the end of our careers we were managers with BP America. I am now studying public policy/government at the University of Michigan and my husband is attending law school at Notre Dame in South Bend, Indiana. We will be interning in Washington D.C. in the summers and will live there permanently when we graduate."

**David A. Wallace** (BS '86), a hydrologist for the Texas Water Commission in Austin, enjoys his work in the groundwater monitoring unit. "I will be returning to the land of the Rinconada Formation shortly, although this time it will be for pleasure. Sure miss those



### *Field Camp, Second Term, 1921*

*From left to right: C. E. Cook, Ross Priddy, E. W. Brucks, A. E. Getzendaner, Henry L. Bybee, R. C. Gaskill, Bruce Whitcomb, A. H. Deen, Chas. W. Vertrees*

fun days in 660 driving the 'sleeping van.' One last thing: Hosehead, where are you? Germany, singing opera, or what? Get in touch!"

**J. C. Walter III** (BS '80) is president of Walter Oil & Gas Corp. in Houston.

**Bernie Ward** (BA '55), an independent in Tyler, says his oldest son got married and is with Howmet in Wichita Falls. His daughter is engaged and will be married in August 1989. "Business is about like last year!"

**Bill and Kathy Agnew Ward** (BS '55, MA '57; BA '57) continue to live in New Orleans, where Bill is professor at the University of New Orleans. "We enjoyed seeing so many from the 1950's at the Folk roast in San Antonio. This summer we have short trips to northeastern Mexico, Yucatan, and St. Croix. Back to Mallorca next summer. Kathy is enjoying her new job teaching physical science at the public high school for bright students."

**Daniel L. Ward** (BA '49, MA '50) is retired in Grand Junction, Colorado, "just playing golf and fishing."

**David A. Wark** (MA '83, PhD '89), research scientist at Rensselaer Polytechnic Institute in Troy, New York, reports, "Finally! I've completed my dissertation after 1 1/2 years employed in the beautiful northeast. Finding a local source for tortillas has proven to be a more difficult task, however. I'll continue that search while cranking out

some manuscripts, starting new research, and watching the classifieds for faculty positions farther south and west."

**Ralph H. Warner** (MA '61) writes from Kingwood, Texas, "We must be getting close to the 'good times' again because the changes have been coming fast and furious in our family life. Between aging parents, moving and marrying kids, five grandchildren, flooded home, changing offices, etc., there must be a stable oil business out there somewhere."

**Karl Warning** (BS '71, MA '77) writes that the second annual 1972-75 grad student reunion at the UT-Arkansas football game was "a resounding success, even though UT lost. Frank Cornish (MA '75), Mike Looney (BS '71, MA '77), Crick Stanton (MA '77), and families (13 in all) enjoyed the weekend. We are planning the 1989 reunion for the Texas Tech game November 4; all grads are invited. Please contact Crick in Austin. Otherwise, the oil business is slow but life is very challenging with our four-year old daughter, Tracy."

**Paul Quint Warren** (BS '88) remained at the University for a year after graduation as a special student. He created a computerized catalogue of the Barron Mineral collection and did zircon separation for Dr. Walker. Paul is now a high school science teacher. He was

"recently appointed to the faculty at the Science Academy located on the LBJ High School campus here in Austin. I will be teaching physical science to exceptionally bright students."

**Joel S. Watkins** (PhD '61) is head of the department of geophysics at Texas A&M in College Station, Texas. He is working on a stratigraphic and structural synthesis of the entire northern Gulf of Mexico, among other projects. He writes, "Billie and I went to New Zealand and Australia in February 1988 to pursue potential research projects in New Zealand and to attend the Australian Society of Exploration Geophysicists meeting in Adelaide. We enjoyed the trip tremendously." He was co-convenor for several workshops in 1988 and 1989 and gave the keynote speech at a National Academy/Ocean Sciences Board workshop on continental margins in November 1988. "Being bored is not one of my problems these days."

