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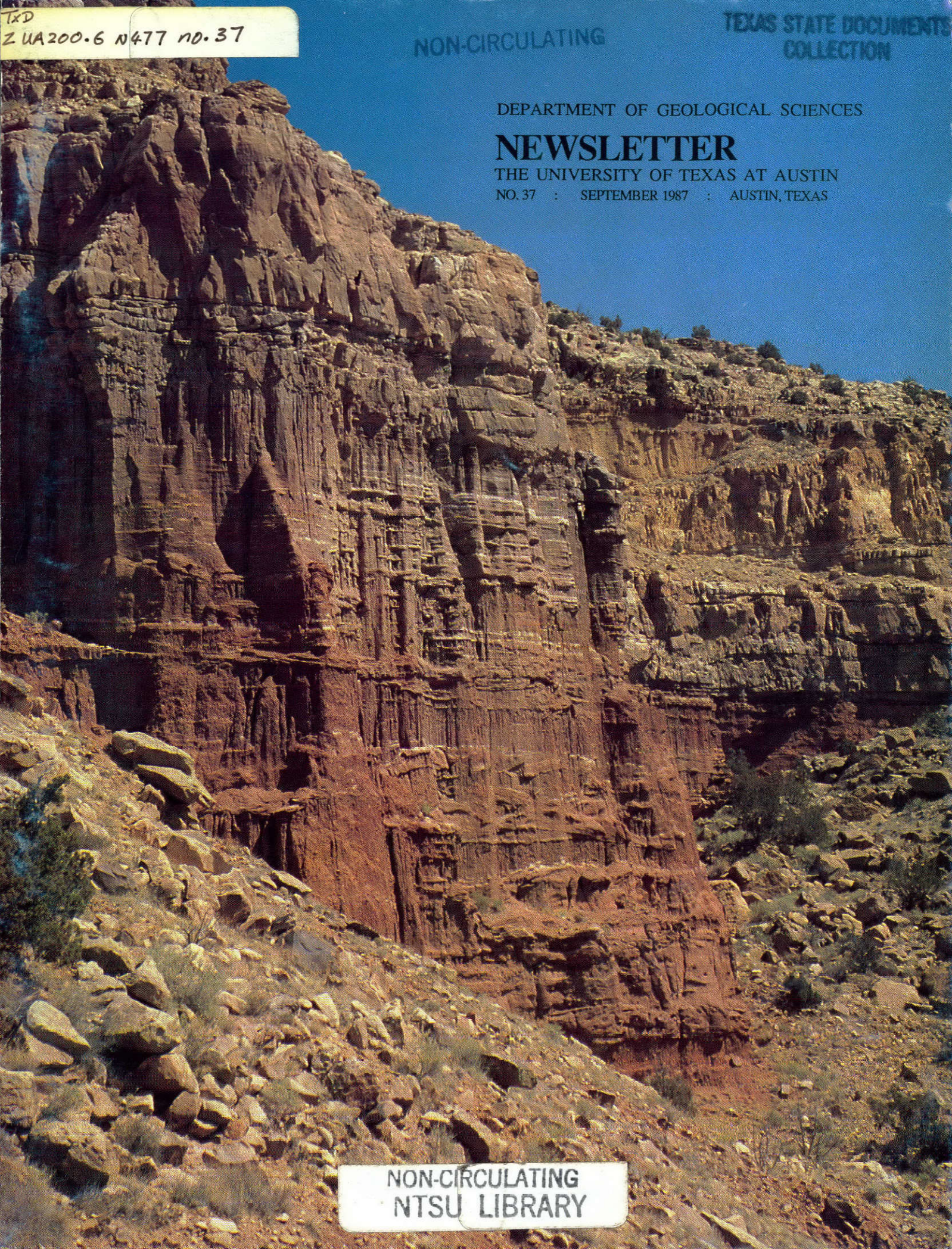
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DEPARTMENT OF GEOLOGICAL SCIENCES

NEWSLETTER

THE UNIVERSITY OF TEXAS AT AUSTIN

NO. 37 : SEPTEMBER 1987 : AUSTIN, TEXAS



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Cover Photograph

Redbeds in the fluvial facies of the Triassic Chinle Formation, north central New Mexico. Thin, cross-bedded channel sandstones are embedded in massive floodplain mudstones. Pale green blebs and stringers within the mudstone are reduction spots - a common diagenetic feature in the Chinle Formation. The eolian Entrada Sandstone and the Todilto Formation (a gypsiferous limestone) overlie the Chinle. Outcrop is about 12 meters high. Photo taken during GEO 660, summer of 1986 by Tim Diggs, a graduate student in the Department of Geological Sciences. Tim's photo was selected from 39 entries submitted by students in a Departmental photo contest.

Department News

Chairman's Report

by William L. Fisher and Mark Cloos

The 1986-87 academic year was one of numerous accomplishments for the Department in spite of the budgetary constraints which are profoundly affecting the entire State. The reason for our continued development and growth is due to you, the alumni who support us through the Geology Foundation. The resources of the Foundation seed the improvements we continually strive to make in our undergraduate and graduate teaching and research programs.

Undergraduate enrollment is now at 202 students, far down from our peak of 825 students in 1982. While this makes for smaller classes and better opportunities for student-teacher interaction (such as in field camp GEO 660 with only 19 students this summer), we foresee a continued shrinkage of our undergraduate population. We are now actively recruiting undergraduate students by means of a direct mailing to all 700 National Merit Scholars from the State of Texas. The letter describes the department and opportunities for scholarships. Largely through the superb efforts of Donna Precht in our Department's Undergraduate Advising Office, we have created a new foldout brochure with photographs that was sent to all high schools in the state this summer and will be distributed by the high school student recruitment officers at the University. The graduate program is stable and continues at about 200 students, about two-thirds MA and one-third PhD's, but the number of applicants is below the numbers of the early 1980s.

Jobs in the geosciences are available but the competition is stiff. Major companies that recruit on campus are for the most part only hiring MA and PhD geologists and geophysicists. This year, 16 companies recruited in the Department and 72 students participated in 305 formal interviews. 37 job offers were made to our students of which 25 were accepted at an average salary per month of \$2,800 for permanent positions and \$2,375 for summer positions. The Department's placement program, coordinated by Anthea McClelland, seeks to maximize the opportunities for all of our students. Summer jobs for undergraduate students in geology and geophysics are particularly scarce - and we have many enthusiastic students who want to get some valuable experience. Please contact Anthea at (512) 471-5172 if you have need of one or ten summer, temporary or permanent employees.

The high level of enthusiasm by our students is demonstrated by the fact that both undergraduate (USGS and AAPG) and the graduate (GSEC) student organizations were unusually active during the year with regular meetings which led to improvements in Depart-

mental speakers programs, student activities, fund raising, and "quality of life" issues that affect the students. These activities are described in articles elsewhere in the *Newsletter*.

Last Fall, Dr. Timothy Rowe joined the faculty as an assistant professor. Tim's specialty is vertebrate paleontology and he received his PhD degree from the University of California, Berkeley. He replaces Wann Langston who, although officially retired, is getting a new office as part of renovations at the Vertebrate Paleontology Lab at Balcones Research Center. Tim has already made it into the Austin newspapers as part of the publicity associated with the lecture he gave for the Texas Memorial Museum new monthly lecture series. Tim instituted a new nonmajors course this past spring entitled "The Age of Dinosaurs" that was an overwhelming success, for it had an enrollment of over 300 students!



Chairman Bill Fisher accepts contribution for Department from Paul Tennet of Standard Oil Production Company.

Anthea McClelland joined us as our Placement and Grants Coordinator in place of Edwina Rawlins who took a major promotion to assist the Dean in the College of Liberal Arts. Jane Hamlin transferred from the Accounting Office of the University to become the Secretary/Receptionist for the main office in place of Gloria (Villalpando) Uribe, who went back to school as a full-time student in Mechanical Engineering. Jeff Horowitz, our draftsman, was increased from 50% to 100% time in the Department to take care of our increased drafting needs, and Susanna Moses, our thin section technician, was promoted to Technical Staff Assistant III. On the faculty front, Timothy Rowe, Martin Lagoe, and Nicholas Walker were awarded endowed teaching fellowships for next year.

Nick Walker, who joined us last year, has overseen the construction of a new state-of-the-art ultraclean laboratory for isotopic studies of rocks and waters (see article). Lynton Land, Nick Walker, Leon Long and Fred McDowell wrote a proposal which was awarded funding by the National Science Foundation (NSF) for the purchase of a new multicollector, solid source mass spectrometer. The addition of this machine in the fall will greatly expand the research opportunities of our graduate students. Karl Hoops, the Department's analytical chemist and graduate student Wendy Macpherson have our new Inductively Coupled Plasmaspectrometer (ICP) up and going for chemical analysis of waters and brines. Development continues on whole rock and rare earth element analytical capability with this machine. A new cathodoluminescope was purchased for petrographic studies. Ruff Daniels, Gary Kocurek, and students reconstructed a ten meter flume for experimental sedimentology that was donated by Union Oil Company. The flume is up and going in the basement of the building. Improvements were made in the thin section and mineral separation labs. The capabilities of our administrative offices were significantly upgraded as Macintosh Plus computers were installed in the main office, graduate and undergraduate offices, and Foundation offices. Staff and faculty are still learning to maximize the full benefits of our long overdue computer automation through learning the intricacies of a variety of computer programs (such as preparing this *Newsletter*). Three Laserwriter printer work stations were installed for production of camera ready copy and diagrams, including one on the 4th floor which is dedicated for the exclusive use of the graduate students. A long awaited large format camera was purchased for the Photography Lab operated by David Stephens and this acquisition greatly expands our in-house photographic capabilities.

Under the direction of Nick Walker, the Department's visiting speaker series in Technical Sessions continues more than ever to serve as one of the most valuable and dynamic parts of our educational program. Over the past few years, the graduate students have assumed many of the administrative tasks associated with making it one of the largest, most diverse, and best-run programs in the country. This year we had 20 speakers from universities and companies from seven states and five countries. Professor R. K. DeFord's contributions to Technical Sessions were recognized twice during the year. The first time was when Fred McDowell presented Professor DeFord with a bound volume of Technical Sessions abstracts from lectures given by students since 1976. The creation of an abstract for the Tech Talk and the critique by DeFord is one of the more memorable experiences for all students in the graduate program. Fred McDowell contributed an article to the *Newsletter* on this with details. The last session of Technical Sessions for the 86-87 academic year was closed by Keith Young's presentation of a plaque with a fine mounted pyrite crystal to Professor DeFord in recognition of his years of service to the Department and its students, faculty and staff.

Another highlight of the year was a lecture series initiating the Fred L. and Frances J. Oliver Lectureship in

Hydrology. Dr. Frank Schwartz of the University of Alberta spoke to hydrology students and gave a presentation in Technical Sessions during his visit in April.

The national meeting of the Geological Society of America in San Antonio last fall was well attended by faculty and students from the Department who presented numerous lectures and poster sessions. John Maxwell did a magnificent job in running the show as Chairman of the Technical Program. There was a good turnout of faculty, students and alumni at the national American Association of Petroleum Geologists meeting in Los Angeles in June, where Department exes Bill St. John and Toby Carleton received Distinguished Service Awards.

As you will see throughout the *Newsletter*, the past year was one of accomplishment by students, faculty and staff in the classroom and in the research labs of the Department. These accomplishments increasingly manifest themselves by prominence at the national and international levels. This is a direct result of your support and with it we look forward to the upcoming year with great optimism.

Institute For Geophysics

The steady expansion of research activities at the Institute for Geophysics that has taken place over the past several years came to fruition in 1986-87 with the initiation of major field programs in the Pacific Ocean and Antarctica and the continuation of field projects in Central America. Other topics of active research included neotectonics and contemporary seismicity, geological applications of satellite altimetry, paleogeography-paleoceanography, tectonic history of ocean basins and continental margins, and paleomagnetic studies.

The newly refitted research vessel *Fred H. Moore*, operated by the Institute, departed from Galveston in March, 1987 on the first leg of an extended expedition to the Pacific. This expedition is the most ambitious undertaking yet for the Institute. During the course of the voyage, which will extend into late 1988, scientists will conduct geophysical research off Costa Rica and in the oceanic island arcs and deep ocean trenches off Japan and Indonesia. The expedition is funded by the National Science Foundation and involves scientists from the universities of Hawaii, Tulsa, Rhode Island, and California (Santa Cruz), as well as researchers from the Institute for Geophysics. In preparation for the expedition the *Moore* was extensively overhauled and outfitted with modern geophysical and navigational equipment to make her one of the most advanced geophysical research ships available to the academic community. Central to the scientific work of the ship is a modern 96-channel seismic reflection system donated to The University by Chevron Geosciences.



R/V Fred H. Moore leaves Galveston in March 1987 for an extended voyage to Costa Rica and the far west Pacific.

The first leg of the expedition, led by Dr. Thomas Shipley, consisted of a 3-D seismic survey of the subduction zone off the coast of Costa Rica. This was the first survey of its kind undertaken by the academic community. Preliminary results, reported from the ship, indicate that the survey was highly successful and that the data are of extremely high quality. These data will be analyzed over the next two years for detailed information about the geologic structure of this complex region., The *Moore* will spend the summer of 1987 working in the western Pacific.

Drs. Yosio Nakamura and Cliff Frolich were involved in another major field effort in the Pacific during the past year, carried out in conjunction with the French Office de la Recherche Scientifique et Technique Outre-Mer (ORSTOM). The French research ships *Coriolis* and *Vauban* were used to deploy 25 ocean bottom seismometers (OBS's) in two overlapping arrays on the eastern flank of the South New Hebrides Trench for detailed observations of microearthquakes occurring along the subducting plate. Between the deployment and recovery of these OBS's, researchers also shot eight large-offset seismic (refraction and reflection) lines in the back arc basins along the New Hebrides island arc to investigate the deep crustal structure.

In April, 1987, Institute scientists and students undertook two month-long research cruises in the Antarctic aboard the US Antarctic Research Vessel *Polar Duke*. The work is part of the US Antarctic Research Program funded by the National Science Foundation. The first voyage, lead by Drs. James Austin and Dale Sawyer, conducted a geophysical study of the Pacific margin of the Antarctic Peninsula. The second voyage, lead by Professor Ian Dalziel, will consist of geologic studies in the fjords of Chilean Tierra del Fuego, near Cape Horn. The work is a cooperative endeavor involving scientists from the University of Florida, Ohio State University, Rensselaer Polytechnic Institute, Columbia University, and the Chilean geologic survey, as well as the University of Texas. These two voyages are only part of a year-round research effort mounted by Institute researchers and students, under the leadership of Professor Dalziel, to understand the geologic evolution of the southern oceans and continents and to use them as a laboratory to study geologic processes active worldwide.

Dr. Lawrence Lawver was involved in two field programs in Antarctic waters during the past year, a voyage to the Bransfield Strait region of the Antarctic aboard the *Polar Duke* to collect seismic, magnetic, and bathymetric data and a two-month cruise in the Weddell Sea region. The latter voyage used the ice picket ship *Maersk Master*, which was in the region as the support ship for the *JOIDES Resolution*, drilling vessel of the international Ocean Drilling Program, and collected some excellent magnetic data from the Maud Rise. In conjunction with the drilling results, these data will elucidate the tectonic history of this region of the southern ocean.

In Central America, Drs. W. Paul Mann and Frederick Taylor carried out field work in Panama, the Dominican Republic, Haiti, and Puerto Rico. These all involve basic geologic mapping and structural interpretation aimed at elucidating the tectonic history of the extremely complex Central American and Caribbean region.

Studies conducted jointly by the Institute for Geophysics and the Center for Space Research, under the direction of Dr. David Sandwell, have the broad objective of applying data from satellite observations to problems in marine geophysics. These studies are supported by three federal agencies (NASA, the National Science Foundation, and the Office of Naval Research) and use data from SEASAT and GEOSAT missions.

In the area of paleogeography/paleoceanography, 1986 was the second year of funding for Dr. Chris Scotese's Paleogeographic Mapping Project (POMP). During this year compilation of global marine magnetic and tectonic data was finished. This data set provides the basis for a new model of Mesozoic and Cenozoic plate motions, one of the major goals of the project.

1987 will be the third and final year of the project. In addition to the regional tectonic studies, POMP has begun to use SEASAT altimetry data to produce high resolution tectonic fabric maps of the world's ocean basins. These map will be completed by mid-1987.

Other studies which can be grouped under the general heading of tectonic history of the ocean basins and continental margins focused on the Indian Ocean and the North Sea, particularly the central graben.

Theoretical studies at the Institute range from the effects of air and water distribution on the earth's rotation and gravity field, as observed by orbiting satellites, to the development of mathematical approaches to the interpretation of reflection seismic records. The former studies have application in precise navigation and in improved satellite orbit prediction methods. The latter include migration and modelling of 3-D seismic reflection data in laterally varying media and velocity resolution for dipping subsurface structures. Both modelling and migration studies are being carried out using The University of Texas Cray X-MP/24 computer. The results will be applied in the interpretation of the 3-D seismic data collected by the *Moore* off Costa Rica (see earlier).

Dr. Joseph Phillips completed a land-based study for the Texas Low-level Radioactive Waste Disposal Authority. High resolution VIBROSEIS data, acquired by Dawson Geophysical, were used to determine the shallow geologic structure beneath the proposed Fort Hancock low-level radioactive waste disposal study area in Hudspeth County, Texas.

The Institute continues to have strong ties with the international Ocean Drilling Program (ODP). Institute scientists have been active participants in drilling cruises and continue to play a leading role in the downhole geophysics program. Dr. Joseph Phillips completed a highly successful vertical seismic profiling experiment at a site on the East Pacific Rise during Leg 111 of ODP.

In the area of education, staff members at the Institute have been active in teaching both undergraduate and graduate courses in geophysics, through the Department of Geological Sciences, and have presented numerous seminars and guest lectures both at The University and at universities and colleges elsewhere in Texas and other states.

Thirty-eight graduate students in geophysics at The University of Texas at Austin are directly involved in research activities at the Institute. Ten of these students have completed, or will complete, their studies and receive an advanced degree in geophysics during the current fiscal year. The results reported in these students' theses and dissertations will be the basis of future publications in the scientific literature.

Bureau of Economic Geology

The Bureau of Economic Geology continues a diverse research program, concentrated chiefly on two major concerns of an industrialized state and nation—energy resources and waste disposal.

In its 1986 calendar-year annual report, which is available on request, 15 different energy research programs, eight varied environmental projects, five mineral investigations, five mapping projects, and five miscellaneous geological studies were reported. New projects included research for a gas reservoir atlas, a geologic and hydrologic study of the Edwards aquifer along the Balcones Fault Zone near Georgetown, geologic mapping of the Christmas Mountains and Hen Egg Mountain quadrangles, and study of the depositional framework and genesis of Eocene submarine gorges in the northwest Gulf Coast region. The newly formed Reservoir Characterization Research Laboratory studied ways to improve petroleum recovery from poorly productive West Texas reservoirs.

Results of Bureau research were published in 189 reports, maps, papers, books, and abstracts—primarily Bureau publications and professional journal articles. For the most part, research efforts were funded by 25 outside contracts and grants and by line-item State appropriations.

In addition to ongoing contractual studies, the Bureau was involved in two major projects: Project GUIDE and the Superconducting Super Collider. The Bureau



Robert Andrews of DOSECC (Deep Observation and Sampling of the Earth's Continental Crust, Inc.) headquarters in Washington speaks at the opening meeting of the Project GUIDE conference.

hosted a proposal development workshop for Project GUIDE (Gulf Investigations and Deep Exploration) in fall of 1986. More than 150 participants from across the country convened to work on a proposal for drilling an ultradeep borehole to 40,000 feet on the San Marcos Arch, De Witt County.

Through an interagency contract with the Governor's office the Bureau provided technical assistance in support of the state's efforts to write a proposal to bring the U.S. Department of Energy's Superconducting Super Collider project to Texas. Bureau Deputy Director Ed Bingler took a six-month leave of absence to direct the project.

In spite of the general climate of restricted research support, the Bureau increased its annual budget during 1986-87 and continued to recruit qualified scientists.



Victoria Eddins discusses federal legislation affecting Project GUIDE with Ed Bingler, Deputy Director of the Bureau. Ms. Eddins is a member of the Minority Staff of the U. S. Senate Energy and Natural Resources Committee.

Marcus Milling, formerly manager of geological research for ARCO in Dallas, joined the Bureau as program administrator (research scientist) for the West Texas Waste Isolation program. Newly graduated geologists joining the staff as research associates included Regina Capuano, University of Arizona, aqueous geochemist; Steve Martel, Stanford, neotectonic structural geologist; and Robert Tye, Louisiana State University, basin analyst/sedimentologist. Zvi Sofer, formerly employed with Cities Service Oil and Gas Corp., was added to the Bureau's Mineral Studies Laboratory (MSL) staff as a research scientist. Visiting research fellows during the year included Bernard Celerier and Amos Bein.

Alan Dutton and Shirley Dutton were promoted from research associates to research scientists and Martin Jackson and Robert Morton were promoted from research scientists to senior research scientists.

Several Bureau personnel received professional recognition during 1986-87. Bureau Director Bill Fisher was named to a three-year term on the Advisory Council of the Gas Research Institute and was awarded an honorary GCAGS membership, the organization's highest honor. Virgil Barnes was elected a Fellow of the American Association for the Advancement of Science and Chris Caran was named a Fellow of the Texas Academy of Science. Cartographer Barbara Hartmann was awarded the UT Excellence Award and received a certificate of merit from the American Congress on Surveying and Mapping for her work on the Brownsville-Harlingen submerged lands wetlands map.

Other recognition included Claude Hocott, selected as the Distinguished Lecturer Emeritus for 1986-87 and as an EOR Pioneer by the Society of Petroleum Engineers, and Graham Fogg, selected to serve a three-year term on the editorial board of Ground Water. Shirley Dutton received the A. I. Levorsen Memorial Award and the First Place Best Paper award for a paper presented at GCAGS. Harry Posey and Malcolm Light, along with two other authors, received an SEPM Excellence of Presentation Award for an AAPG poster session. H. Seay Nance was awarded honorable mention for a paper he presented at SEPM.

A paper coauthored by Elisabeth Kosters was awarded the 1986 Best Paper Award by GSA, and a paper coauthored by Charles Kreidler received the Outstanding Poster Presentation in the category of empirical research by the Texas Health Association. Rick Major received a Citation for Excellence of Service from the Secretary of the Interior for his work on the Pacific Enewetak Crater Exploration (PEACE) Program, done while he was a member of the visiting faculty at the University of Colorado at Denver.

Several distinguished visitors shared their expertise with the Bureau researchers; only foreign visitors are listed:

Norbert Clauer, Director, Centre de Sedimentologie et de Geochimie de la Surface, France, held a one-day workshop on "Geochronology and Diagenesis of Sedimentary Basins" and delivered a lecture titled "Isotopic Dating of Clay Minerals in Oil Fields and Ore Deposits."

Michael Coward, Professor of Geology, Imperial College, University of London, discussed salt tectonics in the Himalayas.

Birger Dahl, Head of the Geochemistry Division, Norsk Hydro, Norway, spoke on "Application of a Fully Integrated Quantitative Basin Analysis Model: Oseberg Area, Norwegian North Sea." He was accompanied by fellow researchers Gordon Speers, Professor of Geology, the University of Bergen, Norway, and the University of Copenhagen, Denmark, and by Arif Yuklar, Basin Modeling Consultant, Dallas, Texas.

Mordeckai Magaritz, Professor, Isotope Department, Weizman Institute of Science, Rehovot, Israel, delivered a talk titled "Transport of Water and Solutes from the Surface to Ground Water."



Robert Terrell (Majority Staff, Senate Energy and Natural Resources Committee) talks with Gerhard Fonken (Executive Vice President and Provost, UT) and William L. Fisher at Project GUIDE meeting.

Andrew Stone, Professor of Geography, Rhodes University, Grahamstown, South Africa, spoke on hydrogeologic problems in South Africa.

Bureau publications, including 30 new titles added this year, continued to sell well. Donations to the Bureau's Core Research Center continued to grow, as did additions to the Bureau's Geophysical Log Facility (GLF). The facility was created under an agreement with the Railroad Commission of Texas, which now requires all operators of oil, gas, or geothermal wells to provide a copy of well logs for new, deepened, or plugged wells. Members of the public, industry representatives, and commercial well log company representatives may study and duplicate the well logs held by the GLF. An additional 7,000 well logs were added during the year, bringing the total number of well logs stored at the GLF to 26,000; about 25 percent of these have been entered into a computer data base. The Bureau's Reading Room/Data Center received a major donation during 1986-87 when geologist W. Armstrong Price, Jr., donated his personal library, valued at \$119,000. Armstrong has been called "the father of coastal studies in Texas," and his collection primarily includes research materials relating to coastal and marine geology.

Vertebrate Paleontology Laboratory



Bob Rainey and Ernie Lundelius examine a skeleton of the Permian amphibian *Eryops*.

The Vertebrate Paleontology Laboratory is the center of research on fossil vertebrates at the University of Texas. It is housed at Balcones Research Center in a building with about 24,500 square feet of floor space, including office space for faculty and students, a classroom, lab space for preparation, and a range for the collections. The collection of vertebrate fossils is the sixth or seventh largest such collection in North America, with more than 106,000 catalogued specimens. It is particularly strong in materials from the Permo-Triassic of Texas, mid Tertiary of the Gulf Coastal Plain, Cretaceous and Tertiary of the Big Bend region of Texas, and the Pleistocene of Texas and Australia. A collection of more than 6300 Recent skeletons is used for teaching and research. Catalogues for both collections are maintained on a computer database system that makes it possible to retrieve information about specimens and localities based on a wide variety of criteria. The lab is well equipped for all types of preparation, both mechanical and chemical.

The staff consists of four faculty researchers (Dr. John A. Wilson, Dr. Wann Langston, Jr., Dr. Timothy Rowe, and Dr. Ernest L. Lundelius, Jr.), a full time collection manager and researcher (Dr. Melissa Winans), an assistant collection manager (Sally Shelton), two full time preparators (Robert Rainey and Earl Yarmer), a half time secretary, and student assistants who are employed on a half-time basis.

The collection and preparation facilities support the research of both students and faculty. Dr. Wilson is working on Tertiary mammals and biostratigraphic problems in the Big Bend area of Texas. Dr. Langston's research focuses on crocodylians, and on the remains of the giant pterosaur from the upper Cretaceous of west Texas. Dr. Rowe is working on Triassic dinosaurs and problems relating to the origin of mammals. Dr. Lundelius is studying Plio-Pleistocene mammals from Australia and Texas. Dr. Winans, in addition to her duties as

collection manager, continues investigations on Pleistocene horses, Tertiary rabbits, and Quaternary packrats.

Seven graduate students are now in residence working on PhD dissertations or MA theses. Topics of their research include Cretaceous dinosaurs, Cretaceous mosasaurs, Tertiary mammals, mathematical models of Pleistocene faunas, and the Pleistocene-Holocene faunal transition. Numerous researchers from institutions other than UT use the collection for their research either through loan of material or through study visits to the lab. The lab also provides information and demonstration specimens for undergraduate and graduate classes at UT in geology, zoology, archeology, and museum studies. As part of the Texas Memorial Museum, the lab provides and prepares material for exhibit. Public information is also provided by answering questions about fossil vertebrates and identifying specimens.

Recently the laboratory has mounted skeletons of a large amphibian, *Eryops*, and the fin-backed synapsid *Dimetrodon* from the Permian of north central Texas for display at TMM. Dr. Langston was a consultant in the mounting of a mosasaur skeleton for the Dallas Museum of Natural History, and the building of a half sized flying model of the giant pterosaur *Quetzalcoatlus*. The pterosaur model had several successful flights that formed the basis for the movie "On The Wing" being shown at the Air and Space Museum of the Smithsonian Institution.

The Laboratory is beginning the second year of a three year National Science Foundation curation and collection improvement grant. This has provided 50 airtight steel cases for the collection of Recent vertebrates, a multi-user microcomputer for the maintenance of the records and salaries for extra personnel to bring the cataloguing up to date, enter data on the specimens on maps, and upgrade the data retrieval system. When finished, the collection will be in better condition, and more useful for research and teaching than any other collection in North America.

WANN LANGSTON RETIRES



Wann and Marietta pose with plaque given to Wann by the Department in appreciation for his years of service.

On August 31, 1986, Wann Langston gave up active teaching in the Department and directing the Vertebrate Paleontology Laboratory. These appear to be his only concessions to his new role as Professor Emeritus. His research at the VP Lab continues as strongly as ever, and his interest in VP students is undiminished. Since he appears not to be taking retirement too seriously, it seems appropriate that the retirement dinner held in his honor on October 16, 1986 was not the typical event one might expect. Predictably, there were several speeches. And, certainly, Wann's many contributions to the field of vertebrate paleontology were extolled by his colleagues. Any recognition of Wann would be incomplete without noting the incredibly complex skeletons of dinosaurs Wann has assembled in various museums in the U.S. and Canada. His many published articles about dinosaurs are witness to his extensive research efforts. For many years, he was paid by UT only half-time while devoting full time to teaching in the Department, working with the Texas Memorial Museum and directing the Vertebrate Paleontology Laboratory. Since coming to The University of Texas at Austin in 1962, Wann and Marietta have been staunch supporters of UT and the Department, raising funds for the endowment of the John A. Wilson Professorship in Vertebrate Paleontology, the Clara Jones Langston Centennial Lectureship in Vertebrate Paleontology, and for the Wann and Marietta Langston Research Fund in Vertebrate Paleontology, among other generous gifts to the University.

No recognition of Wann would be complete, however, without acknowledging his great sense of humor. And so it was that some of those who spoke took the opportunity to repay Wann for pranks he had initiated over the years, and to recognize his expertise in areas other than vertebrate paleontology. Testimony was given to Wann's ability with a pick, particularly the time when, with his

first blow, he placed the pick squarely through the main water line in his front yard. An especially touching presentation from Ernie Lundelius was a bolo tie made from a piece of the Langston Memorial Table - so named when Wann enthusiastically sawed through not only a board, but the table corner as well. Jack Wilson returned to Wann the retirees' key to the VP Lab, the jawbone of an ass, which Langston had given to him when he retired. The jawbone had been carefully stored and newly redecorated with a bow in anticipation of the presentation.



Wann receives retiree's key to VP Lab.

Wann's colleagues did not mention his recent experience with the giant model of the world's largest flying reptile, fearing that he might be sensitive about it. (Wann served as expert on the reptile's anatomy during construction of the model by Paul MacCready. Although the model flew in California, its public flight at Andrews Air Force Base near Washington, DC was less than successful. The flying model is now at the National Air and Space Museum.) When it was Wann's turn to speak, however, he stood at the dais and carefully donned his "pterosaur cap," a souvenir of the Washington flight, and regaled the audience with his experiences while working on the project.



Wann discusses the pitfalls involved in the VP consulting business.

The evening had its more serious moments. Arthur Busbey, one of Wann's former students, gave him a rare volume about pioneers of West Texas, written in the early 1920's by a daughter of one of the pioneers who lived in Marfa. Judd Oualline, representing the Geology Foundation Advisory Council, presented Wann and Marietta with a plaque bearing a crystal specimen and an inscription acknowledging Wann's many contributions to vertebrate paleontology and specifically his dedicated service to The University of Texas at Austin. All in all, it was a most pleasant occasion and gave everyone an opportunity to express appreciation to Wann and Marietta for the important role they have played in building the vertebrate paleontology program at UT.



Ernie Lundelius gives Wann a new bolo tie for his collection.

Faculty and Staff

September, 1987

Professors

- Milo M. Backus**, Dave P. Carlton Centennial Professor in Geophysics; PhD, 1956, Massachusetts Institute of Technology: Seismic exploration with emphasis on analysis, seismic modelling and inversion directed toward recovery of stratal geometry and rock properties.
- Daniel S. Barker**, Fred M. Bullard Professor in Geological Sciences; 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.
- L. Frank Brown, Jr.**, Senior Research Scientist, Bureau of Economic Geology; PhD, 1955, University of Wisconsin, Madison: Upper Paleozoic stratigraphy, depositional systems, seismic stratigraphy, environmental geology.
- Richard T. Buffler**, Senior Research Scientist, Institute for Geophysics; PhD, 1967, University of California, Berkeley: Marine geology and geophysics, seismic stratigraphy.
- Ian W. D. Dalziel**, Senior Research Scientist, Institute for Geophysics; PhD, 1963, University of Edinburgh (Great Britain): 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.
- Robert L. Folk**, Dave P. Carlton Centennial Professor 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.
- William E. Galloway**, John E. "Brick" Elliott Centennial Endowed Professor in Geological Sciences; PhD, 1971, University of Texas, Austin: Basin analysis, mineral fuels, clastic sedimentology, sedimentary petrography.
- Edward C. Jonas**, Joint appointment; College of Education: PhD, 1954, University of Illinois, Urbana: Electron and X-ray diffraction of clay minerals, pyroclastic sediments and uranium deposits.
- Lynton S. Land**, Gulf Oil Foundation Centennial Professor in 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; PhD, 1954, University of Chicago: Vertebrate paleontology, Pleistocene faunas, paleoecology.
- Toshimatsu Matsumoto**, Research Scientist, Institute for Geophysics, PhD, 1961, Tokyo University: Earthquake seismology, earthquake engineering, geophysics, acoustic emissions.
- Arthur E. Maxwell**, 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**, William Stamps Farish Chair in Geology; PhD, 1954, California Institute of Technology: Tectonics.
- Yosio Nakamura**, Senior Research Scientist, Institute for Geophysics; PhD, 1963, Pennsylvania State University, University Park: Geophysics, seismology, lunar and planetary physics.
- Amos Salvador**, Alexander Deussen Professor in Energy Resources; PhD, 1950, Stanford University: Stratigraphy, petroleum geology, geology of the Gulf of Mexico Basin and the Caribbean area.

John G. Sclater, Shell Company's Foundation Distinguished Chair in Geophysics; Senior Research Scientist and Associate Director, Institute for Geophysics; PhD, 1966, Cambridge University (Great Britain): Crustal heat flow, sedimentary basin evolution.

John M. Sharp, Jr., The Third Mr. and Mrs. Charles E. Yager Professor; 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 modelling, 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.

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

Adjunct Professors

Ralph O. Kehle, PhD, 1961, University of Minnesota, Minneapolis: Theoretical structural geology, active fault systems, geophysics, computer applications, petroleum geology.

William M. Rust, PhD, 1931, Rice University: Geophysics.

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

Leland J. Turk, PhD, 1969, Stanford University: Hydrology, groundwater quality, environmental and engineering geology.

Associate Professors

William D. Carlson, Joyce Bowman Payne Centennial Teaching Fellow in Geological Sciences; PhD, 1980, University of California, Los Angeles: Metamorphic petrology, reaction kinetics, field, analytical, and experimental studies of metamorphic rocks.

Mark P. Cloos, William T. Stokes Centennial Teaching Fellow in Geological Sciences; Associate Chairman, Department of 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 Petroleum Faculty Fellowship in Geological Sciences, PhD, 1980, University of Wisconsin, Madison: Sedimentology depositional environments and eolian processes.

J. Richard Kyle, Geology Foundation Advisory Council Centennial Teaching Fellow in Geological Sciences, Undergraduate Advisor; PhD, 1977, University of Western Ontario: Ore deposits geology, fluid inclusions diagenesis, salt domes, industrial minerals, minerals exploration.

Sharon Mosher, William T. Stokes Centennial Teaching Fellow in Geological Sciences, PhD, 1978, University of Illinois, Urbana: Deformation mechanisms, strain analysis, mapping with emphasis on complexly deformed terranes.

Clark R. Wilson, John A. and Katherine G. Jackson Centennial Teaching Fellow in Geological Sciences, PhD, 1975, University of California, San Diego, Scripps Institution of Oceanography: Geophysical time series, analysis of multidimensional geophysical data field.

Assistant Professors

Martin B. Lagoe, Allday Centennial Teaching Fellow in Geological Sciences, PhD, 1982, Stanford University: Micropaleontology (foraminifera), stratigraphy, and paleoceanography.

Timothy Rowe, Bill R. Payne Centennial Teaching Fellow in Geological Sciences, 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.

John K. Warren, Allday Centennial Teaching Fellow in Geological Sciences, PhD, 1981, Flinders University (Australia): Origin of evaporites and carbonates, paleohydrology of saline lakes.

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.

Senior Lecturer

William D. Sill, PhD, 1968, Harvard University: Vertebrate paleontology of Triassic reptiles.

Lecturers

Charles R. Denham, Research Scientist, Institute for Geophysics; PhD, 1972, Stanford University: Geophysical time-series analysis, magnetostratigraphy and history of geomagnetism.

Cliff A. Frohlich, Research Scientist, Institute for Geophysics, PhD, 1976, Cornell University: Influence of

structure on earthquake locations in subduction zones.

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

Professors Emeriti

Virgil E. Barnes, Professor Emeritus: PhD, 1930, University of Wisconsin, Madison: Stratigraphy; geologic mapping, tektites, 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; 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 in Mineral Resources Emeritus; PhD, 1951, Yale University: Economic geology, environmental geology, geology and public affairs.

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.

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.

Classified Staff

Joyce E. Best, Administrative Associate, Geology Foundation office.

Rosemary Brant, Senior Office Assistant, Third-floor faculty.

Linda Carlson, Office Assistant, Third-floor faculty.

Jim C. Carpetas, Electronics Technician, Troubleshooting and repair of electronic equipment.

Ruff Daniels, Technical Staff Assistant, Vehicle and Departmental equipment oversight.

Jane Hamlin, Senior Office Assistant, Geology Departmental Office, Chairman's Secretary.

G. Karl Hoops, Analytical Chemist, Rock and mineral analysis by standard methods, instrumental chemical analysis for trace elements.

Jeff Horowitz, Drafting Technician II, Drafting for professional publications and drafting consultant.

Jo Ann Kuper, Senior Procurement Officer, Purchasing and accounting.

Betty J. Kurtz, Senior Office Assistant, Second-floor faculty.

Anthea McClelland, Senior Office Assistant, Geology Departmental Office, Grants Coordinator, Placement Coordinator.

Susanna R. Moses, Geological Technician, Petrographic and electron microprobe thin sections, ore microscopy sample preparation, polished mounts.

Rebecca Ann Page, Administrative Assistant, Graduate advisor's office.

Donna L. Precht, Student Development Specialist II, Undergraduate advisor's office.

David M. Stephens, Photographer, Photography for professional publications; photographic consultant.

John Thorne, Electronics Technician, Design and repair of electronic instrumentation.

Marianne Walk, Administrative Assistant, Project SEER.

J. Eddie Wheeler, Scientific Instrument Maker II; Machinist, repair of scientific equipment.

William I. Woods, Executive Assistant, Assists Chairman and Associate Chairman, supervises staff.



Rudy Melchior

Faculty and staff of the Department were saddened by the death of Rudolph Melchior on April 9, 1987. Rudy had served as the Department's Instrument Maker since 1972. He had previously been employed in the Department of Mechanical Engineering from 1956 to 1972. In May, 1986 he received a 30 Year Service Award from The University of Texas. His death was the result of a brain tumor which was diagnosed in summer, 1986, causing Rudy's retirement last November.

FACULTY NEWS BRIEFS

Dan Barker taught undergraduate courses in Mineralogy/Optical Crystallography and Igneous Petrology. In November, he was one of four leaders of a field trip on Tertiary igneous rocks of Trans-Pecos Texas, preceding the annual meeting of the Geological Society of America in San Antonio. Leading a trip for professionals is a sure-fire way to learn the geology of an area, or at least to pinpoint the parts you don't know. After the meeting, Dan went on a field trip covering Late Cretaceous igneous rocks between Austin and Uvalde, another topic of his recent research. In May, he went to the Cordilleran Section meeting of the Geological Society of America in Hawaii, and on field trips to the volcanic rocks of Maui and Oahu.

One master's student, Scott Birmingham, completed his thesis on the igneous rocks of Cripple Creek, Colorado, and Bruce N. Turbeville started his PhD dissertation field work on the Vulsini volcanic complex, Italy.

Dan's summer plans include using the electron probe, finishing manuscripts, writing grant proposals, and curating the igneous rock teaching and research collections. He was astonished and gratified to receive the Department Knebel Award for distinguished teaching this May.



Virgil Barnes

Virgil Barnes completed his 52nd year with the Bureau of Economic Geology in September, and in May saw the completion of the 1:250,000 scale Geologic Atlas of Texas with the publication of the Wichita Falls-Lawton Sheet. Planning for the Geologic Atlas of Texas, under Virgil's direction, was begun in 1961 shortly after Peter T. Flawn became Director of the Bureau. Oil companies and geological societies were contacted for geologic mapping and support, and Geologic Atlas Committees of the various geological societies were formed to work with the Bureau.

During the past year the 1:500,000 scale, 4-quadrant Geologic Map of Texas, based on the Geologic Atlas of Texas sheets, consumed much of Virgil's time. He reports that scribing and review is complete for the southeast and northeast quadrants and that the other two quadrants are not far behind.

In February Virgil was elected a Fellow of the American Association for the Advancement of Science. During the year he spent some of his time in preparing a chapter on the Precambrian rocks of the Llano region for the DNAG Guidebook covering the area of the South Central Section of the Geological Society of America.

Jan and Pres Cloud and daughter Lisa, as well as Ruth and Jack Dunlap, joined the Barneses in Austin before going together to San Antonio for the Annual Meeting of the Geological Society of America. In June the Barneses spent a week on Galveston Island accompanied by their son Virgil, his wife Linda, and grandsons Christopher, Jeffrey, and Daniel, all of whom are champion swimmers for their age groups in Indiana.

Bob Boyer notes that participation by undergraduate students in research can be an important element of their education. Some students are highly motivated to do "hands on" activity when they begin their undergraduate training, and are capable of pursuing independent research at a sophisticated level, especially during the junior and senior years. For this reason the College of Natural Sciences is promoting opportunities for undergraduates to become involved with research projects of faculty members in areas which the students find of special interest. Many faculty members are making an effort to accommodate these students and are willing to identify projects and provide guidance for research of mutual interest. "The College has launched an ambitious project to create a major endowment in support of undergraduate student research," Bob reports. "Earnings from the endowment will be used to cover the costs of supplies and related materials that the faculty members may not have readily available for the research projects." The plan is to have funds earmarked for various disciplines within the sciences. To that end a separate account has been established for students in the Geological Sciences. That account, Undergraduate Student Enrichment - Geological Sciences, has been set up in the Geology Foundation. "At this time of tight job opportunities, I think this is an especially valuable learning experience for students majoring in the Geological Sciences. The additional knowledge may well give the student an edge, either in graduate school or in obtaining employment after the senior year," Bob reflects.

Bob also provides an update on his adventure with marbles. He and Betty attended the national marble meeting in Amana, Iowa in May to learn about the many different kinds of marbles. Since becoming involved with this project, Bob has been obliged to assure many that he still has all his marbles!

Frank Brown taught Seismic Stratigraphy again during the fall of 1986, and he finished another manuscript for the Bureau on paleogeography and depositional systems of the Virgilian and Wolfcampian of the Eastern shelf and adjacent Midland Basin. In December, Frank

taught in the AAPG Seismic Stratigraphy School in Dallas and in March he reviewed Atlantic rift basins for Chevron Overseas Company.

In the spring, Frank moved back into administrative work at the Bureau by becoming Director of the Bureau's Office of Technical Review, responsible for the technical review of the Bureau's publications. In addition, the OTR will work with the Governor's Nuclear Waste Programs Office, providing technical review of documents related to the feasibility of a high-level nuclear waste repository in Texas and carrying out research addressing State issues on the geology and hydrology of the Palo Duro Basin.

During the summer Frank and his wife, Keith, spent two weeks of vacation in Capetown, South Africa, where Frank consulted for Soekor, Ltd., and spent two more weeks in Taipei consulting for the Chinese Petroleum Corporation.

Fred Bullard commented, when asked about his activities for the past year that, "It has been a busy, but rather routine year." Fred spends some time at his campus office (no regular hours) and if friends are passing through and do not find him at his office, he insists they call him at his home (459-5336).

Fred has read page proof on a review he did of a book on *Explosive Volcanism*, but it will not be published until later this fall, so the reference will appear in next year's *Newsletter*.

Fred and Evelyn were in California to spend Christmas with Fred's daughter, Peggy, and family. They are looking forward to attending the Annual Meeting of the AAPG in Los Angeles in June, where Fred will have the opportunity to greet many of his former students.

Their summer plans are still tentative, but as usual they will spend some time at Fred's summer home in Taos, New Mexico, where the 7,000-foot elevation provides a welcome relief from the Texas heat.

Activity in **Bill Carlson's** experimental petrology laboratory has been intense this last year. At the same time that several projects concerned with pyroxene phase equilibria and mineralogy approached completion, Bill and his students began to fabricate and install several items of new equipment funded by the National Science Foundation. That NSF grant will continue to support high-pressure experiments at UT and at NASA's Johnson Space Center for two more years. Research on metamorphic rocks in the Llano Uplift took an exciting turn when Amy Wilkerson, a student co-supervised by Bill and Doug Smith, completed her thesis on eclogitic remnants in the moderate- to high-pressure metamorphism in the Llano Region. Other students continue to work on a variety of problems, ranging from Precambrian rocks in Chihuahua, Mexico, to a study of coronal reaction textures in high-grade rocks from the Adirondacks and elsewhere, and including new students working on experimental problems in the lab.

The lure of the new JEOL Superprobe caused record numbers to turn out for the course in Analytical Techniques this year. In fact, so many students signed up that both Doug Smith and Bill had to teach the course this year in order to include everyone. That effort, together with the always humbling experience of teaching

Thermodynamics of Geologic Processes, and a large enrollment in the graduate Metamorphic Petrology course, filled out Bill's teaching schedule during the academic year. Like last summer, Bill also helped teach the senior field course in Taos, New Mexico.

Bill spent a lot of time on the road during the year, giving invited lectures at Harvard University, at UCLA, at the University of Southern California, and at the Corning Glass Works research labs in New York, and presenting a paper at the GSA meeting in San Antonio. Off-campus research efforts included some optical absorbance spectroscopy work at Caltech, high-temperature powder diffractometry at Corning Glass, and the usual visits to NASA's experimental petrology lab. Highlights this year were an invitation to speak at the special symposium on "Pressure-Temperature-Time Paths in Metamorphism" held at the May meeting of the Geological Association of Canada in Saskatoon, Saskatchewan, and participation in the short course sponsored by the Mineralogical Association of America on "Stable Isotopes in Geologic Processes."

Mark Cloos continued as a William T. Stokes Centennial Teaching Fellow during the 1986-87 academic year. He taught Physical Geology for undergraduates and Advanced Structural Geology for graduate students in the fall semester. Spring semester he reactivated a long-dormant graduate seminar entitled Tectonic Problems. Topics ranged from stress transmission through the plates to the use of fission tracks in apatite crystals. Guest speakers from the University of California at Santa Cruz and the University of Oklahoma spoke to the class and added new perspectives to old problems.

Two of Mark's students finished MA theses during the year. Jeff Corrigan (co-supervised with Paul Mann at the Institute for Geophysics) completed a study of the Burica Peninsula of Panama-Costa Rica. Jeff did the first extensive field mapping and structural analysis of the Burica Peninsula and found that a subhorizontal extension of the rocks occurred during subduction instead of shortening as predicted by most plate tectonic models for convergent plate margins. Jeff is now going to continue his work to obtain a PhD at UT. Trevor Dumitru did a fission track thermal history analysis of the lower Great Valley forearc basin sequence of northern California. Trevor found that subduction period thermal gradients were extremely low ($<10^{\circ}\text{C}/\text{km}$) and that cooling (uplift?) of the region occurred about 60 Ma. Trevor's study was the first of its kind to use fission track techniques to evaluate the time-temperature history of forearc basin deposits. Last fall, Trevor began PhD studies at the University of Melbourne in Australia, the university where he did most of his analysis work for his MA thesis. The Melbourne research group developed and refined the technique as a tool to analyze the thermal history of basins. With University funding, a state-of-the-art lab will be established at UT shortly.

Mark also supervised the BS honors thesis research of Michael McLeod. Mike did a petrographic and structural study of Precambrian gneisses and Paleozoic sediments on a ranch near Burnet in the Llano uplift. Mike is planning to attend graduate school to obtain a Master's degree in geology. Under Mark's supervision, Phillip Greg

Barnes did an independent petrologic and structural study of the Spring Creek Area in Inks Lake State Park near Llano. This area is well known to recent students in the Department because it was the site of map exercises for GEO 320K. Greg plane-tabled a new base map for his study. It's much improved from the old version and will be used by future classes who map the area.

On the research front, Mark continues to work with graduate students on mineralized veins and fission tracks in apatite crystals to refine our understanding of the structural and metamorphic evolution of the Franciscan subduction complex of California. These projects are supported by grants from the National Science Foundation and the American Chemical Society. A paper with Ronald L. Shreve on quantitative modeling of subduction zones came out in the September issue of *Journal of Geophysical Research* and a review paper on blueschists in the Franciscan subduction complex of California came out in a *Geological Society of America Memoir*.

At the San Antonio national meeting of the Geological Society of America (GSA), Mark presented a paper co-authored by two students, Brian Reck and Trevor Dumitru, on the thermal structure of accretionary prisms at convergent plate margins. At the Cordilleran section meeting of GSA, he presented another paper co-authored with Trevor Dumitru on the nature of the past plate interactions along the California margin as deduced from the petrology of Franciscan blueschists. This spring, Mark also gave invited lectures about the mechanics of subduction zones at the Department of Earth and Space Sciences at UCLA, his graduate school alma mater, the Department of Geological Sciences at the University of Colorado at Boulder, and at the Department of Geological Sciences at SMU.

Last October, Mark began serving as the Associate Chairman of the Department and Associate Director of the Geology Foundation. Now he's learning the administrative side of the geology and university business world. It was a very busy year indeed.

Continuing to find Texas too hot for comfort, **Ian Dalziel** kept up his Antarctic work, including a study of the tectonic evolution of West Antarctica and its relation to East Antarctica and the southern continents. This work is undertaken with the British Antarctic Survey, and is to be expanded to a tripartite US-New Zealand-UK study of the entire southern rim of the Pacific Ocean basins. Some of Ian's colleagues (Lawrence Lawver, James Austin, Jr., and Dale Sawyer) at the Institute for Geophysics have now caught the Antarctic bug and UT Austin is now conducting an almost year-round program of earth science research there. The end of the spring semester will see Ian, Nicholas Walker and two graduate students head south to the winter in Chilean Tierra del Fuego to work on Cordillera Darwin, the only rocks in the Andes that would be called a "core complex," if located in the North American Cordillera.

The West Antarctic work is revealing that the continent was indeed composed of several microcontinents on the Pacific side of the East Antarctic craton. Several of these remained part of western Gondwanaland (South America, Africa) until the opening of the Weddell Sea in the Cretaceous. Around the Scotia Arc our radiometric

dating and paleomagnetic studies are confirming that the South Georgia Island microcontinent, site of the initial skirmishes of the Falklands/Malvinas War, indeed was originally situated east of Cape Horn. There it would probably be considered as part of Chile rather than either Argentina or UK, the two countries that fought for it!

Samuel P. Ellison, Jr., taught three short courses of five days each in New Orleans, Louisiana, in July and August, 1986, for the Rike Services, Inc. His students were Ecuadorians and Angolians.

The conodont bibliography is being updated to January 1, 1987, and Sam is learning to run his own computer. The Tesnus and Dimple conodonts are still pending, awaiting completion of photographs.

Travelling this year included two visits to Atlanta to see grandchildren, one trip to Colorado to fish on the Conejo River, and a trip to a family reunion in Missouri. Dotty and Sam also took part in the Retired Faculty-Staff Association's bus trip to East Texas and western Louisiana to see dogwoods in bloom.

The manuscript on *The Flavor of Ed Owen - A Geologist Looks Back* has been funded, is being printed, and will become available soon.

Bill Fisher continued to serve as Department Chairman and Bureau Director. He has been ably assisted in the Department by the dedicated and concentrated work of Associate Chairman, Mark Cloos, and the splendid cooperation of the faculty.

Bill maintains a heavy schedule representing the Department on as well as off the campus. He presented testimony to the U.S. Senate Finance Committee on the production impacts of low oil prices and prepared for Senator Lloyd Bentsen, at his request, a comprehensive report on U.S. oil outlook. The report was released by Senator Bentsen in April and received wide coverage.

Bill also presented testimony on oil and gas research and development to the U.S. House Science, Space, and Technology Committee and to the U.S. Senate Committee on Energy and Natural Resources and Appropriations. He also testified on Small Business to the Texas Senate and House.

During the year Bill gave 25 invited lectures off the campus and received honorary membership in GCAGS. He was honored to have Don Boyd, Honorary Life Member of the Geology Foundation Advisory Council, serve as citationist to the GCAGS.

Bill remained active in AAPG during the year, this year serving as Chairman of the Advisory Council.

Bob Folk last summer went with James Miller and Karen Carter (Sharon Mosher's PhD student) via stopovers in Iceland and Luxemburg to Portovenere in Northwest Italy. They continued work on the "Portoro," a black Triassic limestone, occasionally with divine - or at least priestly - intervention (see story in this *Newsletter*). James is Bob's first thesis student to work there, and he is making great headway in deciphering the origin of over a dozen types of dolomite within the Portoro. Bob picked up a new recipe for penne (pasta) with a sauce made of tomato, heavy cream, a half-bottle of vodka, red pepper

and parmesan cheese. Reactions have been controversial, but the granddaughters love it. With James and Karen, Bob visited geologists in Pisa, Lucca and Roma; and one rainy weekend they took off to do Venezia and the Dolomite Alps.

In the fall, Bob taught the first half of the sandstone petrography class, including the final field trip to the Broken Spoke. He gave a lecture at the GSA in San Antonio on the white card technique for revealing organic matter and other occult features in carbonate rocks. Interest in bacterial influence in carbonate rocks remains very strong, and his other current student, Franz Hiebert, is heavily involved in assessing their petrologic role.

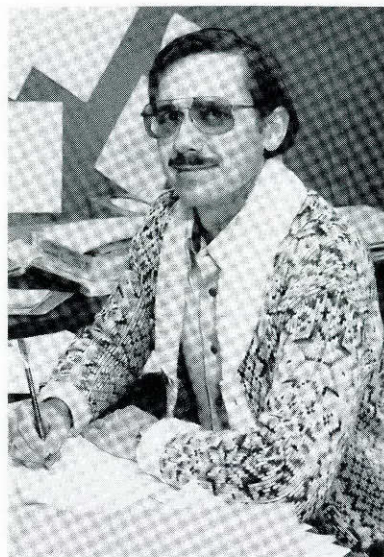
In the spring semester Bob did no teaching, his first time off of the pedagogical treadmill in 35 years at UT. It was great to get some science done, or at least attempted, without having to hassle with exams or preach. In a belated attempt to become more broadly educated, he sat in on a course in organic geochemistry given by Lynton Land, and structural petrology by Sharon Mosher. With Karen Carter at the probe, they investigated chemistry of the Portoro, particularly the Sr relationships. Finding in a drawer some quartz crystals that he and Marge had collected while courting in 1946, Bob had Karl Hoops etch them deeply in HF, and with Susan Ide at the controls found fantastic solution features in the SEM—revealing the internal architecture of quartz crystals and producing a gallery-full of astounding “science-fiction” quality photos. All quartz varieties now find themselves under HF attack. In March he took a break to go to Cuatrociénegas, Mexico (west of Monclova) with a group of biology students to examine some hot-spring travertine deposits.

Besides quietly marking their 40th wedding anniversary, Marge was honored in February as one of Austin’s ten outstanding citizens of 1987 for her work with Martha Jonas teaching art to retarded adults at Travis State School, something they have done together for 23 years. This way she gets to see their two boys, Bobby and Mark, once a week.

Son-in-law Steve Mann lost his geologic job with ARAMCO as did thousands of others, so returned home with Jenny and the two granddaughters in August after spending four years in Dhahran, Saudi Arabia. Bob and Marge visited them over Christmas, and are overjoyed to announce that after eight months of looking Steve has finally found a job as sedimentary petrologist with the Alabama Survey in Tuscaloosa.

This summer Bob and Marge will leave in mid-May and plan a week’s tour of Spain before beginning work in Italy. One student, Diane Pavlicek, will start a thesis there on the Portoro, emphasizing its geochemistry.

Bill Galloway has completed his second year of teaching. Regular courses now include graduate seminars in clastic depositional systems and basin analysis, plus undergraduate geology of energy minerals for non-majors. Outside the classroom he has been busy with numerous graduate students whose thesis topics range from submarine canyons and other types of paleomargin sedimentary sequences in the Gulf basin, to reservoir geology of fluvial, deltaic, and submarine fan sandstones.



Bill Galloway

No doubt the biggest event of the year was a two-month stay in Sydney, Australia, where Bill worked with geologists of the Earth Resources Foundation of the University of Sydney. The research program is aimed at delineating the distribution, genesis, and potential reservoir quality of sandstones within the Permo-Triassic section of the Sydney Basin. Aside from making news in the Sydney University press, the first year of the project generated quite a bit of local excitement because the basin has had no commercial hydrocarbon production. The project has proven to be a real windfall from a number of standpoints. Aside from the obvious advantages of allowing Bill to learn how to correctly use terms such as “no worries” and “fair dinkum,” the study has expanded geological and cultural horizons. “Typical travel back and forth from our flat to Uni commonly involved a ferry ride across the harbor, plus train and/or bus trips. Furthermore, I became adept at driving on the left side of the road in urban traffic, reading street signs, and following a road map simultaneously.” Although petroleum exploration has been minimal, extensive coal exploration and resource evaluation drilling has resulted in a public data base of more than 200 deep core holes. “For the first time in my experience,” Bill states, “I have access to more continuous core than possibly usable in a two-year study.” As if that were not enough, excellent outcrops lie on both east (coastal) and west (Blue Mountains) sides of the basin. It is truly a dream locality for 3-D stratigraphic studies. Bill will return to Sydney for the summer to initiate the second year of the project.

Active research in the Cenozoic section of the northwest Gulf Basin also continues. Two Bureau publications were released. A National Science Foundation-supported study of submarine canyons in the Wilcox is nearing an end, with some anticipated, as well as unexpected, conclusions emerging. The opportunity to acquire a regional grid of seismic sections for the North Sea is providing the basis for a new proposed study comparing the sequence stratigraphy on opposite sides of the Atlantic Basin in a critical examination of some of the popular concepts and applications of sequence analysis.

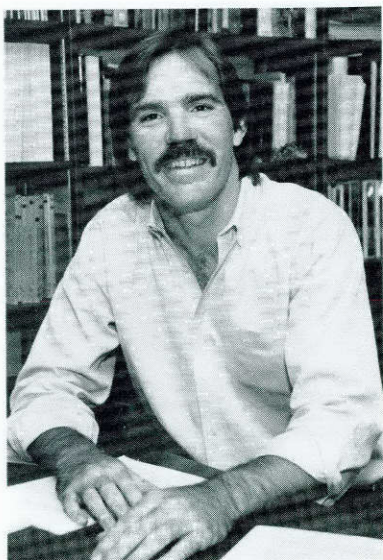
An introduction to North Sea geology began with an invitation to present a paper at the 4th Annual Meeting of the Tectonics and Structural Geology Studies Group of the Geological Society of Norway in Stavanger. Bill missed Thanksgiving dinner, but was able to sample a traditional Norwegian Christmas Eve dinner. Additional geological and cultural highlights included trips to Caracas, Tyler, and Mineral Wells.

After some long bureaucratic delay, **Wulf Gose** was awarded a grant by the National Science Foundation to pursue a paleomagnetic study in Venezuela in a joint venture with scientists from the Universidad Simon Bolivar. The sampling in the first field season concentrated on Cretaceous rocks in the Perija Range and the Merida Andes. Later this year he plans to collect samples in eastern Venezuela.

Wulf is continuing his collaboration with Richard Kyle on salt domes. They were awarded a two year grant by the Petroleum Research Fund to extend their work to different salt domes in the Gulf coast area. The combination of paleomagnetism and petrology/geochemistry offers a novel approach for understanding salt tectonics. In support of a project by Drs. Thor Hansen and Earle Kaufmann, Wulf did a magnetostratigraphic study of core samples collected near Rosebud, Texas, spanning the K/T boundary.

Graduate student Randy Farr finished a paleomagnetic project on Mississippi Valley type ore deposits which enabled him to date the mineralization event and to correct a major error in the apparent polar wander path for North America. Undergraduate student Laurel Lacher is extending Randy's work for a senior honors thesis.

Wulf participated at the GUIDE workshop and presented papers at the annual GSA and AGU meetings.



Mark Helper

Mark Helper joined the department in the spring of 1986 as a lecturer to help teach the introductory (GEO 320K) and summer field methods courses. After a rewarding summer of teaching field geology in New Mexico, Mark spent the fall semester completing parts of a chapter for a textbook on methods in structural geology, preparing the results of his dissertation for publication, and writing a National Science Foundation proposal with Nicholas Walker and Fred McDowell. Between writing stints he presented a paper and chaired a session at the national meeting of the Geological Society of America in San Antonio on his current research, which deals with the age and tectonic significance of some high-pressure metamorphic rocks in northern California and southwestern Oregon. He also found time to spend a week in October scouting new fields of projects in New Mexico for the summer field methods course.

The spring semester brought a return to teaching and several weekend field trips to the Llano Uplift, where students were instructed in the fine arts of mapping, measuring section, and describing rocks in the field. He says the bluebonnets and Indian paintbrush were truly spectacular this year. It also brought good news on the research front: Mark, Fred and Nick received word in May that their two-year NSF proposal would be funded. Their geochronologic work will make extensive use of the new clean laboratory facility and a soon-to-arrive, state-of-the-art mass spectrometer. Perhaps the best news of all arrived on April 2, with the birth of Mark's and his wife Sharon's second daughter, Lisa Courtney.

Mark looks forward to a summer of teaching field camp and conducting field work in northern California.

Earl Ingerson is still editorially responsible for Pergamon's Series of Monographs in Earth Sciences. The translation of the book by Yermakov and Dolgov on Thermobarogeochemistry, mentioned in last year's *Newsletter* and designated as number 37 of the series, was finished and given preliminary editing in Moscow and sent to Earl by air mail. Unfortunately, it was lost in transit, a situation not envisioned as possible by the translators and Russian editors, and the translation was not duplicated; i.e. no xerox or other copy was made. A new translation has been undertaken, but one can imagine the lack of enthusiasm in such a situation. Nothing has been heard about the project for several months.

The Festschrift, mentioned briefly in last year's *Newsletter*, was presented at the luncheon of the Geochemical Society in November of 1986 during the annual meeting of the Geological Society of America in San Antonio. The presentation was made by Gilbert Richards, Managing Director of Pergamon Press, on behalf of the International Association of Geochemistry and Cosmochemistry, and Pergamon Press.

The new journal, *Applied Geochemistry*, is the brainchild of Brian Hitchon and Al Levinson. They prevailed upon Pergamon Press to publish the journal and it fulfilled the need of the International Association of Geochemistry and Cosmochemistry for a journal of its own. Two previous attempts had failed, so the Association had been without a journal for its first 20 years. It is suspected that Al and Brian had a good deal to do with

the dedication of the first three issues. Brian is the journal's Executive Editor and Al is chairman of the Publications Committee.

Earl still attends most of the geology faculty meetings as a "member" with some ideas but no vote. He is in his office five days a week, not always eight hours per day, but long enough to talk or consult with any students, faculty, and other citizens, usually with mutually good results.

Last summer and fall were quite busy for Earl and Maurine, with minor surgery for Earl, a complete remodeling of their home, and several short vacation trips. The "hegira" planned by the Travel Committee of the Retired Faculty-Staff Association for the year's trip was to the famous flower gardens near Many, Louisiana. The flowers alone were worth the trip, but there were other interesting sights and experiences, especially on the return trip. One was a 50 mile ride on a real train, which was a unique trip for some of the "younger" members of the group.

Earl was contacted by the TV program 20/20, when they found out that he had had an excellent view of Halley's Comet in 1910. (He saw it from his father's shoulder as he stood behind the post office and the Ingerson residence in the small town of Barstow, Texas. There were no lights, of course, so the view was perfect. The head seemed to have a visual diameter more than half that of the moon, and the tail broadened and extended up to 30° it seemed, behind the head.) They called to see if a conference could be telecast from the site. Earl mumbled something about it being impossible to get from Austin to Barstow on short notice, but he would look into it. Through a friend of Maurine's Earl was able to arrange for transportation to Barstow. However, Earl postponed calling 20/20 until the next day, and by that time they had already located two or three other people around the New York area who had seen the comet, too, so Earl missed his big chance at TV stardom!

Gary Kocurek more or less survived a particularly hectic year with only a few scars. A major load was lifted with the completion of editorial duties on a book about Late Paleozoic and Mesozoic eolian deposits of the western U.S. Research continues in areas of eolian reservoir characterization, dune aerodynamics, and dune nucleation. February was spent in Mali studying Precambrian periglacial deposits. There Gary learned how to lose weight at an alarming rate, drive endlessly through nine-foot-high grass, and do battle with the original African Killer Bee. PhD students Karen Havholm and Mike Sweet are progressing beautifully on their research, and undergraduate Maggie Townsley completed a thesis on dune formation on Padre Island. In addition to the usual courses in depositional systems, Gary taught a graduate course centered on one two-week-long field trip to the western U.S.

Dianna is flourishing in her consulting business on waste management. The house finally got remodeled, and now the yard is undergoing a complete reworking into one giant garden.

Rich Kyle was the Society of Economic Geologists Program Chairman for the Geological Society of America 1986 annual meeting in San Antonio. He learned a lot about the work involved in organizing a major professional meeting, particularly when one elects to be actively involved in the program. In addition to the general organizational responsibilities, Rich contributed to and edited a guidebook for a field trip, convened a symposium on precious metals in carbonate replacement and skarn environments, and gave an invited presentation at a symposium on mineralization in restricted basins.

Rich continues to have diverse interests in the broad field of economic geology. He gave an invited presentation on the geological and geochemical controls of metal precipitation in some western San Juan epithermal systems at a symposium on the "San Juan volcanic field: volcanology, petrology, geophysics, and ore deposits" at the Rocky Mountain Section GSA meeting in Boulder. The symposium served to preview the research associated with the proposed DOSECC deep drilling project at Creede in the central San Juans. A review article on evaporites and ore deposits was written for an AAPG memoir on evaporites, as well as one with Jack Sharp on the role of ground-water processes in the formation of ore deposits for the Hydrogeology volume of the GSA DNAG series. The manuscript for a Bureau of Economic Geology mineral resources circular on the barite industry and resources of Texas was completed. Another current project is gold mobilization in the weathering environment and includes research by two graduate students.

Rich reports that his research on salt dome cap rocks as indicators of basinal processes in the Gulf Coast is progressing at a fast pace, supported by new grants from the National Science Foundation and the Petroleum Research Fund of the American Chemical Society. Three articles with research colleagues were published in the *Dynamical Geology of Salt and Related Structures* (Academic Press). A poster presentation on sequential fluid evolution and the origin of salt dome cap rocks and mineral deposits by Rich, Harry Posey, Malcolm Light, and Peter Price received the Best Presentation Award from the Society of Economic Paleontologists and Mineralogists for the 1986 annual meeting in Atlanta. They have organized a special session on fluid-rock interactions in the salt dome environment for the 1987 SEPM Mid-year Meeting in Austin; the presentations from this session are intended to be published as a special issue of *Chemical Geology*. Three graduate students are involved in various aspects of salt dome research.

Rich devotes a significant amount of time to his responsibilities as Undergraduate Advisor. With the undergraduate majors enrollment just about 200, we are actively seeking quality students for the undergraduate degree programs. A department flyer has been designed and distributed to attract students to the diverse career opportunities in geological sciences. Spread the word!

Linda continues her active schedule as an editor for the *Journal of Chemical Education*, free lance writer, and happy mother of Brock and Brett, who starred in Montessori first grade and preschool, respectively. Somehow the phrase, "how time flies," comes to mind!

Martin Lagoe has had a busy second year here at UT Austin. Three courses were taught during the year - GEO 391 (Paleoceanography) in the fall, GEO 391 (Subsurface Stratigraphy) and GEO 401 (Physical Geology) in the spring. The two GEO 391 courses are new. Martin had the opportunity to participate in several meetings this year including the 1986 GSA meeting in San Antonio, a DOSECC workshop on deep drilling in the Gulf of Mexico area, a GSA Penrose conference on glacial facies models, and the AAPG meeting in Los Angeles where he helped lead a post-meeting field trip across the Transverse Ranges. Professional activities also included continuing service as guest activities chairman for the upcoming SEPM mid-year meeting in August; as a member of the technical committee for the 1987 Gulf Coast Section SEPM Research Conference on biostratigraphy to be held this December; and as an associate editor of the *Journal of Foraminiferal Research*. Several students are beginning work on their thesis research: Tom Layman (MA) on a down-dip foraminiferal biofacies transect in the Yegua Formation, Mike Cervantes (MA) on foraminiferal biofacies associated with the Wilcox Yoakum Channel in south central Texas, and Sally Zellers (MA) on late Cenozoic foraminiferal biofacies and glaciomarine paleoenvironments in the Yakataga Formation near Icy Bay, Alaska. Martin's own summer research plans include work on Paleogene biofacies in California and continuing work on establishing a major research program on late Cenozoic climatic and glacial history in the Gulf of Alaska.

The summer of 1986 found **Lynton Land**, Judy, and Aaron making the cross-Pacific trek to Australia so Judy's parents could experience their growing grandson. After innumerable train rides into Melbourne, tram rides in the city, visits to train museums, and rides on "Puffing Billy" (in case you haven't guessed, Aaron is a train freak!), Lynton abandoned family for the International Association of Sedimentologists Conference in Canberra. After the meetings, ten extremely memorable days were spent exploring the Devonian reefs of the Banning Basin, certainly one of the "seven reef wonders" of the world. Avoiding *Spinifex* during the day was not quite as bad as avoiding *Yucca aloifolia* in West Texas, and sleeping among the boab trees under the Southern Cross raised serious questions about all this laboratory stuff!

Back to isotopes and the ICP in Austin, the Lands still survive the 7:10 school bus, but Bob Folk usually still wins the "lights on" race on the third floor. The academic year proceeded with a few "downs," but a definite "up" was receipt of funding for a new state-of-the-art thermal emission mass spectrometer (with Leon Long, Fred McDowell and Nick Walker). Together with new clean laboratories under construction, we are looking forward to more and better data, and some "new" isotopic systems. Another "up" was successful completion of a GSA Penrose Conference on "Saline Brines in Sedimentary Basins" which Lynton helped organize. And finally, the proposal for an ultradeep drill hole in the Gulf Coast (Project GUIDE) received high priority. Lynton's betting on our finding more gas than Tom Gold, and having more impact on exploration strategy!

Leon Long began the school year, as in previous years, by balancing the endeavors of teaching, research, and administration. In the fall semester he taught the graduate course in isotope geology and in the spring he co-taught the big introductory course (GEO 303) with Bill Sill. Spring semester brought a big change of routine when Leon, after serving four years as graduate advisor, finally handed the position over to Doug Smith. Leon says that being an administrator was a tremendous learning experience for him.

The summer included teaching field geology, both for geology majors and non-majors. One of the field courses had traditionally served students intending to go into petroleum land management. In the face of dwindling numbers of these students in recent years, Leon recruited would-be public school teachers of earth science, and hit a gold mine. This year there were 29 of the most enthusiastic students he had ever taught in the field, and perhaps in any course.

After more than 20 years, the mass spectrometer that had served so well (and has never functioned better than at present) is due to be supplanted by a new state-of-the-art machine. Leon is pleased and excited about this prospect, which is being funded through University, Geology Foundation, and NSF grants to the team of Land, Long, McDowell and Walker.

His research continues on the application of the Rb-Sr method to clay minerals. There is a rich potential to date sedimentary provenance, weathering, burial diagenesis, and other processes in which clay minerals form, but these mineral systems are so complex that all of the research effort thus far is no more than exploratory.

In January, Leon traveled to Brazil to participate in a symposium devoted to granites and associated mineralizations (Brazil has lots of both), and to get acquainted with various field situations in anticipation of future research. On this particular trip, Brazil was a rather frustrating place with living and travel accommodations already booked up by countless Brazilians going on summer vacation. The only way to get from here to there was to give up sleep as a crowded bus banged over dirt roads all night, or stand for nine hours on a bus packed with fellow human "sardines," etc. Even so, it was an extremely profitable and instructive journey.

During the summer of 1986 **Ernie Lundelius** attended the meetings of the American Quaternary Association in Illinois. A field trip following the meeting took him to a number of important Pleistocene glacial and vertebrate paleontological sites in Illinois and Missouri. Later in the summer he attended the North American Paleontological Convention in Boulder and gave an invited paper at a symposium on cave taphonomy. In October Ernie was invited to give a paper at a symposium entitled "Extinction - Who's Next?" organized by the Leakey Foundation in Los Angeles.

Ernie took over directorship of the Vertebrate Paleontology Laboratory at Balcones last September as a result of Wann Langston's retirement. During the fall semester he taught GEO 380L - Paleobiometrics and in the spring he taught GEO 405 - Life Through Time. Summer of '87

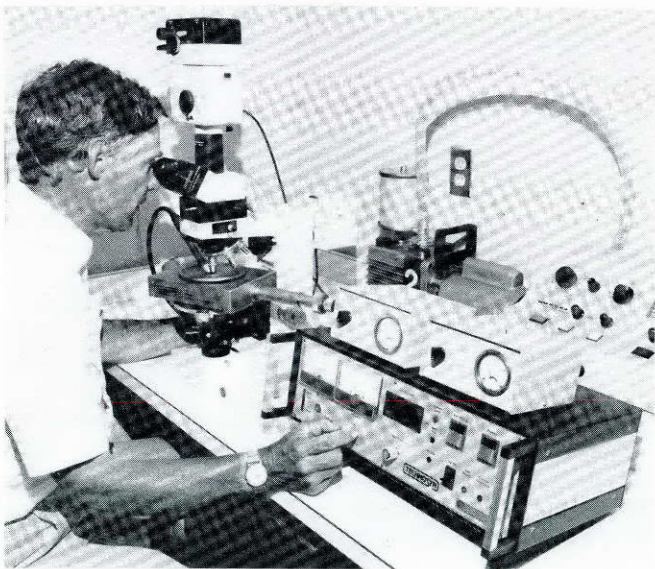
plans included presenting a paper in Rome at a symposium on the effects of insularity in vertebrates. After the meeting he visited museums in Switzerland, Germany and Holland.

John Maxwell kept busy in the Department during 1986-87 as a member of the Search Committee. For the annual GSA convention at San Antonio in November, he was chairman of the Joint Technical Programs Committee and a member of the Program Review Committee. He also continued as a member of the Board of Trustees of the GSA Foundation.

His most interesting activity was as a member of the scientific advisory panel to the Gas Research Institute regarding deep drilling for abiogenic methane at the Siljan Ring astrobleme site in Sweden. He worked in a similar capacity on the Program Review Committee of DOSECC for deep continental drilling in the U.S. John also continued his previous work as consultant to the Advisory Committee on Reactor Safeguards of the Nuclear Regulatory Commission.

During the summer of 1987 John and Marian attended the AAPG national convention in Los Angeles. John was also part of a group planning a two-year study of future directions in the earth sciences for the National Research Council. A report is expected in time for the International Geological Congress in 1989.

For a "vacation" in September, John and Marian are going to Brazil to travel around for four weeks visiting new places and former students and associates.



Earle McBride uses new cathodoluminescope for petrographic studies.

Earle McBride started classes a week late last fall because he and Donna attended the International Sedimentological Congress in Canberra, Australia in late August. This was the first time to visit the antipodes for the McBrides, and there was a lot of geology to see. Arkose may seem like an ordinary sandstone to some folks, but it takes on a new significance when you see

Uluru (Ayers Rock) in the middle of the Simpson Desert, Earle reports. The McBrides' cultural coup of the summer was to see the Australian version of "Crocodile Dundee" in Canberra. Earle comments it was frustrating that the genuine Australian felt hat (an Akubra-brand Snowy River model) he bought and wore on an Australian field trip was mistaken for a Stetson - even by Aussies! The Australians assume all Texans wear Stetsons.

The first part of the summer of this year Earle taught part of the senior field course in New Mexico and then headed for Italy for field work in the northern Apennines. Earle has several projects underway with Italian co-workers and with Duke Picard from Utah.

Earle served as the vice-chairman of the 1987 SEPM mid-year meeting that was held in Austin in late August. The meeting was successful in large part because of the diligent work of many department faculty and students and BEG scientists. Earle notes that it was not Texans who scheduled the meeting in Austin in August!

Earle is continuing his research activities on various facets of sandstone diagenesis. He gets lots of help from faculty colleagues and graduate students. He served as host to Professor A. M. Arush, a Fulbright Scholar from Somalia, during the spring semester.

For **Fred McDowell**, three events of the past year stand out as significant. Among these, the first has to be approval of funding, following two previous efforts, for a new thermal-emission mass spectrometer within the Department's isotope geology/geochronology component. These magical instruments have recently undergone enormous technical developments, so that they now produce isotopic data of unprecedented precision, versatility and efficiency. Such is their range of applicability that major geologic research groups can no longer afford to be without one. Soon after the funding was approved, Fred and Nick Walker made a brief visit to England and West Germany to attend factory demonstrations by the two viable manufacturers of these instruments. Apparently the market is too small to interest capable American manufacturers. The choice has been made and delivery of the spectrometer is expected this fall, perhaps at about the time this *Newsletter* is published.

Sharon Mosher spent most of this fall looking for new field areas and projects for field camp. She recently became field camp director and was charged with restructuring the camp. Sharon saw most of the geology of West Texas and New Mexico and finally settled on the Sacramento and Picturis Mountains for this year. This also gave her a perfect chance to perfect her snowball-making technique, as every time she ventured into New Mexico it snowed - even in September! She also field checked two Master's students, one working on the Precambrian in the Van Horn Mountains, West Texas, and one working on the western Narragansett Basin, Rhode Island. In the spring Sharon taught Structural Petrology and served as chairman of GSA's Research Grant committee and on the Structure and Tectonics Division's nominating committee. After serving on the grant committee for three years, Sharon feels she has a very good idea of what geological research is being done

in the U.S. today, but is looking forward to a spring that is **not** spent reading grants!

In the summer Sharon taught field camp for three weeks in the Picuris Mountains. Both daughters had an enjoyable time and her niece, Amy, again proved to be a gem of a babysitter. The rest of Sharon's time throughout the year was spent writing papers and grants and supervising students. The highlight of her year, however, was on April 2, with the birth of Sharon's second daughter, Lisa Courtney Helper, a 9 lb., 15 oz., 21 1/2" long bundle of joy. Sharon and Mark were once again blessed with a healthy, happy baby who sleeps at night.

Bill Muehlberger says this year is almost a repeat of last year's statement, "split time between the Tectonic Map of North American and teaching...extensive travel, some progress on completing the map, and ultimate deadlines sliding slowly into the future."

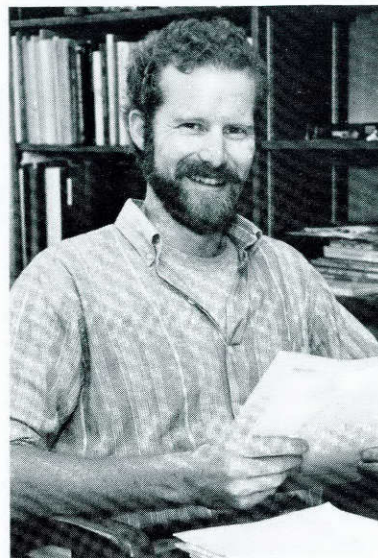
Final drafting of the south half of the map will begin this summer. With luck it should be off to the computer scanners by Christmas. A meeting in Paris, France, this February gave an opportunity to discuss the USSR, Greenland, and offshore Ireland segments of the map with the local countries' experts. It also tested his ability to survive in a foreign country in cold weather (35°F was the high that week!).

Several graduate student projects in the Marathon overthrust belt are being completed. Structural studies in the Terlingua mercury district, Texas and the Guayape fault zone (a major strike-slip fault), Honduras, and the Chiapas strike-slip fault belt, Mexico continue. Spring break field trip to the Big Bend region and Chihuahua reviewed present graduate problems and explored other potential projects with uncommitted students.

This year completed his tenure as an associate editor of the GSA *Bulletin* and member of the Science Advisory Committee of DOSECC (an NSF-funded program of scientific drilling). He is still a member of the Research Committee of AAPG, and a member of the oversight committee of the National Academy of Sciences/NRC for the Waste Isolation Pilot Project, near Carlsbad, New Mexico.

Timothy Rowe's first year at UT has been well filled between getting settled in the Department, teaching, continuing his previous research and initiating several new projects. This spring Tim taught a course new to UT, "The Age of Dinosaurs," and was most gratified that enrollment in the class topped 300 in its first year. Between fall and spring semesters, he spent one of the coldest winters on record in Warsaw and Moscow studying Permo-Mesozoic fossil vertebrate collections from eastern Europe and Asia. Tim was delighted to finally have an opportunity to try out his version of the Russian language on native speakers, who inexplicably seemed to prefer their own version. The trip enabled him to clear up some long-standing controversies, but it created some new ones to take their place. One new controversy is the global correlation of the Texas continental Permian. Fortunately, the solution to this problem lies closer to home and it will lead Tim to spend the summer in West Texas. Tim is also finishing several projects on the early

evolution of theropod dinosaurs, including the description of a new species, and is continuing research begun in his dissertation on the origin of Mammalia. These projects will take him to the Colorado Plateau for several weeks, as well as farther into West Texas.



Timothy Rowe

Amos Salvador states, "Not much new to report about the 1986-87 school year. Teaching and revising class notes took much of my time." What was left was devoted to writing and editing material for the volume on the geology of the Gulf of Mexico Basin for the GSA's project known as Decade of North America Geology (DNAG), and for the revision of the *International Stratigraphic Guide* being prepared by the International Subcommittee on Stratigraphic Classification (ISSC) of which he is chairman.

The highlight of the summer of 1986 was a splendid geological field trip to Scotland (AAPG Georoots) to visit the classic localities where early geological thinking was developed. Amos reports that rumors to the effect that it rains all the time in Scotland during the summer are entirely unfounded. The sun shone brightly for two solid weeks. Unfortunately, the summer of 1987 will be spent in Austin trying to give a final push to the DNAG volume of the Gulf of Mexico Basin.

The early part of 1987 saw the publication of a note on "Unconformity-bounded stratigraphic units" prepared by Amos as Chairman of ISSC (GSA *Bulletin*) and a paper on "Late Triassic-Jurassic paleogeography and origin of Gulf of Mexico Basin" (AAPG *Bulletin*).

John Sclater has been working on a variety of different topics during the past year, including an active seagoing research program in the Indian Ocean to study a region of intraplate deformation and the Ninety East Ridge in the Indian Ocean. He went to sea for one month as chief scientist on the Lamont Doherty Geological

Observatory's research vessel, *Robert H. Conrad*, to do site surveys preparatory to ocean drilling in these regions in 1988. The expedition started in Colombo, Sri Lanka and ended in Fremantle, Australia just before the start of the America's Cup races.

In addition to this, John spent a week in July at Discovery Bay in Jamaica helping organize cooperative research on the northern continental shelf of Jamaica with scientists from the University of West Indies. The UT portion of this work, a cooperative paper with Eric Rosencrantz of the Institute for Geophysics, uses subsidence studies to determine the age of the Cayman Trough. This paper was published in the *Journal of Earth and Planetary Science Letters* in 1986.

Other research areas of interest were the North Sea, and John was invited with Bill Galloway and an ex-UT undergraduate, John Crowell, now at UC Santa Barbara, to be the lead-off speakers at a conference on tectonics and sedimentary basins held in November, 1986 in Stavanger, Norway.

Jack Sharp has enjoyed this year out of the front office. John LaFave finished his MA and accepted one of several consulting firm offers in Minnesota. Perhaps the most exciting hydrogeology research finding by the hydrogroup was the documentation of differing hydrochemical facies along the Edwards Aquifer "bad-water zone."

Jack served as the GSA Hydrogeology Division program chairman at San Antonio and continued his other services to the GSA, the International Association of Hydrogeologists, and the American Institute of Hydrogeology. Four hydrogeology courses were taught again this year and the field methods class survived the fifth rattlesnake bite since WWII (by Sam Ellison's count). The Sharps are also surviving diapers, Cub Scouts, Little League, PTA, gymnastics and piano lessons. Duck season was a wash-out.

Doug Smith spent much of last spring getting accustomed to his new position as graduate advisor. He reports he is still learning more than he wants to know about the complexities of administration in a huge university. Teaching and research are also continuing to provide interesting challenges. He co-taught a course on the earth's mantle together with Cliff Frolich and Sharon Mosher. It was a real challenge for all three to combine their interests in rock deformation, seismology and petrology to make a coherent course, and he hopes that the students learned as much as the three instructors did. Besides, he says it was good to be reminded there are still research areas in the geological sciences in which almost nothing is known with certainty. Doug also taught courses in igneous petrology and in analytical techniques; the new equipment in the department is still a delight to teach with and to use for research.

Last summer, Doug spent much of his time thinking about and preparing publications on the flood of data generated by the new electron probe. He did get away to Arizona for a short time to study potassic volcanic rocks and the fragments which they bring to the surface from depth. These rocks are distantly related to the diamond-

bearing ones in Australia he visited a year ago, and they all tie into his interests in the evolution of the outer several hundred kilometers of the earth. He was also able to spend a little vacation time in Colorado looking at those kilometers that project well above sea level.



Doug Smith

Jim Sprinkle spent most of last year describing a large collection of silicified Mississippian blastoids from Montana that he collected in the 1960's while doing field work with Ray Gutschick, University of Notre Dame. Jim comments that "This project should have been done for a Master's thesis when I first went into graduate school, but unfortunately Harvard, in contrast to Texas, doesn't have a separate Master's thesis, and this project had to be put aside until recently." Jim has nearly finished work on this project with his coauthor and hopes to submit it sometime this summer. Another paper, with former graduate student Ron Lewis, has also been submitted, and Jim published a review of a controversial book in *Science*.

Jim taught paleobiology (to 38 juniors) and a research course in the fall, Plate Tectonics and Earth History (to 39 nonmajors and freshmen) plus Introduction to Paleontology: Fossils (Wann Langston's former course) in the spring, and three weeks of field geology in the summer. This was the smallest number of geology majors in these fall and spring courses since Jim first came here in 1971, but he feels we are near the bottom of another cycle, and enrollment should stabilize here or slowly start increasing again.

This year was extremely hectic, but enjoyable and productive for **Nick Walker**. Nick taught the undergraduate courses Petrology and Plate Tectonics, and Mineralogy and Petrology, and co-taught Regional Tectonics at the graduate level with Ian Dalziel. On the research front, he oversaw construction of the new isotope geology "clean lab," which was completed in May.

This facility is for chemical processing of rock and mineral samples for isotopic analysis. The primary focus of the lab will be U/Pb geochronology, but Rb/Sr and Sm/Nd isotopic investigations will also be conducted in the lab. Most of the summer was directed toward bringing this facility into full operation.

In January, the National Science Foundation funded a proposal submitted by Lynton Land, Leon Long, Fred McDowell, and Nick to provide matching funds for the acquisition of a new thermal ionization mass spectrometer. Other funds were provided by the University and the Geology Foundation. In February he visited geochronology labs in Toronto and Ottawa to meet with scientists currently using the two commercially available thermal ionization mass spectrometers. In March, Nick and Fred McDowell were invited to the factories of the two commercial mass spectrometers manufacturers' in England and Germany to evaluate which instrument best suited our research needs. They chose the German instrument and expect it to be delivered in early fall.

Nick is currently supervising two graduate students: Bob Roback, a PhD student who is working on an important regional tectonic problem in southeastern British Columbia and northeastern Washington state; Paul Carpenter, an MA student, is investigating the kinematic history of a major terrane boundary in northeastern Oregon.

Nick's current research projects, for which the new clean lab and mass spectrometer are indispensable, include tectonic studies in northeastern Oregon, the North Cascades, and in the San Gabriel Mountains of southern California and a U/Pb geochronologic study in the Llano Uplift.

John Warren was awarded a position as Visiting Professor in Nordic Petroleum Geology by the Nordic Council of Ministers. Accompanied by his family, he spent four months from July to December in the Scandinavian countries based at the University of Copenhagen. The position was a lectureship tour; while John lectured on his research in carbonate and evaporite deposition they managed to see quite a bit of the geology and scenery of Norway, Sweden, Denmark, Germany and England. John has become intrigued by the many similarities between the Permian of West Texas and Europe and will probably return to England to sample and study more of the Zechstein outcrop. John was back in Abu Dhabi at the end of December where he was an invited speaker at a symposium on Hydrocarbon Occurrence in the Overthrust Belt of the United Arab Emirates. He is now in the process of negotiating with the Ministry of Petroleum to set up two-to-four student projects in the Oman Mountains. But like everything else in the industry, the likelihood of funding from the UAE is very much dependent on what happens to the price of oil.

Since last year, two more of John's graduate students have completed their theses. Alice Spencer completed a Master's on the use of the evaporites in the Grayburg/Seven Rivers as a predictive tool in Yates Field, and John Worrall, a Master's on the Deposition and Diagenesis in the Smackover Formation in Hatter's Pond Field, Alabama. Alice is now working with Shell-Western

in Houston and John with Conoco in New Orleans. Given the state of the industry, it was a pleasant surprise that they had job offers and that both had more than one offer to choose from. Two new students have begun work with John in the last year. Todd Council, a Master's candidate, has begun a study of the genesis of carbonate sediments in Mono Lake, California. Sue Havorka has joined the PhD program at UT and will continue her work on the San Andres of west Texas as she works toward a doctorate.

During August of last year Mike Rosen, a PhD candidate working with John, went to Australia to present a paper they co-authored with Don Miser on the Coorong Dolomite. Mike presented the paper at the IAS meeting in Canberra, but after taking a field trip to Lake Frome in South Australia (John's home state), what intrigued Mike the most about Australia was the Australian lifestyle. John told Michael two jokes that he thought summed up life in the outback of his antipodean homeland:

"What's the difference between an Australian wedding and an Australian funeral?"

"One less drunk!"

To the average outback Australian there is only one thing worse than the evils of drink...thirst!



Clark Wilson

Clark Wilson spent the fall semester teaching the undergraduate exploration geophysics course, and travelled to meetings in Prague, Czechoslovakia for a week, and another in the Washington, D.C. area. Both meetings were concerned with earth rotation problems. In the spring semester, he taught his usual graduate seismology and undergraduate whole earth geophysics courses,

while preparing for a lecture tour of the People's Republic of China in May at the end of the semester, with visits to Beijing, Wuhan and Shanghai. Research continues on Project SEER problems related to the analysis of seismic reflection data with industry support, and on earth rotation problems under the Crustal Dynamics Project of NASA. Bicycle riding to school has become possible once more now that wife Ellin has decided to spend her days with daughter Kirsten, who will be two years old this year.

Jack Wilson and Marge took a cruise the Panama Canal last fall. It hadn't changed much since Jack went through it during World War II. On the other hand, the accommodations on a Holland-American luxury liner sure beat those of an Essex class aircraft carrier.

Jack's big mistake of last year was to open his mouth when he should have kept it shut; a lesson he should have learned long ago. He felt there was a need to teach a graduate course in vertebrate paleontology on the mammals of the early Tertiary and volunteered to do so. Three unlucky things developed after that: (1) the faculty agreed to let him do it, (2) six students signed up (minimum is five), and (3) the only time all the students could meet was on Tuesdays and Thursdays at 8:00 a.m.! Ah well, it has been fun.

During 1986-87 **Keith Young** taught physical geology twice, stratigraphy, and the Geology of Texas. In October of 1986 Keith was invited to present a paper at the symposium on History of Geology in the Southwest, at San Antonio. His presentation was "History of Geology of northern Mexico and Texas — the German Connection." He participated in and wrote a paper for the field trip on "The Balcones Escarpment."

Spring break of 1987 was spent in Chihuahua on the Conchos River studying and collecting the Jurassic near Placer de Guadalupe. As two weeks of the summer of 1986 had been spent at the British Museum studying Late Jurassic and Early Cretaceous ammonites, two weeks of the summer of 1987 were spent studying ammonites of the same age at Universite Claud Bernard at Lyon, France. Following France, Ann and Keith toured Scandinavia.

In all it was a profitable and interesting year.



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Department Conducts Minority Recruitment Program

by Earle F. McBride

In August, 1986 the Department presented a week-long course entitled "An Introduction to Geology and Geophysics" for 23 minority students from various Texas high schools. The purpose of the program was to introduce minority students to the various disciplines of and career opportunities in the geosciences and encourage them to attend The University of Texas at Austin as geology majors. Exxon Company USA provided a grant to fund this pilot minority recruitment program for 1986.

Approximately 80 Texas high school science counselors were contacted for their input as to appropriate minority students who might be interested in this program. We received 49 applications, of which 29 were selected and 23 participated. Of the 23, 15 were females (four black, 11 hispanic) and eight were males (four black, four hispanic). All students were in the top 25% of their class and all were high school seniors during the 1986-87 school year. Most of the students had taken courses in chemistry, physics, and advanced mathematics. San Antonio was the best represented area with 12 students, five came from Dallas, two from Laredo, and one each from Austin, Brownsville, Houston and Tyler. All food and housing expenses were covered by the grant.

At the conclusion of the week, 19 of the students stated they would definitely enroll at UT Austin and made arrangements with the admissions office to do so; two

students said they would study geology or geophysics; and four students interested in engineering stated that geology/geophysics would be their alternate choice.

Numerous departmental faculty and Bureau of Economic Geology research scientists helped make this a successful program. Bill Sill coordinated the course with the aid of Vicki Nelson and Ross De La Garza, both minority geology majors, and graduate student Teaching Assistant Tim Diggs. Earle McBride, who serves as Minority Liaison Officer for the Department, handled organizational matters.



Students at GEO 660 Field Camp measure section.

Geo 660 Gets New Look

by Sharon Mosher

Field camp, Geo 660, has a new look this year. The camp was restructured to provide a more coherent and diverse set of field projects and to allow flexibility in teaching schedules and field areas so more faculty could teach. The position of Field Camp Director was established to handle the necessary logistics. Emphasis is on learning field skills, interpretation of field data, and the regional tectonic setting of each area. This year the group had an excellent group of instructors, and many other faculty have expressed an interest in teaching in the future. Sharon Mosher has agreed to be Field Camp Director for the next couple of years.

This summer, the group started off in Carlsbad looking at the Permian reef complex in the Guadalupe Mountains with Earle McBride and John Warren, and then went on to the Sacramento Mountains. There they spent two weeks learning to map Paleozoic sediments and regional-scale structures on topographic maps and aerial photographs with Mark Helper and Jim Sprinkle and studying the carbonate section and bioherms with Sprinkle and Warren. Next they went to the Picuris Mountains where they learned to map and interpret complexly deformed Precambrian metamorphic rocks with Bill Carlson, Helper, and Sharon Mosher. Near the end of the course they studied the Taos Plateau and Rio Grande rift and mapped an exhumed volcano in southern Colorado with Helper and Long. The new field areas and format were quite successful and stimulating for both students and faculty. In future years the field areas will vary depending on the instructors; other possible areas include the Silver City area and the Nacimiento Uplift.