**John Allen Watson** (BS '56) is a hydrologist for the Texas Water Commission in Austin. Continuing his interest in the Glen Rose area, he reports that the human tooth found in undisturbed Cretaceous Glen Rose limestone has undergone several tests at Baylor University Dental School in Dallas, among other institutions. All but one test has supported the preliminary findings of the Creation Evidences Museum team. However, the tooth remains classified as unknown in origin pending further testing and evaluation.

**Joseph D. Watzlavick** (BS '41) is very active in consulting in Houston for Great Western Drilling Company and others, as well as in his business as an independent. "Enjoying the golden years with five grandchildren. Wish all my friends good health and good fortune."

**W. Carlton Weaver** (BA '32), owner of Weaver and Sharp, says he is the oldest active geologist in Corpus Christi. "Still pursuing the elusive black gold...the oil and gas business will improve in Texas but the boom days are over."

**N. E. Webernck** (MA '52) is an independent petroleum geologist in Midland.

**Bonnie R. Weise** (BS '74, MA '79) now works as a geologist for the Venus Oil Company in San Antonio.

**Lloyd C. Wells** (BS '54) has "accumulated six years of world class retirement experience. Come on in, the water's

great!" He lives in Arlington, Virginia.

**Roger A. Wenzel** (MA '75) is "still hanging on in the oil business." He is a senior explorationist for Woods Petroleum in Oklahoma City. Roger and his wife (since December 1987) June L. Grantham live in Yukon, Oklahoma.

**Charles L. West** (BS '52) is still associated with Beach Exploration as a full-time consultant in Midland. He is "still thankful for the opportunity to stay active and look for more prospects—I have already found more than I deserve, but I am not through yet. I need more since I still have a teenager at home!"

**John Westmoreland** (BS '59) owns the John Scott Westmoreland Corporation in Waco. He recently celebrated 25 years with Beltone in the hearing aid business and enjoys living in central Texas.

**Barry Wethington** (BS '85, MA '89) writes, "I just received my EMR Master's degree in 5/89. I moved to Anchorage, Alaska with my wife Kerri and children Natalie and Nathan (2 months), to work for British Petroleum. Hello to everyone from our 660 class. I hope everyone is fine. If you are ever in Alaska, give me a call."

**Hugh G. White III** (BS '52), consulting geologist in Midland says, "Youngest son Kurt just earned his Eagle Scout—total Eagles in family is now eight. Oil business is finally picking up—they picked up my boat in March and my car in May. Where will it all end? And when?"

**Jane Brite Dunkle White** (BA '46) was thrilled to attend the Gem and Mineral Show in Tucson, Arizona "with fine company of experts, Dr. Ed Jonas, Bill Woods, and Hal Saunders." Jane is a rancher in Marfa, Texas.

**Leslie P. White** (BS '56), a geologic advisor for Exxon Co. International in Houston is "getting to see a bit more of the world," since moving to Exxon International from Exxon USA in May. He comments "the UT breakfast was a highlight of the AAPG."

**Steven L. White** (BS '78) is a consulting geologist in Tyler. He was married last year.

**Charles D. Whiteman Jr.** (BS '58) lives in Baton Rouge, where he is a hydrologist with the U.S. Geological Survey.

**F. L. Whitney** (BS '43) is retired in Kerrville, Texas and enjoyed attending the AAPG meeting in San Antonio. He is an active member of Kerrville's Hill

Country Geoscientists, which is "nearly forty members strong (plus wives) and represents an estimated 1400 man-years of world-wide geological experience. Of course UT-Austin graduates are well represented in the group, and new members are welcome."

**Marion Isabelle Whitney** (BA '30, MA '31, PhD '37) is retired from Central Michigan University and lives in Shepherd, Michigan. "I am still doing wind erosion research and have a recent publication, a chapter jointly with Carol Breed and J. F. McCauley in a book entitled *Arid Zone Geomorphology*. The book, edited by David Thomas, is published by J. Wiley in New York."