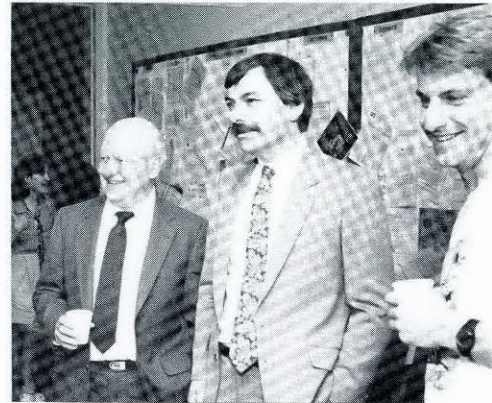
Visiting Speakers Academic Year 1986-87

- John Cherry, University of Waterloo, "Clay, groundwater, and waste disposal."
- Dexter Craig, AAPG Distinguished Lecturer, Marathon Oil Company, "Yates Field, West Texas: Thousands of caves, millions of years, billions of barrels."
- Ian Dalziel, Institute for Geophysics, "Inversion of circum-Pacific marginal basins."
- Jon Davidson, Southern Methodist University, "Magmagenesis in island arcs: Examples from the Lesser Antilles."
- Bob Dott, University of Wisconsin-Madison, "Topics in Sedimentary Petrology and Sedimentology."
- Nicholas Eyles, University of Toronto, "Glacial Marine Facies Models."
- Warren Hamilton, United States Geological Survey, "Detachment Faulting in the Death Valley Region."
- Russ Harmon, Southern Methodist University, "The upper mantle oxygen isotope story: Equilibrium or disequilibrium?"
- Hugh Hay-Roe, Murray Associates International, "User-friendly scientific writing."
- Bill Leeman, Rice University, "Petrogenesis of basalt and rhyolite in the Snake River Plain, Idaho."
- Andrew Miall, AAPG Distinguished Lecturer, University of Toronto, "Facies architecture in sedimentary basins: Decline and fall of the Vertical profile."
- John Morse, Texas A&M University, "Formation of sedimentary sulfide minerals with examples from Baffin Bay and Laguna Madre."
- Lloyd Pray, University of Wisconsin, "Capitan Reef Complex (Permian), Guadalupe Mountains, southwestern United States."
- William A. S. Sarjeant, University of Saskatchewan, "An Irish naturalist in Cuvier's laboratory: The earliest days of vertebrate paleontology."
- Frank Schwartz, University of Alberta, "Contaminant Hydrogeology."
- Christopher R. Scotese, Institute for Geophysics, "Reconstruction of the continents through time: The next best thing to time travel."
- Art Snoke, University of Wyoming, "Tectonic evolution of the Ruby Range, northeastern Nevada: A cordilleran metamorphic core complex."
- John Suppe, Princeton University, "Structure and mechanics of fold thrust belts."
- George Tunell, University of California at Santa Barbara, "Ore deposits of Mercury and Antimony."
- Rowl Twidale, University of South Australia, "Groundwater and landscape development."
- Jan Veizer, University of Ottawa, "The earth as a recycling system; temporal dimensions of global tectonics."
- Morris Viljoen, Johannesburg Consolidated Investment Co. Ltd., "The Bushveld Complex with special reference to platinum mineralization and late magmatic activity."
- Lynn M. Walter, Washington University, "Application of REE and Sr and S isotopic data to diagenetic calcites

and sulfides in the Smackover Formation (Jurassic, southwest Arkansas)."

David Webb, University of Florida, "Faunal dynamics during the Great American Interchange."

John Wolff, University of Texas at Arlington, "Petrogenesis of quaternary rhyolites of the James Mountains Volcanic Field, New Mexico."



Fred Oliver and Frank Schwartz visit with students after first lecture.

First Oliver Lecture

Professor Frank Schwartz, a well-known hydrogeologist from the University of Alberta, was the first Fred and Frances Oliver Lecturer in Texas Hydrology and Water Resources. Dr. Schwartz presented the Oliver Lecture at Technical Sessions on April 16, 1986. The title of his lecture was "Contaminant Hydrogeology: Stochastic Models of Transport in Fractured Media." This lecture was followed by a question-and-answer session in the graduate lounge and an evening reception and dinner. In addition to this lecture, Dr. Schwartz also presented ten hours of lectures on contaminant hydrogeology to Dr. Jack Sharp's two classes, Groundwater Hydrology (senior course) and Hydrogeological Digital Methods (graduate course). Oliver Lectures should continue to have a very positive impact on the hydrogeology program.

Hydrogeology Seminar Series

In the past few years, a hydrogeology seminar series has been conducted with the class in hydrogeology. This seminar series operates in addition to the regular Technical Sessions, which featured hydrogeological talks by Shlomo Neuman, John Cherry, and Frank Schwartz.

The following talks were presented in the Hydrogeology Seminar Series:

- Dr. C. M. Woodruff (consulting geologist) -
A Consultant's View of the Environmental Geology of the Austin Area.
- Rainer Senger (Bureau) -
Regional Flow Systems Analysis of the Palo Duro Basin, Texas and New Mexico.
- Dr. Charles Kreitler (Bureau) -
Hydrogeology and Aqueous Geochemistry of the East Texas Basin.

Dr. Larry Lake (Dept. of Petroleum Engineering) -
 Geochemical Flow Modeling.
 Tonia Clement (Department) -
 Hydrogeological and Geochemical Processes in the
 Edwards Aquifer.
 George Fletcher and Eric Muehlberger (Dames and
 Moore) -
 Water Rights Issues in the Southwest.
 Bill Mullican (Bureau) -
 Subsidence and Collapse over Texas Salt Domes.
 Curt Black (Department) -
 Hydrogeology of the Hickory Sandstone Aquifer,
 North Llano Uplift.
 Dr. Herb Grubb (Texas Water Development Board) -
 Texas Water Planning.
 Douglas Hall (Hall Southwest) -
 The Consulting Game.



Courses Offered in Spring, 1987 and Fall, 1987 Department of Geological Sciences

Undergraduate

- GEO 401 Physical Geology - Young, Cloos, Lagoe
 Nature, properties, and distribution of crustal materials; surficial processes; internal processes; origin of continents, oceans, and ocean basins; mineral and fuel resources.
- GEO 302K The Age of Dinosaurs - Rowe
 An introduction to the natural history of dinosaurs that discusses their evolution, functional morphology, ecology, intelligence and behavior. The course also covers the relationship of dinosaurs to other vertebrates, and their distribution in time and space.
- GEO 303 Introduction to Geology - Sill, Long
 Processes modifying the earth; geosynclines and continental evolution; origin and evolution of life; limitations of mineral resources; man and the environment.
- GEO 404C Plate Tectonics/Earth History - Sprinkle
 Application of plate tectonics to the origin and history of the earth's crust and the origin, evolution, and distribution of living organisms.
- GEO 405 Life Through Time - Rowe, Lundelius
 The history and development of life, and the processes of change from early Precambrian era to the present.
- GEO 307 Frontiers of Oceanography - Oppenheimer
 Description of basic biological, chemical, geological, hydrological, and physical features and processes of the oceans, including origin, evolution, uses and resources.
- GEO 312K Geology of Engineering - Sharp, Denham, Sclater
 Geologic processes, conditions, materials, and history, and their importance in engineering problems.
- GEO 315K Computational Methods - Stoffa
 Programming in FORTRAN, with applications to problems in geological sciences.
- GEO 416 Mineralogy & Petrology - Walker
 Introductory course in the study of rocks and minerals, including the elements of crystallography; determination of the common minerals by their physical properties; the origin, mode of occurrence, and determination of the common types of igneous, sedimentary, and metamorphic rocks from hand specimens.
- GEO 416K Crystallography & Optical Mineralogy - Barker
 Crystallography, crystal chemistry, optical properties, and identification of minerals; use of polarizing microscope.
- GEO 416L Igneous Rocks - Smith
 Generation, emplacement, and crystallization of magma; techniques of description and analysis, principles of classification, and hypotheses of origin of igneous rock and their constituent minerals.
- GEO 416M Depositional Processes - Kocurek, McBride, Warren
 An introduction to the interrelationships of landforms, processes, and geometry of depositional facies.
- GEO 316N Depositional Processes/Facies - Kocurek, McBride
 Basic concepts of processes involved in deposition of sediments and geological environments in which they occur.
- GEO 320K Elementary Field Geology - Sill, Helper
 Field observation of geological processes and study of the mineralogy, petrology, stratigraphy, paleontology and structural geology of central Texas.
- GEO 321 Stratigraphy - Young, Salvador
 Application of principles derived from sedimentology and paleobiology to stratigraphic nomenclature and historical interpretation of surface-deposited rocks.
- GEO 422K Paleobiology - Sprinkle
 Systematics, biostratigraphy, paleoecology, and evolution of fossil organisms.
- GEO 322L Introduction to Paleontology: Fossils - Rowe
 Lecture/laboratory study of the history of life as shown by fossil plants and animals, emphasizing the importance of fossil records in interpreting earth history.
- GEO 428 Structural Geology - Muehlberger
 Description, classification, and origin of earth structures. Solution of problems by descriptive geometry, geologic maps, and contouring.
- GEO 330K Petroleum Geology Basin/Trend Analysis - Galloway
 Techniques of finding and producing petroleum, including fundamentals of petroleum generation, migration, and entrapment; relation to depositional systems.
- GEO 335 Geology & Resources of Texas - Young
 Geologic history of the region; local rocks, fossils, and mineral deposits; influence of physiography, water supplies and mineral production on economy of the state.
- GEO 336K Sedimentary & Metamorphic Rocks - Carlson, Land
 Principles of weathering; texture, composition, structure, and origin of sediments, sedimentary rocks, and metamorphic rocks.
- GEO 341 Mineral Resources - Kyle
 Nature and origin of mineral deposits, their exploitation and conservation, and their importance in world affairs and world history.
- GEO 344K Marine Mining and Minerals - Moore
 Overview of seafloor mineral deposits, their exploration and mining.
- GEO 347K Gems and Gem Minerals - Jonas
 Crystallography, occurrence, and identification of gem minerals and materials; artificial gems; simple cutting and polishing; history of gems and gemology.
- GEO 354 Structure of the Earth - Wilson
 Earth structure implied by gravity, seismicity, heat flow, and the magnetic field; crustal movements and their effect on the configuration of oceans and continents.
- GEO 356 Geochemistry - Long
 Application of chemical laws, methods and data to the solution of geological problems.
- GEO 358K Volcanology - Barker
 Ash deposits, lava flows, eruption processes; prediction and mitigation of volcanic hazards.
- GEO 465K Introduction to Geophysics Exploration - Wilson
 Quantitative study of geophysical exploration methods, including seismology, gravity, magnetism.
- GEO 365M Geophysical Interpretation - Backus
 Problems and current techniques of interpreting seismic data employing examples of actual data, supplemented by synthetic and theoretical examples to clarify basic processes involved.
- GEO 365N Geophysical Data Processing - Backus
 Introduction to digital filtering and processing of geophysical exploration data.

- GEO 367K Oceanography-Exploration & Exploitation - Oppenheimer
Nonmathematical introduction to oceanography: geological, physical, chemical, biological, and applied aspects.
- GEO 368 Energy Resources - Salvador
Geological origin, exploration and valuation of oil, gas, coal, oil shale, tar sands, and uranium.
- GEO 368K Introduction to Geophysics Exploration - Nakamura
Wave motion principles and application to seismic exploration; magnetic, gravitational, and other geophysical prospecting methods.
- GEO 368N Application of Geology to Energy Resources - Galloway
Stratigraphic, structural, and geographic settings of oil, gas, oil shales, tar sands, coal, nuclear, and geothermal sources; classification, composition, extraction, and exploration methods are included.
- GEO 376K Groundwater Hydrology - Sharp
Introduction to subsurface hydrology, emphasizing geological controls on groundwater flow; quantitative methods of analyzing aquifer systems; regional hydrology; water quality and pollution.
- GEO 679GA Special Studies in Geophysics
GEO 679GB Special Studies in Geophysics
GEO 379H Honors Tutorial Course
GEO 279K Special Studies Advanced Geology
GEO 379K Special Studies Advanced Geology
GEO 379K Adv. Geology-Application of Paleomagnetism - Gose
- Graduate**
- GEO 380L Paleobiometrics - Lundelius
Statistical analysis of quantitative stratigraphic characterization of the subsurface.
- GEO 380N Seismic Stratigraphy - Brown
Use of seismic reflection systems for quantitative stratigraphic characterization of the subsurface.
- GEO 381K Tectonic Problems - Muehlberger
Origin of regional structural features, complex and controversial structures; tectonic control of ore deposits.
- GEO 383 Depositional Systems -Terrigenous/Clastic - Galloway
The processes, characteristics, and relationships among fluvial, deltaic, strand plain, lagoon, shelf, and slope depositional systems; depositional basin analysis used in stratigraphy and economic geology.
- GEO 383L Petrography of Sandstones - McBride
Mineralogy of sedimentary rocks; thin-section examination of sandstones, with emphasis on paleogeographic, tectonic, and environmental interpretation.
- GEO 383M Petrography of Carbonates - Land
Thin-section and hand-specimen study of mudrocks, carbonate rock, and chemical sediments, with emphasis on paragenetic and environmental interpretation.
- GEO 383N Biogenic & Evaporite Depositional Systems - Warren
Interpretation of genesis of evaporite and biogenic rocks from sedimentary structures, facies analyses, and vertical sequences.
- GEO 385C Geodynamics-Deformation of Solid Earth - Sclater, Frohlich
Part of a two-semester sequence covering fundamentals of plate tectonics, observational marine geology, geophysics, observational earthquake seismology, and other topics in tectonic processes and earth deformation.
- GEO 385D Geodynamics: Marine Geology/Geophysics - Sclater
Part of a two-semester sequence covering fundamentals of plate tectonics, observational marine geology, geophysics, observational earthquake seismology, and other topics in tectonic processes and earth deformation.
- GEO 385K Micropaleontology - Lagoe
Morphology, classification, stratigraphic ranges, and paleoecology of foraminifers, ostracods, conodonts, and other microfossils, with emphasis on economic applications to petroleum geology.
- GEO 385M Paleobotany - Delevoryas
Geologic and evolutionary history of the plant kingdom as preserved in the fossil record.
- GEO 185N Paleobotany Laboratory - Delevoryas
Demonstration of fossilization processes, representative groups of fossil plants, and instruction on various field and laboratory techniques.
- GEO 386K Igneous Petrology - Barker
Origin, differentiation, and crystallization of igneous rocks.
- GEO 386L Geology of Petroleum - Salvador
Theory and problems of the geology of petroleum; a study of petroleum basins worldwide.
- GEO 388L Isotope Geology - Long
Relation of isotope fractionation to earth processes; age determinations from ratios of unstable isotopes to daughter products; techniques of mass spectrometry.
- GEO 388M Seminar in Isotope Geology - Long
In-depth examination of topics in isotope geology, including stable isotope and radioactive decay systems.
- GEO 389K Paleontologic Nomenclature & Techniques - Sprinkle
Rules of nomenclature: preparation, illustration and description of Paleozoic invertebrate fossils.
- GEO 390M Thermodynamics of Geologic Processes - Smith
Applications of physical chemistry to natural systems; interactions of minerals, solutions, and the atmosphere.
- GEO 391C Hydrogeology - Sharp
Ground water - its chemistry, migration, and relation to geologic environments; aquifer analysis; water quality.
- GEO 391D Regional Tectonics - Dalziel, Walker
Development of tectonic theory culminating in the new global tectonics, and application of theory to selected orogenic areas.
- GEO 391G Mineral Deposits Volcanic Rock - Kyle
Geology of mineral deposits related to subaqueous and subaerial volcanic processes; genetic problems, metallogenic relationships, and economic importance.
- GEO 391J Mineral/Energy Research: Geology/Economics/Policy - van Rensburg
A survey of the geological and economic aspects of resources that impact on recent and current policy issues.
- GEO 391N Analytical Techniques and Applications in Geology -Barker, Smith
Theory of modern analytical methods and applications to geology and mineralogy; laboratory emphasis on electron microprobe and X-ray fluorescence analysis.
- GEO 391Q Topics in Quaternary Geology - Lundelius
Interdisciplinary analysis of Quaternary chronology, environments, climatic changes, and erosional-depositional processes.
- GEO 392K Vertebrate Biostratigraphy - Lundelius
Vertebrate paleontology for geologists; field methods, stratigraphic analysis, seismic data acquisitions, data processing, interpretation.
- GEO 193 Technical Sessions
- GEO 394K Advanced Structural Geology - Mosher
Origin of earth structures, solution of advanced structural problems, newest techniques, and field problems.
- GEO 395M Linear Systems Analysis in Geophysics - Wilson
Analysis of linear systems and sampled data systems, statistical treatment of time series, spectral analysis, correlation analysis, sampling theory, signal extraction, and filter theory.
- GEO 396L Elastic Wave Propagation for Exploits - Wilson
Wave propagation in layered media, solutions of scalar wave equation in three dimensions, ray theory, normal mode theory, diffraction theory for elastic waves.
- GEO 396M Seismic Data Processing & Analysis - Stoffa
Processing flow and decision making during seismic data reduction from field data to final geologic cross-section.
- GEO 197K Advanced Geophysics Seminar - Wilson
GEO 298T Supervisory Teaching for Graduate Students in Geology - Sill, Young

A Salute to Ronald DeFord

Ronald DeFord experienced so many milestones during 1987 that we could not let the opportunity pass to recognize his achievements, particularly with respect to his significant impact on the Department of Geological Sciences and The University. Several stories have been printed in earlier issues of the *Newsletter* about honors Ronald has received for dedicated service: the Individual Merit Award from Colorado School of Mines in 1963, a meeting and field trip in Midland in 1970 co-sponsored by the West Texas Geological Society and the Department; then a second series of lectures and field trip sponsored by WTGS in 1975 in Ronald's honor.

The year 1987 was significant for Ronald for at least two reasons: 1) he celebrated his 85th birthday in January; 2) at the end of the spring semester he stepped down from his long-term position as the faculty supervisor of Technical Sessions. Ronald's wife, Marion, gave a festive birthday party for him, complete with a photo exhibit depicting Ronald's life from early childhood to the present. Marion has kindly allowed us to use several of those photos to accompany this article.

A brief recitation of highlights of Ronald's career:

- 1918-21 Cadet Major ROTC (ranking cadet officer at Colorado School of Mines)
- 1920 Tau Beta Pi; Sigma Gamma Epsilon
- 1929 Permian Basin Petroleum Pioneer
- 1941 Listed in *Who's Who in Engineering*
- 1942 President, West Texas Geological Society
- 1949 Listed in *American Men of Science*
- 1958 Honorary Life Member, WTGS
- 1963 Colorado School of Mines Individual Merit Award



Field trip to San Carlos and Rim Rock Country in 1977, co-led with John Brand.

- 1965 AAPG Honorary Member
- 1966 Phi Kappa Phi
- 1966 Founding Member, Chancellor's Council, UT Austin
- 1968 Designated "Profesor Extraordinario" by La Universidad Nacional Autónoma de Mexico
- 1969 Faculty Fellow Award from Library Staff Association, UT
- 1970 Certificate of Recognition, American Commission on Stratigraphic Nomenclature
- 1970 Inducted into the Petroleum Museum, Permian Basin Hall of Fame
- 1971 Certificate of Appreciation, Colorado School of Mines
- 1972 Professor Emeritus, UT Austin
- 1984 Award from Geology Foundation for major support to the Department of Geological Sciences

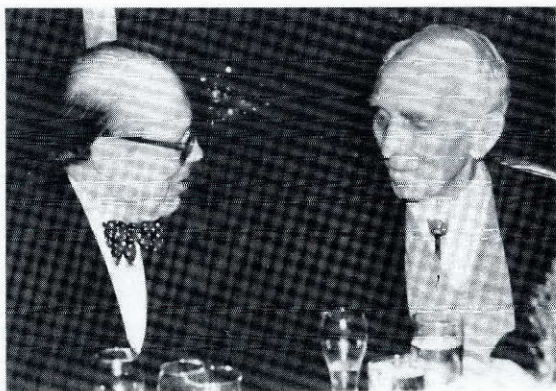
Ronald received a degree in mining engineering from Colorado School of Mines in 1921, and completed his MS degree in geology there in 1922. From 1922 to 1924 he was an Instructor in chemistry at CSM. In the summer of 1923 Ronald worked for Midwest Refining Company, then began working there on a permanent basis in 1924. He returned to CSM in 1931, but this time he was an Assistant Professor of English. From 1933 until 1948 he was Chief Geologist for Argo Oil Corporation in Midland. During those years he was active in the West Texas Geological Society, and served as president in 1942. In 1948 he joined the UT Austin faculty as Professor of Geology, and served as Graduate Advisor from January, 1949 until May, 1967.



Chihuahua, Mexico, 1965. L-R: Ronald, Teodoro Diaz, Walt Haenggi, Santiago Reynolds.

Although Ronald retired from active teaching in 1972, he remained active in his profession (he and Marion attended AAPG in Atlanta in 1986) and continued his involvement in GEO 193, the course for which he is probably best remembered by ex-students. Ronald has been involved in that course since its beginning.

The history of the course now known as Technical Sessions is somewhat vague. Ronald recalls that in September, 1952 he was the University's representative to the International Geological Congress in Algiers. Ed Owen, who was a consultant in San Antonio, agreed to teach Ronald's classes in his absence. That brief teaching experience led Ed Owen in September, 1953 to establish a weekly "seminar" (GEO 093) for graduate



Hugh Hay-Roe and Ronald reminisce at Ronald's 85th birthday celebration.

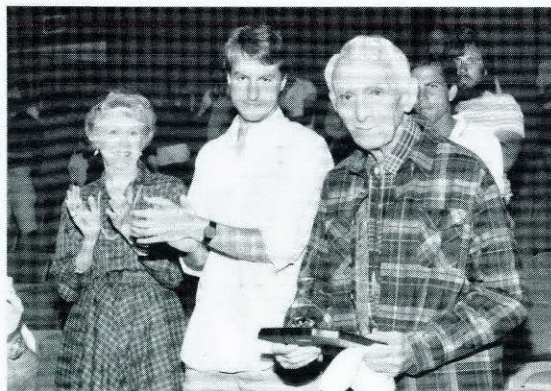
students in which distinguished guests from outside the Department were invited to speak. Speakers included chief executive officers of major companies, and prominent "movers and shakers" in politics, history, philosophy and fine arts. No credit was given for attending the course until fall, 1954, when it officially became GEO 193. Meanwhile, a weekly meeting of graduate students was founded in which each candidate for the MA or the PhD degree was required to give a report of his research investigation. Thus the two meetings were united into GEO 193 around 1957. It met twice a week with one meeting conducted as a scientific session for formal presentation of graduate student research and the other meeting was to hear visiting speakers. Ed Owen continued to organize the visits of speakers (a service he performed without pay), while the graduate students were responsible for organizing the student research presentations under Professor DeFord's supervision. Ronald also gave talks during those sessions on thesis writing and related subjects. At one point, Professor Charlie Bell remarked that the new format was not really a "seminar," so Ronald suggested the title "Technical Sessions," which became the official name in September, 1958. A mid-semester examination in GEO 193 was based on the U. S. Geological Survey's "Suggestions to



Dr. and Mrs. George Fancher congratulate Ronald at his birthday party.

Authors." Gradually faculty members assisted in finding guest speakers and also sometimes served as speakers themselves. Eventually Ed Owen relinquished the task of finding speakers, and the graduate students carried out the organizational responsibilities of both meetings.

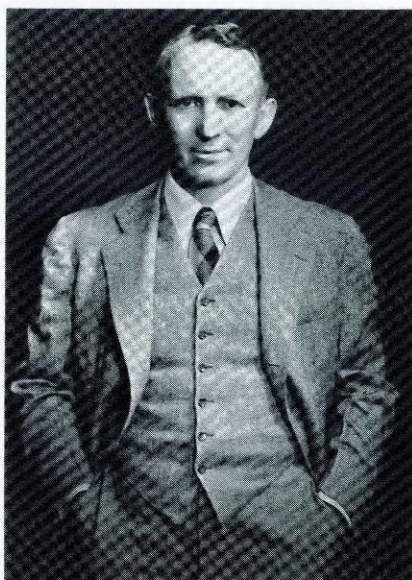
On two occasions this year Ronald was honored by the students and faculty for his part in the development of GEO 193. In October, 1986 he was presented with a volume of abstracts of "Tech Talks" for the past nine years (see following article by Fred McDowell). Then on May 7, 1987, the last Tech Session class of the semester, Professor DeFord was presented with a walnut plaque decorated with a pyrite specimen, in gratitude for his many years of dedicated service supervising GEO 193. He received a standing ovation from the large group of faculty members, students, and staff assembled there, and then was the guest of honor at a reception which marked the close of another year of Technical Sessions. He has made a mark in this Department that few faculty members have achieved. The effective continuation of Tech Sessions in years to come will be most difficult without the guidance of RKD.



Ronald holds plaque presented by Keith Young on behalf of the Department in appreciation of his many years of service supervising GEO 193, Tech Sessions.



Ronald at the time of his graduation from Colorado School of Mines, 1922.



Ronald at age 35, 1937.



Portrait of Ronald taken in 1970 for the Hall of Fame, Petroleum Museum, Permian Basin in Midland.

TECHNICAL SESSIONS AND THE RONALD K. DEFORD VOLUME

by

Fred W. McDowell

Mention Technical Sessions to any of our graduate alumni and the name of Ronald DeFord will no doubt quickly enter the conversation. For countless years Ronald has been the driving force behind the organization, conduct and evolution of this Departmental institution, in which our graduate students are required to present formally the results of their research to an audience of faculty and students. Everyone knows that the superior ability our students display in presenting well organized and delivered papers in professional meetings is a direct result of their experience with Technical Sessions. Astonishingly, no permanent archive has been kept for Technical Sessions.

Out of a casual hallway discussion came the idea to remedy this oversight by gathering abstracts for students' Technical Sessions presentations as far in the past as possible. These abstracts represent the only lasting product of the "tech talks," and they are the only part not due solely to the students' efforts. Most graduate students have an indelible recollection of their editing session with Ronald, during which the abstract was scrutinized word by word. The result for the student, gained in some cases at the expense of a minor ego bruising, was a unique lesson in English usage and clarity of expression. After the abstract was polished to satisfaction, it was mass produced for the Technical Sessions audience. The value of these abstracts beyond that time, however, has not generally been recognized, and virtually all copies have been discarded. Thankfully, our search for them was eased by the foresight of Ann Page and her predecessors in the Graduate Office in maintaining a file of both abstracts and program announcements for the past nine years (1976-77 through 1985-86). From the announcements, we were able to reconstruct the complete program for that period, and then to locate abstracts for 404 of the 413 presentations given. These were cleaned up and copied for binding into four volumes: two for the Geology Library, one for the Graduate Advisor's office, and a special leather-bound edition for presentation to Ronald. This began simply as an effort to create a meaningful tribute to Ronald's years of dedication to Technical Sessions, but it quickly presented clear potential as an important library resource. To enhance this potential, the volume begins with a chronological summary of the presentations, giving title, author, date, and it concludes with four separate indexes arranged by author, faculty supervisor, general subject and general field locations. We are certain that the volume has more significance to Ronald because it is in use in our library.

A public presentation of the volume to Ronald was appropriately scheduled for a regular period of Technical Sessions. A critical goal was to keep the presentation and the volume a total surprise for Ronald. The feat was accomplished only with splendid help from Marion

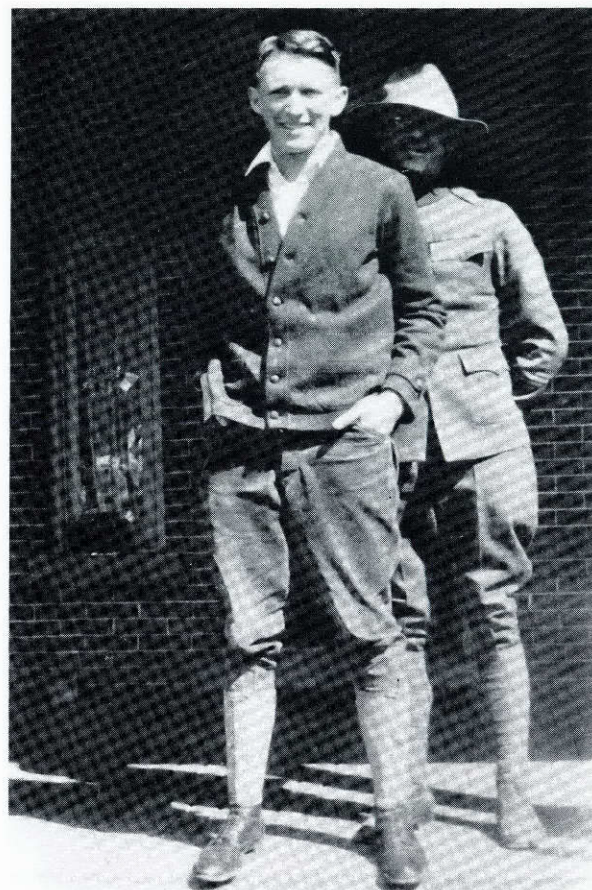
DeFord. The official Technical Sessions program announcement for October 2, 1986 contained the uninformative title, "A Technical Sessions Presentation" with Fred McDowell listed as speaker (no abstract was prepared). Word of mouth was used to spread the real purpose of the event. Surely Ronald must have wondered what useful things an upstart, with a mere 17 years of residence in the Department, might have to say about Technical Sessions. He could not have been comforted at the outset when the suitability of the traditional Tech Talk opening line, "Ladies and Gentlemen of Technical Sessions, Professor DeFord," was questioned. However, the tone quickly changed to a call for Ronald and Marion to come forward for the presentation. The surprise clearly worked, for Ronald was as speechless as a new grad student on introduction day. This only helped us to quickly terminate the formalities so that we could all adjourn to a crowded and festive informal reception. There, Ronald regained his usual eloquence to thank us more fully and to briefly reminisce about Departmental history. All in all it was one of those rare occasions that gives our large Department its special glow.



Fred McDowell presents leather-bound volume of Tech Sessions abstracts to R.K.D.

The planning and preparation of this volume can only be described as a labor of love. Considerable time, effort, and guidance were provided by Ann Page, Betty Kurtz and Joyce Best of the Department staff; by Kitty Coley, Technical Sessions Student Chairwoman for Fall, 1986; and by Walter Neal of the University's Printing Division. The Geology Foundation underwrote the costs of preparing the volume and of the reception.

Lest we become complacent at having documented a nine-year period of Technical Sessions, we should note that this interval fails even to extend back to the date of Ronald's official retirement from the University! Therefore plans are afoot to assemble more of the history of Technical Sessions. Graduate alumni, please read the highlighted announcement elsewhere on this page to see how you can help!



Ronald as senior at Colorado School of Mines, 1921.

GRADUATE STUDENT ALUMS - ALERT!

*If you have read the article on the Ronald K. DeFord Volume, you know of our desire to continue compiling a full set of Technical Sessions abstracts. However, our task is now much more difficult than for the completed volume, because we lack schedules for the student presentations during the earlier years. We have found several abstracts in Department files but we do not know which ones we are missing. **Please search your files for a copy of your abstract.** If you gave your presentation before Fall, 1976, we would like to borrow the abstract and copy it for an R.K.D. sequel. Don't worry about its condition, we will retype it if necessary. We also promise to return it promptly. **Don't be left out of this next volume if you can possibly avoid it!***

Student News

University Student Geological Society

The University Student Geological Society (USGS) is a student organization in the Department of Geological Sciences. Membership is open to anyone interested in earth sciences, and officers of the club are elected each year by the members. The activities of the organization are wide-ranging. Guest speakers, usually faculty members or professionals in industry, are a standard feature of our biweekly, Friday noon meetings. The lectures cover a variety of geology-related subjects, and the technical level of the presentations is general enough to be interesting to audiences in all of the natural science fields. Recently Dr. Doug Smith delighted us with a close-up view of the diamond industry in Australia, Dr. Priscilla Nelson from the Department of Civil Engineering informed us on the many geological problems associated with tunnel-building, and Dr. Tim Rowe and Dr. Wann Langston teased our imaginations with images of dinosaurs and pterosaurs.

The USGS is much more than another lecture session, though. We provide opportunities for field trips, such as caving in Bustamante, Mexico, fossil-hunting in Central Texas, and much more. Field trips are escorted by professors from the Department, and are always open for suggestion. Blount Mountain, Marble Falls and Port Aransas have all hosted the USGS on different occasions.

Aside from providing a valuable educational experience to students, the USGS serves as a unifying social structure in the Department. Bimonthly "beer-busts," semi-annual departmental picnics and student/faculty socials bring much needed relief to a hectic semester. This year was no exception. The "beer-busts" have been moved to Eastwoods Park, just east of campus. The additional space and convenience of the new location have allowed the club's new volleyball set to contribute countless hours of fun to the recent Eastwoods parties. Two picnics, one in the fall at Pease Park, and the other this spring at Zilker Park, were enjoyed by all, and we hope to continue this two-year tradition for many years to come.

Becoming an active member in the club assures a student of being well-informed and familiar with all of the important processes in the Department of Geological Sciences. Especially important are the establishment of close contact with faculty, staff, and interaction between undergraduate and graduate students. Valuable information on scholarships and professional organizations is also available through club meetings. A new and valiant effort is being made to obtain an undergraduate lounge in the building. Our hope is that such a facility would provide a place to study and eat lunch in a casual environment. A lounge would also serve as a student mecca, where graduate and undergraduate students, as well as faculty and staff, could all interact on a basis other than teacher and student.

Membership to the USGS is free and unlimited. Fund-raising events, such as bakesales, T-shirt sales

and guidebook production and sales, are important to the sustenance of the organization, and they provide a means for outsiders to become familiar with our club and its activities. This year, over \$200 in revenues were gained in bakesales and T-shirt sales alone. Linda Balcom won the T-shirt design contest, and she was awarded a free T-shirt for her contribution.

In keeping with tradition, the USGS participated in the Austin Gem and Minerals Show this year. Guidebooks, sample bags and T-shirts were just a few of the items on display and for sale at our booth. We also provide tutoring service to undergraduates in the Geological Sciences. These and many other activities make membership in the USGS an invaluable experience as a Natural Sciences student at UT.

New officers for the 1987-1988 academic year are:

President: Rusty Tarver

Vice-President: Paul Warren

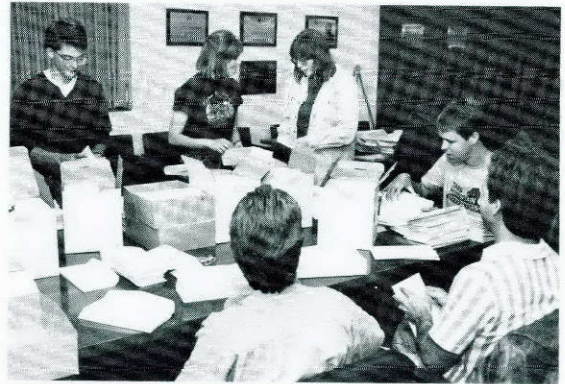
Treasurer: Leslie Hay

Secretary: April Lloyd

Student Liaison: Corbi Shurtleff

All of the graduating officers of the 1986-87 club wish the best of luck for a productive and successful next year to the new officers and members!

Cindy Fong
President 1986-87



Students from USGS and AAPG assist with Department alumni mailing.

Student Chapter AAPG

The student chapter of the American Association of Petroleum Geologists has had another successful year. We increased our membership, met our goal of sending an officer to the annual convention in Los Angeles and participated in many activities in association with the University Student Geological Society.

We started the academic year with a fall picnic, sending invitations to the faculty personally. Attendance was good, and students and faculty alike got a chance to polish their volleyball skills for the many games that would follow.

We continued to have our bimonthly lecture series in which we had a wide range of excellent talks involving many aspects of geologic interest. Most of our lectures were given by professors in our department. They include:

"Salt Domes and their Cap Rocks" by Dr. Richard Kyle

"A Birdseye View of West Texas" by Dr. William Muehlberger

"Student Geophysical Cruises to the Gulf of Mexico" by Dr. E. William Behrens

"Techniques on Illustrations and Slide Making" by Jeff Horowitz, Department Draftsman

"So You Want to Go to Graduate School" by Dr. Mark Cloos

"Earth Rotations" by Dr. Clark Wilson

Dr. Robert K. Suchecki of Southern Methodist University spoke on "Alloyclic Control of Stratigraphic and Diagenetic History in the Triassic-Jurassic Hartford and Fundy Rift-Basin."

We were determined to make field trips an important part of our academic year. As a result we had several informative trips including a field trip to several localities in central Texas thanks to Dr. Robert Folk and Dr. Earle McBride. We took a trip to see the radiocarbon dating lab at Balcones Research center, and a trip in association with the University Geophysical Society to Mobil, Inc. in Dallas.

The officers for the 1987-88 academic year are:

President: Robert Buehring

Vice-President: David Evans

Secretary: Namho Baag

Treasurer: Ginger Braswell

Faculty Advisor: Amos Salvador

Other important projects included raising money, two successful bakesales, our annual T-shirt sale, and several envelope stuffings for the Geology Foundation. Most of our profits were split with the USGS. As of May 19 we had a total of thirty dollars in our account, but we expect this to increase as more T-shirts are sold.

We have many big goals for the coming year, including the printing of a new guide book entitled, "Groundwater Resources of the Counties of the Lower Colorado River Authority Region, with help from Dr. Jack Sharp and his hydrology class.

We are very thankful to the Department for helping us in so many ways. We are especially indebted to Donna Precht for helping us manage the T-shirt sales. We would also like to thank the professors for the entertaining and educational lectures. We hope to continue to have our informative lecture series as well as maintaining our high spirits for the future of the petroleum geology industry.

Aimee Beveridge
President 1986-87



Frisbee Team, back row (l-r): Karen Meador, Steve Kautz, Bob Roback, Steve Germiot, Kay Higgins. Front row: Bill Dingus, Bill Agee, Chuck Stone.



Track Team, back row (l-r): Rick Paige, Steve Kautz, Steve Germiot, Dave Bristol. Front row: Ted Stout, Philip Weatherill, Bill Agee.

GSEC Rides Again

This semester an amazing thing happened within the realm of the UT Geological Sciences Department. Some said that it could not be and stood in awe as the realization overcame them. Others, admittedly, were less impressed, but still approving. We are referring, of course, to the resurrection of GSEC, the Graduate Student Executive Committee. Although long taken for dead, it has recently become viable.

For those who may ask, "What is GSEC and what is it good for?" let us illuminate. Even the most deliberate of the slow students cannot remember the days before the existence of GSEC. In the past, however, the answer to the aforementioned question might well have been, "It is rumored they plan a picnic or something once a year."

GSEC was, at best, boring. But today's GSEC is a changed lot. This semester GSEC's seven elected student representatives have banded with their fellow graduate students and, with the help of the faculty and staff, have accomplished great things. First on the "Great Things" list was the installation of first-aid equipment in various areas of the Department (luckily none has been used yet), the installation of Macintosh and IBM computers with an Apple Laserwriter printer, and five slide projectors dedicated to graduate student use. Too, GSEC helped define the process by which the students will take over the

Outside Speaker Program. At their request, a graduate student was again placed on the Faculty Search Committee. GSEC kept the Department news flowing via a new and lively newsletter and made strides in unifying the activities of the Department, the Institute, and the Bureau. The Czar system (a Czar is a student volunteer who oversees equipment, etc.) was overhauled and is running smoothly.

Many things need still to be done. Acquisition of a new copy machine is high on the list. (Research has shown that one can pay for itself in three years.) The upgrading of new student orientation in order to more rapidly entrain fledgling scientists into the geology family is another priority item. Some, however, think GSEC's prime concern should be mental well-being, not only of the students but of the faculty and staff as well. After all, great research comes from great minds, and great minds require a type of periodic release which only social interaction can provide (read: parties). There is, in truth, a dearth of interaction and it is correlative to the general apathy which once prevailed. Next year GSEC has planned an orientation mixer for each semester, a Christmas party, two field trips entitled "Ain't Texas Great!" and more. How GSEC is going to pay for them is still a mystery but, somehow, everything always works out.

Yes, GSEC is still kicking. Primarily because one leg is still asleep. But, keep watching! Once they get a full head of steam there is no telling what the graduate students will do.

Franz Hiebert, President
Bill Dingus, Secretary

STUDENT SPEAKERS

Technical Sessions

Fall 1986

- Curt W. Black, "Hydrogeologic investigation of the Cambrian Hickory Sandstone - northwestern Llano Uplift, Texas."
- David A. Bristol, "Structural evolution of basement rocks within the northwest Van Horn Mountains, Hudspeth and Culberson Counties, west Texas."
- William Van Conover, "Regional genetic stratigraphy and depositional model for the basal Miocene Planulina Sands, southwest and south central Louisiana."
- Jeffrey D. Corrigan, "Geology of the Burica Peninsula, Panama-Costa Rica: Late Neogene uplift of a portion of the Middle America Trench Slope."
- Shirley P. Dutton, "Diagenesis of the Lower Cretaceous Travis Peak Formation, east Texas."
- John P. Giltner, "Application of extensional models to the northern Viking Graben, North Sea."
- Peter H. Hennings, "Basement/cover rock relations of the Dry Fork Ridge Anticline Termination, northeast Bighorn Mountains, Wyoming and Montana."
- Franz K. Hiebert, "The role of bacteria in the deposition and early diagenesis of the Posidonienschiefer (A Jurassic organic rich shale of southern Germany)."
- Daniel C. Huston, "Some reasons why seismic lines don't tie."

- Ronald A. Johns, "The brachiopods of the Middle Ordovician Bromide Formation in southern Oklahoma."
- Julia B. Knight, "Eolian bedform reconstruction: A case study from the Page Sandstone (Jurassic), northern Arizona."
- David B. Rosenthal, "Acoustic basement in the deep eastern Gulf of Mexico: Structure and possible tectonic boundaries."
- Malcolm I. Ross, "The age of the Cayman Trough, Caribbean Sea: New evidence from magnetic anomalies."
- Mark D. Shorey, "Estimates of post Permian extension in the central North Sea based on analysis of high quality seismic data."
- Alice W. Spencer, "Depositional styles in the Queen and Seven Rivers Formations, Yates Field, Pecos County, Texas."

Spring 1987

- Scott D. Birmingham, "Geology and igneous petrology of the Cripple Creek Volcanic field, central Colorado."
- Tonia J. Clement, "Hydrochemical facies along the bad water line of the Edwards Aquifer."
- William F. Dingus, "Morphology, paleogeographic setting, and origin of the Upper Wilcox Yoakum Channel, central coastal plain, Texas."
- Steven L. Dobbs, "Elastic waveform inversion in P-T."
- John J. Farrelly, "Depositional setting and evolution of the upper Pliocene-Pleistocene section of southeast Trinidad, West Indies."
- Lisa M. Gahagan, "A new map of the age of the ocean basins."
- Bruce C. Gates, "Stratigraphic architecture and depositional history of the Planulina Trend, Lower Miocene, southwest Louisiana."
- John W. Kuehne, "Global water storage time series for earth rotation studies."
- George A. Laguros, "Seismic-stratigraphic analysis of sedimentary processes in the Pelagic carbonate sequences of the equatorial Pacific."
- Tung-Yi Lee, "Seismic stratigraphic studies of Tungyinta Basin, offshore northern Taiwan."
- Joseph R. Ramage, "Cyclic stratigraphy of the Permian Clear Fork Group, Texas Panhandle."
- Peter R. Tauvers, "New insights into the structure of the Marathon Basin Uplift, west Texas."
- Sleshi Tebedge, "Pleistocene mammalian fauna of Dark Canyon Cave, Eddy County, New Mexico."
- Paulo Vasconcelos, "The geochemistry of gold in the weathering environment."
- David A. Wark, "Silicic volcanism at Tomachic, northern Sierra Madre Occidental, during the final stages in the evolution of a continental magmatic arc."
- James W. Westgate, "The Casa Blanca local fauna: The first Eocene land mammal fauna from the north American coastal plain and its stratigraphic implications."
- Amy Wilkerson, "A petrogenic and geochemical analysis of Garnet-Pyroxene Rocks from northwest Llano Uplift, Texas."
- Leigh Wood, "Development of a structural framework from seismic reflection data."

TEACHING ASSISTANTS

1986-87 Academic Year

David N. Awwiller
Nancy L. Barber
Sean T. Boerner
David A. Bristol
Karen E. Carter
Celia A. Clowe
Becky J. Coel
Janet M. Coleman
Katharine L. Coley
William B. Copeland
Jeffrey D. Corrigan
Todd A. Council
Andrew P. Czebieniak
Cambria Denison
Ruurdjan DeZoeten
Timothy N. Diggs
William F. Dingus
Andrew C. Donnelly
Stephen I. Dworkin
John A. Dunbar
Steve J. Germiot
Gretchen M. Gillis
Mark B. Gordon
Michael S. Hall
Peter H. Hennings
George A. Laguros

Holly J. Lund
Julianne P. Mahler
Michael O. Maler
Janet E. Manchester
Catherine L. Mayes
James K. Miller
Peter J. Oberst
Jeffrey G. Pittman
Rodulfo Prieto
Brian H. Reck
Shawn A. Reynolds
Anthony C. Runkel
Harlan T. Sutherland
Michael L. Sweet
John A. Tenison
Richard S. Toomey
Deborah S. Travis
Bruce N. Turbeville
Paulo M. Vasconcelos
David Wih-jy Wang
David A. Wark
Philip M. Weatherill
Paul Weimer
Leslie A. White
Thomas A. Williams
Susan N. Witebsky



Ben Davis and Karen Carter examine petrographic specimens they identified to win the Petrography Contest.

RESEARCH ASSISTANTS

1986-87 Academic Year

Departmental

David N. Awwiller
Reginald H. Beardsley
Nikolaos Bernitsas
Jonathan G. Blount
Celia A. Clowe
William B. Copeland
Jeffrey D. Corrigan
Timothy N. Diggs
Steven L. Dobbs
Stephen I. Dworkin
Christopher J. Finn
Mark J. Graebner
Roberto Gutierrez
Daniel C. Huston

John w. Kuehne
Deborah S. Pfeiffer
James D. Prikryl
Jeffrey A. Sauve
James L. Simmons
Keith B. Sullivan
Harlan T. Sutherland
Peter R. Tauvers
Robert D. Walters
Leslie A. White
John C. Wilson
Amy Wilkerson
Becky L. Wood

Bureau of Economic Geology

Arten J. Avakian
Nancy J. Banta
Jonathan G. Blount
Harris S. Cander
William F. Dingus
Henry E. Eby
Mark E. Erwin
John C. Gholston
Gay Nell Gutierrez
Peter H. Hennings
Susan Ide
Donald E. Miser

Daniel J. Neuberger
Richard E. Paige
Matthew J. Parsley
Deborah S. Pfeiffer
James R. Reistroffer
Michael R. Rosen
Richard H. Sams
Alice W. Spencer
Allan R. Standen
Timothy G. Walter
Warren T. Wood
John G. Worrall

Institute for Geophysics

William Corso
Lisa M. Gahagan
Christoph E. Huebeck
Steven A. Kautz
Catherine L. Mayes
Karen J. Meador
Paul S. Rihard

David B. Rosenthal
Malcolm I. Ross
Sally Rothwell
Jiri Savrda
Mark D. Shorey
Paul C. Weimer
Hugh V. Winkler

PETROGRAPHY CONTEST

by William E. Carlson

Each year, through the generosity of an anonymous donor, the Geology Foundation sponsors a petrography contest, in which graduate and undergraduate students compete in the identification and interpretation of thin sections and hand samples submitted by members of the faculty. The contest is held on an evening in spring, in a jovial atmosphere which often belies the seriousness of the preparation and the competition. The occasion often brings out some of the more unusual, intriguing, and occasionally baffling specimens from the faculty's collections (in addition to some truly extraordinary rock specimens, thin sections of human teeth, bricks, and other exotica have popped up from time to time). This year, the winner of the \$1,000 graduate award was Karen Carter, followed closely in second place by Michael Rosen. Both successfully worked their way through a wide variety of sedimentary, igneous and metamorphic rocks to win the prize. Ben Davis, a graduating senior, won the undergraduate division with an award of \$250.

An adjunct event also took place this year, displaying the spectacular mineral identification talents of Arten Avakian, a Master's student in the Department and past winner of the Petrography Contest, with an unmatched ability to recognize and identify minerals through careful (but rapid) evaluation of their physical properties. A challenge went out from Professor Carlson for students to bring their own special puzzlers to the petrography contest, so that after its conclusion, Arten could attempt to identify them. Anyone who could stump the wizard was entitled to a beverage of their choice at the local watering hole afterward. Using nothing more than what a geologist would ordinarily carry in the field, Arten performed impressively. Although his near-misses included gahnite, miserite, hauerite, and hackmanite, he successfully identified calcanthite, hanksite, boulangerite, jeffersonite, adamite, and aurichalcite, and he also recognized some very bizarre and atypical specimens of allanite, apatite, and andalusite! If only Arten could find a way to turn this skill into gainful employment....

Undergraduate Scholarships

Atlantic Richfield Company Scholarship		Wendell Honeycutt	1986-87
Lila Beckley	1986-87	Robert Korzekwa	1986-87
Bloomer Fund for Motivated Students		Tim Parks	1986-87
Steffen Saustrup	Summer 1987	Scott Simmons	1986-87
Wayne F. Bowman Endowed Presidential Scholarships		Frank W. Michaux Scholarship	
Laszlo Keszthelyi	1986-87	Robert Buehring	1986-87
Jacob F. Kons	1986-87	Christopher Haas	1986-87
Brahman Energy Scholarships		Wendall Honeycutt	Summer 1987
Steven Chang	Summer 1987	James Ward	1986-87
David Lloyd	Summer 1987	Carroll C. Miller Endowed Presidential Scholarship	
Paul Neumann	Summer 1987	William D. Gathright	1986-87
Conoco Scholarships		Mobil Foundation, Inc. Scholarships	
Steven Chang	1986-87	Namho Baag	1986-87
Cynthia Fong	1986-87	Cindy Fong	Fall 1986
Lee Williams	Fall 1986	Roberto Salinas	1986-87
Robert H. Cuyler Endowed Presidential Scholarships		Margaret Townsley	Spring 1987
Mark S. Shield	1986-87	Pennzoil Scholarships	
Margaret K. Townsley	1986-87	Larry Isgur	1986-87
Enserch Scholarships		Paul Richard	1986-87
Benjamin R. Davis	Summer 1987	Michael L. McLeod	Fall 1986
Laurel Lacher	Summer 1987	Scott Simmons	Fall 1986
Exxon Education Foundation Scholarships		William A. Weaver	Fall 1986
Susan Atkinson	Fall 1986	F. W. Simonds Endowed Presidential Scholarship	
Namho Baag	Fall 1986	Michael A. Starcher	1986-87
Vickie Nelson	Fall 1986	Sun Oil Scholarships	
Roberto Salinas	Fall 1986	Aimee Beveridge	1986-87
Guy E. Green Endowed Presidential Scholarship		Lauren Browning	1986-87
Denise Apperson	1986-87	Renee Daulong	1986-87
Charles & Eunice Haas Endowed Presidential Scholarship		Carla Matherne	Fall 1986
Marcia L. Henize	1986-87	Suzanne Mechler	1986-87
Fred E. & Nora V. Haas Endowed Presidential Scholarship		Corbi Shurtleff	1986-87
Laurel J. Lacher	1986-87	Robynnn Tomlins	1986-87
J. H. & Lujza P. McCammon Scholarships		David S. Thayer Undergraduate Field Scholarships	
Marc Curliss	1986-87	Namho Baag	Summer 1987
Alan Fuqua	1986-87	David Lloyd	Summer 1987
Owen Martin	1986-87	Paul Richard	Summer 1987
Suzanne Mechler	1986-87	Paul Warren	Summer 1987
Steffen Saustrup	1986-87	Udden Memorial Scholarships	
L. F. McCollum Scholarship		Carlos Estrada	1986-87
Ginger Braswell	Summer 1987	Charles Hewitt	1986-87
Daryl Chicken	Summer 1987	Union Pacific Foundation Scholarships	
		Aimee Beveridge	1986-87
		Robert Buehring	1986-87
		Paul Warren	1986-87
		Arno P. (Dutch) Wendler Professional Development Fund	
		Denise Apperson	Fall 1986

F. L. Whitney Endowed Presidential Scholarships

Gregory L. Barta	1986-87
Ellis S. Belfer	1986-87

Charles E. Yager Undergraduate Field Scholarships

Linda Balcom	Summer 1987
Charles S. Beach	Summer 1987
Marie Durbin	Summer 1987
Kevin Frenzel	Summer 1987
Laurel Lacher	Summer 1987
Mark Weatherill	Summer 1987



Undergraduate student Michael Starcher receives Houston Geological Society Merrill Haas Scholarship from Dr. Mark Cloos.

Graduate Scholarships and Fellowships**Amoco Foundation Scholarships**

Scott Davis	1986-87
Dave Wark	Fall 1986

Atlantic Richfield Company Scholarships

Steven Cardimona	Spring 1987
George Coltrin	1986-87
Janet Coleman	1986-87
Van Conover	Fall 1986
Julie Kupecz	Spring 1987
Michael Rosen	Spring 1987

Hal H. Bybee Memorial Fund

Stephen W. Hodgkins	Summer 1987
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Dave P. Carlton Professorship in Geology Grants

Franz Hiebert	Summer 1987
Dianne Pavlicek	Summer 1987

Dorothy Ogden Carsey Memorial Scholarships

Michael Cervantes	Fall 1986
Thomas Layman	1986-87
Sarah Zellers	Summer 1987

Chevron Scholarships

George Laguros	Spring 1987
Brian Reck	Spring 1987

S. E. Clabaugh Fund in Hard-Rock Geology

Celia Clowe	Spring 1987
Charles Stone	Fall 1986

Conoco Inc.

Julie Kupecz	Fall 1986
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Robert H. Cuyler Scholarship

Amy Wilkerson	Fall 1986
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Ronald K. DeFord Field Scholarships

Gerardo Aguirre-Diaz	Spring 1987
Nancy Banta	Fall 1986
Jonathan Blount	Summer 1987
Paul Carpenter	Summer 1987
Karen Carter	Summer 1987
Becky Coel	Summer 1987
Andrew Donnelly	Summer 1987
Richard Erdlac	Fall 1986
Steve Germiot	Summer 1987
Gretchen Gillis	Summer 1987
Mark Gordon	Summer 1987
Gao Guoqiu	Fall 1986
Michael Hall	Summer 1987
Peter H. Hennings	Spring 1987
Julianne Mahler	1986-87
Janet Manchester	Summer 1987
Dan Neuberger	Spring 1987
Shawn Reynolds	Spring 1987
James Reistroffer	Fall 1986
Mike Rosen	Fall 1986
Mike Sweet	Fall 1986
Deborah Travis	Spring 1987
Bruce Turbeville	Summer 1987
Leslie White	Summer 1987
Susan Witebsky	Spring 1987

Michael B. Duchin Memorial Endowed Presidential Scholarship

Barbara Gaskell	1986-87
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Earth Resources Foundation Grant

Jennifer Glasford	Spring 1987
Shawn Reynolds	Spring 1987

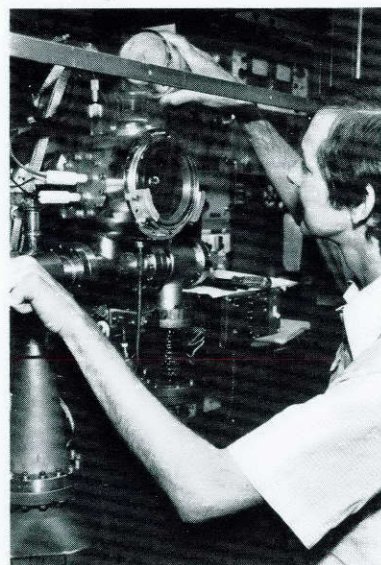
John E. "Brick" Elliott Academic Activities Fund

Nancy Banta	Spring 1987
Bill Dingus	Spring 1987
Shawn Reynolds	Spring 1987

Exxon Education Foundation Scholarships

Nancy Barber	1986-87
David Bristol	Fall 1986
Steven Cardimona	Fall 1986
Scott Davis	Fall 1986

Andrew Donnelly	Spring 1987	William T. Stokes Teaching Fellowship Grant	
John Giltner	Fall 1986	Karen Carter	Spring 1987
Jennifer Glasford	1986-87	Jeff Corrigan	Spring 1987
Roberto Gutierrez	Spring 1987	Tod Sutherland	Fall 1986
Franz Hiebert	Fall 1986	Leslie White	Fall 1986
Kirt Kempster	Fall 1986		
Wendy Macpherson	Spring 1987	Tenneco Inc. Grant	
Jurgen Oberst	Spring 1987	John Worrall	Fall 1986
Robert Rosenberg	Fall 1986		
Alice W. Spencer	Fall 1986	Tenneco Inc. Designated Scholarship	
Bruce Turbeville	Spring 1987	Shawn Reynolds	Summer, 1987
Dave Wark	Spring 1987		
		Texaco Scholarships	
William Stamps Farish Chair Grant		Jurgen Oberst	Fall 1986
Peter Tauvers	Fall 1986	Robert Roback	1986-87
Getty Scholarship		TXO Leadership Award	
Celia Clowe	Spring 1987	Shawn Reynolds	1986-87
Gulf Coast Diagenesis Research Grants		Unocal Scholarship	
Mark Farr	1986-87	Mike Rosen	Spring 1987
Lawrence Mack	1986-1987		
Wendy Macpherson	1986-1987		
		Arno P. Wendler Professional Development Awards	
Hickory Water Conservation District Grant		David Bristol	Fall 1986
Curt Black	1986-87	Mark Chandler	Summer 1987
		Jeff Corrigan	Fall 1986
Hogg-Cullinan Scholarships		Mark Gordon	Spring 1987
Andrew Czebieniak	1986-87	Kirt Kempster	Fall 1986
George Laguros	1986-87	Donald Miser	Fall 1986
Amy Wilkerson	Spring 1987	Jurgen Oberst	1986-87
		Jeff Pittman	Fall 1986
Hogg-Sharp Scholarship		Michael Rosen	Fall 1986
Julie A. Kupecz	Spring 1987	Jeff Rubin	Fall 1986
		Anthony Runkel	Fall 1986
F. Earl Ingerson Graduate Research Assistance Fund		Peter Tauvers	Fall 1986
Jonathan Blount	Spring 1987	Anne Walton	Fall 1986
		David Wark	Fall 1986
John Lloyd Grant		James Westgate	Fall 1986
Steve Morton	Fall 1986	Leslie White	Summer 1987
		Susan Witebsky	Fall 1986
Howard R. Lowe Vertebrate Paleontology Scholarships			
Jeff Pittman	1986-87		
Tony Runkel	1986-87		
Richard Toomey	Summer 1987		
James Westgate	Fall 1986		
Mobil Foundation Designated Scholarship			
Julie Kupecz	Summer 1987		
Joyce B. Payne Centennial Teaching Fellowship Grant			
Cambria Denison	Summer 1987		
Phillips Petroleum Company Fellowship			
James Lippert	1986-87		
Schlumberger Designated Scholarship			
Daniel Neuberger	Spring 1987		



Graduate student Larry Mack conducts Rb/Sr isotopic analyses on a mass spectrometer.

UNDERGRADUATE DEGREES

Department of Geological Sciences 1985-86 Academic Year

Undergraduate Enrollment (Fall, 1985)

Total Department Majors: 308
Geophysics Majors: 50 (16%)
Male: 225 (73%)
Female: (83 (27%)
Minority Enrollment: 17 males, 7 females
(8.0% total enrollment)

Undergraduate Majors by Class (Fall, 1985)

Seniors - 213
Juniors - 41
Sophomores - 29
Freshmen - 25

(The preponderance of majors with senior hours stems from the fact that over half the enrollment is comprised of transfers from other schools or from other disciplines within UT. Thus many of these students are actually sophomores or juniors in geology coursework.)

Majors with GPA of 3.0 or better - 57
Majors with GPA of 3.5 or better - 15
Total BA degrees awarded - 18
Total BS degrees awarded - 86

Bachelor of Arts, August 1985 (2)

Charles A. Payne Karena M. Schmidt

Bachelor of Science, August 1985 (41)

John D. Alger	Leslie L. Leland
Mark W. Andreason	Craig A. McPherson
Robert H. Bartels	James O. Medford
Elizabeth M. Bennitt	Lisa G. Nelson
Randy A. Brown	Curtis A. O'Dell
Daniel J. Bump	Stephen G. Petmecky
Tobin R. Calvert	Robert L. Rhudy
Wacey G. Daniel	Reu C. Richards
Michael D. Davis	Marsai M. Rollins
Bruce H. Fly	Dominic P. Roques
Tatiana Frierson	Sandra J. Scott
John R. Graham	John C. Soderman, Jr.
Lisa D. Hawkins	Burgess H. Stengl
John H. Heberling	Trussell L. Thane
Azman Bin M. Hussein	Vance R. Tillman
Bruce N. Hutchison	L. Scott Underwood
Danny Katzman	Allison A. Westbrook
Johnny W. Kennedy	William B. Wethington
Keith G. Kilson	Robert J. Whitson
John B. King	Kevin L. Wooster
Lisa A. Krynine	

Bachelor of Arts, December 1985 (4)

Juan Hammond Laura A. Thomas
Charles E. Masterson Susan C. Valle

Bachelor of Science, December 1985 (24)

Jeffrey W. Black	Steven R. McVey
Sean Boerner	Steven K. Miller
David W. Bower	Michael A. Ochoa
Kathleen M. Brown	Christopher J. Oddo
Rosa L. Carrillo	Matthew J. Padon
Marcus S. Edwards	Jerry C. Ray
Rojelio Espinosa	Robert M. Reed
William D. Glover	Ted E. Stout
Tamela K. Gregory	Elizabeth Thorakos
Virginia W. Henderson	David N. Tolces
Ray Hu	Scott W. Wagner
Teresa M. Klump	Marc D. Wink

Bachelor of Arts, May 1986 (12)

David P. Boyd	Lana G. Ocker
Elisa Carnegie	David F. Patton
Tae Hwa Chung	Weldon C. Reed
Janet B. Gaudaen	Leslie S. Slocum
John D. Hughes	Karla L. Smith
Andrew W. Kendrick	Robert E. Stowers II

Bachelor of Science, May 1986 (21)

Kelly J. Bobbitt	Teene C. Moore
Regina L. Bonner	Jaime V. Ondrusek
Reed C. Clemons	Sandra J. Pospisil
Rosendo de la Garza, Jr.	Harold T. Read
Leo W. Ehrhard III	Haynie G. Sandle
Brian Elmiger	Elizabeth A. Short
Monica M. Farek	Lloyd T. Tiller, Jr.
Alyson C. Headle	Michael J. Vecchio
Loren P. Hopkins	Karl M. Villemez
Carla R. Ketner	Francis S. Zimmer
Vincent S. Kluth	

UNDERGRADUATE DEGREES

Department of Geological Sciences 1986-87 Academic Year

Undergraduate Enrollment (Fall, 1986)

Total Department Majors: 214
Geophysics Majors: 44 (20%)
Male: 153 (72%)
Female: 61 (28%)
Minority Enrollment: 10 males, 4 females
(7.0% total enrollment)

Undergraduate Majors by Class (Fall, 1986)

Seniors - 139
Juniors - 31
Sophomores - 24
Freshmen - 20
Majors with GPA of 3.0 or better - 50
Majors with GPA of 3.5 or better - 15
Total BA degrees awarded - 13
Total BS degrees awarded - 72

Bachelor of Arts, August 1986 (4)

Leslie C. Christensen Ann Carrick Johnson
Walter M. Gibbs Anthony McLaughlin

Bachelor of Science, August 1986 (39)

Joel Adam Alspaw Barry W. Lassiter
Tracy Ann Baker Peter Francis Lynch
Lesley Leann Bendig Michael Otis Maler
Debra Kaye Bozeman Patrick J. McCarthy
Daniel T. Brudno Terry Don Moody
Michael S. Buchanan Richard Alan Neeley
Paul S. Carpenter John Morris Pope
Naveen H. Cunha Robert B. Riess
Thomas P. Davidson Terrell W. Rippstein
Nancy C. Eilbacher Carlos D. Salinas
Lawrence A. Fluke Andrew E. Schmitt
Sipriano Gonzales, Jr. John M. Sjoberg
Timothy L. Gregory James D. Starling
Steven D. Hanna Thomas E. Swartz
Michael R. Hebert Jennifer L. Thompson
Bradley G. Henderson David Alan Wallace
John Wright Howard James Bennie Wesley
Eric Conde Jerome Brad I. Wilkinson
Lee Scott Kelley Thomas A. Williams
Randall George Larkin

Bachelor of Arts, December, 1986 (3)

Jimmie C. Jackson Jene Clark Thomas
David Alan Worthington

Bachelor of Science, December, 1986 (22)

Leigh Devorak Agee Stephen B. Kendrick
Susan Sarah Atkinson John M. Kleinschmidt
David Duane Baukus Carla Marie Matherne
Martin E. Boardman Michael L. McLeod
Zena Maria Dalby Robert Jeffrey Morris
Gary Wendell Foster Vickie Lynn Nelson
Jeffrey Alan Fuller Linda Ellen Rich
Gilbert Gabaldon Susan K. Schwarz
Marc Ernest Haws Laurie Ann Walker
Eric Scott Hudgens William Allen Weaver
Cecile E. James Susan E. Williams

Bachelor of Arts, May 1987 (6)

Seth David Cohen Nicole Marie Kuenzi
Edward A. Crum David Warren Merritt
Scott Eric Felt Robert B. Weber

Bachelor of Science, May 1987 (11)

K. Denise Apperson Mark D. Norman
Phillip G. Barnes James Mark Null
Deneice M. Collerain Scott P. Simmons
David Alan Fuque Peter Bradley Stokes
Robert J. Korzekwa William M. White
Scott E. Lawless

GRADUATE DEGREES IN GEOLOGY

Conferred by

THE UNIVERSITY OF TEXAS AT AUSTIN

1986-87

Master of Arts, December 1986 (9)**Adamek, Scott H.**

B.S., Geology, 1983, Michigan State University
Earthquake Studies in the Panama-Costa Rica
Region
Supervisor: Sharon Mosher
Committee Members: Clifford A. Frohlich, Fumiko
Tajima

Chandler, Mark A.

B.S., Geology, 1983, University of Wisconsin at
Madison
Depositional Controls on Permeability in an Eolian
Sandstone Sequence, Page Sandstone, Northern
Arizona.
Supervisor: Gary Kocurek
Committee Members: Robert L. Folk, Larry Lake

Corrigan, Jeffrey C.

B.S., Geology, 1984, University of Notre Dame
Geology of the Burica Peninsula, Panama-Costa
Rica: Neotectonic Implications for the Southern
Middle America Convergent Margin.
Supervisor: Mark Cloos
Committee Members: Earle F. McBride, William P.
Mann

Evans, Carol A.

B.S., Geology, 1984, University of South Carolina-
Columbia
Microstructures and Sense of Shear in the Brevard
Zone, Southern Appalachians.
Supervisor: Sharon Mosher
Committee Members: William R. Muehlberger,
William L. Carlson

Ide, Susan

B.S., Geology, 1982, Guilford College
Geology of Mid-Tertiary Rocks in the Laborcita-
General Trias Area, Central Chihuahua, Mexico.
Supervisor: Fred W. McDowell
Committee Members: Mark Cloos, Daniel S. Barker

Kempton, Kirt A.

B.A., Geology, 1981, Colorado College
Mid-Tertiary Volcanic History of the Tomochic
Region, Northern Sierra Madre Occidental,
Chihuahua, Mexico.
Supervisor: Fred W. McDowell
Committee Members: Daniel S. Barker, Leon E. Long

Knight, Julia B.

B.S., Geology, 1984, University of Utah
Eolian Bedform Reconstruction: A Case Study from
the Page Sandstone (Jurassic), Northern
Arizona.

Supervisor: Gary Kocurek
Committee Members: Robert L. Folk, Larry Lake

McGookey, Douglas A.

B.A., Geology, 1977, University of Texas at Austin
The Queen Formation of the Ozona Arch Area of
Crockett County, Texas: Structure and
Depositional Systems.

Supervisor: William R. Muehlberger
Committee Members: Alan J. Scott, Roy T. Budnik

Walton, Anne H.

B.A., Geology, 1981, Amherst College
Magnetostratigraphy and the Ages of Bridgerian and
Uintan Faunas in the Lower and Middle
Members of the Devil's Graveyard Formation,
Trans-Pecos Texas.

Supervisor: Ernest L. Lundelius, Jr./John A. Wilson
Committee Member: Wulf Gose

Doctor of Philosophy, December 1986 (4)**Dutton, Shirley P.**

B.A., Geology, 1975, University of Rochester
M.A., Geology, 1977, University of Texas at Austin
Diagenesis and Burial History of the Lower
Cretaceous Travis Peak Formation, East Texas.

Supervisor: Lynton S. Land
Committee Members: Earle F. McBride, William E.
Galloway, Dale S. Sawyer, Edward D. Pittman

Fogg, Graham H.

B.S., Geology, 1975, University of New Hampshire
M.S., Geology, 1978, University of Arizona
Stochastic Analysis of Aquifer Interconnectedness,
with a Test Case in the Wilcox Group, East Texas

Supervisor: Charles W. Kreitler
Committee Members: R.J. Charbeneau, Alan J.
Scott, John M. Sharp, William E. Galloway

Johansen, Steven

B.S., Geology, 1976, New Mexico Institute of Mining
and Technology
M.S., Geology, 1981, University of Arizona
Provenance of the Mesaverde Group of West-Central
New Mexico

Supervisor: Robert L. Folk
Committee Members: Gary A. Kocurek, Amos
Salvador, Earle F. McBride, Charles Chapin

Vanderhill, James B.

B.S., Geology, 1978, Florida State University
M.S., Geology, 1980, University of Nebraska-Lincoln
Lithostratigraphy, Vertebrate Paleontology, and
Magnetostratigraphy of Plio-Pleistocene
Sediments in the Mesilla Basin, New Mexico.

Supervisor: Ernest L. Lundelius, Jr.

Committee Members: Wann Langston, Jr., Earle F.
McBride, Stephen A. Hall, John W. Hawley

Master of Arts, May 1987 (13)**Birmingham, Scott D.**

B.S., Geology, 1981, Colorado State University
The Cripple Creek Volcanic Field, Central Colorado

Supervisor: Daniel S. Barker
Committee Members: Fred W. McDowell, Doug
Smith

Duncan, Edward A.

B.S., Geology, 1979, The University of Texas at
Austin

Delineation of Delta Types, Norias Delta System,
Frio Formation, South Texas

Supervisor: William E. Galloway
Committee Members: Sharon Mosher, Amos
Salvador

Duncan, Mary Anne

B.A., Geology, 1983, Colorado College
Geology of the West Bourland Mountain Area,
Marathon Basin, West Texas

Supervisor: William R. Muehlberger
Committee Members: Mark Cloos, Earle F. McBride

Gates, Bruce C.

B.S., Geology, 1984, The University of Texas at
Austin

The Stratigraphic Architecture and Depositional
History of the Lower Miocene, Planulina Zone,
Southern Louisiana

Supervisor: William E. Galloway
Committee Members: Martin B. Lagoe, Robert A.
Morton

Giltner, John P.

B.A., Geology, 1984, Rice University
Application of Extensional Models to the Viking
Graben, North Sea

Supervisor: John G. Sclater
Committee Members: William E. Galloway, Dale S.
Sawyer

LaFave, John I.

B.S., Geology, 1983, University of Wisconsin-
Madison

Groundwater Flow Delineation in the Toyah Basin of
Trans-Pecos Texas

Supervisor: John M. Sharp
Committee Members: Charles W. Kreitler, William R.
Muehlberger

Robertson, Stephen W.

B.A., Geology, 1983, Carleton College
Computer Modeling of Simultaneous Garnet
Resorption and MnO Diffusion, Llano County,
Texas

Supervisor: William D. Carlson
 Committee Members: John M. Sharp, Doug Smith

Rosenthal, David B.

B.S., Geology, 1983, University of Delaware
 Distribution of Crust in the Deep Eastern Gulf of Mexico
 Supervisor: Richard T. Buffler
 Committee Members: Milo M. Backus, Amos Salvador

Ross, Malcolm I.

B.A., Geology, 1984, Colgate University
 MAGANOM: A Computer Program for Modeling and interpretation of Marine Magnetic Anomalies with an Example from the Cayman Trough, Northwest Caribbean Sea
 Supervisor: John G. Sclater
 Committee Members: Eric J. Rosencrantz, Christopher R. Scotese

Shorey, Mark D.

B.A., Geology, 1984, Oxford University
 Estimates of Extension in the North Sea Central Graben from Analysis of High Quality Seismic Data
 Supervisor: John G. Sclater
 Committee Members: Leonard F. Brown, Charles E. Denham

Spencer, Alice W.

B.S., Geology, 1984, Colorado School of Mines
 Evaporite Facies Related to Reservoir Geology, Seven Rivers Formation (Permian) Yates Field, Texas
 Supervisor: John K. Warren
 Committee Members: Robert L. Folk, Lynton S. Land

Standen, Allan R.

B.S., Geology, 1976, Kent State University
 Mineralization Characteristics of the Scotia-Vanderbilt Vein System, Silverton, Colorado
 Supervisor: J. Richard Kyle
 Committee Members: John M. Sharp, Jonathan Price

Wilkerson, Amy

A.B., Geology, 1984, Smith College
 Eclogite Remnants in Purdy Hill Quadrangle, Mason County, Texas: P-T Implications for the Llano Uplift
 Supervisor: William D. Carlson and Doug Smith
 Committee Member: Nicholas Walker

Doctor of Philosophy, May 1987 (1)

Kugler, Ralph L.

B.S., Geology, 1972, University of Wisconsin-Madison
 M.S., Geology, 1979, University of Oregon
 Regional Petrologic Variation, Jurassic and

Cretaceous Sandstone and Shale, Neuquen Basin, West-Central Argentina
 Supervisor: Earle F. McBride
 Committee Members: Myron Dorfman, Lynton S. Land, John C. Maxwell, Peter R. Rose

These graduate degrees were inadvertently omitted from last year's *Newsletter* :

Master of Arts, August 1985 (4)

Ruggiero, Robert W.

B.S., Geology, 1975, University of Texas at Austin
 Depositional History and Performance of a Bell Canyon Sandstone Reservoir, Ford-Geraldine Field, West Texas.
 Supervisor: Alan Scott
 Committee Members: Amos Salvador, Earle McBride

Thompson, Keith G.

B.A., Geology, 1981, Franklin and Marshall
 Stratigraphy and Petrology of the Hamblin-Cleopatra Volcano, Clark County, Nevada.
 Supervisor: Daniel Barker
 Committee Members: Fred McDowell, William Muehlberger

Walters, Robert D.

B.A., Geology, 1982, Rice University
 Seismic Stratigraphy and Salt Tectonics of Plio-Pleistocene Deposits, Continental Slope and Upper Mississippi Fan, Northern Gulf of Mexico.
 Supervisor: Richard T. Buffler
 Committee Members: Milo Backus, L. F. Brown

Woronick, Robert E.

B.S., Geology, 1977, University of Kansas
 Burial Diagenesis, Lower Cretaceous Pearsall and Lower Glen Rose Formations, South Texas: A Petrographic and Geochemical Study.
 Supervisor: Lynton Land
 Committee Members: Robert Folk, Robert Loucks

Doctor of Philosophy, August 1985 (2)

Gray, Gary G.

B.A., Geology, 1980, Southern Oregon State College
 Structural Geochronologic and Depositional History of the Western Klamath Mountains, California and Oregon.
 Supervisor: Sharon Mosher
 Committee Members: William Carlson, John Maxwell, Eric Rosencrantz, Arthur Snoke

Helper, Mark A.

B.S., Geology, 1978, University of Illinois
 Structural, Metamorphic and Geochronologic Constraints on the Origin of the Condrey Mountain Schist, North Central Klamath Mountains, Northern California.
 Supervisor: John Maxwell

Committee Members: William Carlson, Fred McDowell, Frederick Taylor, Robert Coleman

Lehman, Thomas M.

B.S., Geology, 1978, University of New Mexico
 M.A., Geology, 1982, University of Texas at Austin
 Stratigraphy, Sedimentology and Paleontology of
 Upper Cretaceous (Campanian - Maastrichtian)
 Sedimentary Rocks in Trans-Pecos Texas.
 Supervisor: Gary Kocurek and Wann Langston
 Committee Members: Richard Jones, Erle
 Kauffman, Alan Scott

Winans, Melissa C.

B.A., Geology, 1969, Colorado College
 Revision of North American Fossil Species of the
 Genus Equus (Mammalia: Perissodactyla:
 Equidae).
 Supervisor: Ernest Lundelius
 Committee Members: Guy Bush, Peter John, Wann
 Langston, William Muehlberger

Winkler, Dale A.

B.S., Geology, 1976, University of Michigan
 M.S., Geology, 1981, University of Michigan
 Stratigraphy, Vertebrate Paleontology and
 Depositional History of the Ogallala Group in
 Blanco and Yellowhouse Canyon, Northwestern
 Texas.
 Supervisor: Ernest Lundelius
 Committee Members: Karl Butzer, Gary Kocurek,
 Wann Langston, H. T. Richard

Department Constructs "Clean Lab" for Isotopic Investigations

by Nicholas Walker

Geochemical investigations utilizing radiogenic isotopic systems as geochronometers or as tracers of geologic processes demand greater accuracy and precision than ever before. Consequently, "blank" levels (i.e. the quantity of an element which is introduced during chemical processing of samples) must be extremely low. Whereas all studies of radiogenic isotopic systems benefit from low blanks, the most demanding requirement is for the U/Pb isotopic system. This is so because of the massive anthropogenic contribution of Pb to the environment, mostly due to leaded gasoline combustion. A typical state-of-the-art analysis of the isotopic composition of Pb is performed on samples containing from one to 100 nanograms of Pb (one nanogram = 10^{-9} g). This is much less than the amount of Pb in a cubic meter of air in most urban areas, particularly near expressways. Consequently, sample preparation for isotopic studies must take place under strictly controlled conditions to eliminate as much as possible the introduction of environmental Pb.

Dr. Nicholas Walker has supervised the construction of a "clean laboratory" to meet such demanding



Nick Walker conducts U/Pb isotopic dating in clean lab.

requirements in room 20 of the Geology Building. The laboratory is pressurized with air that has been filtered to remove particulate matter larger than 0.3 microns. Epoxy painted walls, a solid-polypropylene fume hood, and an acrylic ceiling ensure the long-term resistance of the lab to acid-induced corrosion. Investigators in the lab must wear clean shoes and covers, lab frocks, caps and plastic gloves. All chemical processing of samples takes place in labware fabricated from Teflon at work stations which supply further ultra-filtered air. Chemical reagents are prepared in sub-boiling stills constructed of Teflon or of quartz glass in order to minimize blank levels in the reagents.

The initial focus of the lab is U/Pb isotopic dating of zircon and other U-bearing minerals and studies of Pb isotopes as geologic tracers. However, it is expected that isotopic investigations utilizing the Rb/Sr and Sm/Nd systems will become routine in the very near future.

With the completion of this facility and installation of the new high-precision, thermal ionization mass spectrometer this fall, the Department will be competitive with the best labs in the world for the investigation of isotopic systems of terrestrial samples.



Dr. Jack Sharp congratulates graduate student Tonia Clement for winning second place in the 1987 Student Paper Award from South-Central Section, Geological Society of America.

Tino: The Minor Miracle of Don Antonio, Naval Chaplain of Varignano

OR, ONE VICISSITUDE OF FIELD WORK IN ITALY
by R. L. Folk

Thursday, June 5, 1986. James Miller and I awoke to the sound of the 7 a.m. church bells wafting across the bay and through the windows of the little Albergo Le Grazie, our hotel-home for field work on the Ligurian coast of NW Italy. The morning clatter in Via Roma, the street below, was beginning; the fishing town of some thousand souls was waking up, with motorbikes roaring mufflerless down the street, and fishwives pushing their carts of freshly caught creatures down the main drag for housekeepers to come out and haggle over. We turned over yesterday's laundry on the 6-foot-long clothesline that ran from our window to sink, and put more dirty clothes to soak in our tiny plastic bidet. At 7:30 Karen Carter knocked at our door, and we went downstairs to a scanty "prima colazione" of yesterday's stale rolls and *caffè latte* (for rooms at £ 20,000 per day, or \$12, you don't get much breakfast). Loading up with our field gear, we started out for the bus stop at the harbor.



Bob Folk with Eura and Mauro, Portovenere grocers.

We passed groups of kids in uniform going to school, and tiny shops beginning to open up along Via Roma. Karen hopped across the street to the "frutti e verdura" store to get our mid-morning bananas, and James brought a fistful of bus tickets at the newsstand.

Buses going to Portovenere, our field area, come every twenty minutes. They wind up the mountainside by the Church of Sant'Andrea, passing olive groves and vineyards and the tall dark Italian cypresses that mark every cemetery. As we overtopped the small peninsula, the "Bay of Poets" spread before our view, with the nearby Island of Palmaria, and across the bay one could see the distant town of Lerici and, cresting the far skyline, the Apuanian Alps with their jagged white peaks of Carrara marble. Talus slopes from the quarrying operations are visible from Portovenere on a clear day.

The bus crossed the spine of the little peninsula and the quaint old fishing town of Portovenere came into view,

with its 12th-Century Genoese castle, battlements and towers, and two Churches: San Lorenzo (the parton saint of this part of Liguria, NW Italy); and 6th-Century San Pietro, perched on what in Roman times was a shrine to the goddess Venus, topping a rocky spike jutting into the crystal-clear, blue-green sea. Dozens of colorful boats rocked in the harbor, ranging from mussel-fishers' row boats to yachts and coast-wise farries.

Portovenere has a very picturesque sea front with tall six-story pastel hematite- and limonite-colored houses one room wide, all touching each other and extending up from the water's edge like a palisade fence from an artist's dream. Wonderful seafood restaurants serving all sorts of pasta, octopus, shipworms, mussels, and scampi line the harbor. Behind rise the cliffs of Triassic limestone we are working on, with the grey limestone walls of the castello austere dominating the upper part of town. Old quarries of "Portoro" black and gold limestone, the subject of our petrologic and structural research, perforate the cliffs in nearly inaccessible niches, suitable for study only by audacious climbers.

After a ten-minute trip, the bus let us off at the little circular piazza of Portovenere, with its statue of mustachioed King Umberto and its ring of trattorias. We went through the ancient gate (built in the 12th Century by the Republic of Genoa) and ambled up narrow Via Capellini, the only real business street in town and one of the few streets in the world named for a geologist. In the 1800's he had established the main features of the local stratigraphy and structure.

James went down the street to the bakery, and chose one of the many varieties as our daily bread. Then we three squeezed between rows of vegetables into the tiny negozio (grocery store) run by Mauro and his wife. Mauro is a barrel-shaped, very effusive grocer who always greets us with great gusto in his soiled, long white apron. We are debating over which of the dozens of cheeses and fruits to buy when a stately signora, Giuliana Barsanti, came in to shop. She engaged us in friendly conversation (in Italy everyone treats you pretty much like "family", even us Americans). She saw our hammers and collecting bags, and asked if we were geologists. Then she inquired if we'd ever heard of Giovanni Capellini. "Certo!" we chorused, we knew he'd done the first geology here. She told us her grandfather had been a very good friend of Capellini's and, with that, she went up to her room to get an ancient photograph showing the two of them together. We were properly impressed. Then she asked if we'd ever been to the island of Tino, which has quarries of Portoro limestone that are below sea level. We replied no, we had only admired it from afar. We had tried to get there, but all the boatmen said it was strictly forbidden because it was an off-limits part of the Italian naval base of La Spezia (not even Italian geologists had been able to go there since Mussolini's time). Signora Barsanti said, "Why don't you just go see my friend Don Antonio, who's the Catholic chaplain of the naval base at Varignano, and see if he could get you permission?" At first we were inclined not to bother with this seemingly vague opportunity, but eventually we decided "Why not try?"

So the following Tuesday, June 10, we walked timidly up to the cancello (metal gate) of the naval base at Varignano which is on the other side of the bay from Le

Grazie. The gate was plastered with signs saying "entrata vietato," forbidden entry to everyone. Karen slipped a note to the guardsman who telephoned up the chaplain's office that he had visitors. Soon we got the OK and were escorted into the naval compound by two armed Italian sailors (surely we were the first civilian Americans to be granted entry for decades!). We waited a few minutes in Don Antonio's office, a room sparsely furnished with spare wooden tables and a crucifix on the wall. Presently Don Antonio breezed in, a vibrant and dynamic man in his mid 30's, handsome, gregarious, one of the most magnetic and charming individuals we had ever met—surely not what we expected to find in an Italian military priest. He spoke no English, but we explained to him, carefully using our subjunctive-mode Italian, that we were American geologists and would like to visit the quarries on the forbidden isle of Tino. He was extraordinarily warm, friendly, and enthusiastic, and said we needed to write a letter spelling out our request to the Head Admiral of the Italian navy in La Spezia.

Typing on an Italian typewriter is a strange experience. Their infrequently used letters such as "y" and "h" are at the ends of the keyboard, the "m" and "n" are transposed, there are extra keys inserted for "e" and "a", and commonly used letters in Italian, like the "z", are in the middle of the keyboard. An Anglo-Saxon makes many mistakes. Anyway, I sat down to type. Immediately another problem became clear. Never having written a letter to an admiral before, even in English, I didn't know what to use for a salutation. I asked Don Antonio if I should start with "Caro Ammirante" ("Dear Admiral"). He broke out laughing, saying that would signify something like "Admiral, my love." Needless to say, it was difficult to try to compose a letter in formal Italian from scratch on a weird foreign typewriter while Don Antonio, James and Karen carried on a rapid-fire, jocular Italian conversation right by my ears. Most of the hilarity was at my expense.

Well, we finally finished the letter and Don Antonio insisted on taking us on a mini-tour of the naval base, pointing out the shelter where plague victims of the 1500's had been sheltered, the old leprosarium, ancient cannons, and so on. A day later he saw us waiting for the bus and offered us a ride into Portovenere. We climbed in and he sped at a breakneck pace cornercutting the hairpin roads in his little four-passenger Fiat, American rock music blaring at top volume from his tape recorder, while he chattered in hyper-fast Italian to a white-knuckled Karen in the seat beside him. Talk about *macho*—and a chaplain yet! Later the same day Don Antonio, who is apparently pretty high up in the naval-political world of the Catholic Church, made a special trip into La Spezia to see the Admiral. On Friday, he got us our cherished permission to go to Tino.

Monday, June 16. The day for our memorable trip to Tino dawned. Don Antonio met us at the hotel and escorted us to the docks where we boarded a small, gray Italian naval vessel with a crew of four. It chugged out of the harbor of Varignano, past the vertical dolomite cliffs of the island of Palmaria to Tino. Don Antonio extolled in enthusiastic detail the history of the island and stories of the several local saints. We were let off on the dock, the first civilians—let alone geologists—to visit the island in half a century.



Karen Carter, Don Antonio, and James Miller are flanked by three Italian naval personnel.

Tino is a beautiful, unspoiled island with tall cypresses and pines, like something straight out of a Romantic-era landscape. Quiet woodland paths wound by the overgrown ruins of a 7th-Century Romanesque abbey, once the abode of San Venerio and an early center for religious missions in the whole of this eastern Ligurian coast (the Cinqueterre). We made the most of our few hours in the island's quarries, discovering some key tectonic veins in the upside-down section of strata, also finding some exceedingly complex, multiphase dolomite specimens and strangely sheared carbonates well worth incorporating into our research.

At 12:30 Don Antonio came by in the navy boat to pick us up, and we cruised over the naval aviation base on Palmaria, the next island, and at in the mess hall with all the sailors; Don Antonio, the doctor, and the base commander sat at our table. We had a delicious meal of Rigatoni siciliani, Oso bucco, insalata senza finocchio, vino and all the rest—Italian sailors do eat well. Then Don Antonio took us to the bar where we had espresso and an amaro (alcoholic tincture of bitter herbs drunk after heavy meals). James actually seemed to enjoy it.

I asked for a souvenir espresso cup with the naval insignia on it, as a memento of our "bellissima giornata." After a few more hours working in the quarries on Palmaria, and a highly successful field day, the navy boat took us back to Portovenere.

Later we met the chaplain several times, by now a firm friend. We took him to La Marinara, the local pizza parlor, where he treated us to several bottles of special local vino. Then he took us bar-cruising along the waterfront of Le Grazie where we sat outside and he insisted we try several exotic kinds of grappa (Italian firewater, something like tequila). One grappa had really potent whortleberries in it, and these delightful morsals almost did James in. A hilarious time was had by all, including some naughty jokes about figs. For a priest, Don Antonio had quite a ribald sense of humor.

So—but only occasionally—this is how field work is done in Italy. All due to the luck of meeting a friendly local housewife in a grocery store, who told us about the dynamic naval chaplain who performed the miracle of getting us onto remote and forbidden Tino, where we made some new discoveries. I'm sure that the fact that one of us is a *giovane signora* helped too.

Walter Geology Library Report

by Dennis Trombatore, Geology Librarian

William of Tyre (1130-1185 A.D.) once observed that "prosperity is never continuous, nor is adversity wholly without brighter intervals," and while 1986-87 was primarily a year of less, it was by no means a year of decline. Gathering information materials from around the world is never easy, but in a period of fiscal and currency instability these materials are increasingly, often prohibitively, expensive. This fact, coupled with the fiscal crisis in Texas and the decline in endowment fund earnings, has put tremendous pressure on the Geology Library's collection development strategy. Several significant purchases were made this year, while some journal subscriptions were cancelled and some purchases were delayed. One result is that increased communication and cooperation with other UT System libraries and various regional research collections are now developing, and we remain confident that the high level of teaching and research support will continue through the combination of appropriated funds, the continued availability of Geology Foundation endowment funds, Bureau exchange materials and gifts.

Personnel continues to be an area of strength and achievement in the Geology Library. While there has been a small cutback in the total clerical hours available, our regular staff have remained with us, adding another year of cumulative experience and improvement of skills.

In May, Elizabeth Korves, half-time serials and binding clerk since 1984, received one of only 50 University Excellence Awards for outstanding performance. The award carries a \$500.00 honorarium and a plaque presented by President Cunningham. Ms. Korves also completed her BSW (Social Work) in May, and has received a scholarship to pursue graduate study at the University of Chicago in September. Congratulations and best wishes to Elizabeth, and thanks to those who supported her nomination.

Dennis Trombatore, Geology Librarian, delivered the paper "Drawing Users and Services Into Focus: Public



Dennis Trombatore, Geology Librarian, presents University Excellence Award to serials and binding clerk, Elizabeth Korves.



One of six display cases prepared for exhibit in lobby of UT's Main Building.

Relations and Marketing in Earth Science Libraries" at the Geoscience Information Society's meeting during GSA in San Antonio. The paper will be published in the 1986 *GIS Proceedings* volume.

Jim McCulloch, Library Assistant I, has been trained to provide on-line database searches, especially in GEOREF, the database produced by AGI, based on the Bibliography and Index of Geology. Most of the more than 200 database searches performed in the Geology Library in 86-87 were "Ready Reference" searches. These are paid by the General Libraries and are brief exploratory searches to get a short list of current citations, or to verify a specific citation. While this is the most popular type of search, especially among students, more extensive searches are also done, for which cost-recovery charges are paid by the user.

The UT Library Online Catalog (UTCAT) was extended to Geology Library users in February 1987. UTCAT is available in the library, through the university computer system to users with personal computers, and through the Center for High Performance Computing telecommunication network to UT System component users. UTCAT allows these users to view records for 2.8 million items of the 5.5 million items in the collections. Records include author, title, call number, library branch, and date due for those items currently checked out. In addition to author, title and call number, a user of the system can search for records by title keywords if he or she cannot remember the entire title, or its correct sequence. Further developments will increase the number of records, their length and quality, and the variety of ways to access the records. Eventually information about materials on-order or in-process may also be available.

This is a major advance over the card catalogs, especially for those individuals who need to use several library units in their research. It signals the beginning of a true information network among the many libraries on the campus.

Facilities improvements include further upgrading of the lighting, by replacing the old yellowed lenses in the fixtures, and by obtaining approval to increase the number of fixtures in the back room area. This area,

formerly used for storage, now has tables and chairs to accommodate more than 60 people, and is popular for group study. While the projected "full-to-capacity" date is 1991 or 1992, space continues to be a long-range concern, especially for the rapidly growing Tobin Map Collection.

For the first time in several years, the Geology Library developed an exhibit for the six display cases in the lobby of the Main Building, one of the busiest thoroughfares on campus. Done with the assistance of Jeff Horowitz, the Department's draftsman, the exhibit was titled *Austin: The Lay of the Land*, and focused on the local environment: soils, floods, rocks and fossils, Barton Springs and the Edwards Aquifer, Balcones Fault Zone, and ancient volcanoes. The primary aim of the display was to draw attention to the wealth of publications available locally from the University, the Bureau, State agencies and local societies which explain the Austin area. The display ran from January to March and was well received.

Equipment Update

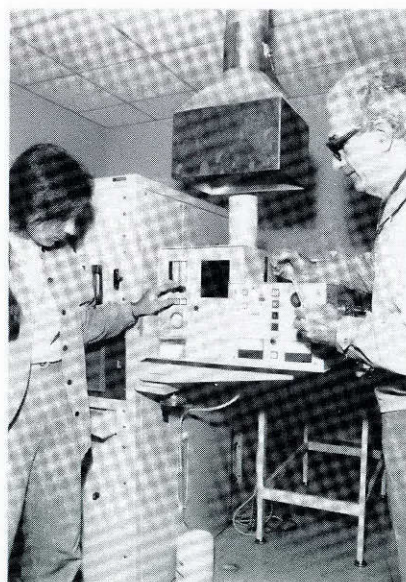
by Lynton S. Land

The goal of upgrading some of our major items of analytical equipment was recently achieved (at least temporarily) when we received confirmation that the National Science Foundation granted \$95,000 toward the acquisition of a new thermal ionization mass spectrometer. More on that facility next year, as installation is scheduled for the fall of 1987. The mass spectrometer, the inductively coupled plasma-atomic emission spectrometer (the ICP), the electron probe and the Rigaku X-ray diffractometer are all state-of-the-art instruments whose cost of acquisition totals \$950,000. Half the funds were derived from the University as part of a matching fund program, and the remaining half were evenly divided between the National Science Foundation and the Geology Foundation, either via direct solicitation to industry or from undesignated funds. Major items of equipment such as these could never be obtained without a significant commitment on the part of the alumni and the Geology Foundation.

The three new instruments which have been installed have been fully integrated into the research and teaching activities of the Department. An electron probe of similar quality, used by more individuals (both faculty and students), for more diverse purposes, probably does not exist anywhere else in the country. The price we pay for encouraging the use of instruments, especially by students, is the occasional disaster. The equipment committee has identified instrument maintenance and repair (the fund established by the Geology Foundation Advisory Council) as a major area for future growth. A service call on any of the major instruments costs approximately \$1000/day, and even in the usual case where we can make repairs ourselves, the cost of replacement parts can be quite high. We therefore encourage those who believe that rocks must be studied in the laboratory with sophisticated instruments, and that our "open instrument" policy encourages students to learn to utilize the instruments, and to assist us in being able to

maintain these sensitive instruments in top shape. We hope, eventually, to endow laboratories to the level that technical help can be employed permanently.

Since the ICP is a relatively recent "invention," we felt a brief description might be of interest. The heart of the instrument is a plasma torch in which argon gas is heated to approximately 10,000°C by a radio-frequency induction coil. As a liquid is sprayed into the plasma, atoms are excited by the intense heat and radiate visible light, each element being characterized by its own specific (albeit somewhat complex) spectrum. The intensity of light emitted is proportional to the concentration of element in the spray over a very wide range of concentration. We detect the light with two types of spectrometers which disperse the light by means of gratings. The "sequential" spectrometer can scan a wide range of wavelengths, looking for specific elements (or interferences), or selecting any wavelength for intensity measurement. The "simultaneous" spectrometer has 31 slits fixed at specific emission lines for 31 commonly analyzed elements (Li, B, Na, Mg, Al, Si, P, S, K, Ca, V, Cr, Mn, Fe, Co, Ni, Zn, Sr, Y, Ba, Pb, and 10 rare earth elements La, Ce, Nd, Sm, Eu, Gd, Dy, Er, Yb, and Lu). A 32nd channel allows any line detected by the "sequential" spectrometer to be counted simultaneously as well. The instrument is operated by a



Wendy Macpherson and Karl Hoops monitor operation of the ICP.

computer, and once initialized, all the analyst must do is to provide the appropriate standards (easily said!) and samples when requested, and up to 32 elements are analyzed simultaneously in about one minute. The instrument is being used for the analysis of water, both dilute groundwater and saline brines, and rocks. Analyses for both major, minor and trace elements are conducted, and for the first time we are able to do rare earth analyses. I am sure we have not yet begun to exhaust the capabilities of the instrument, and that, together with the able assistance of Karl Hoops and Wendy Macpherson, the instrument will be used for many more applications in coming years.