**James (Jim) Whitten** (BS '56) is "still an independent and working West Texas and New Mexico out of Midland."

**Michael A. Wiley** (BS '57, MA '63, PhD '70) is "consulting in computer applications to exploration and production problems. Still learning about running a business. Great to see all the 'old hands' at AAPG." Mike is president of The Consulting Operation Inc. in Farmers Branch, near Dallas.

**Brad Wilkinson** (BS '86) is a hydrogeologist in Houston.

**A. B. (Bo) Williams** (BS '53) is retired in Sequim, Washington.

**James L. Williams II** (BS '81) is in exploration geology in Corpus Christi. "I would just like to say 'Hi' to Bruce and the many friends with whom I graduated. Texas will rise again!"

**James Richard Williams** (BS '50) lives in Bullard, Texas, where he is retired but still consulting, mostly in North Texas. "Still enjoying golf, fishing, hunting, and yard work."

**Mark Williams** (BS '50) is an independent petroleum geologist in Wichita Falls, Texas.

**Robert R. Williams** (BS '54) is "busier this year than last year, so far, an encouraging sign. Youngest daughter Susan was married in November." Robert is a consulting geologist in Dallas.

**Eddie A. Williamson** (BS '69) writes, "finally moving back to the great state after ten years in Illinois and Louisiana. Now exploration manager for Europe and China in Amoco's overseas exploration effort." Eddie lives in Houston, and serves as a member of the Geology Foundation Advisory Council.

**Clayton Wilson** (BS '83, MA '85), a senior geologist with Exxon Co. USA in Houston writes, "Lorri and I are ex-

pecting our third child in November. Perhaps we can raise a new crop of Wilson geologists. Lorri is now a music teacher, Lance is starting kindergarten and playing soccer, I'm still with the fire department and Exxon has kept me working Federal OCS sales in the Gulf of Mexico. I hope I can see some of y'all in 1990 at the AAPG convention."

**Douglas H. Wilson** (BS '80) is an area geologist for Arco Oil & Gas Co. in Lafayette. "Becky and I are sailing in our free time. My Dad convinced Clayton and me to become geologists, now we are persuading our sister Wendy who is starting college. We are very proud of her."

**Homer C. Wilson** (BS '42) "continues volunteer work at Dallas Museum of Natural History and six months of guiding tours of *Ramses the Great* Egyptian exhibit at Fair Park, Dallas. Fishing of all types is priority hobby #1. Received a great letter from classmate Walter Belt (BS '43) last year." Homer is retired and lives in Dallas.

**Louita D. Wilson** (BS '40) is enjoying retired life in San Antonio, as well as old and new friends. She is eagerly anticipating next year's 50th reunion.

**William Feathergail Wilson** (BS '60, MA '62) is vice president of exploration for Placid Oil Co. in Dallas. "Appeared on *Nova* in March in television documentary on oil exploration. Working nights and weekends on a degree in electrical engineering (microelectronics). Still concentrating geological efforts on the deep waters of the Gulf of Mexico."

**C. Robert Winkler Jr.** (BS '50), and Jim Richards (BS '58), partners in Richards and Winkler in Midland, are "still developing wildcat prospects to sell to industry and investors."

**Kurt Wiseman** (BS '76) writes, "Betty, Heather, Lisa, and I are living in Houston and commuting to spend weekends at our ranch near Junction, Texas. I spend my work time drilling shallow oil wells in central Texas and participating in the development of a very large gas field in Mississippi."

**Ed Wolcott** (BS '48) is "surviving the oil crunch, still finding some and drilling about four wells a year," as president of Edco Petroleum Inc. in Dallas. He reports, "see most of the Abilene group; the Dallas group seems to have picked this time to either die or retire."