GEOLOGY FOUNDATION ADVISORY COUNCIL

Effective September, 1987

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Gipson Candidate for AAPG President

Mr. William E. Gipson (BA '48, MA '49), Chairman of the Geology Foundation Advisory Council, is a candidate for the office of President-Elect of the American Association of Petroleum Geologists. His opponent is Mr. James Lewis of Houston. Mr. Gipson is President of Pogo Producing Company headquartered in Houston. He joined the Advisory Council in September, 1969, and served as Vice-Chairman from May, 1985 to May, 1987.

Mr. Gipson has been a long-time supporter of geological sciences programs at The University. In 1985 he established the Pennzoil and Pogo Producing Companies - William E. Gipson Scholarships in the Department to provide funds for students who received Bachelor's degrees in geology at UT to continue on at The University in the graduate program.

**Advisory Council
Membership Changes**

Dr. Peter T. Flawn joined the Geology Foundation Advisory Council in September, 1987. Dr. Flawn served as President of The University of Texas at Austin from 1979 to 1985, and is currently Chairman of the Texas National Research Laboratory Commission. The Commission was established by the Legislature to lead the State of Texas in competing for the location of the super-conducting super collider (SSC) to be built by the Federal Government. Dr. Flawn's expertise as a scientist and administrator will be a great asset to the Council.

Mr. Gus Seamans and Mr. George Pichel resigned from the Council during the academic year. Mr. Seamans had represented Texaco Inc. on the Council since 1979 and was responsible for gaining substantial financial support for the Department from Texaco, as well as providing valuable counsel on industry-related matters. Mr. Pichel joined the Council in 1981 and served as an excellent liaison with Union Oil Company of California. We thank both gentlemen for their dedicated service to the Department and the Geology Foundation.

New Endowments in the Geology Foundation

Six new accounts were established in the Geology Foundation during the 1986-87 academic year. Three of the accounts have endowments, and three are expendable funds. All are designated to provide student support.

In June, 1986 Mrs. Jesse L. Brundrett of Tyler, Texas expressed a desire to endow a scholarship in memory of her husband, who died in October, 1985. Mr. Brundrett received both BS (1953) and MA (1955) degrees in geology from UT, and had been an employee of Exxon for over 30 years before his retirement in February, 1985. Mrs. Brundrett's contributions, together with matching gifts from Exxon Education Foundation, have therefore provided a \$25,000 endowment for the Jesse L. Brundrett Memorial Endowed Presidential Scholarship in the Geology Foundation. The Brundrett Scholarship is designated in the amount of \$2,000 per year for a graduate student in any area of study in geology. The first award from this new scholarship fund will be in the 1988-89 academic year.

Mr. and Mrs. Glenn Vargas of Thermal, California contributed \$15,000 to endow the Glenn and Martha Vargas Gemological Scholarship in Geological Sciences in October, 1986. The scholarship recipient can be at either the graduate or undergraduate level. For a number of years, Mr. and Mrs. Vargas have travelled to Austin for a few weeks each year to teach gem faceting to students registered in GEO 347K, Gems and Gem Minerals. The Department is most grateful for their expertise in gems as well as their generosity in providing this endowment.

The Department was pleased in December, 1986 to receive a gift of \$100,000 from Mr. and Mrs. Louis Scherck of Houston to endow the Louis and Elizabeth Scherck Geology Scholarship. The scholarship is designated for geology students who are juniors, seniors, or at the graduate level. The awards will be based on need, academic ability, and good moral character. Ten percent of the annual income is to be reinvested so that the endowment will continually grow. It is likely that awards from this fund will begin in the fall semester, 1987.

The family of Millard B. Arick has contributed \$10,000 in Mr. Arick's memory to be used to further interest in the finding and producing of more oil for Texas. Mr. Arick received the BA degree in geology from UT in 1927, followed by the MA degree in 1928, also from UT. The family stipulated the use of funds for petroleum research because Mr. Arick "appreciated the value of the education he received from the excellent instructors in the Department of Geology and he devoted his life to the active pursuit of locating petroleum, particularly in Texas." Mr. Arick died in March, 1982. The fund has been named the Millard B. Arick Memorial Fund in Petroleum Geology.

At its spring meeting on May 1, 1987, the Geology Foundation Advisory Council voted to establish a fund known as the Geology Foundation Student Job Program. Council member Tom Burke of Houston suggested the

fund and has contributed \$1,000 to get it started. The purpose is to provide money for hourly wages for students to enable them to assist professors in the Department in conducting their research. Not only will this program provide income for geology students, but will also provide valuable experience by allowing them to be exposed on a one-on-one basis to geological research projects under the direct supervision of a faculty member. The amount per year needed for this fund is approximately \$15,000. Gifts of oil royalties from the Dean Metts Estate are being placed in the account for the Student Job Program to provide some continuous income, but additional contributions are needed on an ongoing basis to allow maximum benefit from the program.

Dean Robert Boyer spoke at the spring Advisory Council meeting of the need for funding for geology students who might wish to participate in the Undergraduate Student Enrichment Program operated by the College of Natural Sciences. (Additional information about this program is given in Bob Boyer's faculty news brief elsewhere in this *Newsletter*.) Council member John A. Jackson of Dallas has contributed \$1,000 to start an account for the Undergraduate Student Enrichment - Geological Sciences fund. It is the Foundation's goal to reach the \$10,000 needed to establish an endowment for this fund, so gifts for this new account are also needed.

Role of the Geology Foundation

by William E. Gipson
Chairman, Geology Foundation Advisory Council

The Geology Foundation continues to play a vital role in helping The University of Texas at Austin maintain its position as one of the foremost schools in the country for geology. Mid-year of 1987 saw the permanent endowment fund of the Foundation exceed \$12 million. Ten years earlier this figure was approximately \$2 million. Gifts to the Foundation from June 1, 1986 to May 31, 1987, amounted to some \$667,000 that was contributed by 263 individuals and 45 companies and organizations..

Funds for the Foundation are used in many different areas that include student scholarships at all levels, endowed faculty positions, equipment purchases and maintenance, research, publication support, visiting speakers and lectureships, departmental awards, development and maintenance of the department library and map collections, curriculum enrichment and other miscellaneous Departmental needs.

Appreciation is expressed to alumni and friends for their past support of the Foundation. This support has helped create an outstanding program for geological sciences at The University of Texas and one that contributors can be justly proud of. Continued support insures that Departmental excellence will be maintained in the future.

Geology Foundation Endowment Accounts			<i>Fund</i>	<i>Goal</i>	<i>Current Endowment</i>
(June 1, 1986-May 31, 1987)					
<i>Fund</i>	<i>Goal</i>	<i>Current Endowment</i>			
Edwin Allday Centennial Chair in Subsurface Geology Income supplements salary of recipient	\$500,000	\$500,000	Dave P. Carlton Centennial Professorship in Geophysics Income supplements salary of recipient	Unspec.	\$456,694
Edwin Allday Lectureship in Geological Sciences To provide for guest lecturers in geological sciences	\$200,000	\$ 52,673	Dorothy Ogden Carsey Memorial Scholarship Fund Geology scholarships, any level; special consideration to micropaleontology students	Unspec.	\$ 77,935
Alternative Energy Research and Development Fund For study of energy sources other than petroleum	\$187,250	\$187,250	S. E. Clabaugh Fund in Hard-Rock Geology To support research in hard-rock geology	Unspec.	\$ 22,356
E. M. Barron Trust For support of the Barron Mineral Collection	Unspec.	\$ 99,877	W. Kenley Clark Memorial Endowed Presidential Scholarship Geology scholarships, any level	Unspec.	\$ 42,400
Leonidas T. Barrow Centennial Chair in Mineral Resources Development of program of excellence in mineral resources; income supplements salary of recipient	Unspec.	\$803,926	Robert H. Cuyler Endowed Presidential Scholarship Undergraduate (upper-division) and graduate scholarships	Unspec.	\$ 43,049
Bloomer Fund for Motivated Students Financial aid for students not qualified for scholarships	Unspec.	\$ 44,187	Morgan J. Davis Centennial Professorship in Petroleum Geology Income supplements salary of recipient	Unspec.	\$527,535
Leslie Bowling Professorship To attract persons from industry and government for short-term appointments on the faculty	\$100,000	\$100,000	Ronald K. DeFord Field Scholarship Fund Field studies for graduate students	Unspec.	\$136,544
Wayne F. Bowman Endowed Presidential Scholarship Unrestricted geology scholarships, any level	Unspec.	\$ 90,494	Alexander Deussen Professorship in Energy Resources Development of program of excellence in energy resources; income supplements salary of recipient	Unspec.	\$114,505
Don R. and Patricia Kidd Boyd Lectureship in Petroleum Exploration To provide for guest lecturers in petroleum exploration	Unspec.	\$ 42,000	Michael Bruce Duchin Centennial Memorial Endowed Presidential Scholarship Scholarship for Master's candidate with preference toward general geology	Unspec.	\$ 29,350
Robert E. Boyer Centennial Professorship in Geology Income supplements salary of recipient	Unspec.	\$280,064	Elf Aquitaine Petroleum Faculty Fellowship in Geological Sciences Income supplements salary of junior faculty member	\$100,00	\$ 87,500
Brahman Energy Scholarship Senior field course scholarships	Unspec.	\$ 15,095	John E. "Brick" Elliott Centennial Professorship in Geological Sciences Income supplements salary of recipient	Unspec.	\$248,541
Jesse L. Brundrett Memorial Endowed Presidential Scholarship Graduate student scholarships	\$25,000	\$21,250	Samuel P. Ellison Jr. Endowment Fund For Department <i>Newsletter</i> and support of faculty-alumni functions	\$100,000	\$ 62,811
Fred M. Bullard Professorship Excellence in teaching, income supplements salary of recipient	\$100,000	\$100,000	Energy and Mineral Resources Fund Support of programs and students in energy and mineral resources	\$100,000	\$ 23,501
Hal H. Bybee Memorial Fund Student field support, or support of students researching geologic issues related to public policy	Unspec.	\$ 19,940	William Stamps Farish Chair in Geology Income supplements salary of recipient	Unspec.	\$338,500
Hal P. Bybee Memorial Fund Faculty use - research, travel, study, etc.	Unspec.	\$342,043	Peter T. Flawn Centennial Chair in Geology Income supplements salary of recipient	Unspec.	\$563,220
L. W. Callender Memorial Fund Departmental use, unrestricted	Unspec.	\$ 50,200	Geology Foundation Advisory Council Centennial Teaching Fellowship in Geological Sciences Income supplements salary of junior faculty member	\$ 50,000	\$ 50,000
Dave P. Carlton Centennial Professorship in Geology Income supplements salary of recipient	Unspec.	\$430,740			

<i>Fund</i>	<i>Goal</i>	<i>Current Endowment</i>	<i>Fund</i>	<i>Goal</i>	<i>Current Endowment</i>
Geology Foundation Advisory Council Special Maintenance Fund	\$250,000	\$ 36,815	Wann and Marietta Langston Research Fund in Vertebrate Paleontology	Unspec.	\$ 85,819
Maintain teaching and research equipment			Faculty research in vertebrate paleontology		
Geology Foundation Advisory Council Special Operations Fund	\$250,000	\$ 20,250	Jack K. Larsen -Mesa Petroleum Co. Fund in Sedimentary Geology	Unspec.	\$109,393
Purchase teaching and research equipment			Support of the Department's program in sedimentary geology		
Getty Oil Company Centennial Chair in Geological Sciences	Unspec.	\$735,173	Howard R. Lowe Vertebrate Paleontology Endowment	Unspec.	\$ 24,953
Income supplements salary of recipient			Support of student field work in vertebrate paleontology		
Miss Effie Graves Memorial Fund	Unspec.	\$ 23,033	J. Hoover Mackin Memorial Scholarship Fund	\$ 20,000	\$ 19,505
Department needs (faculty support, student aid, special equipment, etc.)			Graduate geology scholarships		
Guy E. Green Endowed Presidential Scholarship	Unspec.	\$ 27,308	John H. and Lujza P. McCammon Endowed Scholarships	Unspec.	\$ 10,250
Geology scholarships, any level			Upper-division undergraduate scholarships		
J. Nalle Gregory Professorship in Sedimentary Geology	Unspec.	\$108,786	Mr. and Mrs. L. F. McCollum Endowed Scholarships	Unspec.	\$ 17,574
Development of program of excellence in sedimentary geology; income supplements salary of recipient			Geology scholarships, any level		
Gulf Oil Foundation Centennial Professorship in Geology	Unspec.	\$215,000	Frank W. Michaux Scholarship Fund	Unspec.	\$ 10,266
Income supplements salary of recipient			Geology scholarships, any level		
George S. Heyer Memorial Fund	Unspec.	\$ 84,570	Carroll C. Miller Endowed Presidential Scholarship	Unspec.	\$ 29,673
Any purpose of the Foundation			Geology scholarships to students pursuing careers in energy industries; preference to students from south Texas		
William C. Hogg Memorial Scholarship Fund			Fred L. and Frances J. Oliver Lectureship in Texas Hydrology and Water Resources	\$ 25,000	\$ 25,000
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 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.			To provide for guest lecturers in water resources		
Hogg-Cullinan	Unspec.	\$ 39,320	Judd H. Oualline Endowment Fund	Unspec.	\$ 11,001
Scholarship in petroleum or field geology in honor of Joseph S. Cullinan			For special needs of the Department		
Hogg-Sharp	Unspec.	\$ 39,320	Judd H. and Cynthia S. Oualline Centennial Lectureship in Geological Sciences	Unspec.	\$ 24,000
Scholarship in petroleum or field geology in honor of Walter Benona Sharp			To provide for guest lecturers in geo- logical sciences		
Houston Oil & Minerals Corporation Faculty Excellence Awards	\$ 40,000	\$ 40,000	Judd H. and Cynthia S. Oualline Centennial Lectureship in Petroleum Geology	Unspec.	\$ 26,656
In recognition of outstanding service and special contributions to the teaching and research programs			To provide for guest lecturers in petroleum geology		
F. Earl Ingerson Graduate Research Assistance Fund in Geochemistry	Unspec.	\$ 10,490	Ed Owen-George Coates Fund	Unspec.	\$103,522
Research assistance to graduate students in geochemistry			Publication of geological research related to Texas by faculty and graduate students		
John A. and Katherine G. Jackson Centennial Teaching Fellow- ship in Geological Sciences	Unspec.	\$107,000	Bill R. Payne Centennial Teaching Fellowship in Geological Sciences	Unspec.	\$ 57,900
Income supplements salary of junior faculty member			Income supplements salary of junior faculty member		
Carolyn G. and G. Moses Knebel Teaching Awards	Unspec.	\$ 71,399	Joyce Bowman Payne Centennial Teaching Fellowship in Geological Sciences	Unspec.	\$ 52,900
Annual Distinguished Teacher Award, Innovative Improvement and New Course Development			Income supplements salary of junior faculty member		
Clara Jones Langston Centennial Lectureship in Vertebrate Paleontology	Unspec.	\$ 20,115	Pennzoil and Pogo Producing Companies - William E. Gipson Scholarships	Unspec.	\$ 50,225
To provide for guest lecturers in vertebrate paleontology			Scholarships for UT graduates seeking Masters degrees at UT		

<i>Fund</i>	<i>Goal</i>	<i>Current Endowment</i>	<i>Fund</i>	<i>Goal</i>	<i>Current Endowment</i>
O. Scott Petty Geophysical Fund Development of program of excellence in geophysics	Unspec.	\$121,388	Arno P. (Dutch) Wendler Professional Development Fund Support of student presentations at professional meetings	Unspec.	\$ 80,280
Wallace E. Pratt Professorship in Geophysics Development of program of excellence in geophysics; income supplements salary of recipient	Unspec.	\$145,379	Francis L. Whitney Endowed Presidential Scholarship Geology scholarships, any level, paleontology and stratigraphy preferred	Unspec.	\$ 40,119
Louis and Elizabeth Scherck Geology Scholarship Undergraduate (upper division) and graduate scholarships	\$100,000	\$100,000	Francis L. Whitney Memorial Book Fund Purchase of paleontological books for library	Unspec.	\$ 11,181
Wilton E. Scott Centennial Professorship Income supplements salary of recipient	Unspec.	\$212,000	John A. Wilson Professorship in Vertebrate Paleontology Development of program of excellence in vertebrate paleontology; income supplements salary of recipient	Unspec.	\$105,257
The Shell Companies Foundation Centennial Chair in Geophysics Income supplements salary of recipient	\$750,000	\$600,000	Charles E. Yager Undergraduate Field Scholarship Fund Support of students taking Geology 660	Unspec.	\$42,503
The Shell Companies Foundation Distinguished Chair in Geophysics Income supplements salary of recipient	\$750,000	\$644,000	Mr. and Mrs. Charles E. Yager Professorships Three professorships in any discipline for faculty who participate in field instruction	Unspec.	\$344,501
Frederick W. Simonds Endowed Presidential Scholarship Scholarships to undergraduate (upper division) and graduate students	Unspec.	\$ 25,385			
William T. Stokes Centennial Teaching Fellowship in Geological Sciences Income supplements salary of junior faculty member	Unspec.	\$107,000			
David S. Thayer Memorial Scholarship Fund Senior field course scholarships	Unspec.	\$ 26,160			
Tobin International Geological Map Collection For purchase of maps and photos, storage and viewing facilities for these items	\$100,000	\$ 69,847			
Udden Memorial Scholarship Fund Geology scholarships at any level	Unspec.	\$ 10,515			
Glenn and Martha Vargas Gemological Scholarship in Geological Sciences Scholarship for students interested in gemology or mineralogy	\$ 15,000	\$ 15,000			
Various Donors (General) Unrestricted funds for furtherance of basic geological education, research, graduate study, field work, travel, Foundation operation, salaries, etc.	Unspec.	\$ 17,500			
Joseph C. Walter, Jr. and Elizabeth C. Walter Geology Library Fund Acquisition of books, maps and other library materials	Unspec.	\$141,158			
Albert W. and Alice M. Weeks Centennial Professorship in Geological Sciences Income supplements salary of recipient	Unspec.	\$138,989			
E. A. Wendlandt Fund Purchase of books and journals in German or English translations	Unspec.	\$ 6,780			

Alumni Events

Our geology alumni took several opportunities during the past year to show their loyalty to UT as well as to renew old acquaintances by attending UT alumni functions. On October 23, 1986 a group of nearly 40 ex-students and friends met at the alumni luncheon held during the Gulf Coast Association of Geological Societies meeting in Baton Rouge. Since San Antonio was the location of the 1986 meeting of the Geological Society of America, a large contingent of Texas Exes was on hand for the cocktail party held on November 10. The meeting's proximity to Austin allowed many faculty members, current students, and Bureau and Institute personnel to attend as well. On June 9, 57 persons braved the early hour of 7 a.m. to attend the alumni breakfast held at the American Association of Petroleum Geologists meeting in Los Angeles. The enthusiasm and appreciation shown by our alumni at these events is truly gratifying to the Department's faculty and staff.

So what's planned for this fall? The first event is the GSA cocktail party in Phoenix on Monday, October 26, at 7:00 p.m., at the location printed in the program. That same week, the Gulf Coast Association of Geological Societies meeting will be held in San Antonio, with the UT luncheon beginning at 11:30 a.m. in the Marriott Hotel, Salon E, on Thursday, October 29.

Our biennial open house and barbecue will be held in the Geology Building on Saturday, November 21, beginning at 11:00 a.m. The UT/Baylor game is scheduled for 2:00 p.m. With the open house being held every two years rather than annually, we hope our alumni will make a special effort to drop by and see the exhibits prepared by faculty and students for their enjoyment.

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To all the donors listed below we want to express our deepest appreciation for their generous support.

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GeoTrivia

Local Customs of the Geologic Past: S.G.E.

by Hugh Hay-Roe (MA '52, PhD '58)

This report was compiled with the help of recollections from Gerhard C. J. Jansen, J. Ted Schulenberg, and Walter T. Haenggi.

It was quite a shock to learn that the UT chapter of Sigma Gamma Epsilon is not only defunct, but completely unknown to today's campus geoscientists - a victim, no doubt, of the increasing sophistication and seriousness of both undergrads and graduate students. As a contribution to paleogeoculture, what follows is an unofficial, fragmentary report on one UT tradition of earlier and simpler times.

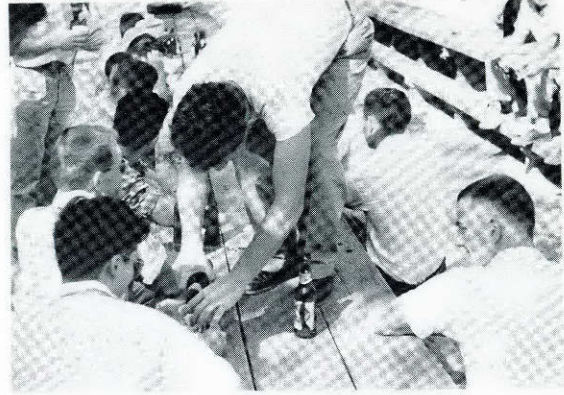
When I first arrived at UT as a grad student in the fall of 1950, Sigma Gamma Epsilon, the national honorary fraternity for Earth Sciences, aped certain puerile customs of the social fraternities... and perhaps other honorary societies did likewise in those days. In particular, Sigma Gam pledges were subjected to a species of Hell

Week that struck some people (especially the Korean War vets among us) as pretty silly: they were required to identify themselves by such things as a rolled-up pant-leg and a big cardboard sign worn around the neck, with geologist-pledges carrying (all week long) an oversize fossil of mineral specimen, while petroleum engineering pledges had to carry a can of lube oil everywhere they went.

When some of us 1950 initiates became chapter officers a year later, we decided that if joining an honorary society was meant to be a honor, pledges should not be degraded like common frat-rats. We programmed all the foolishness and pseudo-hazing for a single afternoon immediately preceding the traditional Saturday night formal initiation ceremony. When I came back to UT in 1955, that Saturday afternoon had evolved into a faculty/student free-for-all that is still remembered fondly (if foggily) by Sigma Gam members of the era.



SGE Spring Picnic, March, 1956: Crew race features Les Greenfield (left) and Bill Fickert.



SGE Spring Picnic, March, 1956: Gordon Adams kills crew-cups for Dub Swadley and Jim Nienaber.

The afternoon initiation had the format of a picnic at Zilker Park. The beer-drinking started early; it was usually accelerated by a touch (?) football game in which some of the more aggressive students showed any faculty member venturesome enough to get involved what the NFL had missed in not drafting them.

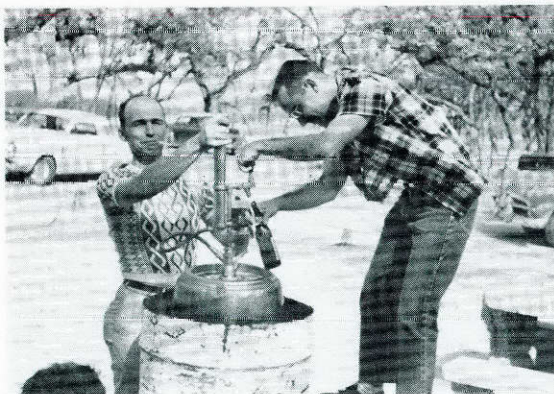
The next event on the program, if memory serves, was a "crew race" whose unstated purpose was to get a large amount of beer into the pledges in a very short time. The pledges were divided into two teams lined up on opposite sides of a picnic table. Each team member was provided with a brimful glass of beer. If they were lucky, pledges got commercial draft; but around 1955-58 they were likely to be served a powerful homebrew that was proudly certified as one week old by master brewers Dick Grant and Don Winston.

The race was run as a relay, in which a competitor could not pick up his glass until the glass of the preceding teammate hit the table empty. Naturally, the members who were supervising the race found plenty of reasons (factual as well as imaginary) to disqualify one or more competitors and cause the race to be run over. And over. By the time a winner was finally declared, the pledges were in great shape for the highlight of the afternoon: the presentation of their scientific papers (followed by pizza or the like).

Each pledge stood on a picnic table and gave a 5- to 15-minute presentation on a suitable topic assigned a couple of weeks earlier. Some had a rather lofty title, like "Sedimentation Rates In East Texas Outhouses" - but went rapidly downhill from there. Ted Schulenberg recalls that his paper was entitled, "Was *Exogyra Ponderosa* the First Hard-Shellled Baptist?" though he has no recollection of what he said on this weighty subject.

The engineer-pledges also received appropriate assignments. One P.E. reported on a bottom-hole temperature survey he had run (the locale of the survey is best left to the imagination of the reader). Another engineer presented a complex and detailed monograph on natural gas - biogenic, that is - with mathematical and chemical descriptors and a precise genetic classification of flatulence.

Two initiates were even motivated to compose epic poems of real merit: Jim Wise memorialized "The Folk-Muehlberger Debate on the Origin of the Moon" in elegant verse (probably the first time the term Folklore appeared in print), while the assigned topic "Lust Among the Trilobites" inspired Don Winston to write "The Saga of Lustful Louie," about a raunchy arthropod who mated his way from the Cambrian to the Permian before becoming extinct for a reason that has clearly escaped other researchers.



SGE Spring Picnic, March, 1956: John Dietrich (left) and Pete Roux.



SGE Spring Picnic, March, 1956: Conley Goodrum, Neuman, Jim Nienaber, Stuart Pittman, Gordon Adams, R. L. Folk, Bill Fickert (left side); Hal Bogardus, Ken Woodyard, John Dietrich, Jack Walper, Charlie Bell (right side).

From this point on, the recollections of participants get dimmer and hazier; one colleague writes, "I'm not even sure we were at Zilker Park, but if you say so, okay." Another recalls pledges giving Tarzan yells as they swung from the trees. Still another remembers that when it was time to go home, one initiate (who shall be identified here only by his nickname, "Boz"), for reasons never disclosed, wrapped himself around the nearly empty beer-keg and refused to let go. It took five people to peel him off. Needless to say, Saturday traffic was lighter in the Austin of those days, and through pure luck, we never had any DWI problems.

Editor's Note: The Geology Foundation has access to the original minutes of meetings of the Sigma Gamma Epsilon from 1920 to 1970, which are housed in the Barker History Center on the UT Campus. Also in the Foundation's possession is the original SGE geologist's pick, from 1920. For next year's Newsletter we would like to have an article about SGE's early years, and would welcome a volunteer to write such an article. We also want to use your old photos of Departmental activities. We will make copies and return the originals.

AN UNBIASED REPORT OF THE MUEHLBERGER-FOLK MOON DEBATE*

by Jim C. Wise

Once upon a midnight dreary,
I, with eyes bloodshot and bleary
Sat in the Geology garret,
On the building's topmost floor.
Sat and read and nothing more.

While I sat there nearly dozing,
I felt like hell; my eyes kept closing,
I knew next week's quiz would be exposing
How little knowledge I had in store,
And little hope of gaining more.

While I sat there blindly staring,
Suddenly there came a tearing,
Followed by gunshots and some swearing,
From the building's bottom floor.
Only that and nothing more.

This sound caused me irritation;
I started an investigation
To procure some information,
And find out what the hell's the score;
Just find out and nothing more.

Down the stairs I went with haste;
Into the gathering I raced;
But the sight that I then faced
Froze me with horror to the core.
There were two most learned professors wrestling on
the basement floor
Armed with knives and nothing more.

One claimed a comet's near connection
Forced the moon's complete ejection;
He sneered at theories of convection
Keeping continents off the ocean floor.

He spoke of his interpretation
Of celestial observation,

Proving Greenland's new location
Is west of where it was before,
And going westward more and more.

This very careful diagnosis
From the skewness and kurtosis
Caused his adversary acute thrombosis
So that he banged his fist and swore;
"Hell, sit down and let me talk some more."

In a voice with deep emotion,
Muehlberger spoke of a permanent ocean;
Of continents devoid of motion
Firmly anchored to the core,
All this and furthermore;

A very skillful correlation,
By coprolites and vegetation,
Proved Africa's invagination
Was not the hump that Brasil bore;
Not only that but plenty more.

A California expedition
Using government boats (without permission)
Setting out deep sea fishing
Reeled in slickensides offshore,
Which vertical striations bore.

An investigation further made
By aqua lung and alidade,
Found normal faulting well displayed,
Showing the Pacific shore
A graben was and nothing more.

At this final information
Folk, fearing for his reputation,
Performed a hasty amputation
As his opponent's neck he tore,
And threw his head right out the door,

* Presented at the Sigma Gamma Epsilon initiation picnic, November, 1955. Based on a true event: a pre-plate tectonics public debate between Professors Muehlberger and Folk, as to whether the moon originally came out of the Pacific Ocean. - Hugh Hay-Roe

Soon cops were working on the case,
 And Regents spoke of the disgrace;
 They sent Folk to a special place,
 Padded on the walls and floor;
 Put him there and locked the door.

But Folk is happy in his seclusion,
 With no more students and confusion
 He produces papers in profusion
 For AAPG, GSA, and more,
 Full of graphs and pure folklore.

As to Muehlberger's fate,
 One can only speculate
 That in some Valhalla he may await
 With Lyell, Smith and hundreds more,
 Downing beers and keeping score.

Since that time, almost nightly,
 I have nightmares, sleeping lightly
 Thinking of that scene unsightly;
 Tho the Regents long ago cleaned up the gore,
 But that awful night of horror I'll forget never more.

About Our Alumni Questionnaire. . . .

This year, for the first time since 1964, we asked our alumni to provide us with information not only about themselves and their activities, but also their thoughts about their geologic training at UT and its faults and virtues. We asked for suggestions to improve the Department's academic program, and also asked for ideas on how to better serve the alumni through the *Newsletter*. We were overwhelmed by the responses! Over 650 alumni returned the questionnaires. Although the number of responses is about the same as in recent years, it was amazing to note the detail with which many answered the questions. So many suggestions were given that we will discuss them here only in general, and allow time for the faculty to consider them in detail.

In answer to the question about which course was the most useful in their careers, the responses varied greatly insofar as geology courses were concerned depending on the various areas of specialization and on who taught the courses. Probably most frequently mentioned among those who received graduate degrees was what is now GEO 193, Technical Sessions, because of the excellent training received in organizing a research paper and presenting research results concisely. Some mentioned English courses which had been helpful in teaching similar skills. Several thought that a course in technical writing should be required of all students.

Most alumni felt they no longer had a good understanding of what is now offered in UT's geology curriculum. (We have printed a list of current course offerings elsewhere in the *Newsletter* to help bring you up-to-date on the curriculum.) Nevertheless, some respondents offered these suggestions, in descending order of frequency mentioned: 1) smaller classes at the undergraduate level, with more faculty/student contact; 2) more emphasis on teaching petroleum geology; 3) less emphasis on teaching petroleum geology and more on general geologic background; 4) more emphasis on "hands on" technical experience and field study. Most cited the excellence of our faculty as being a particularly strong point. Overall, the comments on UT's comparison with other schools were quite favorable.

We were pleased to find that most alumni were happy with the annual *Newsletter*. Many suggestions for improvement were offered, however, and we list the most common here: 1) enlarge alumni coverage; 2) have more

old photos; 3) print addresses for all alumni; 4) have more feature articles written by alumni about their reminiscences of UT days. A few words of explanation from the editors on each suggestion: 1) Since we employ no investigative reporters, we can only print what you send us! We encourage alumni to let us know what they are doing, but our staff limitations do not allow us to spend much time seeking out information about alumni in addition to *Newsletter* card responses. This year the percentage of return of questionnaires mailed was only about 19%. When the first *Newsletter* was published in 1953, the return rate was 38%. 2) We have included more photos this year than in the recent past. Again, our photo archive is quite limited and we depend on you to help us. We can make copies and return your originals. 3) The last time a listing of UT geology alumni addresses was printed was 1957! Approximately 1,600 ex-students were listed in that publication. Several problems now prevent us from producing an address list. First, we have over 3,500 active alumni on our mailing list. At least 15% of those alumni change addresses during a year's time. By the time a list could be published, it would be significantly in error. Additionally, we hesitate to publish such a list since some alumni may prefer not to have their addresses published. *We are always happy to provide addresses and phone numbers, if available, of alumni if you call or write us asking for the information (area code 512/471-6048).* 4) We would be delighted to have alumni write articles for the *Newsletter*. Hugh Hay-Roe has started the ball rolling with his article elsewhere in this issue, so how about some volunteers for 1988?

The *Newsletter* continues to be our best means of advertising the Department. For that reason its aim is not only to communicate with the alumni, but also to provide documentation for the extensive teaching and research efforts that are carried out in the Department of Geological Sciences. We strive to produce an attractive, high-quality publication, at a reasonable cost, that will serve these purposes.

Many, many thanks to all of you who took the time to return the questionnaire. You have confirmed what we knew all along - that our alumni and friends are interested in what goes on here, and are enthusiastic supporters of the Department of Geological Sciences and The University of Texas at Austin.

In Memoriam

Robert Tunstall Booth (att. '30-'31) died on April 1, 1986 at the age of 87. He received a BS degree in Chemical Engineering in 1921 from the University of Pennsylvania. After leaving UT, he attended Columbia University, from which he was granted the MA degree in geology in 1932. He retired in 1963 from the Standard Oil Company in San Antonio, where he resided until his death.

William A. Bramlette (MA '34), of Houston, died on March 2, 1987. After receiving his master's degree from UT, Mr. Bramlette worked for Humble Oil and Refining Company (later Exxon), retiring in 1974 after 30 years.

Mr. Bramlette is survived by his wife, Robbie, of Houston, two sons, William Jr. of New York and Robert of Houston, and one daughter, Mrs. George (Sally) Wells, of Portland, Oregon.



John Paul Brand

John Paul Brand (PhD '52), died suddenly on November 22, 1986 in Billings, Montana, at the age of 69. In 1942 he received the Bachelor's degree in geology from Miami University in Ohio, having become interested in the subject as a result of a freshman geology course there. During World War II he received additional training at MIT through the Army Special Training Program. John was an instructor at Hamilton College, Clinton, New York in the summer of 1946, then returned to Miami as Instructor of Geology and graduate student. He received the MA degree in 1947, and became Assistant Professor at what was later known as Texas Tech University in 1948. He was on the faculty at that institution for 32 years. During his long tenure at Texas Tech he led many field trips in West Texas and New Mexico, and worked

diligently to educate the general public in the West Texas area about the scarcity of water in that vicinity. John began work toward the PhD as an outgrowth of a project for which Dr. John T. Lonsdale, Director of the Bureau of Economic Geology, employed him. He received the degree in May, 1952. After his retirement in 1979, he and his wife, Charlotte, moved to Billings. In addition to his wife, John is survived by his son, John Frederick Brand, a geologist in Denver, Colorado.

Carl Chelf (BA '40), 70, of Austin, died August 12, 1986 after a lengthy illness. Mr. Chelf, a native of Abilene, was a member of the Methodist Church, and had been employed as a geologist by the Janes Gravel Company for over 30 years.

Survivors include his wife, Jeanette of Austin; one son, Carl B. of Buda; one daughter, Mary Elizabeth Long of Los Angeles; and one grandchild.

Stanton Hoxie Green (BA '51) died in January, 1986 after a seven-year illness from Parkinson's Disease. For a number of years he was employed by Lockheed at Vandenberg Air Force Base in California. At the time of his death he resided in Pismo Beach, California.

Mary Mildred (Pickle) Mayhall (BA '24) died in Salem, Oregon on April 19, 1987. She was 84. Mrs. Mayhall received her Bachelor's degree in geology, and then went on to receive her Master's and PhD in anthropology at UT Austin, where she taught anthropology and initiated the course on Indians of Texas. She also taught at Stephen F. Austin High School and sponsored the Junior Historians. She was the author of several books, including *The Kiowas and Indian Wars of Texas*, as well as author of numerous articles. She was active in the Texas Historical Society and the Austin Rose Society.

Mrs. Mayhall is survived by her husband, Temple B. Mayhall of Salem, Oregon; two sons, David, of Livermore, California, and William of Salem, Oregon; and four grandchildren.

Frank C. Roper (BA '31), of Rosenberg, Texas, passed away October 6, 1986, one day before his 83rd birthday. Mr. Roper graduated from UT with a Bachelor's degree in geology in 1931, with minors in chemistry and petroleum engineering. He was active in Sigma Gamma Epsilon, the honorary geological fraternity. After graduation, he went to work for Humble Oil and Refining Company, and stayed with Humble for one year before becoming an independent geologist. He was active in AAPG, Houston Geological Society, Independent Petroleum Association of America, Society of Economic Paleontologists and Mineralogists, Past Member of the

Mississippi Geological Society, and was Charter Member and co-founder of the San Angelo Geological Society, where he had served as Vice-President, President, and a member of the Board of Directors.

Mr. Roper leaves behind his wife, Juanita, and one daughter, Sherri Lynn.

Theodore J. (Jerry) Schwarzbach (BS '58, MA '61) died on May 21, 1986 at the age of 53. During his career as a geologist he was employed in the early '60's by Texaco in Wichita Falls, then worked for Tenneco Oil Company for several years in Bakersfield, California and Shreveport, Louisiana. Since the early '70's he had been a consulting geologist in Shreveport. Jerry held memberships in SIPES, AIPG, American Association of Petroleum Geologists, AIME, and Shreveport Geological Society.

William S. Strain (PhD '64), 77, died November 26, 1986 in El Paso following a one-year illness with cancer. Dr. Strain received his bachelor's degree in chemistry in 1932 from West Texas State University in Canyon. He taught high school science for a short time, and became interested in the subjects of geology and earth science, particularly fossils. He subsequently enrolled at the University of Oklahoma, where he received the MS degree in 1937 and in 1964 received the PhD degree from UT Austin. In 1937 he joined the faculty at the University of Texas at El Paso, where he particularly enjoyed

teaching freshman geology and leading field trips. In 1965, the students of UTEP presented Dr. Strain with the first Outstanding Teacher Award ever given at the school. He retired from active teaching on May 31, 1973 after 37 years at UTEP.

Dr. Strain is survived by his wife, Val, a daughter, Wilda, and one grandson.

Sam M. Udden (BS '50) of Houston died July 22, 1986 at the age of 58. He retired in 1978 from Continental Oil company after more than twenty-seven years of service. Mr. Udden was a member of the Houston Geological Society, American Association of Petroleum Geologists, Theta Xi Fraternity, Geological Society of America and was a Colonel in the Texas Army.

Mr. Udden leaves behind his wife, Teeta Udden of Houston, and one son, R. Andrew Udden of Dallas.

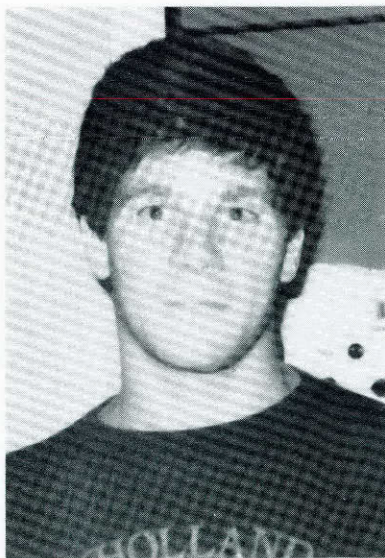
William W. Wilson, Jr. (BS '40) of Abilene died on September 8, 1986 at the age of 68. Mr. Wilson resided in Abilene since 1946. He was an independent oil operator, and was a member of the Episcopal Church of the Heavenly Rest, West Texas Oil and Gas Association, and the Air Force Association. He was also a charter member and past president of the Petroleum Club of Abilene.

He is survived by his son, William Walter III, and one aunt, Edrye Raines of Wichita Falls.

In Memoriam

Harlan Tod Sutherland
June 14, 1963 - July 31, 1987

Harlan Tod Sutherland, age 24, died while doing field work along the California coast near Fort Bragg for his MA thesis in the Department of Geological Sciences at The University of Texas at Austin. Tod was born June 14, 1963, in Irvine, Scotland, U.K. He attended Bedichek Junior High and Crockett High School in Austin. He graduated from Carroll High School in Fort Wayne, Indiana in 1981 where he also was a Golden Gloves state champion boxer. Tod received a BA degree in geology from the University of California at Berkeley in 1985. After graduation he was employed



at Chevron Geosciences in San Ramon, California, as a geophysical technician working on seismic data processing. He enrolled in the graduate program in geological sciences at UT in September, 1986.

Tod is survived by his parents, Mr. and Mrs. Harlan T. Sutherland of Berkeley, California; a sister, Lisa, of California; a sister, Tammy, of The Netherlands; maternal and paternal grandmothers; and a host of friends across the United States.

His many friends in the Department have established a fund in the Geology Foundation in loving memory of Tod.

Alumni News



Department Party, December 9, 1957. Back row (l-r): R. L. Folk, Walt Haenggi, "Lady Jane" Gray, Dick Grant. Front row (l-r): Pat Clabaugh, Ted Schulenberg, Gerhard Jansen, Charlie Mankin. Photo sent in by E. J. Dickerson.

Edwin V. Acker (BS '56) continues living in Tilden, Texas where he is a geologist and rancher.

Scott Adamek (MA '86) is a 1st Lieutenant in the US Army Corps of Engineers, which he joined last November. He completed the Engineer Officer Basic Course, US Army Airborne School, and attended a course on mapping, charting, and geodesy from the Defense Mapping School. Scott will be assigned to 649 Engineer Battalion (Topographic) in August. He recently submitted papers to *Tectonics* and *Journal of Geophysical Research*.

Jim W. Adams (BS '51) writes, "When Exxon closed the Andrews, Texas district, we transferred back to Midland. Really like our new home, new job in Production Operations Geology Group. Continue to lead fieldtrips for Exxon to the Guadalupe, Glass and Sacramento Mountains. Would like to hear from old friends; please stop by for an overnight visit or steak dinner. Now have 36 years' experience with Exxon - shooting for 40!"

Floyd Adcock (BS '55) is still doing exploration work in the Texas and Louisiana Gulf Coast. He is general partner and geologist with Banner Petroleum in Houston.

Elaine Marie Allan (BS '83) is a geologist in Austin studying hazardous waste and

conducting hydrogeological investigations for IT Corporation. "Underground Resource Management was bought by International Technology Corporation last May. I have bought a house. My daughter (Erika Marie Allan) is two years old now and can name a few specimens in her rock and mineral collection."

Adrienne D. Allie (MA '81) married Clarke L. Bean, a geologist with Chevron Corporation, in March, 1986. Adrienne received a promotion to senior geologist for Shell Offshore Inc. in September, 1986. Her work involved diagenetic studies of offshore Gulf of Mexico sands. She lives in New Orleans.

David Alt (PhD '61) is professor of geology at University of Montana in Missoula. He is also part owner of Mountain Press Publishers. "We think we sell more geology books than any other publisher in the country, possibly more than any in the world. Anyone who is interested in receiving our latest catalog four times a year should send me a note. I will put you on our mailing list."

Michael Amdurer (MA '78) moved to Virginia early in 1986 to work in the management office for Ebasco Services REM III (Superfund) program - a five year, multi-million dollar EPA

project to investigate hazardous waste sites from Maine to Mississippi. "I'm now the manager in charge of technical quality of the program. Bought a house in Fairfax; two-year-old Francesca is tearing it up. We need more good hydrologists on the program - anyone interested should contact me."

Eugene L. Ames, Jr. (BS '55) was recently appointed to the National Petroleum Council. Gene is president of Venus Oil Co. in San Antonio and continues to serve as a member of the Geology Foundation Advisory Council.

David Amsbury (PhD '57) continues as a geologist for NASA, Johnson Space Center, and lives in Seabrook near Houston. "I gave two papers (with John Dietrich) at GSA meetings on integrated networks of incised meandering streams, based on space photos and other data. Ann and I have started looking seriously at retirement a few years down the road - she likes the beach and I like the mountains. Maybe things will settle down in Costa Rica soon! Son Steve is getting married in April, so the second (and last) one is taking wing."

James H. Anderson (PhD '84) writes from Houston, "Debbie and I have a new daughter, Jacqueline Michelle Anderson born August 28, 1986. That makes two and hopefully all. Last

spring ('86) I was promoted to research specialist at Exxon Production Research. Debbie has retired from the US Army Reserve as a Captain, but she still teaches high school biology (advanced) at Bellaire High School. I am still traveling (approximately three months) but it has mostly been in the US, only a few trips to Canada and the West Indies. Presented a poster session at LA and a talk and paper at a Canadian Reef Symposium in Banff during the winter. I am working on carbonates in France, Middle East, and the US, so life is far from boring."

Nancy Jenswold Anderson (BA '50) is managing principal of Urban Environment Associates, a consulting firm. "Have completed one year's residence in our restored 100-year-old country Victorian house in Cedar Hill, Texas. I am actively helping to preserve some of the environmentally sensitive land in Dallas County as a member of the Dallas Co. Park and Open Space Board, which acquires open space preserves, and of the Cedar Hill Park Board. My work continues to involve me with interesting new projects related to growth and development - roads, airports, reservoirs, etc. Though not a practicing geologist any longer, my geological training helps me to understand the environmental issues of the projects on which my firm provides socioeconomic research and evaluation and community relations services."

Paul Anderson (att. '39-'42, '46-'47), a partner in W. D. Anderson and Sons in Midland, comments that business is pretty slow right now and he hopes the price of oil goes up soon. Paul's wife, Peggy, and son Kenneth (37) and daughter Karen (35) are doing well.

Payton V. Anderson (BS '45) is still active in exploration for oil and gas as a partner in W. D. Anderson and Sons, but as a non-operator. He and his wife, Evelyn, have three married daughters and six grandchildren. Payton is enjoying his hobbies of travel and golf.

Richard G. Anderson (MA '83) is pursuing his PhD in geophysics at UT Dallas. He presented a paper at the 57th Annual SEG meeting in New Orleans this year.

David Angstadt (MA '83) lives in Covina, California. "I'm married now with an instant family of four girls. We've also added two dogs. I'm trying to hang in there as a geophysicist for bankrupt Texaco. Things just have to get better soon (they can't get worse) in oil exploration. A note to current students: there are lots of jobs for engineering geologists and hydrologists in southern California but make sure that you take some courses in those areas and a civil engineering course or two."

Dick E. Atchison (BS '53, MA '54) is retired in Bakersfield, California "with trips to

Texas and Alaska - so guess I'm still a Texi-Cal-Askan."

Gerald Atkinson (BS '83) reports the good news that he is still employed - as a senior geologist studying regional hydrocarbon potential assessments in Midland.

Carol Evans Avery (MA '86) writes, "My job offer came late in December, 1986, after I'd handed my thesis in and moved back to South Carolina where my husband was. I started in late February with Chevron's Eastern Region, Western Production Division in Lafayette, Louisiana. I'm in an offshore district. My husband, Mark Avery, is planning to start his own private detective agency." Carol hopes to submit an article for publication to *GSA Bulletin* soon.

Olufemi O. Babalola (MA '84) is a geophysicist in Houston. "Completed several studies in global tectonics and petroleum geology of the West African Gulf of Guinea basins. Some of these are currently being marketed to international exploration companies."

Byron Bachschmid (BS '83) is employed by Siete Oil & Gas Corp. in Roswell, New Mexico as a geologist working southeast New Mexico Delaware Basin stratigraphy.

A. C. Baker (BS '51) is an independent geologist in Wichita Falls.

Carol Swenumson Baker (BS '84) works for Exxon in Houston and was recently promoted to senior geophysicist.

Ernest T. Baker, Jr. (BS '55) writes, "Now have 30 years of service with USGS geologic division and water resources division. Have worked all these years in Texas and have a pretty good feel for Texas geology, both surface and subsurface. Can retire now and look forward to a second career." Ernest continues to live in Austin.

Jerry Baker (BS '51) is a senior mechanical designer in Richardson, designing HVAC systems for commercial buildings. "As is all too common today, my employer closed down the company late last year. I was fortunate in finding similar employment fairly soon."

William Baker (BS '51) has a new home on Lake Palestine. "Golf, family, friends and yard work take up most of my time. Virginia and I enjoy retirement."

Donna Balin (BS '78) writes from Cambridge, England, "Still writing the perennial PhD dissertation at University of Cambridge, but expecting to be through this year. Since I've been here, I've sat on Hutton's unconformity, met a Prince, found myself a nice Australian honey-pie, and learned to complain about the weather. I visited Texas last Christmas and stopped off in New Orleans to visit Janie (Bell) Hurley." Donna sent the photo shown below with these comments: "H.R.H. Prince Phillip visited our Cambridge college in 1986. Being the occasion of the Texas Ses-

quicentennial, I presented him with a pack of Texas chili powder. He seemed impressed, or aghast, I couldn't tell which. He was interested to know, however, if it would help to grow hair on his head. I could only assure him that it would keep his head warm in winter."



Girl Meets Prince

James M. (Jim) Balogh (BS '72) comments, "I'm still one of the few working geologists in Houston working for Transco in their joint venture department. Currently I'm working California and the West Texas fee property Transco acquired from Exchange Oil & Gas. Char presented me with a great Father's Day present last year - our daughter Brigitte Arianna, June 11, 1986. Prenatally nicknamed 'The Fidgit' and rightly so, she has been alert, kicking, laughing and healthy every day for her whole ten months. The timing is perfect; by the time she gets to UT we'll either be smashing social insecurity checks or cashing out the IRA's. The only other unusually exciting news is I'm starting to get on TV a lot with my lemon law complaint I filed a year ago on my 1985 Lincoln Continental. In fact, the last time I was in Austin, I was towed in."

Michael Bame (BS '84) writes, "I work for Intera Technologies based in Austin. I live and work in Carlsbad, New Mexico. Intera has a contract with Sandia National Labs to study the regional hydrology and geology of the waste isolation pilot plant (WIPP) site located 35 miles east of Carlsbad. The WIPP site is the first repository for low level nuclear waste. It is defense nuclear waste only; the project is headed by the Department of Energy. I have worked for Intera since 1985."

Barbara Rae Barron (BS '83, MA '85) has worked with Exxon's electronic data processing center in Houston for the past two years.

Benjamin L. (Ben) Barrow (BS '51) comments, "I retired from Reilly Tar & Chemical Corp. on March 1, 1986.

Built a home on part of the ranch my mother was born on near Utopia, Texas on the edge of the Hill Country. Keeping busy rebuilding fences."

Robert Bartels (BS '85) lives in San Antonio. "Just want to say that hydrogeology is the field of the future. I am presently working on several hydrogeology projects (environmental) which are very interesting. We are staying busy in the geoscience section at Raba-Kistner Consultants Inc. working in hydrology, engineering geology and environmental geology. I am glad to be working in hydrogeology rather than in the petroleum industry."

Jerald H. (Jerry) Bartley (BS '37), petroleum geologist and independent oil operator in Midland, says, "Approximately 7 1/2 years ago I tried to retire - lasted 30 days. Attended a 'Pecora' symposium on general applications of satellite imagery at Sioux Falls, South Dakota. Ordered one image as a starter, now have approximately 300 in my file and cover all major producing basins in continental USA except California. My new hobby keeps me busy every working day of the week; it's a new and exciting experience."

Gerald Barton (MA '71) is still in Washington, DC with the National Oceanic and Atmospheric Agency working with NEDRES, an environmental data base, and with satellite data. "Barb is doing fine, and our daughter, Kristin, graduates from high school. Saw Chip Groat for the first time in 20 years at the Gulf of Mexico Seminar held here in DC in January. Murray Felsner is in town publishing a remote sensing newsletter."

William Bath (MA '80) writes, "I'm currently employed by Martin Marietta Corporation Denver Aerospace investigating ground- and surface-water contamination issues and implementing ground water cleanup plans. I'm enjoying the Denver area and am an active skier, hiker, and soccer player. My wife, Jackie (BS '80) and I had our first child (Andrew) March 1, 1987."

Robert E. Beatty, Jr. (BS '54) is a consultant in San Antonio.

Joe Beard (BS '42) lives in Wichita Falls, where he is an independent petroleum geologist.

Ralph Beaver (BS '58) is president of Bevox Corporation (factoring-commercial finance) in Fort Worth, and Apollo Supply Co. (fastener manufacturing). "Still rocking along at same business. This is an excellent time to do some drilling."

Gray Bebout (BS '81, MA '84) is continuing his research on fluid flow and metasomatism in subduction zones in pursuit of his PhD in geology at UCLA.

Fred H. Becker (BS '83) and **Teresa Harkrader Becker** (BS '82/geology; BS '83/geophysics) reside in Slidell, Louisiana. Fred was promoted in January to assistant party chief with

Shell, and Teresa was promoted to petroleum geophysicist senior grade at Amoco Production Company in April. "We would both love to hear from anyone we had classes or field camp with."

Walter E. Belt, Jr. (BS '43) reports, "Virginia and I retired February 13, 1987. We purchased 32 acres near Flatonia with a high hill, three small ponds, about seven acres of large live oaks and a superior view to this flatlander. We are building our new home and have planted 3000 young trees, have plans for a greenhouse, catfish in the clear water ponds, lots of fruit trees and several animals NOT including cows. We are so wonderfully busy that we wonder almost daily how in the world we ever had time to work in business. We raise trees from seed and have preliminary plans for Magnolia Hill Nursery. Would be delightful to hear from and receive visits from UT friends."

Richard B. Bender II (BA '67) is president of Thermacor Process, Inc. in Fort Worth.

Leslie Bendig (BS '86) is working as an energy consultant involved in consulting, analysis and reservoir assessment for Arthur D. Little Far East in Singapore. "The oil business is much better in the Far East than in Texas or Louisiana."

Richard E. Bennett (MA '59) is president of Bennett Petroleum Corporation in Denver.

Timothy Berge (MA '81) writes, "We recently moved to Midland with Exxon's Western Division, Exploration during the 1986 reorganization. I work in the Frontier Project, Basin and Range area, and during '86-'87 I was the program chairman for Permian Basin SEPM." Tim is a senior petroleum geophysicist.

Don G. Bilbrey (BS '53, MA '57) notes, "I'm thoroughly enjoying my early retirement caused by Gulf's being swallowed by Chevron. I play golf nearly every day and have my handicap down to four - it could be lower but for the putting yips that seem to come with age. My one-and-only daughter, Karen, is 14 and graduated from junior high school in May. We now have four years of high school and four or more years of college to look forward to. I may have waited too late in life for this! My wife, Eva, may never recover from my retirement, only time will tell." Don and his family reside in New Orleans.

Curt Black (MA candidate, 1979 to present) is a hydrogeologist doing environmental consulting with Jones & Neuse, Inc. in Austin.

William D. Blankenship (MA '52) writes from Denver, "As owners of New Age Petroleum we are taking the company into new areas - Nevada, Kansas, and working the Philippines for partners."

Harvey Blatt (MA '58), professor of geology at University of Oklahoma in Norman, is about to become a grandfather for the first time. "Am I really that old?"

Robert H. Blodgett (PhD candidate, '78 to present) has returned to UT to complete his dissertation on Triassic red beds in southwestern Colorado. Bob spent last year as an instructor at Dickinson College, a liberal arts college in Carlisle, Pennsylvania. The previous year he taught geology at Ohio State University where he received the Distinguished Teaching Award for 1986. He has been invited to participate in a Penrose Conference on paleosols in Oregon in September, 1987.

David Bocanegra (BS '79) is a geophysicist in Dallas working in international oil exploration.

Clint Booth (MA '56) started a company in Dallas that markets long distance service for business customers, Liberty LD Services, Inc. He also continues as president of Booth Energy Company.

Silverio Bosch (BS '74, MA '75) writes from Corpus Christi, "Given early retirement by McMoran Exploration in 1983 and forced into becoming an independent is the highlight of my career up to now. A new enthusiasm and appreciation for the petroleum business I did not think possible was the result of this transition. The hard times now make us all appreciate the 'fat years' and make better explorationists and businessmen out of all of us. Call me if you need a good South Texas Wilcox deal."

Douglas L. Bostwick (MA '53) was retired by Exxon August 1, 1986 and moved to Walden on Lake Conroe in mid-October. "Play lots of golf (not good golf but fun). "We have travelled to Expo 86 in Vancouver and to Utah State University to visit our youngest daughter who is a freshman. (An Aggie school!) I shall probably do some consulting when times are better."

David Bower (BS '85) is a geologist and Railroad Commission consultant. "I am still employed with the law firm of Skipper Lay & Associates and do a wide range of work, anywhere from the filing of various permits at the Railroad Commission to reservoir analysis. My wife, Lynda, and I just recently bought a house in northwest Austin and love it!"

Robert Boyce (PhD '75) is manager, development geosciences, Gulf Coast production department for Standard Oil Production Company in Houston.

Don R. Boyd (BS '58) reports from Corpus Christi, "I am busy as ever - but with different 'opportunities' than before.. Things will get better!" Don is an independent geologist and oil operator, and is an Honorary Life Member of the Geology Foundation Advisory Council.

Robert W. Bradley (BS '56) is a consulting petroleum geologist who lives in Slidell, Louisiana.

Philip Braithwaite (MA '58) comments, "I am still working for Mobil in Dallas, investigating deep water sand deposition in the Gulf of Mexico. It's a fascinating, challenging study that one could spend a life-time on, especially with the availability of all the excellent quality seismic in the region. Barbara is about to finish her second Master's in English at UT Dallas and our daughter, Bridget, is working in Dallas for a local law firm putting in very long hours like most young attorneys."

Tom Breedlove (BS '54) is district development geologist for Marathon in Lafayette, Louisiana.

Bill Brenner (BS '58) lives in Alpharetta, Georgia.

Herbert L. Brewer (BS '47) is "still traveling all over the world for Triton Energy. Spend so much time in Paris that I am almost a resident there. Present plans are to make a business trip to China in late January." Herb is senior vice president of exploration for Triton, and lives in Dallas.

Thomas Bridge (PhD '66) continues as professor of geology at Emporia State University, Emporia, Kansas.

Ben Brigham (BS '83), geophysicist, is "with a great company - Rosewood Resources. We are exploring everywhere, from west Texas to France." Ben lives in Dallas.

Tom W. Broadhead (MA '75) is involved in paleontological research and teaching as an associate professor of geology at the University of Tennessee in Knoxville. "Ann and I have two children, Evan (age one) and Meredith (age four). I would like to see the Texas Longhorns play the Tennessee Volunteers in a football game - all orange and white!"

Buddy Brock (BS '56) is a partner in farming and investments in Edna, Texas. "My wife (class of '56) and I have three active grandchildren. Our youngest of four children is a junior at, of all places, Texas A&M!"

David B. Brock (BS '65) is an independent petroleum geologist in Corpus Christi.

Ken Brook (BS '67) notes, "Desert Ventures has been quite busy this year doing economic evaluations on potential acquisitions for our clients. Project management and reconnaissance work take up the rest of the time. 1987 should be a good year as long as the price of gold stays up. Family fine." Ken lives in Reno, Nevada, and is president of Desert Ventures.

Gerald R. Brooks (BS '58) is executive vice president of Marlin Exploration Inc., an oil and gas exploration firm in Bossier City, Louisiana.

Charles Douglas Brown (BS '84) writes, "Graduated from SMU in December, 1986. Started working for Sun Explo-

ration and Production Company in Corpus Christi in February. Concluded thesis entitled 'Sedimentology and depositional systems of the Middle Stanley Group (Mississippian), Howard County, Arkansas, Southern Ouachita Mountains.' Currently preparing thesis for publication and presentation in Ouachita symposium in Arkansas. There is still hope for all young petroleum geologists. I strongly urge geology students currently in school to spend every available summer working with companies in their desired discipline of geology. Having a MS today might not qualify you; job experience is essential."

Lawrence (Larry) Browning (MA '78) is a consultant in oilfield and environmental geology in Gardiner, Oregon. "Semi-retired and living on the ocean on the central Oregon coast. Still have a house in Houston, but only get down once a month or so. Divorced, remarried, and expecting twins."

Wallace E. Brunson (BS '42, MA '54) lives in Houston. "The main interest for me as a retiree (Amoco '80) and independent geologist is the family, health, and traveling. I do keep a geological office and occasionally slip a log or two."

Leonard Bryant (BS '57), an independent geologist in Helotes, Texas, comments, "My daughter graduated from UT in 1980 and from Southwestern Medical School in 1984 and is now doing her residency at Mt. Sinai Hospital in New York City."

Julius A. Buchanan (BS '41) is retired in Tyler. "I am engrossed in the local history of Smith County, Texas and am cataloging papers and letters written in the 1860's. I am also writing a book on my great-grandfather's infantry company in the Civil War."

Thais Bullard (MA '51) invites all to visit her residential complex, Valverde Parke, in Taos, New Mexico. "We love tourists. I am operating this business plus traveling to Hawaii during the winter, and trying to find a little time for oil painting."

Daniel J. (Danny) Bump (BS '85) writes from Houston, "Still working at Ultramar Oil & Gas, Ltd. trying to find oil and gas along the Texas Gulf Coast. Underworked and severely underpaid - need \$30 Bbl. oil again!"

Mike Bumpass (BS '78) lives in Austin.

William Benton (Bill) Burford (BS '75) is a partner in the law firm of Hinkle, Cox Eaton, Coffield & Hensley in Midland, involved principally in oil and gas law.

Ray A. Burke (BS '47) is a director and executive vice president of Unocal Corporation in Los Angeles. In March he was honored by His Majesty King Bhumibol Adulyadej of Thailand with the "Royal Decoration of Commander of the Most Noble Order of the Crown of Thailand." This honor was given in recognition of Unocal's role in the discovery and development of natural

gas fields offshore Thailand that have helped the country move toward energy self-sufficiency. Unocal was the first company to be awarded exploration rights in Thailand, and made its first discovery of natural gas in 1972. The Crown of Thailand is presented to those who perform noble deeds for the government and citizens of that country. Ray directs all phases of Unocal's activities in Thailand. He has visited the country many times in the past 25 years and has developed excellent relations with Thai authorities.



Ray A. Burke

Claude M. Burnett (BS '51) writes from Dallas, "Having practiced geology as a consultant for the past 17-plus years, I retired March 31 of this year. Hope to travel a bit and do some things we haven't had time for before."

Thomas J. (Jeff) Burnett, Jr. (BS '48) is owner of T. J. Burnett and son independent insurance agency in Houston. "One of our sons, T. J. Burnett III, now in agency - third generation agency."

Robert William Bybee (BA '41) is president of Bybee International, Inc. in Houston. "Continue to enjoy semi-retirement as a petroleum exploration consultant - family, friends, golf, hunting, fishing and travel are now more important than ever. Elizabeth and I have enjoyed watching our grandson, Scott Verplank, develop from a good junior and high school golfer into a four-year All American (plus two-year academic All American) golfer at Oklahoma State University. He is now on the 'tour' and doing OK."

Jim Byrne (PhD '75) is a geological consultant selling oil and gas prospects in Houston.

Warren J. Cage, Jr. (BS '50) and **Susan Kiefner Cage** (BA '50) are "continuing to work on our place near Boerne - moving rocks has kept us healthy."

Nothing unusual to report, just normal aches and pains of the 'golden years.'

Frank Cahoon (BS '57) is an independent oil operator who is working on natural gas projects in Midland. "Have just been involved in the merger of Colony Natural Gas Co. with Ala Tenn Resources of Florence, Alabama. Paula and I now have two wonderful granddaughters."

Dean Callender (BS '56, MA '58) comments, "Our business is retirement planning and unfortunately is flourishing because the oil business is so bad. For our geologist friends we eagerly await the forthcoming energy crisis. Keep the faith." Dean is senior vice president of Dean Witter Reynolds in Houston.

Jorge Camargo (MA '82) is a geophysicist for Petrobras in Brazil. "Living in Rio de Janeiro with Laura and our three children. Lots of work to do at Petrobras. Recently moved from seismic software development to try to get some useable seismic data in Brazilian difficult areas as data acquisition quality control supervisor."

Donald Harvey Campbell (MA '62) continues as principal research petrographer working with microscopy of cement, concrete, aggregates, and related materials at Portland Cement Association Construction Technology Laboratories in Skokie, Illinois. He recently wrote a reference book entitled *Microscopical Examination and Interpretation of Portland Cement and Clinker* which has been published by Portland Cement Association.

Donald M. Campbell (BA '55) lives in San Antonio, where he is a geophysicist for Inter-American Geodetic Survey.

Alvin Candela (BS '41) is semi-retired in Galveston. "These mergers remind me of the oil exploration era of the 50's and 60's when major oil companies went to explore in the Middle East for cheap oil (\$2.50 or \$3.00 a barrel was too high). Proration had us down to eight producing days in Texas. After the giants got the price up to \$28 per barrel, the Arabs got rich. Now they must prorate their oil to keep prices high. I wonder who controls the demand today, for there is ample supply."

Jing-zhang Cao (Visiting Scholar, '80) received a promotion to associate professor in the department of marine geology at Tongji University in Shanghai in July, 1986. Last November he attended the international symposium in Beijing on Petroleum Exploration in Carbonate Areas and presented a paper entitled "Applications of slant stack to seismic data in carbonate rock areas." He reports that he appreciates the *Newsletter* very much because it allows him to keep up with the Department and many friends he made here during his visit.

W. Henry Cardwell (BA '38) is a consulting petroleum geologist in Houston.

James L. Carew (MA '69, PhD '78) is an associate professor of geology at the College of Charleston in South Carolina. "I am a member of the South Carolina State Board of Registration for Geologists. The bill creating the Board was passed June 10, 1986. I was appointed by the Governor in August, 1986. I just finished holding a Penrose Conference in Bermuda on Late Quaternary Sea Level. It was a great success. Russ Harmon led a field trip for me. In October 1985 I coled a GSA pre-convention field trip to my research area on San Salvador Island, Bahamas. In June, 1986 that trip was rerun for SEPM. I got to see Pete Scholle again on that one. A similar trip is included in the 1989 IGC first circular - to all my grad student cohorts - come on along! I am a member of the research team put together by the University of Bristol in Great Britain (and others, of course). We are conducting a large multi-disciplinary research expedition in July and August entitled 'Andros '87' to study the Blueholes of Andros Island, Bahamas."

A. T. (Toby) Carleton (BS '51, MA '52) continues to live in Midland, where he is vice president of Pogo Producing Company, managing the exploration and production division. "Professionally, my geographic responsibility with my company has been expanded to include the Mid-Continent and Rocky Mountain areas. After 35 years of working mainly the Permian Basin, the challenge offered by these new areas is very exciting and rewarding to me. Wife Corinne and I traveled to the Orient last summer but will stay home for a while as marriages of both daughter, Cathy, and son, Phil, are this summer. Daughter, Elaine, is a crude oil purchaser for ARCO in Dallas." In June Toby was honored by being presented the Distinguished Service Award at the AAPG meeting in Los Angeles.

Steve Carlson (MA '84) is working for Unocal, Inc. in the Texas offshore district as an exploration geophysicist. "My wife Jenny and I bought a house in Bellaire in 1984. I am thinking about obtaining a PhD from the University of Houston."

Richard Frank Carroll (BS '80) is an exploration geologist in Houston, conducting petroleum exploration along the upper Texas coast.

Dana Woodruff Carson (BS '83) is pursuing graduate work in tectonics at Iowa State University.

Robert D. Carter (BS '48, MA '48) is retired at Lakeway near Austin. He is "thankful for the *Newsletter* and news of contemporaries."

Jack C. Cartwright (BS '51, MA '55) writes, "Our family operation continues to

function well. It's been a pleasure to work with wife, daughter and son in our business. Barbara and I are able to get away for some long weekend trips to the New Mexico Mountains and an occasional longer trip. We are still doing some drilling and are also watching various investments." Jack is an independent in Midland.

Charles A. Caughey (BS '69, MA '73) comments, "Inexco's merger into Louisiana Land and Exploration returned me to the joy and frustration of prospect generation. A family winter vacation was interrupted by wellsite work for my first dry hole with the new outfit. I have more free time now to enjoy activities with Justin (7) and Jan (6), and of course, Penni." Chuck is senior staff geologist, exploration, Permian Basin of west Texas and southeast New Mexico and lives in Spring, Texas.

Henry Chafetz (PhD '70) is associate professor of geology at the University of Houston.

Ralph Chamness (BS '57), chief geologist for Texasgulf Chemicals in Greenville, North Carolina, says "North Carolina now has a law on the books for the registration or licensing of geologists; South Carolina does too. It seems to be a real trend - an up-dated listing of states with similar laws would be interesting."

Jenny Chapman (MA '84) lives in Santa Fe and is still working for the State of New Mexico's Environmental Evaluation Group. "Particularly interested now in recharge to aquifers in arid lands."

Walter Chatham (BA '48, MA '50) lives in Mineral Wells, Texas. "I retired in December, 1981 from the Federal Energy Regulatory Commission (formerly the Federal Power Commission) in Washington, DC. I worked there for 26 years. I moved to Mineral Wells in September, 1982. My work with the Commission the last several years consisted primarily of natural gas reserve studies on fields located mostly offshore Gulf of Mexico."

Calvin Chimene (BS '50) is president of The Laahnz Corporation, a petroleum exploration company in Houston.

Joe Christie (BS '58) is president of Christie Energy Company in Austin, which builds, owns, and operates gas pipelines. "Rapidly expanding our gas gathering systems to enable us to supply our co-generation projects."

Rubie V. Christner (BA '29) is semi-retired in Shamrock, Texas.

Uel S. Clanton (BS '55, MA '60, PhD '68) says, "Moved to Las Vegas in the fall of 1984 and went to work for the Department of Energy in their High Level Radioactive Waste Program. The wife and I are drying out finally - after spending almost 22 years in the Houston Swamp."

Donald Clutterbuck (MA '58) is an oil and gas consultant in Houston.

Robert Cobb (BS '77, MA '80) is involved in production geology, Anadarko Basin, Oklahoma. "Standard Oil (formerly Sohio) is in the middle of transferring the Dallas production office to Houston. We should all be down there by the end of July, 1987. See you in Houston."

H. Grady Collier, Jr. (BS '49) is a petroleum geologist in New Orleans who sends best wishes to everyone and extends to all an "open invite" for a cocktail and visit when in New Orleans. Grady is currently president of the SIPES Foundation.

Bryan D. Collins (BS '50) is retired in San Antonio. "Daughter Karen and family are being transferred from Melbourne, Australia (after two years) to New York this summer. Shelley and family are temporarily on Lexington, Kentucky where Reagan (SWTSU grad) is attending the Equine Institute, returning to Kyle in June. Wife, Joanne, is seriously considering retirement from teaching (gifted program). Son Bryan will hopefully graduate from UTSA (Finance) this December - completes our goal of all three children graduating from college. Since retirement I have been generating plans, programs and policies for a start-up cosmetics corporation. After 37 years I now have a personal knowledge of the purpose for talc schist."

Carlton Cook (BS '78) is a geologist in oil and gas exploration in Lafayette, Louisiana.

John D. Cooper (MA '64, PhD '70) is a geology professor at California State University at Fullerton, teaching undergraduate courses in historical geology, sedimentology, invertebrate paleontology, and field geology. "Publication of co-authored historical geological text in spring, 1986; continue to do research on Lower Paleozoic carbonates and clastics in southern Great Basin as well as Miocene turbidites in northern part of LA Basin. Son Randy graduated from high school in June and will attend University of San Diego on a basketball scholarship in fall, 1987. Zachary and Chaska love their karate classes and wife Nancy enjoys her job as assistant librarian at Chaska's elementary school. We still live in our 'cabin in the hills' perched atop Miocene turbidite fan deposits."

Mary Beth Cooper (BA '67, MA '69), a consultant in Denver, comments: "We are hoping to survive in our business until things get better. Denver is very hard hit, as is most of the oil and gas community."

Frank Cornish (MA '75) lives in Corpus Christi, where he is a district exploration geologist for Texas Oil & Gas. He has two boys, Dante (8) and Darian (6). Frank recently had an article published in *Palaio* entitled "The trace fossil *Diplocraterion*: Evidence of

animal-sediment interactions in Cambrian tidal deposits."

Glenn Lee Corrigan (BA '55) writes from Houston, "In October I shall complete 24 years with Macmillan Publishing Company, the last several years in the professional books division. My area of responsibility is the southern half of the State of Texas, but for a number of years I have been the senior library representative for Macmillan Professional and Library Services in the USA. Wife, Mary, is a business teacher in Cypress-Fairbanks High School. Son, Donald, is a professional photographer, single and living at home. All three members of the family are active in the family hobby - collecting Lionel electric trains - and are members of the Train Collectors Association."

Jerry Covington (BS '43) continues as a geologist in Midland, exploring for oil, gas and sulfur.

Raymond W. Cozby, III (BA '83) hopes to practice energy law in either Austin or Tyler after he takes the bar exam in July, 1988.

R. Wilson Cozby, Jr. (BS '60) comments, "Finally getting my fourth child into the University - Gleith, who will be a freshman this year. Drew will be a junior at UT. Ray is in his third year of law school at Texas Tech, Chris is marrying in September, and I'm singing 'I owe, I owe, it's off to work I go...'" He is a pediatric dentist in Tyler.

William W. Craig (PhD '68) continues research on the stratigraphy of the Arkansas Ozarks and Ouachitas. He is a professor of geology at the University of New Orleans.



Arthur S. Cramer

Arthur S. Cramer, Jr. (BS '57) is a consulting exploration geophysicist for Texaco Inc. in New Orleans. "As vice president of the Society of Exploration Geophysicists this year, I've been doing a considerable amount of traveling. I've really enjoyed my close asso-

ciation with the society and appreciate my company, Texaco, for supporting me in my year's activities with SEG. My job function is regional geophysics with Texaco's exploitation department in Louisiana and I currently handle both offshore and onshore geophysical prospects."

Weyman W. Crawford (BS '50) is executive vice president of Elf Aquitaine Petroleum Co. in Houston, and is an active member of the Geology Foundation Advisory Council at UT.

Bill Cree (BS '52) is an independent oil operator in Abilene.

Stewart Cronin (BA '31, MA '32) is an independent geologist in Dallas.

Max M. Crunk (BS '51) is president of Kama Development Corporation in Midland. "Found one field (60+ wells), looking for more fields."

Hugh W. Curfman (BA '48) is a consulting geologist in Lafayette, Louisiana and is active in the Society of Independent Professional Earth Scientists Foundation affairs.

Steve Cumella (BS '77, MA '81) writes, I am working the Michigan Basin for Chevron in Denver. I married my wife, Cindy, in July 1986, and we are expecting a child in August 1987."

Thomas B. Curlee (BS '50), petroleum geologist in Norman, Oklahoma, says "Helen and I enjoy good health, golf, UT baseball (via ESPN), and the *Alcalde*."

William Curtis (BA '82) is president of Bloodhound Exploration in Oklahoma City, which is currently active in buying mineral interests in the midcontinent region. "First child, Samantha Winn Curtis, born November 11, 1986."

Harris P. (Koop) Darcy (BS '51) is an independent geologist in Houston. "The Energy Exploration #1 Asher well in Israel is 21,428' T.D. Psalm 66:5, Psalm 77:14, Psalm 85:12, Psalm 89:52."

Larry J. Darnall (BS '58), president of Darnall Petroleum in Dallas, reports, "Times have been bad for the last two years since our business is exploration, and low prices have created a lack of exploratory funds. I am definitely seeing an upturn in activity at the present time which, needless to say, is tremendously important."

Mike Darr (BS '81) is working as a hydrologist for the State Department of Water Resources in Phoenix, Arizona. "Spent two years researching sedimentology of Quaternary intraslope basins, northwest Gulf of Mexico, with Dr. E. W. Behrens of UTIG in Galveston and Austin, from March, 1983 to August, 1984. Moved to Flagstaff in January to pursue thesis in hydrogeology of the High Oak Creek Watershed (yes, it does snow in Arizona at 7,000') at Northern Arizona University. Published article on meandering river depositional systems in

Petrified Forest, Arizona through Museum of Northern Arizona."

Franklin W. Daugherty (MA '59, PhD '62) is president of Pinnacle Resources, Inc. in Alpine, Texas. "Dorothy and I have a new home on the family ranch near Alpine. For ten years I was president of D and F Minerals, Inc., the only producer of fluor spar in Texas. Because of the present sad state of the minerals industry I am devoting most of my time to cattle ranching, pecan production, and activities of the Brewster County Historical Commission. In the past few years Dorothy and I have traveled in Europe, England, and Ireland. We also participated in a UT Classics Department Study Tour of the Mediterranean World and a Smithsonian Institute Study Tour of ancient Egyptian civilization along the Nile."

Erik Davidsen (BS '83, MA '86) writes from Midland, "Started with Chevron USA in May 1986 in the West Texas Division as a development geologist. Working on the North Ward Estes Field, doing a detailed reservoir characterization study of the Yates, Seven Rivers and Queen Formations. I also monitor the field's 3,000 wells. I am spending my free time playing golf, tennis, softball, basketball, water volleyball and coaching kids' flag football."

Joe Davis (PhD '80) is a senior research geologist for ARCO working on seismic stratigraphy, Gulf Coast offshore in Dallas.

Mary Quick Davis (BS '48) is retired in Tyler. "I recently quit working as a medical laboratory technician. If I can't find another job, I'll just enjoy my hobbies and my two delightful granddaughters."

Richard A. Davis, Jr. (MA '61) is a professor of geology at the University of South Florida in Tampa. "Lannie (25) continues in nursing at Tarrant County Hospital in Fort Worth and Lee (23) is working for a sporting goods company in Greensboro, North Carolina. Mary Ann is about one year away from a PhD in science education. I continue on coastal and shallow marine research. Emphasis now is on carbonate-siliciclastic transitions and tide-dominated sediment bodies. New text on oceanography was published in February, 1987. Sorry to miss SEPM Mid-Year Meeting but spent too much time on North Sea coast and teaching field camp at Taos, to justify another trip in August."

Richard R. Davis (BS '76) says "It's just great to still be employed as a geologist!" Rick lives in Aurora, Colorado.

William H. Davis (BS '41) is retired in San Antonio: "The only excitement around here is waking up warm another morning!"

Donald F. Dean (BS '83) is a research scientist associate at the Institute for

Geophysics in Austin. "1987 is turning out to be a very interesting and exciting year. I was aboard the UT Institute for Geophysics research vessel *Fred H. Moore* for the first-ever academic three-dimensional seismic survey off the coast of Costa Rica. I am also scheduled to be on board for a two-ship expanding spread profile experiment off the coast of Japan. A lot of travel to faraway places. My lovely wife, Cindy, is going to meet me in Japan where we will begin a two-week tour of the Orient celebrating our sixth anniversary."

Frederik E. Dekker (MA '66) continues as an exploration geologist for Unocal in Los Angeles. "Still hoping for an assignment overseas, although cost-cutting and reduced exploration expenditures don't result in many opportunities."

William D. DeMis (MA '82) is currently living in Denver, looking for employment as a geologist.

John Lane Denson, III (BA '49, MA '50) is Rector of St. John Episcopal Church in Nashville, Tennessee. He has two grandchildren, John Lane Denson V, born in February, 1985 to John and Deborah Denson, and Megan York Denson, born in March, 1986 to Scott and Melinda Denson.

David D. Dernick (BS '80) reports, "Have moved to Oklahoma temporarily to set up a district office for Dernick Resources, Inc. Things are going very well, the office and activity is expanding. Will turn this office over to manager and expect to be back in Texas (Houston) by January, 1988. The future looks great. Have two children, Clayton (2 1/2 years) and Cameron (six months). Looking forward to being able to attend UT football games again." At present, David lives in Oklahoma City.

William H. (Bill) Devine (BS '48) writes from Houston, "With downturn in oil business, I retired. If a big upturn occurs, I may come out of retirement, if I am not too lazy by that time."

Teodoro Diaz-Gonzalez (BS '40) is retired in Mexico City.

E. J. Dickerson (BS '57, MA '66) and **Patricia Wood Dickerson** (BA '70) are still in Midland. "For what was to be a slow year, 1986-87 has steamed right along. Ed is increasingly involved in shallow seismic data acquisition and interpretation with the weight-drop system he's built. Last summer he helped instruct the University of Arkansas geophysics field camp in Montana, and he's headed back there again this June. Tough duty... He's presented his work to several regional technical societies within the last year. At least half the pleasure of meetings lies in seeing old friends, many of whom are also alums of the Department. As a research consultant now, Pat is enjoying her research

even more. She presented some recent work on the tectonic history of West Texas, New Mexico and northern Mexico at the Boulder GSA section meeting and has helped lead various West Texas field trips. The GSA meeting in San Antonio was technically stimulating as well as a grand reunion. She's also had a paper accepted for the International Basement Tectonics Conference in Kingston, Ontario this August. Her most demanding project at the moment is the writing and production of a series of travel guides, the Peregrine Guides to states and regions of the U.S. They will cover history, geology, archaeology, scenery and local culture of each region. She'll also have the satisfaction of seeing some of her photographs published this summer. The Third Old Mexicans' Field Conference, Lie-Swap and Geo-Extravaganza was another great reunion and technical tour-de-force; a stimulating four days in Boquillas Canyon, Black Gap, eastern Big Bend Park and the Sierra del Carmen. About a dozen aficionados of West Texas/Mexico geology, all veterans of Mecca-on-the-Colorado, participated this year. The 'ranch' occupies whatever time is left - come on out and enjoy the honeysuckle, roses, coyotes, space and quiet with us!"

Steven M. Dildine (BS '72) is director of strategic planning for Conoco Inc.. "Jo, Amy (5), Steve (3) and I are enjoying our third year in Houston."

George A. Donnelly (BS '40) is president of Eastland Oil Company in Midland. He also continues to serve on the UT Austin Geology Foundation Advisory Council.

Carol Doran (BS '84) is a geologist in Duluth, Georgia, working on hazardous waste site assessment.

Gene C. Doty (BS '54), retired from the U. S. Geological Survey, lives in Las Vegas. "I live in an old house with little to boast about other than my bride of 34 years and my children, all of whom are well. My older son is a Captain in the USAF, working in his educational specialty. My younger son is in the Navy, an F/A-18 pilot. My daughter lives here in Las Vegas, works as a veterinarian's assistant, and promises to make me a grandfather sometime in August. During the summer I will lead a field trip into the Amargosa Desert to explore the wonders of the Ash Meadows discharge area, including paleohydrologic evidence of past discharge, for the benefit of young geologists working at the Nevada Test Site."

Michael Douglas (BS '80) writes, "I have been self-employed for four years and consider myself a survivor. I enjoy geology, especially as applied to exploration for economic quantities of hydrocarbons, and intend to hang in there. I am married now and have a

little girl, Sydne (3). My family is the reason I am determined to do something with my college degree." Mike lives in Midland.

Mike E. Douglas (BS '57) is an exploration geologist in San Antonio.

James A. Downing (BA '62 and MA '85 in math) is president of Zycor Inc. in Austin. His company is involved in sales and design of geologic computer modeling systems.

Larry Doyle (BS '50) lives in Fairfax, Virginia. "Am in environmental and natural resources law compliance, coordination and technical review in Office of the Secretary, Department of the Interior. Also am head of the U.S. membership of the International Association of Hydrogeologists. The U.S. Committee of IAH continue to contribute to the planning for the 28th International Geological Congress (Washington, DC, 1989). The hydrogeology program planned by the USC/IAH for the 28th IGC was accepted in full. We are now searching for candidates for U.S. and international convenors of symposia and sessions."

John G. Drake (BS '74), an independent in Corpus Christi, comments: "Along with looking for that next discovery, we are heavily into T-ball, soccer, and gymnastics. Someone should have told me not having a job was like this; I might have tried it a lot sooner."

Jack Drodny (PhD '78) writes from Houston, "I am working for Baker-Hughes on studies involving formation damage; I use data from thin sections,

SEM and x-ray diffraction to prepare reports that concern the compatibility of various drilling fluids with reservoir rock types, especially argillaceous sandstones."

Thomas V. Dubois (BS '77) notes, "Since graduation in 1977, I married my high-school and college sweetheart, Debbie. We have two wonderful kids, Scott (6) and Laura (4). I have specialized in prospect generation in the Frio trend throughout my career, first with Sohio Petroleum and Lone Star Exploration in Houston, and for the last five years as an independent in Corpus Christi."

Ralph Duchin (MA '55) is an independent/consultant for Zinn Petroleum Company doing exploration in south Louisiana. He lives in Houston.

William Dunaway (MA '62) is an independent geologist in Kingwood, Texas, working in petroleum exploration and development.

David E. Dunn (PhD '64) is dean of the School of Natural Sciences and Mathematics at UT-Dallas. "Gretchen Yost Dunn, my wonderful wife of 30 years, died at home on June 24 following a long battle with cancer. She remained cheerful to the end, and her courage was a source of strength for her close friends and family." Dave's son, Peter, is currently an undergraduate at UT majoring in English and political science, and plans to enter law school. Dave's term as Councilor of GSA will conclude this fall, but his involvement with GSA will accelerate because he is general chairman for the annual meeting scheduled for Dallas in 1990.

William Dupré (BS '68, MA '70) continues as associate professor of geology at the University of Houston. Bill reports that he has a new house, has finished mapping Pebble Beach Golf Course, and still has a job in Houston. ("How sweet it is!")

Bobby G. DuPree (BS '54) says, "Just took early retirement from Pogo Producing in Houston as of March 1, 1987. Will move to old home town in Palestine, Texas as soon as home is sold in The Woodlands."

Ruth L. Elder (MA '78) comments, "Since my last news item, I have spent four years (1983-1987) as a college professor, teaching paleontology, earth history, and oceanography at Oberlin College in Ohio. While I enjoy teaching, I have discovered that I would not be happy doing so forever. Thus I have decided to return to what I do best and love best - working with fossils on a day-to-day basis. As collections manager/curator for Chase Studio in Cedar Creek, Missouri, I expect to enjoy myself organizing the fossil collection and scientific library. In 1985 I finished up my PhD from the University of Michigan and also was co-author of a book on morphometrics."

Gerald K. Ebanks (MA '66) is now vice president and part owner of a small exploration company in Dallas, SFC Petroleum, Inc., and is engaged in prospect generation and consulting.

Joan Echols (MA '59) associate professor of earth sciences at East Texas State University in Commerce, "spent all year struggling to keep head above water, as we are developing a new freshman studies program, and am having to write course proposals and now the courses themselves for that. Still struggling to get my ammonite research to manuscript stage. Otherwise things are as usual. Best wishes to all my friends."

Lynda Coons Ehlers (BS '80) is a development geologist in Richardson, Texas.

Gus Eifler (BA '29, MA '30) is a consultant in Austin.

Leo Ehrhard (BS '86) is a geophysicist at Phillips Petroleum Company in Bartlesville, Oklahoma doing seismic mapping and processing. "My career is going great. I purchased a house in December, 1986 and we are expecting a child in October, 1987."

Ab Ellis (BS '50) is a consulting geologist in Midland.

Patricia Mench Ellis (PhD '85) moved in June to Newark, Delaware. "Dave transferred from Conoco exploration to DuPont chemical waste cleanup and hydrology. Daughter Katie (2) is a beauty and brilliant. A son due the end of August, 1987."

Joe Elo (BS '56) is an independent geologist in Fort Worth. "Daughter Glynnis received her BS in geology from Amherst in 1986, and is unemployed, of course. Son Max is a junior at Fort



Summer Field Camp, 1977, Taos, New Mexico. L-R: Jeff Ottman, Walter Light, Ward Haggard, Tommy Dubois, John Suter, David Levin. Photo sent in by Tommy Dubois.

Worth Country Day School where he has attended since first grade; hopes to attend college in California or Florida (hopefully at a small private church-affiliated school). I am older and fatter than ever; wife, Patty, still looks good."

Peter A. Emmet (MA '83) has worked for Aero Service, a division of Western Geophysical in Houston, since March, 1984 as a structural geologist/geophysicist, doing integrated geophysical and geological interpretation of gravity, magnetic, seismic, and remote sensing data with surface and subsurface geologic data. "Most projects I've worked on have related to Alaska and Central America (maintaining interests I developed at UT), including hydrocarbon assessment studies for governments of Honduras and Costa Rica. Am presently chairman of International Explorationist Group of the Houston Geological Society. Plan to begin PhD program at Rice University in fall, 1987, to study structural and stratigraphic interpretation of seismic with A. W. Bally and P. R. Vail." Pete is married to Lisa Ann Richards (BS '81).

Ross Ensley (BS '76) is an exploration geophysicist for Exxon Co., International in Houston.

Al W. Erxleben (MA '74) reports, "Charlotte, Jason, Devin and I are enjoying living in Houston. My new job as chief geologist for Tenneco has been very challenging and rewarding - lots of travel and new and interesting geology. We're still involved in many exciting projects and are looking forward to a brighter future for our profession and our business. See you in Houston at AAPG."

A. Gordon Everett (PhD '68) is owner of Everett and Associates in Rockville, Maryland, involved in geochemical and geological consulting work.

Rizer Everett (BA '37, BS '37) writes, "Hildegard and I are departing on a 3 1/2 week trip to China on 30 April. The grandchildren are growing faster than we sometimes realize. The two youngest of the six are now in high school." Rizer is retired in Austin.

Norman Ewbank (BS '43) lists loafing and sleeping as his current occupations in Midland. "This retirement job is a nasty, dirty, exhausting assignment, but someone has to do it, and I'm determined to make a success of it."

Robert H. Fakundiny (MA '67, PhD '70) is state geologist and chief of New York State Geological Survey in Rensselaer, New York. "Just flew over the Schoharie River and the collapsed thruway bridge. My goodness, what spectacular fluvial geomorphology! Our Sesquicentennial celebration was a lot of fun. James Hall's ghost did a jig at the banquet dance."

George H. Falk (BS '57) is an independent geologist and landman in Seguin.

Michael Faust (MA '84) comments, "I presented a paper at the 55th International SEG convention in Washington, DC in 1985 and was selected to present the paper again at the 1986 AAPG convention in Atlanta as part of the 'Best of SEG' session. This was part of the AAPG-SEG Technical Paper exchange. I have been prospecting in offshore Gulf of Mexico for two years, 1984-1986. Since June, 1986 I have been working 3D surveys, 3D forward modeling (Sierra), and data enhancement reprocessing. In 1986 I was promoted to senior geophysicist." Mike lives in Houston.

Irma Morgan Feibelman (BS '59) is supervisor of software quality assurance at Ford Aerospace and Communications Corporation in Houston.

Murray Felsher (PhD '71) is president of Associated Technical Consultants (technical and marketing consulting in satellite remote sensing for government and private sector clients). He is also publisher of *Washington Remote Sensing Letter*, *Washington Federal Science Newsletter*, and *Federal Science Subscription Service*. "As our daughter (who was born in Austin when I was a grad student) completes her first year of graduate study, and our number one son (also an Austinite) completes his third year of college, it becomes difficult to accept the fact that those memories of UT are now being compressed (lithified?) beneath more recent (deposits of) life accumulata. Suffice it to say that we are all healthy; Natalie and I last year celebrated wedding anniversary #25, and all three children thrive. The house grows in space as the children leave - yet it shrinks as they take their own memories with them. We have both received recognition for efforts undertaken in our respective professions, and are happy with our work and with ourselves."

Grant Ferguson (BS '78) is a petroleum exploration geologist in San Antonio.

Dorothy Yates Fisher (BA '27) lives in Rosenberg, Texas, and does volunteer work with the Fort Bend County Museum, Fort Bend County Library, and Fort Bend County Association of Retired Persons. "At this stage in life - 82 in October, the rocking chair hasn't quite got me, but it's closing in fast. However, I think I'll always be interested in UT doings, and especially the Geology Department. I did travel to Washington, DC in April to see the cherry blossoms - they were beautiful - and that is when I decided I was getting too old to travel that far again!"

Walter M. (Dub) Fitzgerald (BS '53) is senior geologist with Temple-Estex of Diboll, Texas, "the hub of the universe. Still knocking the sparks out of the Yegua rocks, looking for fossils on the shores of Lake Rayburn, doing surface geology on 18 core holes near Lufkin."

William P. Fitzgerald (BS '55) is retired in Round Rock, Texas where he owns a small energy conservation business.

Sterling H. (Chip) Fly III (BS '80, MA '85) and **D'nese Young Fly** (BS '80) live in Midland, where Chip is staff geologist for Cities Service Oil & Gas Corporation. "Number two son, Seth, joined number one son, Sage, in March, 1986. Chip has managed to survive the latest round of personnel inventory reduction, D'nese hasn't."

Graham E. Fogg (PhD '86) is a research associate for the Bureau of Economic Geology in Austin.

William Laird Fowler (BA '75) is a Park Superintendent III, managing a large state park near Needville, Texas.

Hewitt B. Fox (BA '47, BS '48, MA '48) writes from Corpus Christi, "We are taking advantage of the slump in exploration activity to catch up on workover and recompletion (or plugging) of our older wells to develop reserves behind the pipe or cull properties that are currently non-commercial. Our younger son, Stan, who married a charming young lady in January, is spending most of his time in our producing operations but tries to cover land work when he can. Our older son, Fred, is a professional psychologist and career counselor in Austin. He and his wife have a four-year-old boy and a three-month-old girl, but we're still not accustomed to being grandparents."

Curtis Franks (BS '50), a consultant in San Antonio, says "After 35 years in the service industry I am really enjoying the change of 'doing' geology and working on drilling deals."

William D. (Dick) Frazell (MA '35) continues to look for gas and oil in Lafayette, Louisiana.

Paul Fredericks (MA '80) is owner of Mineral Logic in Missoula, Montana. "I have enjoyed running my own business for the past 2 1/2 years. The business involves researching pertinent information on metallic mines and prospects, storing the information in a computer database, and selling the data, access to the data, and also consulting using the data. My wife and I are also enjoying our first son, Steven Andrew, born in May."

Annabelle Bannahan Friddle (BA '45, MA '50) writes that her husband, Herb, passed away on December 18, 1986 after a long bout with cancer. Annabelle is retired in Aztec, New Mexico.

Tatiana Frierson (BS '85) graduated from Texas Christian University with an MBA degree, and is marketing remote sensory services for Von R. Frierson in Houston, directed primarily to international oil companies.

Donald W. Frye (BS '55) is manager of geophysical data processing and acquisition for Tenneco Oil in Houston. "Three boys through college so the pressure is off and can enjoy the two

grandchildren. I am currently serving the SEG as First Vice President."



Donald W. Frye

Ralph E. Fuge (BS '49) retired after working for 35 years for Sun Exploration and Production Company as a petroleum engineer specializing in Louisiana reserves. "We retired to Lakeway and moved into our new house Easter weekend. Plan to play a lot of golf!"

James B. Furrh, Jr. (BA '48, BS '50), independent oil producer in Jackson, Mississippi, drills 10-15 wells annually in Mississippi, Alabama, Florida, Louisiana and east Texas. "I have three sons: J. B. Furrh III (landman for James B. Furrh, Inc.), Roy H. Furrh (Shell Oil, Houston) and Leigh H. Furrh (real estate, Atlanta). My wife is food editor for *Mississippi* magazine."

Robert B. Gaines (BS '49, MA '51) writes from Midland, "I've been developing prospects since I retired. Haven't sold many but I'm enjoying working on them. Will become a grandfather in September for the first time."

Jay L. Gallia (BA '74) is now employed as a senior attorney for the Coastal Corporation in Houston, practicing corporate and commercial law. "Martha is consolidating her optometry practice in Kingwood with her practice in Humble. Our three children (ages 3, 6 and 8) are doing fine."

William E. Galloway (MA '68, PhD '71) continues on the UT geology faculty as the John E. "Brick" Elliott Centennial Professor.

Gerhard H. Galny (BS '48) is retired in Houston. "We have just been enjoying a little traveling and snorkeling. Spend much time boating."

William Ganus (BS '58) notes, "I'm doing well in hydrogeology - it appears to have been a wise move for me back in the '60's. Trying to help petroleum geologists make the move to hydrogeology." Bill is vice president of the

engineering services division for Kerr-McGee Corporation in Oklahoma City.

Paul B. Garrison (att. graduate school '77-'79) of Billings, Montana, will be president of the Montana Geological Society in 1987-88. "Currently generating prospects (and mostly watching other companies drill them) and deeply involved in implementing a computer-aided exploration system at CENEX. I am also co-hosting the Blue Monday Blues and Jazz jam session at Casey's Golden Pheasant in Billings, playing guitar, bass and drums as required."