**John W. Wood** (PhD '65) "took voluntary early retirement as a senior research



*When a freshman at UT in 1936, John C. Crowell (BS '39) sneaked into the Main Building tower, then under construction. He took this photograph through the face of the clock, which did not yet have hands or a translucent face.*

*He sold one of the negatives to the American Statesman, which printed the picture on May 31, 1936.*

*"My contact with the newspaper said I could give the photo to them and receive acknowledgment or get five bucks. I chose the latter ...a significant sum to a struggling student."*

associate and supervisor of Texaco's reservoir geology research section on January 1, this year, after 26 years. Currently on contract with Texaco doing San Andres petrography/geology field study prior to carbon dioxide flood. Nancy and I plan to move to Austin later this year, where daughter Amy (BS '85) is fuels analyst with the Austin electric company. Other daughter Nan, and two terrific grandkids live in Blanco, Texas." John currently lives in Houston.

**Robert L. Wood Jr.** (BA '56) is executive vice president, Occidental Oil and Gas Corp., and president of Occidental Crude Sales Inc. in Houston. "Wish crude prices would move up as fast as my age."

**Arnold Woods** (MA '81) has "transferred to North American exploitation in December, 1988. Now working EOR in the Big Horn Basin—this Rocky Mountain stuff is a whole new ball game! Was a Wyoming delegate at AAPG in San Antonio, am on the

AAPG development geology committee, Diana Morton-Thompson and I are co-editing the upcoming development geology manual, I'm working with an Exxon geologist on a paper interpreting an area in California, and I hope to publish a field study I just finished. In my spare time I try to work in things like eating, sleeping, etc." Arnold is a senior geologist for Conoco in Ponca City.

**Mary Caroline McGonagill Woods** (BA '42) is an associate geologist for the

California division of mines and geology in Sacramento, California. She has also been the editor of *California Geology* magazine since 1976, "a very enjoyable job." She would like to hear from other exes in the Sacramento area.

**Gene Woodyard** (MA '56), a Houston resident, took advantage of the opportunity to retire early from Conoco four years ago. He does not miss the commuting or corporate frustrations, but does miss geology. "We are starting to visit more of the world and are working on the place in the hill country."

**William W. (Bits) Woolfolk** (BS '50), retired in Houston, is "enjoying a rigorous schedule of work with sundry wedges and putters."

**Charles F. Word** (BS '37) says "Still spend one-half of a day drinking coffee and visiting with friends—our health is good and plan on a foreign trip this summer. Have been to Alaska fishing and really enjoyed the trip." He is retired in Conroe, Texas.

**Charles E. Workman** (MA '61) is a math teacher at Monterey High School in Monterey, California.

**John G. Worrall** (MA '87), chief geologist for the Permian Hunter Corporation in Roswell, New Mexico, writes, "After working two years for Conoco in New Orleans, I left to join George Scott in a small independent oil company. We are actively drilling both development and wildcat ventures in the Permian Basin, and are very optimistic about the future."

**John B. Wright** (MA '56) is a consulting petroleum geologist in New Orleans, "still living the decadent life in the banana republic of Louisiana."

**Phil Wyche** (BS '51) is retired from Gulf Oil Corporation. He continues to be active on the UT Geology Foundation Advisory Council and enjoys his "semi-retirement" in Austin.

**Charles (Cee) Yager** (BS '84) was "promoted to real estate banking officer in October, 1988 at NCNB Texas National Bank in Fort Worth."

**W. B. (Dub) Yarborough** (BS '40) resigned from the Humble Oil and Gas Company in 1951, when he became an independent producer and rancher. Until 1988 he was associated with King Ranch Oil and Gas Inc. and King Ranch Inc. as president/CEO and vice president/director, respectively. On his retirement, he became president/CEO of Yarbco Inc. and the Yarborough Ranches. He lives in Midland.

**Harvey E. Yates** (BS '35, MA '36) lives in Roswell, New Mexico, where he is chairman of the board of HEYCO.

**John C. Yeager** (MA '60) lives in Lafayette, and is a senior geological associate with Arco Oil and Gas Co.

**Thomas A. Yoakum** (BS '57) is in Houston for the second time, "and things have changed." He is with Oryx Energy.

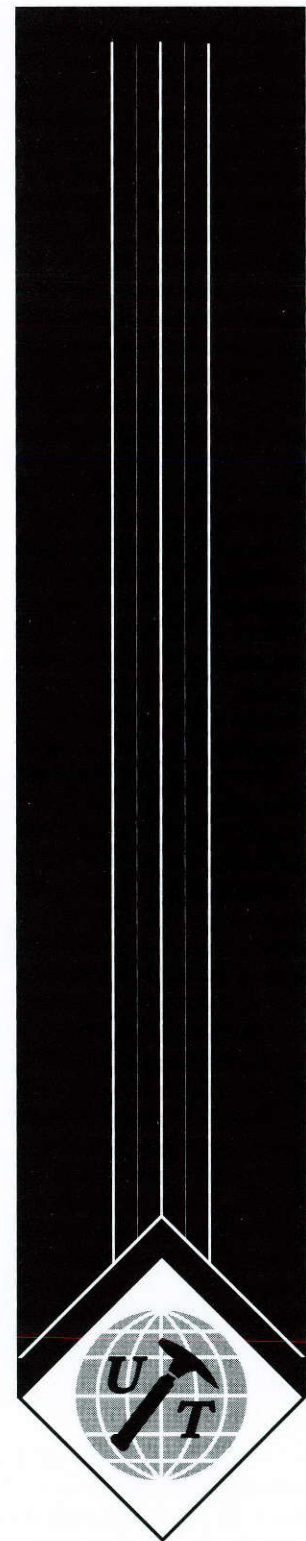
**William C. Young III** (BS '62) is vice president of production for Challenger Minerals Inc. in Houston. His daughter Janice graduated from UT law school last May and son Mike is a sophomore at UT. William lives in Spring.

**Kevin L. Zonana** (BA '82) is a geologist in the training department at Zycor Inc. in Austin.

## PHOTO CREDITS

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All titles and graphics used in this publication were designed and created by Scott K. Schroeder. The cover was designed by Scott K. Schroeder and David M. Stephens.





**Cover Photo:**

Triassic Portoro Limestone from the Cinque Terre, NW Italy. Widely used as an ornamental stone because it is so black—but why is it so black, and what are the gray nodules? What was the effect of microbial diagenesis in this restricted environment, and how did an aragonite mud get transformed into a polishable calcite rock? What's the significance of the big white dolomite mass? What's the structural history of the rock, which way is up, and what is the order of formation of the several sets of veins and stylolites? How much water passed through the rock during diagenesis, dolomitization, and structural deformation, and how did fluid composition evolve through time? These and numerous other questions are addressed with a combination of field and laboratory studies. Outcrop examination begins in quarries with field boots and a hand lens. The orientation of structural features is measured with a Brunton compass. Representative, oriented samples are collected or cored in the field and thin sections are made for examination under the petrographic microscope. The electron

microscope is used to look for bacterial microfossils and details of crystal shapes, textures and porosity. The ray diffractometer is used to identify the minerals in the fine-grained matrix. The cathodoluminescope is used to identify cryptic microtextures in veins that are then chemically analyzed under the electron microprobe. Samples are removed, powdered, dissolved in acids and analyzed with the inductively coupled plasmaspectrometer to determine the content of trace elements such as Sr, Ba, Mn, and Fe; and with mass spectrometers to determine the isotopic composition of C, O, and Sr. All observations are integrated to determine the geologic history of the rock from depositional a carbonate mud to burial, overthrusting and emergence. A more complex study than those done 25 years ago, it is now routine in the Department. Portoro outcrops in Italy have provided thesis topics for several students of sedimentary and structural petrology in the last several years. This slab will be displayed on the wall outside the Walter Geology Library.