Henry Gayle (BS '58, MA '60) is manager of technical support for Holmes & Narver, Inc. in Las Vegas. "Mike will graduate this year, Karen is seriously into computer programming and is starting on a Master's program. Margee's business is booming and mine is too - unless a comprehensive test ban treaty is signed. We are beginning to look downstream toward retirement - know any good spots?"

Armando O. Garza (BA '71) lives in Pharr, Texas, where he is territory manager of pharmaceutical sales for Wyeth Labs. "I've become a recipient of Wyeth Laboratories' 'President's Golden Circle Award,' the highest and most coveted award attainable in my company. Dr. Wilson's methods WORK!!" Armando's comment about the UT course most important in his career development: "Dr. Wilson's stratigraphy class taught me more about attention to detail and 'getting it right the first time' than I ever dreamed. It also taught me how to pray."

Leslie W. Giddens, Jr. (BS '54, MA '57) is still an independent geologist in Corpus Christi. "Managed to survive '86 and look forward to drilling oil and gas prospects in South Texas during '87."

Louis deA. (Monte) Gimbrede (MA '51) is a geology professor emeritus at University of Southwest Louisiana "wishing for jackpot in Reader's Digest Sweepstakes. Had a visit from Wilton J. Brown (San Angelo) recently - unexpected and delightful. He and his wife are two of the greatest. Saw Clarence O. (Clay) Durham last fall at LSU geology meeting. He lives in Houston, so my next trip there will include a call on him." Monte lives in Lafayette.

William E. Gipson (BA '48, MA '49) continues as president of Pogo Producing Company in Houston. "Busy with outside activities that include AAPG, American Petroleum Institute's Committee on Exploration Affairs, Houston Metro Area YMCA, Chairman of the Geology Foundation Advisory Council at UT Austin, and currently service as president of the Houston Club."

Paul Giraudin (BS '48) lives in Corpus Christi. "Retired in early '80's to devote full time (well, almost) to a life-long avocation of furniture and fixture building (for profit). Dr. F. L. Whitney

helped me design and construct my first drill press in the late '40's. I have two children and six grandchildren (at last count). I don't have a new house, but the one I have is paid for!"

Georgette Elaine Covo Goble (BA '44) writes from Waco, "The Baylor University Mortar Board chapter honored me as 1987 Waco Woman of the Year, the award being based on service to the community and elsewhere for a number of years. Two more grandchildren are expected in fall '87. What blessings grandchildren are!"

Tom Goforth (MS '62) is W. A. Keck Professor of Geophysics at Baylor University in Waco.

Michael H. (Mike) Golden (BS '78) comments, "I have recently been assigned to offshore California exploration, after the completion of an exploration project in the Chukchi Sea, Alaska. We moved to a new home last December and are expecting a baby boy in June. I will be looking forward to the *Newsletter* for news of the GEO 660 summer of '78 group."

Grover Gonzales (MA '64) reports that his wife and four children are fine. His oldest son will attend UT next year. Grover continues to live in Guatemala City, Guatemala.

Richard Goode (BS '82) is a geologist in Midland.

W. Leonard Goode (BS '53) is a consulting geologist in Midland.

Scott Gorham (MA '81) and **Susan Elder Gorham** (MA '81) are both employed by Exxon International in Houston, Scott as a senior petroleum geophysicist, and Susan as a data analyst. They expect a child on July 4.

Russell Graham (PhD '76) says, "This year I was promoted to curator and head of the geology program at the Illinois State Museum in Springfield. My research focuses on Pleistocene environments and the evolution of mammalian communities. This allows me to collaborate with Ernie Lundelius on joint research projects and publications. I am now supervising the fabrication and mounting of American mastodon skeletons for museums in Tennessee and Missouri. I look forward to publication of my chapter in the DNAG volume on deglaciation in North America and the adjacent oceans."

Richard E. Grant (PhD '58) remains at the Smithsonian Institution doing research in Permian. "Spent November and December, 1986 in Pakistan on third trip there to investigate Permian of salt range, classic area for Asian Permian. Plan to attend Carboniferous Congress in China, August-September 1987 (third trip to China). In April and May, 1987 I went to Alpine, Marathon, and Glass Mountains region, lectured at Sul Ross and helped lead Permian Basin Section SEPM field trip. Son Charles to get MA

degree in history at VPI in Blacksburg, Virginia in June of this year."

Robert W. Grayson (BS '48) is a consultant in Austin.

Willard R. (Will) Green (MA '55) comments, "After a year as an independent during which time three prospects were sold, I have accepted employment with Forest Oil Corporation in Midland." Will was president of the West Texas Geological Society in 1986-87.

Charles J. Greene (BS '75) is a geologist III for the Texas Water Commission in Austin. "I have a home in South Austin, am still enjoying Austin lifestyle, music, good people and lakes. Working primarily with ground water restoration at solution mining sites in South Texas. Recently hired one of Al Scott's ex-students, Kathy Nelson (MA '84) into the Commission."

Charles R. Grice (BS '46), a consultant in Midland, is "still actively exploring for oil and gas. Ann and I have seven grandsons; still hoping for a granddaughter, but running out of time."

Robbie Gries (MA '70) notes, "Most fun and exciting for me is the continued activity in the newly-discovered San Juan Sag Basin of Southern Colorado, and learning so much about a heretofore unstudied area. Second, the grind of getting prospects out and sold is rewarding, though very slow. Last, my daughter heads off to spend her last year of high school in Egypt. My graduate school friends, Rafik and Martha Salem, are being very helpful in getting her started on Arabic! We are also having the college look-see trips." Robbie is a consulting petroleum geologist in Lakewood, Colorado.

Diana Grunig (att. graduate school '71-'74) is a geologist in Rangely, CO.

Roy H. Guess (BA '39, MA '40) is a consulting petroleum exploration geologist in Casper, Wyoming and owns Middle Fork Ranch in Buffalo, Wyoming. "Having been a division wildcat geologist for Humble Oil in the forties, I have continued with that primary endeavor ever since. I am doing consulting work for several clients in the Madden Deep Field in Wyoming where a gas well was completed at almost 24,000 feet in the Madison (Mississippian) last year and the second well is now drilling. I believe the gas business has bottomed out and will turn up long before the oil business. I believe there is a future in the gas exploration business in this country. And now to the second business - the development of superior Hereford cattle, not for the show ring but for commercial herds which will provide lean, tender, flavorful, residue-free beef in the near future. This can be done genetically with the help of the feed yards. The ranching business is changing dramatically."

Marco Guzman-Speziale (MA '85) writes, "I am currently pursuing the PhD

degree in physics at New Mexico State University in Las Cruces. My advisor is Dr. James Ni and my research topic is seismotectonics and stress regimes in the Burma syntaxis area."

Albert Haertlein (BS '78) is an exploration geologist for McKenzie Petroleum Company in Houston.

Karl F. Hagemeyer, Jr. (BS '49) is "continuing to search for oil and gas in the Gulf Coast region. State waters are more reasonable to lease than private lands today. Easier to acquire oil on Wall Street today but more difficult to control and retain ownership. Daughter Jeannie is in Austin with Austin Independent School District. Son Karl has one more year of training as a resident surgeon at Scott and White in Temple before going into private practice." Karl lives in Houston.

James J. Halbouty (BA '42, MA '43) writes, "Looking for oil and gas with Michel T. Halbouty Energy Corporation. Still playing the violin. Wife Dorsey and sons James Robert and Thomas Collins are fine. Dorsey and I are enjoying Tommy's 3 1/2-year-old twin boys, Joseph Franklin and David Thomas. It's good to see names of former classmates in the *Newsletter*."

Curry Hall (BS '54) is "keeping busy trying to generate new prospects, develop prospects around purchased reserves and looking at a few deals." Curry is chief geologist for Wintershall Corporation in Houston.

Weldon W. Hammond (BA '60, MA '69, PhD '84) has been appointed as director of the Center for Ground Water Research and Technology at the University of Texas at San Antonio, and was awarded a \$300,000 National Science Foundation grant for research into carbonate aquifer systems in south-central Texas.

John Wade Hampton, Jr. (BS '53) proudly announces the birth of his first grandchild, John Hampton Scully, born on April 11, 1987. John is owner of John W. Hampton and Son Independent oil producer in Wichita Falls.

Louis H. Haring, Jr. (BS '38) is president of Haring Energy Company in San Antonio, where he is "still active in the oil business but slowing down some."

Wiley B. Harle (BS '50) is enjoying consulting and semi-retirement as president of WBH Inc. in Houston.

Mark Harris (BA '75) resides in Corpus Christi. "The new joint venture company formed by Litton and Dresser, Western Atlas International, Inc. which is a combination of Dresser/Atlas, Core Lab, Western Geophysical and Nolen & Associates, is providing a very stimulating 'geologic' environment to work in. It is one of the most comprehensive approaches ever taken by the service company segment of the oil industry." Mark is sales manager and senior log analyst, South Texas region.

Susan Harris (MA '86) is employed by Rockwell International in Richland, Washington, doing hydrogeological modeling.

Richard E. Hart (BS '74) works for Ladd Petroleum Corporation as an exploration geologist in Houston. "Special thanks to the Houston Geological Society for a great reception of our March talk discussing the Expanded Yegua Shanghai Delta."

H. Lee Harvard (BA '55), president of Harvard Petroleum Company in Roswell, New Mexico, writes: "Harvard Petroleum has continued to stay very busy even in these slow times. Both sons have joined me in the company - Jeff (UT '84) as our petroleum engineer and Alan (SMU '86) as manager of administration and marketing. Joanne (UT '55) had a bad freak accident two years ago and is still in a lot of pain. However, she manages to keep going and even started a small landscape design business called Harvard Designs."

Nick Hauwert (BS '84) is a ranger at Crater Lake National Park, Oregon.

Edward F. Hays (BS '51) is president of Benchmark Exploration, Inc. in Houston, "still trying to peddle deals."



Geology Attic, December, 1956. L-R: Stuart Pittman, C. B. Thomas, Vernon Bailey. Photo sent in by Hugh Hay-Roe.

- Hugh Hay-Roe** (MA '52, PhD '58) is a consultant in petroleum geology and technical writing in Kingwood, Texas.
- John Hearn** (BS '52) does consulting and prospect generating as an independent geologist in Houston.
- Kris Hefton** (BS '78) is a senior project geologist at Energy Fuels Nuclear, Inc. "Have been involved in exploration for uranium in solution-collapse breccia pipes on Arizona strip for past few years." Kris has a daughter, Lindsay, 18 months old.
- Grant Heiken** (MA '66) is a staff member at Los Alamos National Laboratory in New Mexico, working on volcanology, geothermal exploration and planetology. "My first book, *Volcanic Ash*, is doing very well; two more are in progress (Cambridge University Press and another for University of California Press). Subjects: *ALunar Sourcebook* and *Volcanology and Geothermal Systems*.
- Mark Hemingway** (BS '81) received an MS degree in geology from New Mexico Institute of Mining and Technology in May, 1986. "Working as field geologist for Austin-based office of International Technology Corporation, supervising operation of drilling rig in well installation and similar activities, generally in areas of special environmental interest, such as toxic or hazardous waste sites."
- Cornelia Henderson** (BS '81) graduated from Tulane Law School in May, 1987, and plans to work as a lawyer in Corpus Christi. While at Tulane, she was a member of the editorial board of *The Maritime Lawyer*, a Tulane law journal.
- John D. Henderson** (BS '37) is retired in Dallas.
- Thomas B. Henderson, Jr.** (att. graduate school '52-'53) is an independent geologist working on prospect generation in Corpus Christi.
- E. R. (Bob) Henningsen** (BS '57), associate professor of geology, teaches at Tarleton State University in Stephenville, Texas. "Family all well, have a new granddaughter, Farrahn Michelle. Brandt and wife still in Florida, Curtis in Sacramento, and Samuel and wife in Stephenville. My wife still has the candy store ("Sweetest Place in Town"). Geology majors are not as plentiful, but we have some excellent ones. Earth science program for teachers is picking up."
- Larry R. Hensarling** (BS '56) is president and owner of Tee Oil Company in Lafayette. "I have three children who work for the company, two geologists and one landman. I am also a member of the UT Austin Geology Foundation Advisory Council and the AAPG Foundation."
- Reid Hensarling** (MA '81) comments, "My wife and I have a new baby girl, Amy Catherine, born October 19, 1986. The job is going very well, selling our deals for the Hackberry in southwest Louisiana. Tee Oil Co. has been asked to give a talk to the New Orleans Geological Society in July on the Hackberry. We are very excited about that." Reid lives in Lafayette.
- Edward R. Hewitt** (MA '51) is now concentrating on financial aspects of oil, gas and mining. "There are Lots of opportunities to restructure companies and organize financing." Ed is living in Darien, Connecticut.
- Janice Hill** (BS '79) writes from Aurora, Colorado, "This has been a pretty eventful and changing year for us. John and I are settling in with our new Easter daughter, Caitlin Meyer Garing, born on April 18, 1987. John is still with Amoco; however I was laid off from Chevron in August. The kid will probably have a wanderlust as I traveled around the U.S. for the first six months - worked as a field assistant around West Yellowstone in September, cross-country car camped to Seattle in October, attended SEG in November and visited family in December and January. All in all a pretty fun year."
- Paul B. Hinyard** (BA '28) is retired in Tyler, "mostly involved in civic and church work. At age 84 most of my activity is behind me."
- Lyllian Hix** (BA '46) comments, "I am still teaching intro psychology and statistics at the Houston Community College, and expect to retire in four or five more years. My husband and I have developed a new hobby during the past three or four years of growing cacti and succulents from all over the world. We have built two greenhouses and an atrium to house our collection of over 1500 plants. If any of my geology friends happen to be in Houston and have an interest in cacti and succulents, drop by at our home in the Bellaire area in Houston, and we will be glad to show them to you (W. E. Hix, Jr. in the Houston phone book). Cacti and succulents seem to have an infinite variety, and we are always making new and interesting "finds" - just wish we lived a little closer to Austin, San Antonio, and westward so that we could see our native cacti and succulents growing in their native habitat. I ran into June Byfield at a local nursery; she was a geology student about 1944-46, and had many friends in the Department. We were both great fans of Dr. Bullard."
- S. B. (Dave) Hixon** (MA '69) says he hasn't been able to stay in geology-related jobs. "Presently a word processing GS-4 Clerk for SBA and lucky to have that." Dave lives in Friendswood, Texas.
- Carroll Ann Hodges** (BA '58) is assistant chief geologist, Western Region, for the USGS in Menlo Park, California. "My management position with USGS has just about made me obsolete scientifically, but I've learned a little about a lot of our multifarious programs - especially geohazards research. Serving on my town's (Woodside) planning commission provides insight to the users of the Survey's products, and is an interesting, albeit time-consuming, affiliation. Travel to such field centers as Hawaii and Flagstaff and elsewhere to various meetings is always stimulating and fun. Still play clarinet in a band, and am hoping my young horse will eventually decide to behave and be friends! Stanford has now begun its Centennial celebrations in style, and they promise to match those of Texas, so I look forward to participating!"
- Charles W. Holcomb** (BS '37) is now a "senior yardman" in Columbus, Texas. "Retired from Exxon in 1976, then worked as a consultant for ten years. Have managed to outlive the oil business."
- David S. (Scotty) Holland** (BS '57) is president and chief executive of Pennzoil Exploration and Production Company in Houston, and continues to serve on the UT Geology Foundation Advisory Council.
- William Charles Holland** (BS '81) is an exploration geologist in Lafayette with Tenneco. "I do carpentry work on the side, recently added room to house. Really enjoying working with wood. Two year old daughter Elise is doing great. My wife works at Cypress Hospital as quality assurance coordinator. I'm doing a lot of fishing and hunting - my two chocolate Labradors are hunting great."
- H. W. (Bill) Hollingshead, Jr.** (BS '57) lives in Houston, where he is exploration/exploitation manager, Eastern/Western districts, Onshore Division for Pennzoil Company.
- Melody R. Holm** (BA '75) lives in Mills, Wyoming, a suburb of Casper. "Quite a few years have elapsed since I have let friends and acquaintances know of my whereabouts and activities, and for that I apologize. As for many in the oil business, many changes have occurred in my life in the past few years. Since June of 1985, I have been 'relieved of my duties' with Gulf (now Chevron USA Inc.), gotten married, started my own consulting business, and given birth to twin boys. In other words, I've been rather busy! Husband Stan Cadwell, a landman, also formerly with Gulf-Chevron (which no longer has a presence in Casper) currently is pursuing producing properties for purchase, doing day work, and evaluating mineral properties. Sons Adam and Brett, born July 22, 1986 are 'into' finding things that we never knew existed in our house. With my experience in the Wyoming-Utah-Idaho Thrust Belt, I quite surprisingly have been able to find enough work to pay the bills every so often. I've been

working on a project for an attorney in Casper for a little over a year now, and I have also been doing geological evaluations of producing properties for Stan. We live on 2 1/2 acres of river bottom (North Platte), so in our 'spare time', we work in - and enjoy - our yard. We remain optimistic about staying in the oil business and in Wyoming. We welcome visitors, so if anyone is headed in the general direction of 'wonderful Wyoming,' let us know!"

C. Lee Holt (BS '49, MA '50) is a consulting hydrogeologist. "My wife, Pat, and I are living the good life at Port Aransas, after three challenging years of developing a water resources management program in Jordan. I am doing some consulting work - last being with Texas-American Oil Corp., concerning a stratigraphic problem. My ceramic sculpture hobby has expanded after several regional awards. Pat has a contract for publishing her book on Palestinian refugee women and is vice president of Byliners Association."

James W. Hood (BA '48) says, "Since retirement in June 1984 we have led a quiet life, 'working' on the old house, writing programs for our home computer (NOT games!), writing a novel and several short stories. Last October we attended the Water Resources Division (USGS) Retirees Reunion at Baton Rouge as part of a 7,500 mile motor tour of the South, to Virginia, etc. This March-April, traveled 5,700 miles to Texas, Oklahoma, and Kansas to meet relatives we hadn't seen for 30 to 50 years, including a family reunion at Sealy, Texas."

Ben Hooper (BS '80) is "working on the expanded Yegua Trend as an exploration geologist for Chevron USA in Houston. Debbie is expecting our first child in June, 1987."

Edward Hooper (BS '82), geologist in Houston, says he hopes to move to the "land down under" in 1988.

Eleanor Macha Hoover (BS '56) is a geological associate for Exxon Co. USA in Houston. She was the 1986 recipient of Professional Woman of the Year from the Association of Women Geoscientists, Houston Chapter.

Richard A. Hoover (PhD '68) writes, "Since August, 1985 I have been working for Exxon Corporation in Houston - quite a change from research. Sandi is now office manager for the Houston Audubon Society."

Carlton W. Hornbeck (BS '53) lives in Round Rock, Texas, where he is a consulting petroleum geologist involved in oil and gas exploration and production and leasing.

Betty (Becky) Houston (BS '79, MA '83) comments, "In the spring of 1985 I married Nat Smith. Since then we've been having fun(?) restoring an old house and creating Nicholas Houston Smith, born in January, 1987 Nat and

I are now working for the Exxon Off-shore/Alaska Division in Houston."

Bill Howard (BS '82), a geologist/geological engineer in Houston, married Claire Fuqua (UT '84) on February 21, 1987.

Jack Howard (BS '51) is a lands analyst/geologist in Austin. "Since February 1, 1985 I have been employed by the UT System, after 24 years in the General Land Office and ten years with Stanolind and Pan American Petroleum. Current job best of all - working with trust lands, mineral leasing, and also with Bureau of Economic geology staff on Permanent University Fund lands project."

Ed Hughston (MA '50) is self employed in oil and gas, and real estate investment in Taos, New Mexico.

Steven D. Hulke (MA '74) is a senior exploration geologist for Hunt Oil Company in Midland.

Emmett A. Humble (BA '49, MA '51) retired as president of Esso Exploration Inc. in September, 1986, "after 36 years of domestic and international experience. I'm still trying to get my personal business in order and determine where all the times goes." Emmett continues to live in Houston.

Elvin Hurlbut, Jr. (BS '43) is semi-retired in Tyler, Texas. "Have just about got my office organized (in our house). Have not yet decided whether to do some geological work or do some writing or do something else. We are still getting the house in shape."

Bruce Hutchison (BS '85) lives in Austin, where in May he began working as a research assistant on ornithological studies under UT's Dr. Robert Barth, specifically studying Painted Bunting reproduction in central Texas.

Joe A. Hybner (BS '52) is now an independent in Corpus Christi. "Early retirement was given to me by TXO Production Corp. in May, 1986. Have set up an office in my residence."

Carl B. Irwin (BS '39) is retired from the Navy and industry in San Antonio. "Have new townhome near Randolph AFB; I drive a Continental and a Dodge pickup. I have three granddaughters and (hopefully) have one grandson on the way. One son in environment, one a consulting geologist (hard rock), one an anesthesiologist, and one a family practice MD. Since the summers are rotten in San Antonio, hope to be off to New Mexico."

James R. Jackson, Jr. (MA '40) is president of NORJAC Enterprises Inc., involved in geological consulting in Houston. "Active in industry affairs working in trade associations, AAPG, SEG, NOIA, API etc. I am serving on many committees that are working to help the oil industry explore for and develop domestic oil. I Enjoy travel, golf and industry friends in addition to my family of two children and four grandchildren."

James R. Jackson (MA '69) lives in Baytown, Texas, where he is an exploration geologist and president of Trace Oil and Gas. "I have built a new house in 1986 just in time for recession in oil patch."

Joe L. Jackson (BS '56) says he continues to "work on water supply and efficient utilization of resources in Texas, Oklahoma, New Mexico, Kansas and Colorado. Had the opportunity in 1986 to work on a geologically complex pumped-storage hydroelectric project in the Republic of China. With Plus-30 years service and plenty of age, am looking forward to retirement and a change of jobs." Joe is a regional geologist for the Bureau of Reclamation in Amarillo.

Russell Jackson (BS '76) writes, "Two children now, Brent and Rachel. Trying to survive as an explorationist/operator in East Texas now. Looking for good deals and production." Russell lives in Tyler, and is now serving as vice president of the East Texas Geological Society.

Jim Janssen (BS '79) is still working Gulf Coast exploration at Sun in Dallas. "We have been able to keep active so far and I am optimistic about the future. I spent most of the last year on a special project to evaluate various geoscience computer systems. It's too bad all this great new technology hit the industry at such a tough time."

Ken L. Jarratt (BS '57) is planning to build a new home in Edna, Texas. "Still selling Texaco and Phillips 66 petroleum products and still trying to kill a trophy deer. Wife has her own real estate business in Victoria. Both kids grown and on their own. Be glad when Texas gets back on right track in football." Ken is president of Maurco Corp.

Charles T. Jenkins (BS '48) writes from Duncan, Oklahoma, "Our last of five children is entering the University of Oklahoma this fall. Four have graduated from OU. Two daughters are married and we have four grandchildren; a third daughter is marrying in early summer. Charles, Jr. is a CPA living here in Duncan. We thoroughly enjoyed attending the AAPG Circum Pacific conference held in Singapore last August along with side tours of Japan and the Peoples' Republic of China and Hong Kong. Also, last summer, I was fortunate enough to attend the second reunion of the 'Brady Bunch' Class of '47 held in Colorado Springs and attended by faculty members Jack Wilson and Fred Bullard. Also in attendance were 14 ex-students and wives and four instructors. We hope to see a larger turnout when we meet in Austin in 1990! Other than the day-to-day oil operations, I still enjoy flying, golf, photography and travel, including visiting the campus and attending the

ball games in Austin." Charles is an independent geologist and oil operator.

Alice Dominguez Jobs (BA '23) reports that she has lived in the "same old house for the last 46 years. I have five children, 17 grandchildren." Alice lives in Kerrville, Texas.

Charles B. John (BS '51) lives in Tulsa where he is "completing 36 years as a geologist in private industry and government service. I value highly my undergraduate training at UT Austin under men such as Keith Young, Fred Bullard, Steve Clabaugh, F. L. Whitney, et al."

William John (BA '50) is retired in Dallas.

Ann C. Johnson (BA '86) is employed as a gem appraiser in Austin. Ann's questionnaire paid a fine compliment to current graduate student Susan Witebsky - "the best Teaching Assistant ever."

Charles Johnson (BS '83) comments, "I have been employed as a geologist since six weeks after graduation in August, 1983. I am now in my third year with Sonat Exploration and have finally earned the title of 'oil finder' on my second prospect drilled. Home life is great with wife Suzy, and baby Kathleen born March 27, 1987. Tell the students to hang in there, and most of all - go to the jobs, don't wait for the jobs to come to you." Charles lives in Houston.

L. Chris Johnson (BA '74, MA '80) is working for Cobra Oil and Gas. "We are still drilling and finding a little oil and gas here and there. Remodeled a house (c. 1914) in the old Highland area of Shreveport and am enjoying it with wife Anne and daughters Lila (8) and Elizabeth (5).

Charles E. Jones (BS '51) is retired in Houston and spends his time playing golf.

Gene Funkhouser Jones (BA '48) writes, "My name is now Gene Jones, having married Phillip M. Jones (attended UT Geology Department in 1947-48) October 1, 1986. We are still in Midland, staying very busy managing our own properties during these trying times in our industry. Between our two families we are blessed with eight children, eight husbands and/or wives of same, and at this moment 15 1/2 grandchildren and two mothers, both in their 80's. Phil is a geologist, too, and we are enjoying that common interest, in addition to lots of family. It is a nice time in our lives to be able to travel a bit, spend some time seeing our country, and one sees it so differently and with so much more interesting observations knowing even a little geology. It is always fun to receive the *Newsletter*. You do a super job of getting information from the widely scattered alumni. Have a good year."

Leslie Provence Jones (BA '74) lives in Floresville, Texas. "My geologic

consulting business dried up in 1986 and I started looking for work in publishing. I have ended up as a consultant in desktop publishing (representing Pipe Creek Publications, a company that produces technical documentation for hardware and software manufacturers, and sells desktop systems). I am doing writing and editing for them, as well as training for systems and software users, and database applications."

J. Phil Jones (BS '64) is president of Classic Exploration Trades, Inc. in Edmond, Oklahoma. "This year looks like it could be the year Oklahoma begins to recover. It promises to be a long road back. The oil and gas business will again prosper when the nation begins to need what we have to supply. I enjoy the *Newsletter* and look forward to hearing about old friends. Keep up the good work."

Luther G. Jones (BS '59) lives in San Antonio, where he recently completed 25 years working for the Air Force. An inventory manager, he works with budgeting and resource allocation.

Wayne E. Jones (BA '72) is a consultant in Canyon Lake, Texas, and is currently continuing as editor of the *South Texas Geological Society Bulletin*, which "provides a creative outlet in these depressing times. I'm also doing real estate transactions to fill in some of the gaps. Family is fine. Hope to see you all at the STGS Convention in San Antonio."

James G. Joyce (BS '48) continues as president of Joyce Oil & Gas, Inc. in Houston.

Frank C. Kallina (BS '39) writes from San Antonio, "I am now 70 years old and retired. Three children, Kay, Janis and Jimmy, all married. Nine grandchildren (five boys and four girls). Son James is teaching at the Texas School for the Deaf in Austin. Kay is married to James E. Ingram, an attorney here in San Antonio. Janis is married to a partner in the Allied Development Company. All well and happy. Wife, Elouise, is busy with local missionary work and keeping husband and grandchildren happy."

Mark C. Kasmarek (BS '82) is a hydrologist in Houston. "We just bought a new 4-bedroom house near Spring, Texas. We've also had two girls, Jacquelyn and Michelle. I am a co-author with the USGS on a 'Cypress Creek Project' working under Fred Liscum. We will finish this project near August '87."

Steven Katz (PhD '75) says, "I am now general manager of the laboratory instrument group at Harrop Industries, a Columbus, Ohio manufacturer of industrial kilns and furnaces. I am responsible for their line of thermal testing equipment and testing laboratory. Much of our business is aimed at the ceramics industry, so I'm making good use of my geology training and

business experience. Best regards to all at UT."

Daniel (Dan) Keeler (BS '80) is "fortunate to be recognizing my five-year anniversary at Texas Gas Transmission Corp. as a geologist in August, 1987. Friends, let me hear from you, especially when in Houston."

Peter Keller (MA '74, PhD '77) lives in Woodland Hills, California. "I'm back at the Natural History Museum as associate director. Alice and I had a particularly busy year with a month in China lecturing and looking at their diamond and sapphire deposits and the arrival of our son, Bret, on March 27. Please come to see us when you're in Los Angeles."

Kevin A. Kelly (BS '82) is a graduate student at the University of Hawaii in Honolulu. "I was a co-author of a *Nature* paper on subtidal stromatolites in a high energy environment (volume 324, no. 6092). My present research is on the development of cobalt-rich ferro manganese crusts on seamounts in the Hawaiian EEZ."

Christopher G. (Chris) Kendall (Postdoctoral Fellow '66-'68) is a professor of geology at the University of South Carolina in Columbia. He has two children, Alda (6) and Emma (4), and all are doing fine.

Edward R. Kennedy (BS '48, MA '49) is continuing to explore for Delaware Basin oil as a consulting geologist in Midland.

Leon Kent (BA '41, MA '50) is in Houston enjoying retirement, playing golf and traveling.

George L. Keppta (BS '52) is senior geologist with Rutherford Oil Corporation in Houston. "Presently I am doing exploration work in the downdip Yegua Trend, and in the Hackberry Trend of the Frio Formation."

Jack C. Kern (BS '43) comments, "In July Katie and I moved in to our new home in Mount Bonnell Terrace in Austin - where I went on my first geology field trip and where she rode horses when we were at UT." Jack retired from Chevron Corporation in March of 1986 after 40 years.

Don Kerr, Jr. (BS '60) is currently president of Kerr Construction Services in Houston, involved in construction consulting, cost estimating and project management.

Howard W. Kiatta (BS '58) writes, "For the past ten years I have been working as an independent geologist in Houston, originating exploration prospects in the Texas Gulf Coast area."

Robert J. Killian (BS '77) is involved in oil and gas exploration and development, and reserve acquisition in Houston.

Harvey King (MA '60) is a dentist in Houston. "Same wife, Barbara, for 34 years. Kids Danny (32), Jimmy (29) and Carla (21), an Aggie. Enjoy reminiscing with Bob Boyer occasionally about the old days in the field."

David Kirschner (BS '73) is enjoying life in Arizona working as a consulting hydrogeologist for Water Resources Associates, Inc. in Phoenix. He is now working on water supply and environmental permits for the proposed Arizona Hazardous Waste Management Facility; a unique facility in that the site has been selected and is owned by the State of Arizona. He is assisting his client, ENSCO, Inc. of Little Rock, Arkansas, with establishing a ground-water monitoring program for the facility which will ultimately handle all types of waste processing treatment, and disposal. David is working on numerous other water-related projects in Arizona and Texas, and hopes to retire to Colorado before he turns 100 years of age. He hereby requests the GEO 320K class of 1970 to gather for a reunion. Interested parties should contact him at (602) 952-0681.

Brenda Kirkland (BS '82) is a PhD candidate at Louisiana State University in Baton Rouge. "I am studying the Carlsbad Group of southeastern New Mexico and west Texas with emphasis on calcareous algae.

Thomas Kirkpatrick (BS '84) writes, "In addition to my geology Master's work at the University of Houston, I am working as a geotech at Exxon Co. International and looking for an exotic place to do my thesis work."

Teresa Klump (BS '85) received her BA in math from UT in 1986. She lives in Austin, where she is a DJ at KNLE radio station and also programmer for a geological consulting firm.

Vincent S. Kluth (BS '86) says that after seven months of unemployment in Texas, he landed a job with General Dynamics Electronics Division in San Diego. "Yes, there is life after oil!"

Robert G. Knabe (MA '54) comments, "We settled in Houston upon retirement from a major oil company to do consulting work. We stay since we are securely settled and our two sons work with oil companies here."

Jennifer Kraft (MA '84) notes, "I am still working for Conoco Inc. in our offshore Western Gulf of Mexico division, but I have recently been transferred to an operations group in Houston. It's great to be back in Texas!! The other big news in my life is that Gary Donnan (BS '82) and I have recently become engaged, and will be married in October, 1987. Gary is just now finishing up his Master's thesis from New Mexico State."

Warren Krams (BS '59) is owner of Computer Professionals Company in Houston. "I have recently gotten very involved in white-water river running. In the past five years I have taken four river trips throughout the southwest U.S. Never have I enjoyed my knowledge and understanding of geology

more than floating through the incredible formations that we studied many years ago at The University of Texas. What a thrill to place my hands on the actual physical evidence of the 'Great Unconformity' separating the Precambrian from the Cambrian in the Grand Canyon!"

Erwin K. Krause (BS '49, MA '54) retired on September 1, 1985 from Atlantic Richfield Company. "Spend my time checking the pool chemistry, reading travel brochures, photographing four beautiful granddaughters, and traveling (Egypt and Nile cruise, Holland, two Caribbean cruises, Jamaica, and all of South America except Bolivia and Ecuador, and Kenya coming up)."

J. David Krause (BS '53) is owner of Dave Krause Pontiac-Toyota-Dodge Inc. in Denton, Texas. "Bessie (UT '52) and I are still working hard. Denton is really growing - we love it! Call me for a great deal on a new vehicle!"

Edward Krish (BS '71) writes from Duluth, Minnesota: "Greetings from the Northland! Still working at finding that big strike in the U.S. part of the Archean Superior Province. I've just completed my third year exploring for precious metals in Minnesota and Michigan for Kerr McGee. The work is challenging and fun. We all feel there's no reason why those gold mines and platinum prospects have to stop at the U.S.-Canadian border. Of course it would be a bit easier to explore if the real rocks of the Precambrian weren't covered up by all that overburden and unconsolidated sediment oozing with slime. Son, Robert, is 17 now and will be a senior in September. He's thinking about chemical engineering at UT. He lives with his mother in Bartlesville, Oklahoma. Greetings to all, especially Gippis and Joy. Y'all come visit...the mosquitoes and blackflies need some fresh blood."

Andrew Kurie (MA '56) is an independent mining geologist involved in precious metals exploration. He lives in Marathon, Texas.

Bruce Kuyper (BS '77) is chief mine geologist at 55,000 TPD Gold Mine in Battle Mountain, Nevada. "Geology is alive and well in the gold country of northern Nevada (as long as the price stays above \$300/oz.)."

Ted B. Lacaff, Jr. (BS '50) is an independent geologist in Midland. "Still waiting for Reaganomics to work in the oil biz. I'm beginning to think we Texans helped put a bad actor to work! If we had bothered to check out his old films, maybe....?"

F. B. (Bill) Lacy (BS '50) writes, "Relocated in new office on Katy Freeway in Houston last November. Still doing some exploration, watching my production and investments. Have son who has finished at UT and daughter working on MBA at UT."

John LaFave (MA '87) is employed with Leggette, Brashears, and Graham, a groundwater consulting firm in St Paul, Minnesota.

Harry S. Lain (BS '50) has been working for John L. Cox in his Oklahoma City office since 1980. "Recently celebrated 40th Wedding Anniversary - married to Dorothy Howser (UT '46)."

James L. Lamb, Jr. (BS '56) is an independent oil and gas producer in Midland, Texas.

Richard K. Lanfear (BS '81) worked for Exxon in Kingsville, Texas from 1981-83, worked for Tana Oil and Gas in Corpus Christi from 1983-85, and has worked as an independent in Corpus Christi from 1985 to the present.

Robert K. Lattimore (BS '56, MA '62) is "still working for Chevron Overseas Petroleum, chief geophysicist's staff (a lonesome Texas-ex amongst a lot of yuppie Berkeley, Stanford, MIT and CSM grads). Still in operations; still hanging in there." He lives in Walnut Creek, California.

Earle Lawless (BS '51) is unemployed in Corpus Christi. He says, "Write your Congressmen and withdraw your support if they don't respond to the obvious problems which we face."

Thomas Houston Lawrence (BA '32) is retired in Springfield, Tennessee, and keeps busy attending to personal business interests.

Jeff Lawton (MA '81) has been married since 1984 to Karen Christensen. "She works with me at Conoco as a geophysicist. I work in the Sacramento Valley, gas exploration, Karen works in the Alaska group. We enjoy the beach whenever possible and compete regularly in the Ventura co-ed volleyball league. We own a horse and keep her in Ojai. Love it out here."

David H. Lehman (PhD '74) comments, "This past year saw the Lehmans heading back to Houston from south Texas - our third time around in the big city. I have a new position as technical manager in Exxon's central division, production; Lisa is doing well in school, Patsy is busy with another new house. We'd enjoy hearing from all old friends when you're in town."

Thomas Lehman (MA '84, PhD '85) is an assistant professor at Texas Tech University in Lubbock. "I'm teaching courses in undergraduate and graduate sedimentology and basin analysis. Research efforts focus on Late Cretaceous sedimentation in Trans-Pecos Texas, Triassic sedimentation on the High Plains of Texas, and modern sedimentology of ephemeral streams in West Texas. Our second child, a girl, was born in April, so now I've got a boy and a girl."

Robert Lemak (BA '83) is a geologist in Houston.

Ernest F. Lenert (BS '36) writes from Santa Monica, California, "Have been retired

for 27 years now in this ideal climate area...I'm afraid I could no longer stand the heat of a Texas summer or the cold of a Texas 'norther'. For many years I've been involved in collecting and maintaining a very large assortment of exotic plants. Son and daughter married and well established. Two grandchildren."

David M. Levin (BA '77) comments, "As president of DML Exploration, Inc. which owns and operates oil and gas properties in lower south Texas, I am looking forward to 1987 as being an even better year than 1986. Exploration and development activity is holding steady with 3-5 wells planned for this year and DML is expanding its staff in order to diversify into new plays. There appear to be low price bargains available in the marketplace, making the prospects for 1987 in the oil and gas industry very appealing. San Antonio, the gateway to south Texas, is a beautiful city in which to live and I invite all alumni to call me and say hello whenever you are in the area."

Michael John Lewis, Jr. (BS '83) received a Master's degree in civil engineering (geotechnical) in May, 1987. He has submitted a publication entitled "Fault identification by seismic impact load techniques" to the ASCE Structures Conference, 1987.

Charles V. Liebscher (BS '46) retired in San Diego to take advantage of the year-round mild weather. "I spent 32 years overseas including: 3 1/2 years in Africa as a Captain in the US Army Corps of Engineers, six years in England, two years in Spain, one year in France, 3/4 year in Greece, and 19 years in Germany."

Walter S. Light, Jr. (BS '77) is vice president and exploration geologist for Lightning Oil Company in Houston. "In 1985, as a member of a people-to-people delegation to the Peoples Republic of China, I presented a paper on the relationship of Lower Cretaceous and Jurassic production to basement blocks, northeastern Mexico and south Texas. Kelly Williamson and I were married on February 28th in San Antonio. We had one enormous Mexican fiesta reception at the Cadillac Bar. During the past year I have continued fine tuning my ideas on the Lower Cretaceous and Jurassic in south Texas. Now, six years later, with the regional work completed and our first prospect assembled, we should start drilling out 22,000' well about mid-summer. The well will take about eight to nine months to drill. We anticipate multi-level reserves on the structure of two to five trillion cubic feet of gas and several hundred million barrels. With the well underway, I will assemble a consortium to follow up numerous other leads that developed

as a result of the regional work. I love elephant hunting and with drilling costs at an all time low, this is elephant season. Good hunting, everyone!"

John F. Ligon (BS '81) is exploration manager at Sandalwood Oil and Gas, Inc. in Houston. "I office with John Clinch (BS '81) and John Graham (BS '85); they are with Tri-C Resources, and have recently participated in oil and gas prospects with them as well as with classmates Bill O'Brien (BS '81) and Al Berryhill (BS '81, MA '83).

James Kenneth Liles (BS '50), a geological consultant, retired from Transco on December 1, 1986 as area exploration manager, Ark-La-Tex area. "Now working on contract basis as geologic manager in the same office. 1986 was a good year with a James Lime discovery in Henderson County, and two good Smackover developments in Cass County. Have added one granddaughter to family, now six in all (two boys, four girls). Living on Lake Palestine outside of Tyler, Texas. Enjoying a little fishing, golfing, gardening and oil and gas exploration."

Tung-Hung Thomas Lin (MA '84) is a geologist and geophysicist involved in seismic interpretation and subsurface geology work for Bridwell Oil Company in Wichita Falls, Texas.

Sandra Lindquist (MA '76) lives in Thornton, Colorado, where she is a geological associate for Amoco Production Company. In 1985-86 Sandy was an AAPG Distinguished Lecturer.

Alsie Linscomb (BS '51) is president and owner of Alsie Linscomb Oil and Gas Interests in San Antonio. "Youngest son, Stephen, will be married in July to Michelle Carter of Uvalde. Stephen is a graduate of ACU in Abilene in mass communications and is employed at KTAB TV in Abilene as a news reporter and newscaster. Oldest son, Park, is still a minister in Manchester, New Hampshire, and I don't have opportunity to see that 7-year-old grandson, Adam, often enough. Our daughter, Mary, lives here in San Antonio and has a 5-year-old daughter, Renee, who is spoiled rotten by her grandmother."

Eugene Lipstate (BS '49) writes, "I plan to semi-retire in June of this year. This will necessitate resigning my position as vice president of exploration for Northwest Oil Company, a company I have been associated with for 25 years. I will remain on retainer for Northwest in Lafayette, Louisiana. I still am a member of the 200 Horns of the University of Texas Education Foundation and am looking forward to Austin during the football season."

Nancy Green Lister (BA '55) is a housewife in Houston. "Son, Gregg, is now at UT; son, David, graduated from high school in June and will go to UT. Son,

Chip, is a senior at the University of Houston. I am working on getting one of our sons to take geology. I loved majoring in it and have enjoyed vacations and trips more after studying geology. Would really like to see one of our boys major in it and at UT. Best wishes to all of the faculty and alumni friends."

George Livesay (BS '79) is an area geophysicist for UNOCAL in Midland.

E. R. Lochte, Jr. (BS '56) is an independent petroleum geologist in San Antonio. "Due to the industry slowdown, have been spending considerably more time at the ranch in the hill country. Firmly believe the industry will have a significant upturn with the next two years."

Allen C. Locklin (BS '54) is president of Locklin Oil Company in Tyler. "My new house is eight years old. I have a small public oil company active in east Texas and we are currently trying to get into the business in France. My son is a petroleum engineer with Conoco, overseas a lot and married to a beautiful school teacher who graduated from UT. My daughter, Lee Ann, attended Texas Tech and married a geologist who works for me. He is Scott Shaver. They live in Tyler and have given me and Nancy (formerly Nancy Lee Summers, UT '52-'54) three lovely granddaughters, Lindsey (6), Claire (4) and Macy (2). Nancy and I started the National Vitiligo Foundation, Inc., a research foundation for vitiligo, a pigment loss disease, in 1985. We have five of the most highly-regarded doctors in the world in dermatology and vitiligo on our medical advisory board. They are affiliated with Harvard, Yale, Cincinnati and Howard Universities."

John L. Loftis, Jr. (BS '40) is an independent petroleum geologist in Houston and an Honorary Life Member of the UT Geology Foundation.

John M. Long (MA '78) says he was "recently promoted to independent geologist, and demoted to past president of the South Texas Geological Society. Jamie and I have two little boys; the oldest wants to be a dinosaur when he grows up." John lives in San Antonio.

Laddie F. Long (BS '52) retired in May, 1986 as manager of University Lands-Oil, Gas & Mineral Interests after a 22-year association. "Will continue residing in Midland when not traveling."

Mark Longman (PhD '76) is a consulting geologist in Lakewood, Colorado.

Bill Longmire (BS '50) says, "Since retirement in October, 1985, my wife and I are traveling frequently and I personally love golf - play in a lot of senior tournaments throughout the state." Bill resides in Carrollton, Texas.

R. Michael Looney (BS '71, MA '77) lives in Houston. "I started an exploration company with a partner at the end of



Front row, l-r: Ray Burke, Milton Scholl, O. D. Weaver, Mike Morris, Charlie Worrel, Chuck Weiner. Second row, l-r: Jimmye Burke, Freda Scholl, Betty George, Kathie Bigger, Pat Morris, Eva Worrel, Charles Jenkins. Third row, l-r: Mort Bigger, Anita Weaver, Jack Wilson, Marge Wilson, Ruth Nelson, June Osmond, Kent Waddell, Kay Waddell, Fred Bullard, Evelyn Bullard, Clem George. Back row, l-r: Guy Walker, Al Nelson, Jack Osmond.

Second "Class of '47" Reunion

The Second Reunion of the "Brady Bunch" or the "Class of '47" was held at Colorado Springs on July 17-19, 1986. A total of 16 students and faculty and 13 wives made up the group. Al and Ruth Nelson acted as local host and hostess and Charlie and Eva Worrel did much of the organizing. Outside of the usual exaggerations about gushers drilled, offsets completed, number of children, number of grandchildren, etc., etc. there were tennis matches, golf matches, a dinner-drama trip to Cripple Creek, trips up Pike's Peak and, of course, a closing banquet. It was a great time getting reacquainted and our thanks to all who participated.

1990 was chosen as the year to have the Third Reunion and to hold it in Austin, hopefully in conjunction with a football game. Jack Wilson was "appointed" local chairman and more will be published later.

1985. We are primarily a prospect generation shop. During 1986 we concentrated on generating prospects in south Louisiana and the Texas Gulf Coast. 1987 will be much of the same. It is hard work but we are having fun."

Barbara Luneau (MA '84) is a research geologist doing regional stratigraphic studies in Boulder, Colorado.

Pamela E. Luttrell (BA '73, MA '76) is "still in Dallas with New Ventures group at Mobil, concentrating on the Far East. Travel to China has been *fascinating*."

Vance Lynch (BS '51), vice president at Unocal, writes, "I have taken on the job of consolidating Unocal's scientific computing which covers geological, geophysical and engineering applications primarily. The job is very interesting and challenging." Vance lives in Placentia, California.

Robert Manson (BS '76) is in graduate school at Texas A&I in Kingsville, working toward Master's degrees in hydrogeology and computers.

Frank Manville (BS '55) lives in Brownsville, Texas. "I have been with the Cameron County Engineer's office

since 1971. My duties consist mainly of preparing road maps for improving or widening of county roads. There is not much to say about my personal life; I have lived in my own place for 15 years, still single and I do not belong to any social club. My job and my at home yard work keeps me occupied most of the time."

Sabin Marshall (BS '52) reports, "I am still working, thank God. I have three sons and one daughter, one boy and one girl are married; I have one grandchild. One son is still at home in high school." Sabin is manager of geology for Texas Gas Transmission Corp. in Houston.

Bethea Allen Martin (BS '36) writes from Houston, "Am still active in the international petroleum consulting scene. It is still the best and most satisfying sector of the oil business. Our four children are adults now and have scattered. As it turns out, none decided upon a career in geology. So much for the influence of the parental profession. One daughter refuses to leave Austin, a lovely place to work

and live, and presently works for the city in the electrical division. Another daughter's husband is an executive with the Marriott Hotel group in Richmond, Virginia. They are entrusted with the care, feeding and raising of our two grandchildren. Still another daughter works in the business office at Harvard University while working on a Master's degree in technical writing and communications. Her husband is working on his doctorate in geology at Harvard. Our son got a BS in biology at UT, a Master's in international business in South Carolina, did an internship with a pharmaceutical company in West Germany, then had a highly successful career as sales and marketing representative for a specialized cutting equipment company, traveling all of Latin America, the Caribbean, Australia, New Zealand and the Far East. He resigned to enter the university in Atlanta. Objective? Meeting a couple of requirements in order to enter medical school and become a physician. Next??"

Jeffrey G. Martin (BS '84) is president of Martin Energy Company in Mandeville, Louisiana.

Mark A. Martin (BS '79) writes from Tyler, "I bought my first house in 1985 and converted my spare bedroom into my office in April 1986, when the oil crunch occurred, because I figured I could office at the house but not live at the office. In August of 1986 I had renal failure associated with my diabetic condition. At present I'm on dialysis and waiting on a transplant, but life goes on. This summer I will spud in a 10,000' Rodessa test in Smith County to help the Hughes rig count. During the oil slump I was a landman, draftsman, salesman and geologist putting more emphasis on the sale and acquisition of royalties and minerals. But now is the time to concentrate on my usual, prospect generation. I'm still with Miss Texas Oil Company and have been for the last five years."