**Photos (Page 1):****Electron Microprobe**

The JEOL-733 Superprobe with Tracor Northern automation is being used by Professors Daniel Barker (left) and Douglas Smith to make quantitative microanalyses of feldspars and pyroxenes in volcanic rocks from Italy. The electron microprobe is used to determine mineral compositions, compositional gradients and proportions in complex intergrowths. A Macintosh SE computer is used for additional data processing and graphics presentation.

**Ultraclean Laboratory for U-PB Dating**

This laboratory, under the direction of Assistant Professor Nick Walker, is designed for the preparation of rock and mineral samples for geochronologic and isotopic investigations. In order to keep atmospheric contaminants to extremely low levels, all incoming air is filtered to remove any particle greater than 0.3 microns in diameter and all chemical processing of the samples is conducted in laminar flow hoods (shown in photo). Working under such controlled conditions will allow accurate determination of the isotopic composition of one nanogram samples of lead from zircon crystals.

**X-Ray Diffraction Laboratory**

The Rigaku X-ray Diffractometer is used by Professor William Carlson and Amy Wilkerson (MA '87) to identify minerals in some finely crystalline metamorphic rocks. This machine is equipped with a 42-position sample changer and

a microprocessor for automated collection of x-ray diffractograms. It is used whenever identification of fine-grained materials is required.

**Inductively Coupled Plasmaspectrometer**

The Jobin Yvon 70Y Inductively Coupled Plasma spectrometer is being used by Wendy Macpherson (PhD '88) and Karl Hoops, analytical chemist, to determine the composition of East Texas brines. This machine is used for a wide range of major element, trace element, and rare earth element analysis of rocks and waters.

**Stable Isotope Laboratory**

Carbon dioxide extracted from silicate minerals and rocks is collected by Professor Lynton Land for analysis on a gas source mass spectrometer to determine its oxygen isotopic ratios. A second set of lines are for extraction of oxygen from sulfate minerals and rocks. Oxygen and carbon isotopic ratios are important tracers of chemical processes ranging from low-temperature sedimentary diagenesis to metasomatic exchange in high temperature metamorphic rocks to magma genesis in igneous rocks.

**Experimental Petrology Laboratory**

The Experimental Petrology Laboratory, under the direction of Professor William Carlson, is used to study geochemical processes by subjecting rocks and minerals to controlled temperature and pressure conditions simulating burial and heating deep in the earth. Here, he is adjust-

ing temperature on a one atmosphere furnace. Other equipment in the laboratory includes hydrothermal pressure vessels, gas mixing furnaces, and an internally heated pressure vessel for experiments at very high-temperature.

**Cathodoluminescence Microscope**

The Technosyn Luminoscope is used by Professor Earle McBride to see cryptic cementation patterns in a Frio sandstone from South Texas. Cathodoluminescence of carbonate cements and other authigenic minerals is common and its study helps determine the post-depositional diagenetic history and evolution of porosity of sedimentary rocks.

**Solid-Source Mass Spectrometer**

The Finnigan-MAT 7-collector solid source mass spectrometer is used by Assistant Professor Nick Walker to make a U and Pb-isotope analysis of a plutonic rock from eastern Oregon. This machine is used for a wide range of U-Pb, Rb-Sr, Sm-Nd and other isotopic investigations ranging from diagenesis of Gulf Coast sediments to the dating of igneous rocks from the Llano uplift of Texas.

**Scanning Electron Microscope**

The JEOL T330A Scanning Electron Microscope is used by Research Associate Sally Sutton to examine a fractured surface of the Portoro Limestone slab from the Cinque Terre, Italy, found on the cover of the *Newsletter*. At 3,500X the microporosity of the limestone can be seen.

**Photo (Page 104):**

This collage of images was generated by a desk-top computer graphics work station assembled by Dr. Tim Rowe. The work station is designed to analyze and process images produced by geological and paleontological research. It is built around a Hewlett Packard Vectra computer and a TruVision Vista graphics card, and interfaces with an assortment of digitizing devices that record images for analysis by the computer. Once a digital image is recorded, it can be easily manipulated for a variety of analyses that were difficult or impossible prior to the development of this technology.

*Upper left corner:* serial section of an embryo of the gopher *Thomomys* imaged by a video camera mounted on a stereo microscope. The box below the section shows how successive sections can be rotated and aligned for computer generated 3-D reconstruction of the whole animal.

*Upper right corner:* a 2mm-long fossil tooth of the mammal *Astroconodon*, from the lower Cretaceous of Texas. The computer used 2-D digital images of this tooth to build 3-D wireframe models that can be used to assess structural properties of fossils.

*Lower right corner:* Space shuttle photo of Earth. Computer digitization is one of the best methods available for preserving, cataloging, and analyzing conventional photographs.

*Lower left corner:* Color graphs can be generated with image processing software for presentation and publication. The software package TIPS that generated this graph was also used to assemble the entire collage shown on the screen.

*Center:* Sauropod dinosaur skeleton, with close-ups of a sauropod hand, foot and skull. Computer atlases of anatomy are now being developed for use in the classroom and laboratory.



*...Technology is the Key*

## Fall 1989 UT Alumni Events

Cocktail Party  
Gulf Coast Association of  
Geological Societies Meeting  
Thursday, October 26, 1989  
5:00-7:00 p.m.  
Corpus Christi Marriott  
Riviera 4&5  
Cash Bar

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Cocktail Party  
Geological Society of America Meeting  
November 6, 1989  
7:00-9:30 p.m.  
St. Louis Sheraton  
Robert E. Lee Room  
Cash Bar



**FACULTY SUPPORT**

- \$ \_\_\_ Hal P. Bybee Memorial Fund (travel, research)  
 \$ \_\_\_ Energy & Mineral Resources Fund  
 \$ \_\_\_ Faculty Endowments  
 \$ \_\_\_ Miss Effie Graves Memorial Fund  
 \$ \_\_\_ Geohydrology and Engineering Geology Research Fund  
 \$ \_\_\_ Carolyn G. & G. Moses Knebel Fund  
 \$ \_\_\_ Wann & Marietta Langston Vertebrate Paleo. Fund  
 \$ \_\_\_ Jack K. Larsen—Mesa Petroleum Co. Fund in Sedimentary Geology  
 \$ \_\_\_ Structural Geology and Tectonics Fund

**SPECIAL NEEDS**

- \$ \_\_\_ Alumni *Newsletter*  
 \$ \_\_\_ S. P. Ellison Jr. Fund (alumni activities)  
 \$ \_\_\_ J. Ben Carsey Sr. Special Maintenance Fund (equipment)  
 \$ \_\_\_ J. Donald Langston Special Operations Fund (equipment)  
 \$ \_\_\_ Tobin International Geol. Map Collection  
 \$ \_\_\_ Glenn & Martha Vargas Endowment for Gems and Gem Minerals Instruction  
 \$ \_\_\_ J. C. Jr. & Elizabeth C. Walter Geology Library  
 \$ \_\_\_ E. A. Wendlandt Book Fund  
 \$ \_\_\_ F. L. Whitney Memorial Book Fund

**STUDENT SUPPORT**

- \$ \_\_\_ Bloomer Fund for Motivated Students  
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 \$ \_\_\_ W. Kenley Clark Memorial Endowed Presidential Scholarship  
 \$ \_\_\_ R. H. Cuyler Endowed Presidential Scholarship  
 \$ \_\_\_ Ronald K. DeFord Field Scholarship Fund  
 \$ \_\_\_ Michael Bruce Duchin Memorial Endowed Presidential Scholarship  
 \$ \_\_\_ Graduate Student Executive Comm. Fund  
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 \$ \_\_\_ Howard R. Lowe Fund in Vertebrate Paleontology  
 \$ \_\_\_ J. Hoover Mackin Memorial Fund  
 \$ \_\_\_ J. H. & Lujza P. McCammon Scholarship Fund  
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 \$ \_\_\_ F. W. Michaux Scholarship Fund  
 \$ \_\_\_ Wes Ogden Scholarship in Geophysics  
 \$ \_\_\_ Pennzoil/Pogo/Wm. E. Gipson Scholarship Fund

- \$ \_\_\_ O. S. Petty Geophysical Fund  
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 \$ \_\_\_ F. W. Simonds Endowed Presidential Scholarship  
 \$ \_\_\_ Student Job Program  
 \$ \_\_\_ H. Tod Sutherland Memorial Scholarship Fund  
 \$ \_\_\_ David S. Thayer Memorial Fund  
 \$ \_\_\_ Udden Memorial Fund  
 \$ \_\_\_ Undergraduate Science Enrichment Program - Geological Sciences  
 \$ \_\_\_ Glenn & Martha Vargas Scholarship in Gemology  
 \$ \_\_\_ Arno P. Wendler Professional Development Fund  
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**W**e are anxious to keep your current address on our mailing list, and, therefore, solicit your cooperation in advising us if you move. We attempt to keep our files current by asking the post office to send notices of address changes, but this is becoming increasingly expensive. Also, 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.

### ***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 need your financial assistance in many areas—cost of publication of the Newsletter, scholarships for worthy undergraduate and graduate students, and teaching and research equipment—and others.

### ***CAN WE COUNT ON YOUR SUPPORT ?***

If so, please use the enclosed remittance envelope indicating the designation of your gift or mail to:

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The editorial staff expresses deep appreciation to all the faculty, staff and students who assisted in publishing this issue. Several people deserve special thanks. Dennis Trombatore and the Walter Library staff spent many hours researching publications data and providing additional support when needed. Betty Kurtz typed and proofread numerous articles. Tim Rowe contributed his time and computer expertise in preparing the photo on page 104. Bob Folk generously allowed his new polished Portoro limestone slab to be photographed for the cover. Sally Sutton was most helpful in setting up the SEM photo which also appears on the cover. Their contributions to the annual *Newsletter* make the job of the editorial staff less difficult and add greatly to the quality of the publication.

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*Editor and Contributor:* Joyce E. Best

*Assistant Editor:* Lisa A. Daly

*Art Director:* Scott K. Schroeder

*Photographer:* David M. Stephens

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## CONTENTS

Geology: 2088—A View of the Future .....	2
More Than 100 Years of Teaching .....	5
Faculty News .....	9
Faculty Listing .....	10
Faculty News Briefs .....	12
Chairman's Report .....	16
Faculty Publications .....	27
Department Staff.....	32
Endowed Lecturers Program.....	33
Visiting Speakers .....	34
Bureau of Economic Geology.....	35
Vertebrate Paleontology Laboratory.....	36
Institute for Geophysics .....	37
Walter Geology Library Report.....	39
Folk Roast.....	40
Irian Jaya Research Project .....	42
Student News .....	43
Research Assistants .....	45
1988 Petrography Contest .....	45
Teaching Assistants .....	45
Geologist Rocks Political Group .....	46
Undergraduate Degrees .....	47
Graduate Degrees .....	48
Undergraduate Scholarships .....	51
Graduate Scholarships.....	53
Student Speakers .....	55
Student Job Program.....	56
Geology Foundation News .....	57
Geology Foundation Advisory Council.....	58
Gifts to the Geology Foundation .....	61
Geology Foundation Endowment Accounts .....	64
New Endowments in the Geology Foundation .....	67
In Memoriam .....	68
Alumni News .....	71