Louis M. Martinez (BS '54) comments, "Due to my recent termination, times are not too good; however, I'm trying to tough it out, hoping and praying that something good will happen to the industry and all involved. Meanwhile I've joined the already saturated marketplace of 'consultants' while also working on several drilling deals."

Enrique Martinez-Garcia (MA '71) reports, "I was very busy in 1986 organizing the Oviedo, Spain meeting for IGCP Project 233. I also attended the GSA Annual Meeting in San Antonio, and saw good old friends at the UT alumni meeting. I had a real good time although I could not keep up with Pat Wood Dickerson in the Mexican and Texas dances." Enrique is living in Oviedo, Spain.

Leslie E. Mashburn (MA '86) lives in Austin. "I am working for William Duchscherer, Jr. as chief geologist for our newly formed company, Golden Geochemistry Inc./Geochemical Surveys in Denver, Colorado and Dallas, Texas. We are optioning oil and gas prospects after performing geochemical soil surveys and analysis. This has occurred in Wyoming, Montana, Colorado, Kansas, and Indiana."

Dallam Masterson (MA '81) is a senior geologist for ARCO in Anchorage, Alaska. "We had our first child, Wilmer Dallam Masterson V, on March 31, 1987."

Robert Mathews (BA '48) is president of Swift-Sterne Corporation in Midland, involved in petroleum exploration and production. "Son, Mark, who received a BS degree in geology from Texas Tech in 1979, is doing graduate work at UT San Antonio in another field. Son Jeffrey, who received a degree in mechanical engineering from UT in 1982, is a design engineer with FMC Corporation in Singapore. Finally a

grandparent - Alexander Lee Mathews was born February 27, 1987 in Singapore."

Michael J. Mattalino (BS '81) is an exploration geologist in Houston.

Paul R. Mayo (BS '50), independent producer in Abilene, says "I am happy in the same house and thankful I'm not out on the street. Roustabout and relief pumper chores fall my way occasionally, but I've been worse off. The prospects I'm building are more shallow and much closer to the house than formerly. Good to excellent health enjoyed by wife, kids, grandkids and self. May God bless everybody in the oil field, past and present, and especially in the future."

John McAnulty (BS '78) is "still working as an exploration/development geologist with Kriti Exploration, Inc. in Houston. Daughter, Erin (2 1/2) and wife, Dori, doing great. Waiting for \$30/barrel before considering further additions. Still desperately trying to learn to hit a golf ball straight. Considering pursuit of easier hobby - like lion taming."

Bill McBroom (BS '40) is "officially retired" in Vernon, Texas.

Robert L. McBroom, Sr. (BA '51) writes from Wichita Falls, "My wife (former Mary Lou Kendrick) and I have four sons. The eldest graduated from UT Medical Branch in Galveston. The next attended UT Austin for two years. The next graduated in business (petroleum land management), and last is now a sophomore at UT Austin. He sent me a bumper sticker which says 'My money and my son go to Texas.' He is right! Hook 'em."

John McBryde (MA '79) comments, "Still in Houston, still with Mobil. ('Still with Mobil' has an entirely different meaning today than four years ago.) We did move to a new, larger abode almost a year ago. Michael is four and already comes up to my belt (honestly!) so don't be surprised to hear me call him 'sir' often. Marla is now a training consultant with Lotus Development Co. (the 1-2-3 software folks) and enjoying it greatly. My job is most interesting. One of Mobil's newest major strategies is consolidating its production into fewer, larger fields. For years, we hung on to production at almost any cost - now with sub-\$20 oil, these small properties are an operational headache - especially the 'remote' ones. Hence property consolidation - our task is to sell some 250 small (less than 1 MMBOE) fields (some of which are quite attractive nonetheless) and increase our holdings in our larger part-interest properties. So far we're doing fine. The total effort may take three years."

Ann Boggs McCarley (BA '75, MA '78) lives in Englewood, Colorado. "Lon (MA '79) and I have a new baby boy, Travis

Ryan, born March 17. Last year brought lots of changes on the job front, also. Both of the companies we were working for closed their Denver offices and we were laid off. Lon started doing consulting work for The Anschutz Corporation in June, 1986 and has worked steadily for them since. I did some consulting work for Reservoirs, Inc. from September till I had Ryan in March and am now enjoying staying home with him."

Alfred Nelson McCarter (BS '84) is an exploration geologist in Houston.

Patrick McCarthy (BS '86) is employed as a geologist by Cavalla Energy Exploration Co. in Houston.

Holland C. McCarver (att. '31-'37) is enjoying retirement near Austin, and reports he is doing very little work, "all non-paying."

Duncan McConnell (Instructor, '37-'41) is professor emeritus of geology and mineralogy and of the College of Dentistry at Ohio State University, and now lives in Temple, Texas.

Willard McCracken (BS '58) is associate professor at Western Illinois University in Macomb, Illinois, and does occasional consulting. "Last summer I remodeled my house in Bellaire, Texas. I teach in Illinois but commute to Texas at Christmas and during the summer. At small geology departments like Western Illinois, enrollments have declined significantly."

Robert McDermott (MA '84) is the principal in Mélange Associates, Inc., consulting geologists in Denver.

C. Carew McFall (BS '50, MA '52) lives in Los Altos Hills, California, and is "continuing gold production at a small Montana heap leach and looking for another such situation."

Edward McFarlan, Jr. (MA '48) writes from Houston, "In the fall of 1986 retirement from Exxon resulted in my starting geological consulting for petroleum exploration in the Gulf of Mexico Basin. Many opportunities can be developed with suitable resources. A family vacation to the Galapagos Islands off Ecuador revealed new information on plate tectonics and Darwin's *Origin of the Species*."

Edward F. McGee (BS '50, MA '52) is retired in Wimberley, Texas.

Wayne S. McIntosh (BS '56) retired from the US Army Corps of Engineers in August, 1985. "Presently consultant to UTD Inc. of Alexandria, Virginia and BPLW of Albuquerque, New Mexico. One son still at UT, rest of family scattered. I maintain a small office at 4747 Gretna in Dallas. Hope to some day really retire to the golf course and do some traveling."

L. A. McLaurin (BS '58) is owner of a company in Houston (Polaris Equipment, Inc.) involved in design and international sales of oil tools.

- Jude McMurry** (MA '82) is a graduate student at Texas Tech University in Lubbock. "In January of this year I traveled to Brazil to present a paper at the International Symposium of Granites and Associated Mineralization (ISGAM), in Salvador, Bahia. I remained in Brazil for two more months and did field work for my PhD (I am studying the petrogenesis of a granitoid pluton in northeastern Brazil). Last summer I served as the stylistic editor for *The Contemporary Writing Curriculum*, a rhetoric-based model of teaching composition. The book is co-authored by my husband, Roland Huff, and Charles R. Kline. Both are former UT faculty members, and much of the teaching model was developed in UT English classes, so some of our alums may recognize their names. The book is scheduled for fall publication by Teachers College Press."
- Jereld E. McQueen** (BS '61, MA '63) is vice president of Medallion Oil in Houston.
- Asa D. McRae** (BS '42) is retired from Mobil Oil. "Building a house at Horseshoe Bay (near Marble Falls) and plan to move there in the fall of 1987."
- James Lawson Meadows** (BA '30, MA '30) is retired in Port Arthur, Texas.
- Joe Meadows** (BA '62) started a new bank consulting business in Waco, CWC Bancservices, Inc., and is practicing law.
- John A. Means** (MA '47) is operating under the name Sunniland Exploration Company, and is trying to concentrate in south Florida. He lives in Richardson, Texas.
- Charles E. (Gene) Mear** (BA '51, MA '53) writes from Fort Worth, "After 33 1/2 years of continuous employment as a petroleum and hard mineral geologist, I took early retirement May 31, 1986 as a result of an unfriendly takeover of Southland Royalty Company for which I was the vice president of geology and geophysics. On June 1st, I began work as vice president, exploration, for Cross Timbers Oil Company. With three children attending the University, I guess I'll work a little longer. Jack Becher and I published a field study of the Ellenburger and Fusselman reservoirs at Midland Farms, field of Andrews County, Texas in the 1986 Transactions, SW section AAPG. Am currently President-elect of the Fort Worth Geological Society and am editor of a book to be published by the FWGS on the Mississippian of north Texas. Your paper on Mississippian oil field of north Texas is solicited for this publication."
- Robert Duff Mebane** (BS '36) lives in San Antonio, where he is an oil producer, farmer, and dealer in antiques.
- James Medford** (BS '85) lives in Norwalk, California.
- Joseph A. Medina** (BS '74) continues employment as an area geologist with ARCO Exploration Company in Houston.
- William J. Meek** (BS '55), owner of W. J. Meek Insurance Agency in Arlington, Texas, says "My two businesses - insurance and gasoline business - keep me jumping, plus recruiting for the US Naval Academy. Last year (July '86) I officially retired from the US Naval Reserve, however, as North Texas Area Coordinator-US Naval Academy Information Program, retirement doesn't appropriately fit - I'm more busy than ever. Would like to see old classmates from '55; come see me at 405-A Lillard Road at West Division Street, Arlington, Texas."
- Peter Megaw** (BA '76, MA '79) is a geologic consultant in minerals exploration and a graduate student in Tucson, Arizona. "Minerals consulting work is on a major upswing; we just hope it will last. I hope it carries over into the oil business for the sake of most of my 1976 classmates."
- Robert Merrill** (PhD '69) is a professor at California State University in Fresno, teaching sedimentary geology and geomorphology. "Brought Stephen J. Gould to CSU-Fresno for a lecture and discussion session which broke all attendance records for our University-wide lecture series. Also working to improve General Education program of the University; brings back memories of the University of Texas Couth Quiz. Also obtained another University research grant for Pliocene Etchegoin Formation sedimentation project."
- Mario Leo Messina** (BS 59, MA '62) is president and CEO of Messina, Inc. in Dallas. "I spend most of my time in airplanes. Our operations, i.e., producing, supplying, designing and engineering a complete line of chemicals used in fluid systems to drill, cement, stimulate and produce oil, gas, water and geothermal wells, has expanded to eastern Europe, South America, and West Africa. The Messina group of companies is expanding and holding up well. There is still a great amount of drilling and plenty of challenges and opportunities in the oil patch."
- Harry W. Miller** (BS '50) is an independent geologist who has lived in Seguin, Texas since 1980.
- Mildred Winans Miller** (BS '36) is a retired realtor in Austin. "Since retirement I have found travel very interesting; have been to Egypt, England and Ecuador. Realized a long-time dream by going to the Galapagos Islands to see the 'big turtles' last spring, having first become interested in them in Geology I lecture."
- R. Dick Miller** (BS '51) lives in Plano, Texas "Enjoy my work with Geomap Company and hope to continue for a few more years. Have bought some acreage northwest of Georgetown and hope to add to a small place we have there when we retire." Dick is a senior staff geologist.
- Wayne D. Miller** (MA '57) says, "Am back to full-time geologic consulting after concluding a three-year contract as vice president of exploration and director for USENCO Incorporated. Looks like I finally have all of family out of college. Son Mark received BS in petroleum engineering from Texas Tech last December and daughter Sharon will receive petroleum land management degree this May from Texas Tech. Now the hard part - getting them jobs. I also have just finished serving as the chairman of the Midland chapter of the Society of Independent Professional Earth Scientists."
- James R. Moffett** (BS '61) is chairman and chief executive officer of Freeport-McMoRan Inc. in New Orleans. His daughter, Crystal (22) is a senior fashion merchandising major at UT, and his son, Bubba (19) is a freshman geology major. "Freeport-McMoRan Inc. is busy buying reserves from those with less financial staying power. We have the nucleus of the exploration team busy in farmout program of Gulf of Mexico tracts. Exploration should increase as prices firm over the next five years. Tell students currently at UT they will be in great demand as we restock the technical ranks. Don't be disillusioned by the current situation - domestic industry is vital to the USA. Young Americans are the key to challenge."
- Jane Anepohl Monroe** (MA '76) comments, "In August of 1986, my family and I moved from Arizona to England. My husband, Scott, is head of the family practice department of the USAF Clinic at RAF Greenham Common, about 60 miles west of London. Our oldest son, Mike (7), attends a British government school in the village, Burghfield Common, where we have settled. I serve as a Parent Governor for Mike's school and am increasingly involved in the Red Cross at the base. This summer I will become chairman of volunteers for the Red Cross and as such will serve on the boards of several other health-related organizations on base. Our youngest son, David, will start preschool this fall. We are thoroughly enjoying life in Britain, all the more so for being involved in the local community."
- R. McKay Moore** (BS '52) is an independent geologist in Shreveport, Louisiana.
- Terry L. Moore** (BS '80) is a geophysicist in Oklahoma City. "My wife, Beverly, and I became card-carrying Texas Exes last year and now are residing in OU territory. Cities Service Oil & Gas Corp. underwent a major reorganization and consolidation the first part of

this year. I was transferred from Midland to Oklahoma City with the assistance of an excellent company relocation package. My family is settled into our new eight-year-old home and life is returning to normal. We plan to continue our summer trips to the Texas coast to study depositional processes (particularly beach environments and wave action) and the nutritional value of marine biology firsthand. Of course, we will also continue our jaunts throughout the year to visit our friends and relatives in Texas."

Robert Moran (PhD '74) is a consulting hydrogeologist involved in hydrogeological/geochemical investigations and litigation support in Golden, Colorado.

Duane Moredock (BS '58) is a consulting geologist in Denver.

Michael B. Morris (BS '47), petroleum consultant in Houston, says "Nothing of significance has occurred in my life in the last year. It has been a downer as far as the oil business is concerned, but I enjoyed the bull market in equities." Mike is a member of the UT Austin Geology Foundation Advisory Council.

Michael S. Morris (BS '75) writes, "My wife, Marylou, and I have four children and are living comfortably in Corpus Christi. I've recently become involved in some sand, gravel and gold mining operations in Arizona and other states after a lot of south Texas oil and gas drilling activity. I'm looking for help in promoting money for various projects at this time. In addition, I need help locating Bruce White (BS '74); the last time I heard, he was in São Paulo."

Robert Morris (BS '86) is a graduate student at UT Dallas, seeking a Master's degree in management.

Susan Deutsch Morris (BS '70) writes, "I am now doing regional micropaleontology of the Wilcox and Midway Formations of central Texas (Live Oak to Lavaca counties). I am past president of the Gulf Coast Section/SEPM, Houston Geological Society AAPG delegate for '87-'88, and '88 AAPG Jules Braunstein Award chairman. My husband and children are doing well and I feel I have survived this economic downturn. Hope to see a large number of you at the '88 National AAPG meeting in Houston." Susan is owner of Morris Geological Enterprises in Houston.

Sherrill Motsch (MA '51) retired from Marathon Oil Company in July, 1985. "I enjoy living in Rockport and catching redfish. Happy to be a Texan again after 34 years in Wyoming, which also is a great state."

Charles Motz (BS '60) is a loan officer in New Braunfels, working in financial analysis, liquidation and disposal, and appraisals.

Charles P. (Chick) Mueller (BS '60) is president of Mueller Oil & Gas Corp. in San Antonio. "Commencing in 1986, 'I put on another hat'... prior to 1986, I was primarily a seller of deals to third party investors. Changed over my operation to being a consulting geologist for a group of investors, resulting in the change that I am now a buyer of deals. I am enjoying the new endeavor very much. Lots of 'new' things for me in 1987: new business, new office, new house, new wife."

Robert Murphy (BS '82), an exploration geologist in Dallas, is currently working for Enserch Exploration Inc. in the midcontinent area.

Robert Murray (MA '85) is a hydrogeologist in Las Vegas. "I am working under contract to the USGS on the Shallow Unsaturated Zone Investigation at Yucca Mountain, developing the technology and methodology now necessary for the comprehensive characterization and modeling of the vadose flow systems within the mountain. I have also learned never to underestimate the federal government's ability to spend money. In press: Murray, R.C. and D. Hammermeister: A tensiometer-transducer system for measuring matric potentials on preserved, consolidated porous media."

Pat Murta (BA '42) is a consultant in Tulsa. "The price of oil has just about retired me. My wife, Betty Ruth, and I are enjoying reading and walking and I do an occasional consulting job. I have several subsurface prospects but no independent producers to drill them. Lots of prospects but no 'prospects.' I plan to make it to my 50th reunion in 1991."

Jerry Namy (PhD '69) comments, "I was made a partner and director of Texland Petroleum, Inc., Fort Worth, in 1983. We operate 500 producing wells in the north rim of the Midland Basin. Like other survivors, we are slowly finding our way out of the depression. Susan and I will celebrate our 24th anniversary this July. We have two sons in college, and a daughter finishing her sophomore year in high school."

G. Allan Nelson (BS '47) is an independent petroleum geology consultant in Englewood, Colorado. He attended the second reunion of the class of '47 in July, 1986, and says, "A great time was had by all!"

Ken Nemeth (MA '76) is a geologist in exploration and development in Houston, currently working the Middle Wilcox trend, looking for the undiscovered and unleased reserves. Ken says he'd like to hear from the Clabaugh/McDowell "Mexican Mob" of '73 to '76 if they get to Houston. He and his wife are expecting their first child this fall.

David Nilsson (BS '61) is a lecturer in mathematics at UT Austin. "My main

activity, apart from teaching math, is being Scoutmaster of Troop 11"

David C. Noe (MA '84) writes, "I have not been employed in geology since October, 1986, when RPI closed its Austin office. In retrospect, this has been a positive thing. I've had time to look back on the good things that have happened in eleven years of geologic adventures, and have also decided to follow up on some untapped interests. My new directions have led me into school...again! I'm currently enrolled in the Texas School of Massage Studies in Austin, taking a five-month certification course. Massage is one of mankind's oldest therapeutic practices, and, for me it's opening up a new lifestyle through touch and communication. I'm also finding that I have quite a knack for putting people 'out' on the table! Also during this time I left bachelorhood behind and married Denise Dobbs. We travel whenever possible, and Denise enjoys occasional stops along the highway to hear me rave on at road cuts."

Ron Nordquist (MA '72) a senior geological specialist for Tenneco in Denver, is still working in exploration, and hoping to ride out the current turbulence in the oil industry.

Isaac W. Norton (BS '48) is executive vice-president of Bishop Petroleum in Houston.

Karen Brock Norris (BS '81) says, "I have a two-year-old daughter who was born when I was halfway through law school. I am working for Holm, Roberts and Owen, an old line Colorado firm with close to 200 lawyers in Denver, Salt Lake City, Boulder and Colorado Springs. I had hoped to do more oil and gas related legal work, but at the present there is not much activity in that area." Karen lives in Colorado Springs.

John Obermiller (BS '79), his wife Valerie and two-year-old son Ross are back in Austin after a long absence. They have a new home in Westlake Highlands, and John has a new practice called Westlake Orthopedic Sports and Rehabilitation Associates. "I have visited with several alumni in the Austin area and would like to hear from more - so break a leg and call me!"

A.M. (Red) Olander (BS '48) retired from Exxon in 1986 after 38 years and is currently involved in cattle breeding and volunteer work for the Presbyterian Church in Houston. Red reports that all four children are married, he has six grandchildren, and "retirement is great!"

Gail Oliphant (BS '53), an independent in Houston, serves on the board of directors of the SIPES Foundation.

R. William Orr (MA '64) is completing his sixth and final year as geology department chairman at Ball State University in Muncie, Indiana. He is looking

forward to spending more time in the classroom and having the opportunity to complete several research projects. Bill's wife won a trip for two to Paris in a radio contest, so they are planning a trip to Europe in June.

Robert D. Ottman (BS '51) is exploration geologic coordinator for Exxon in Houston.

Forrest Pace (BS '85) is working toward a master's degree at Mississippi State University and plans to graduate in August. His thesis study is on modern carbonates on San Salvador Island in the Bahamas. "Pristine beaches, remote, crystal clear water, excellent wall diving, and plenty of geology. What more could a guy like me ask for?" Forrest lives in Tomball, Texas.

David Palmer (MA '81), "one of the few survivors remaining in Denver after the bust," is "fortunate to still have an enjoyable job. Marathon is reevaluating many older existing fields with the goal of recovering more oil. It is a cheaper pursuit of oil than exploring new territory. As a reservoir geologist, I combine core studies, core analyses, well logs, and petrographic work to evaluate to potential of older fields for further development, and/or tertiary recovery projects."

Jack M. Park (BS '50) is president of Parcoil Corporation in Dallas, and writes that they are expanding their office and operations in West Virginia.

Howard W. Parker (BS '49) states, "After 30 years in Midland, my partner, Joe Parsley, and I sold Parker & Parsley Petroleum Company to Southmark Corporation of Dallas. We both retired at that time, and I now live in Austin and am building a new home in the Rob Roy area - where we used to go on field trips. Great to be back in Austin. My wife, Jane, is continuing her musical interests here (she was a voice major at UT from '46 to '50)."

A. Balfour Patterson (MA '41) is vice president of Logue and Patterson, Incorporated in Dallas.

J. F. Patterson (BS '52) is a self-employed exploration geologist in Bellaire, Texas.

Jacob L. Patton (MA '32) is an independent consultant in Tyler, Texas.

Thomas H. Patton's (MA '62 PhD '64) main problem since leaving teaching at the University of Florida in the mid 1970's has been trying to slow down and smell the flowers. He writes, "The second career, as a consulting geologist and environmental lawyer has been demanding, but very challenging and remunerative - it's been a great ten years. To catch up most of my old friends on family status: Dan, a civil engineering graduate at the University of Florida, is now a Captain in the Corps of Engineers in Germany, and is a paratrooper and downhill skier for the Army. David, former stroke for the

UT crew team graduated in geology and is now a graduate student in Architecture and Planning. Michael is a senior in pre-med at the University of Texas. Pam and I decided that the best way to avoid the 'empty nest' syndrome was to refill it, so we now have two more sons, Emery (5 1/2) and Blair (3). Can you believe we're starting the Little League process all over again? Pam is continuing her research in transplant immunology and heads up the Kidney Foundation. In addition to running the firm, I am presently writing papers on braided streams and sinkhole/river interrelationships in Florida. I have a suggestion to my old classmates: don't wait as long as I to respond to the *Newsletter*. I have always enjoyed reading your various passages and activities!" Tom is president of Patton & Associates in Gainesville, Florida.

Tom S. Patty (MA '68) and his wife Joann have been constructing a country home near Lake Travis since 1978, and all of their spare time is spent out there. Tom is continuing his studies on concrete structures along with constructional aggregates, stone and mortar with Erlin - Hime Associates in Austin.

Bill R. Payne (BA '40 MA '41) is retired in Houston ("not consulting, not independent, etc..."). Bill remarried last August and at this writing he and his wife are planning a trip to the Scandinavian countries for their first anniversary.

Jack L. Penick (BS '42) is president of Penick Exploration in Houston. "I had a development well completed on my royalty last year; another is scheduled for the end of this year. Still not ready to retire full-time."

James E. Peterson (MA '54) is a self-employed geological consultant in Dallas.

Stephen Petmecky (BS '85) states, "Still employed by Martech, Int., which has moved its office from Morgan City to Lafayette, LA. I'm working as an oil/gas diver. Summer of '86 was busy for me providing backup for several long pipeline installation jobs. Between May '86 and December '86 I was offshore for a total of 200 days. Since then things have slowed down due to rigs stacked up, production cuts, etc. Only 62 days offshore this year. However, Martech has won the bid for a large Shell inspection job which for me begins May 15 and should last well into the fall, depending on the weather. Last August I made my deepest working dive to 310 feet, to replace a series of pipeline valves. Our team of four divers spent 16 days in saturation at that depth. By far the best news this year is that my wife Karen, who teaches Spanish at Porter Jr. High, and I are expecting our first

child in August. We will continue to reside at our house on Walling Drive in Austin."

Ben J. Petrussek (BA '42), is enjoying retirement, good health, visiting grandchildren more frequently and doing some traveling. Recent trips took him to the Norwegian fjords and on a very informative tour into People's Republic of China. Ben still lives in Metairie, Louisiana.

Robert W. Pettigrew (BS '52 MA '54) is a geological associate for Exxon in Corpus Christi.

Van A. Petty, Jr. (BS '40 MA '41) is "still taking an interest in a few drilling deals each year. I hope the oil business will soon return to better times."

Jack Phillips (BS '49) retired from Cities Service in 1980 as vice-president of exploration and production. Since then he has served as president of two independent companies. Jack is now semi-retired in Houston, doing some consulting, some fishing, and enjoying six grandchildren.

Loren Phillips (BS '82) is working for the US Army Environmental Hygiene Agency as a geologist, and living in Glen Burne, Maryland.

George Pichel (BS '51) writes, "Retirement has forced me to leave the Geology Foundation Advisory Council, which I thoroughly enjoyed and on which I felt privileged to participate. My wife and I plan to cruise Mexican waters for six months, November '87 to June '88, going as far south as Manzanillo. Our big adventure if it works out!" George lives in Dana Point, California.

Gerald Pitts (BS '54) is president of Pitts Energy Company in Midland. "Pitts Energy continues to grow at a very slow pace. We managed to drill five wells, completing four in 1986. That was a major accomplishment! The current year appears more promising as we are presently starting well number two. All three of my sons are now associated with Pitts Energy. Two sons are petroleum engineers from Texas A&M, and one son is a PLM graduate from UT."

William Poe (BS '48), since retirement in 1986, has been concentrating on the house, the yard, the golf course and oil painting, "not necessarily in that order, but which I enjoy immensely. We enjoy our kids and grandkids, but they grow so fast they're out of sight before we know it. Our three sons are well situated. Bill is minister of the First Presbyterian Church in Sherman, Texas; Rich is a family counselor in Austin and Marshall is on his second foreign tour of duty in the Air Force." Bill resides in Houston.

T. A. Pollard (BA '33) has "been retired quite a few years, and I am living in my own cottage in what I have found to be an excellent retirement facility (John Knox Village of the Lower Rio Grande

Valley) in a most pleasant location - Weslaco. I am able to keep healthy by playing lots of tennis with an agreeable group of people."

Keith S. Pollman (MA '83) comments, "The most striking thing about my current situation is that I seem to be a securely employed geologist amidst a sea of contemporaries looking for work. My work at UT as a structural petrologist has not seen much application to my new career, but my training as a scientist and scientific writer has served me well. Often I feel a debt to my committee (especially Dr. Mosher!) and the UT faculty for the effort they put into my education." Keith is working as a senior associate scientist for Environmental Science and Engineering, Inc. in Denver.

Herman W. Porsch, Jr. (BS '52, MA '65) is a senior information systems specialist for Texaco in Midland. Herman writes, "I completed my 23rd year with Texaco in April and switched from geology to the local computer support group several years ago. That's OK because I've been monkeying around with computers and that kind of stuff since the early 70's anyway. Now I get to work closer with other professional type people, too. Best wishes to all my friends of the 'olden' days."

Robert (Bob) Porter (MA '51) says, "I retired from Fina in 1985, came down with kidney disease in December, 1985, and have been on dialysis since that time. Hopeful for a kidney transplant at Galveston sometime in 1987. Am thankful for being alive and having so many friends. As for business, well, I have managed to work a little in consulting with my son, Rob, who graduated from UT Austin in 1979 with a BBA in Petroleum Land Management. We have four children, all grown, and five grandchildren. Our oldest grandson is 17, a junior in high school, 6 ft. 4 in. tall, weighs 240 lbs., made all-district in baseball and football. He has already been contacted by 18 major colleges. Not certain if the Longhorns are on that list, but I do know that A&M, Baylor, USC, Colorado, and three other Big Eight schools have already made 'a pitch', and he still has another year of high school! Naturally we are hoping, but not interfering." Bob and his wife, Polly, live in Midland.

J. Dan Powell (PhD '61) has recently been transferred from Core Laboratories International operations in China, where for almost two years he was in charge of biostratigraphy for the Asia-Pacific region. Dan's unit serviced the offshore South China exploration activities for up to 12 companies. As of April 27th, Dan was promoted to manager of petrographic service with responsibilities covering most of North and South America, except the Gulf

Coast. Dan makes his home in Irving, Texas.

John Wm. Preston (BS '70) comments, "Each year I am privileged to work in this fascinating field, and I am grateful to UT for giving me the basic knowledge which has provided employment as well as enjoyment. Hopefully, if I end up flipping burgers for McDonald's like so many good geologists, I can still say thanks for the fun while it lasted." John lives in Houston, and is working as a senior geologist for Louisiana Land & Exploration Company.

William C. Price (BS '58) is the chief of hydrological/geotechnical programs at the Bureau of Radiation Control in Austin. Bill writes, "For the first ten years after graduation I worked in the electro/mechanical engineering profession due to a depression in geology. In 1967 I became interested in engineering geology and utilized engineering geophysics as an aid to understanding subsurface conditions rapidly. For the past ten years, I have been involved in monitoring the vadose zone around waste disposal and impoundment sites using the four electrode resistivity meter to trace leachate plumes. This method of 'soundings' analyzes soil to depth by separating the electrodes on top of the ground. I have recently developed a simplified method of survey whereby only one electrode is moved to obtain depth information."

Luke Primrose (BS '83) is an advanced engineering technician for Marathon in Houston, and makes his home in Pearland, Texas.

Leo Pugh (BS '52) reports from Houston, still with Gulf Coast Geo Data Corporation. "Business is picking up in geophysical data sales after a poor year in 1986. My oldest son, Greg, is getting married in June to a UT-ex. We hope to see the Longhorns' new look in football this fall in Austin."

James F. Quinlan (PhD '78) is living in Mammoth Cave, Kentucky. He was a winner of the E. B. Burwell Award (engineering geology division) presented by GSA in May, 1986.

Hamilton Rangel (PhD '84) is chief of the Espirito Santo/Mucuri Basins Interpretation Division for Petrobrás in São Mateus, Brazil. "My present position allows me a better overview of the Basin Analysis and Development Geology Sectors, orienting new research and favorable drilling prospects integrated with the drilling and production areas. I have been advising two graduate students from Universidade Federal de Ouro Preto - Minas Gerais state, a geologist and geophysicist in their research and thesis. Daniel, my fourth child, who was born in Texas, is now four years old. Beatriz, age 9; Gabriela, 8 and

Leonardo, 7 are doing well in school and in their music (piano, violin and flute), ballet and gymnastic classes. Marcelo, two months old, was adopted and keeping me and my wife Angela busy, together with all the work and family activities."

Clyde M. Rascoe (BS '49) is president of Merit Oil Company in San Angelo, Texas.

M. Allen Reagan (BA '50) is retired and living in Houston, where he is enjoying two children, five stepchildren and six grandchildren.

Mary Jean Redfield (BA '37) writes, "I'm still enjoying my Austin home - since 1942!"

Scott C. Reeve (BS '70, MA '71) says, "We still live in Slidell, Louisiana and I still work the Gulf of Mexico for Shell Offshore. Our oldest daughter Angela starts college this fall at Northwestern State University."

H. Clay Reichert (BA '38) is a self-employed geologist who lives in Lafayette, Louisiana.

Jeffrey C. Reid (MA '73) is chief geologist for the North Carolina Geological Survey in Raleigh. "I accepted the position of chief geologist December 1, 1986, and became an associate editor for AAPG's *Geobyte*. A steady stream of publications are in the areas of application of computers to geological problems and exploration geochemistry. My wife Mary continues to practice her profession in the capacity of a relief pharmacist. Sarah will be in the third grade; Eric will be three in September."

John Reistroffer (BS '82) is currently living in Puerto La Cruz, Venezuela, 100 yards from the Caribbean. "I enjoy snorkeling around the many reefs. In free time I go fishing for peacock-bass in the Orinoco and Caura Rivers. I've also driven my Volkswagen down to the Brazilian border in the Guyana Shield, but to date have not found any diamonds." John is currently employed as a log analyst.

Charles B. Renaud (BS '49, MA '50) is still living in Midland and searching for oil and gas in west Texas. Charles now has seven grandchildren and expects more.

James V. (Jim) Richards (BS '56) writes, "Our Christmas Store chain is growing larger with six stores. We're planning lots of travel for this year. Still plan to have 5 or 6 wells drilled before the year is out." Jim is a consulting geologist in Houston.

Lisa Ann Richards (BS '81) worked for Placid Oil Company in Shreveport for one year and has worked since as a consultant and as a full-time geologist for Huffco Petroleum in Houston. Lisa and her husband, Peter A. Emmet (MA '83) are expecting their first baby in April.

Frank M. Richardson (BS '57) comments, "Jean and the children are all doing fine. Business still going strong despite the economic climate." Frank makes his home in Houston and is owner of Era Consulting Company.

Gene Richardson (BS '57) retired from IBM Corporation on January 31, after 25 years in the Austin/San Antonio area. Gene opened a new business in San Antonio as an authorized computer dealer for IBM under the name of Origami, Inc. "Having more time to make frequent trips in and around those interesting areas of the Llano Uplift and Marathon Basin."

Gary Richter (BS '79) is a geologist for Columbia Gas Development Corp. in Houston.

Wade Ridley (BS '53, MA '55) is president of Ridley Oil Corporation in Tyler, Texas. "I suppose you might say we are making the 'deliberate search for the subtle trap' by using information from years of drilling in the East Texas embayment. We hope we're using modern techniques in interpreting environments of deposition and sedimentation. Eldest son, Tom, is our land department, younger son, Clark, graduated from UTMB, Galveston in 1986 and is a resident at US Naval Hospital, San Diego. The past year has been a tough one in the oil patch, but we're hanging in there!"

Robert B. Riess (BS '86) is an electrician in Austin. "Until world oil economics improve and the petroleum industry recovers I will probably not have a house, business, valuable job, any promotion, and, I hope, no children!"

Frank Wm. Rife, Jr. (BS '50) is now developing a new oil field two miles southwest of Cedar Creek in Bastrop, Texas. At the present, Frank resides in Irving.

John S. Rives, II (att. 1/74 - 8/74) is continuing to survive as a consulting petroleum geologist in Lafayette. "Besides generating prospects and handling oil and gas unitization in south Louisiana, I have been raising funds from institutional investors for investment into prudent drilling programs. Any Longhorns who could use a few extra Wall Street dollars for their '87 drilling programs should contact me."

Jess P. Roach (BA '41) is a consulting geologist in Austin. Jess writes that he has not been actively engaged in consulting since mid '85, but primarily watching his investments and working on the occasional deal.

Roland Robertson (BS '55, MA '56) is a consulting geologist in Corpus Christi.

Virgil H. Roan (BS '49) is still managing the Roan Royalty Company in Ardmore, Oklahoma.

Richard A. Robinson (PhD '62) is the Gulf-Hedberg Distinguished Professor of Geology at the University of Kansas in



The Kingston Trio?? UTGS Banquet, April, 1957. Left to Right: Pete Rose, Don Winston, Robert Folk. Photo sent in by E. J. Dickerson.

Lawrence. "After 12 years as editor of *Treatise on Invertebrate Paleontology*, I recently returned to a regular teaching appointment. I enjoy having more time for students and for research on Cambrian paleontology and biostratigraphy. Jolcen recently completed an MS degree in journalism. Son Dick is a mining engineer with ARCO, Valerie is a nurse, and Mark is a senior in journalism at KU."

Dominic Rocques (BS '85) is working in San Francisco as a landscape architect, combining his interests in geology and art.

Harlan Roepke (PhD '70) is a professor of geology at Ball State University in Muncie, Indiana. Harlan is leading a delegation of six faculty and nine students to China and Korea in June as part of a BSU exchange relationship with universities in those countries. Harlan's wife, Judy, is about to be anointed Associate Provost at Ball State, a position for which he says she is well qualified.

James E. Rogers (BS '55 MA '61) is a ground-water hydrology consultant in Alexandria, Louisiana.

James W. Rogers (BS '49) retired as president of Texaco Japan, Inc. in 1983. He is now working in real estate investment in Austin.

Robert Ross (BS '50) writes, "We are renovating a 110 year old German farm house out of New Ulm, Texas. Both children are expecting 'new additions.' Still working geology in southeastern states with emphasis on Lower Tuscaloosa of Mississippi." Robert is currently living in Houston.

Peter Rowley (PhD '68) is a geologist for the US Geological Survey in Denver. "I just spent November '86 to March '87 as co-leader of a joint British Antarctic Survey - USGS field party to the Black Coast of the Antarctic Peninsula, until then the last major unexplored area in the Antarctic. Stateside research involves volcanic rocks in Utah and Nevada."

W. Wayne Roye (BS '51) is an independent geologist in Midland.

Lloyd J. Ryman (BS '38) writes, "My wife, Dorrell, and I are primarily enjoying retirement by traveling abroad and revisiting areas we came to know while actively employed in international exploration."

Rafik Salem (PhD '73) is a consulting geologist in Fort Worth. Rafik comments that business is "very quiet," research is "dormant," and jobs are "very hard to come by," but his three daughters are doing well in school and everyone is enjoying the new jacuzzi and ping pong rooms. recently added to their home.

Jack S. Sanders (BS '57), a petroleum geologist for the Department of Energy in Dallas is "just enjoying another Texas spring after too many years away - heading back to Alaska for a short field trip in June, 1987."

James W. Sansom, Jr. (BS '63) says, "I have been working for the past few years in the Technical Services Section, Surface Mining Division of the Railroad Commission of Texas with a multidisciplinary group of professionals (geologists, engineers, soil scientists, agronomists) where I am

- currently the acting chief. We are responsible for reviewing the technical merits of all permit applications for coal and uranium surface mines. It is an interesting and rewarding job." James lives in Austin.
- Elsie C. Schiemenz** (BA '43) is doing "nothing newsworthy, but I continue to expand my horizons and to enjoy life." Elsie is retired and living in Mobile, Alabama.
- Frank Schloeder** (BS '78) is working in oil and gas exploration in Tulsa, Oklahoma.
- Joel Schneyer** (MA '84) is employed as a geologist for Celeron Oil and Gas Company in Denver, Colorado. Joel writes that he is engaged to be married in August.
- Paul Schnurr** (MA '55) is chief geologist for Natural Gas Corporation of California in Concord, CA.
- Bill Schomburg** (BS '59) is senior geophysicist for Elf Aquitaine Petroleum Company, and makes his home in Katy, Texas.
- Thomas Schneider** (BS '50 MA '51) is a self employed geologist in Midland, and is currently "prospect hunting."
- John T. (Ted) Schulenberg** (MA '58) writes that he and his wife Janet are "going to Seattle in June to attend wedding of our oldest daughter, Cathy. At least that's a lot easier to manage than the wedding of our youngest daughter, Margaret, in Cairo two years ago. Both girls are very interested in the Middle East and since both picked mates with similar interests, we expect them all to live over there after each and all gain some additional schooling. Son Tom is thinking of going on for a PhD in ornithology so he can keep up with the love of his life. Otherwise he alternates between leading bird tours (mostly to Peru) and doing research at the Louisiana State Museum in Baton Rouge. If all this makes it sound like Janet and I just stay home and watch the kids, you're right!" Ted and Janet watch the kids from their home in Houston, where Ted works as an independent geologist.
- Frederick E. Schultz** (BS '47) is vice-president and manager of exploration for Pauley Petroleum, Incorporated in Ojai, California.
- Rubin A. Schultz, Jr.** (BS '61) is "still with the State Department of Highways in Corpus Christi. Plenty of work. My wife, Nancy, and I plan to spend a week on Maui again this June."
- Jerry Schwarzbach** (BA '83) recently graduated from Baylor College of Medicine in Houston. He is doing his residency in Shreveport. Jerry is currently acting as medical director for the 30th annual National Wheelchair Games in Houston.
- Christy Schweikhardt** (BS '83) is a staff geologist with American International Energy Corporation in Houston, and is also attending South Texas School of Law part-time.
- Eugene Patrick Scott** (BS '56) is a consulting petroleum geologist in Corpus Christi.
- John E. Seale** (BS '41) is "semi-retired, but still doing a little consulting."
- George Sealy** (MA '53) "Took early retirement from Exxon in 1985. I am managing partner of Sealy Land Company, a family partnership with land and minerals scattered around the state. Am also a director of Sealy and Smith Foundation in Galveston, which is a substantial contributor to the University of Texas System through UTMB. Their land and minerals are in my area of responsibility. Ann and I run a small farm near Columbus, Texas. Son George married Lita Settegast, a UT grad and they have just produced Hilary, our first grandchild. Daughter Amanda works for Kroy in Austin, Elizabeth for Transstar in Houston, and George uses his PLM degree working with Harris G. Hood Control. Bill is working on his PLM degree at U of H. In spite of the downturn in our local economy, we have all been most fortunate."
- Louie Sebring, Jr.** (BS '41, MA '47) writes, "No good news. My second oldest son, Chris, died in February after a long bout with colon cancer that spread to his liver. He was only 33 years old, and was living with us so that we could help him take care of his ten-year-old son. We are hoping that we will be allowed to raise our grandson. We have been involved completely with our son's illness since the fall of 1985. No recent fishing trips to Alaska or game-viewing trips to Africa to report. I have made no real attempt to do anything in the oil business lately, but do hope to get going again soon..."
- Kenneth O. Seewald** (att. '61-'64) is owner of Seewald Energy Company in San Antonio. "Business as usual. Looking forward to a busy 1987 - I'm hopeful that we will get six to eight wildcats drilled this year."
- John S. Shambaugh** (BS '49, MA '51) is retired and living in The Woodlands, Texas.
- William W. Sharp** (BS '50, MA '51), a consulting geologist in Dallas, writes, "Life was never better!"
- Stephen L. Shaw** (BS '71, MA '74) says, "The Shaws made some real progress this year as Nancy completed her Master's Degree in Nursing at UT El Paso this spring. She teaches nursing at Midland College. I am still looking for oil with Meridian Oil. I was continuing education chairman for the West Texas Geological Society this year, and wrote an article for the *WTGS Bulletin* encouraging unemployed petroleum geologists to consider careers in water resources and engineering geology. Our kids are growing up fast - Katherine is now 13 and William is 11."
- Don Sheffield** (BS '58) is president of Geosource, Incorporated in Houston. Don also is a member of the Geology Foundation Advisory Council.
- Stephen Shelburne** (BS '85) writes, "My daughter Alyssandra is almost two years old, and I am now buying a home in Flower Mound, Texas." Currently, Stephen is an insurance claims representative in Richardson, Texas.
- Jerry Mack Shelby** (BS '57) and **Gay Salinas Shelby** (BA '57) comment, "Pioneer Corporation was acquired by Mesa Limited Partnership in June, 1986, and I took early retirement, but have opened a consulting office here in Amarillo. Our oldest daughter, Theresa, works for Geophysical Services, Inc. in Dallas. Her husband, Steve Winkler works for Texas Instruments. Our younger daughter, Annette, graduates from Stanford in June with a Bachelor's in biology. She and fiancé Cary Gossett plan to work in Dallas this summer. Gay continues to enjoy her tennis and has become quite proficient as a doubles player, winning in several local tournaments and in Dallas last year, and this year. Good health and happiness to all our classmates!"
- George H. Sherrill** (BS '50) is a petroleum geologist in San Angelo, Texas. "I have moved my office home, and like it better than a downtown site. Managed to salvage some income following the 'bust' in the oil business. Have looked into independent operations in foreign countries. Am on a retainer for an out-of-state, small independent company for exploration ideas in the Permian Basin. We have a new grandson, Cody, now nine months old, and another grandson, Nathan, nine years old. Time marches on. Shirley and I are really enjoying the 'fall' of our lives."
- J. David Shetler, II** (BS '84) has transferred after two years at Sun Exploration and Production in Midland to Sun in Dallas to work the Texas Gulf Coast District. "I am happy to be still be employed."
- Elgean C. Shield** (BS '53) writes, "On May 1 I moved into larger office space at 300 Sheperd in Houston, and will be expanding operations from oil and gas prospect origination to include purchase of producing leases. My oldest son, Mark, was selected to receive a scholarship award for high grade point average in the 1987 President's Honors Day Convocation. Mark will finish geology at UT in 1988." Elgean is president and CEO of Shield Development Corporation.
- Mark Sholes** (PhD '78) is an associate professor in the department of geological engineering at Montana College of Mineral Science and Technology in

Butte, Montana. "There is really nothing outstanding to report. I continue to work with coal, but have had little time to work on chert."

Kathleen Fernald Simpson (BS '82) is a staff geologist with Sonat Exploration in Houston. "All is well for Paul and me here in Houston. Work is going well for us both. Hope to get up to Austin sometime soon."

Samuel Sims (MA '57) is a consulting geologist working with the local limestone industry in Bethlehem, PA.

R. Sam Singer (BS '61) is manager of reserves and acquisitions for Pennzoil in Houston. "Busy with Pennzoil vs. Texaco. We must support oil production companies if we expect to survive OPEC."

David Skidmore (BS '77) is president of Skidmore Exploration, Incorporated in Nocona, Texas.

Steve Slaten (BS '82) is a consulting geologist in Weatherford, Texas.

Tommy Smiley (BS '51) comments, "I have retired after 33 years with the government. We are enjoying the climate here in San Antonio and just relaxing. Our son who received his law degree from UT in 1980 is presently with the student attorney's office there and enjoys UT and Austin very much. We are going to try to spend a day on the campus presently and plan to take a tour of the department while we are there."

A. Richard Smith (BS '64) states, "Olin Corporation and I parted company amicably after ten years. I'm now consulting (and that doesn't mean unemployed!) in Houston. Most of my work is managing non-operated oil and gas properties for investors."

Anne Smith (BA '83) is doing some geological consulting for an Austin independent oil company. Ann has also been researching oil and gas records at the Texas Railroad Commission for a research company based in Houston. She and Judy Gaylord Ingham (BS '81) took trips to Australia and Fiji to study beach processes in February.

Barbara Blaisdell Smith (BS '78) says, "I am enjoying the good life of being a full-time mom (Bryan, born November '85). My rock collection proves to be the best toy money could *not* buy!" Barbara lives in Plano, Texas.

Bruce Dixie Smith (BS '58) is practicing maritime law with the firm of Fulbright and Jaworski in Houston. He and his wife, Marja, travel extensively and continue to enjoy the good life.

Daniel L. Smith (BS '58) has been "very active in AAPG and the Houston Geological Society in recent years. I am currently the president elect of the Houston Geological Society, and will become president on July 1st for the 1987-88 year." Dan is executive vice president and exploration manager of Texoil Company in Houston.

Harry L. Smith (BS '51 MA '56) "became a grandfather for the first time on April 2, 1987, when daughter Sheryl had a son in Austin. My son-in-law, Terry Rodgers, is an assistant park manager at McKinney Falls State Park. Sheryl is in the promotion department of the *Austin American-Statesman*, where she is a writer. Son Steve works for Enron in Houston and plans to marry in July. My wife, Marcelle, is checking the above for accuracy and misspelling!" Harry is an oil operator in Boerne, Texas.

Joseph T. Smith, Jr. (BS '50, MA '56) says that after 32 years in the profession, he is looking forward to retirement. Plans have been made to the extent of acquiring a retirement home in Fredericksburg, Texas. He still hasn't decided when this will happen. Currently, Joe is manager of geology with Sun Exploration and Production Company in Plano, Texas.

Paul K. Smith (BS '84) is a waterpark manager for Fame City Waterworks in Missouri City, Texas.

James Smits (MA '82) writes, "Monica has opened a clothing store, ASPEN TRADERS. I am working for Berexco, Inc., active in southwest Kansas exploration." James and Monica make their home in Wichita, Kansas.

John L. Snider (MA '54) retired from the Water Resources Division of the US Geological Survey on June 3, 1986. He now lives in Pineville, Louisiana.

Memrie Wilson Soderman (BS '85) comments from Houston that she and John (BS '85) celebrated their one-year anniversary on April 19, 1987.

George Russell Sparenburg (BA '30 MA '32) sends his response from Kerrville, Texas. "In 1982, my wife Orlena and I moved from the Houston area to our new home in the Guadalupe River Valley. We still enjoy living in the Hill Country, and attending the occasional meetings of the Hill Country Geoscientists. I have been in commercial real estate rentals, and am now getting out. Research, publications, children...zero to all of them. Jobs: several." Russell challenges any of the alumni graduating in 1932 or earlier to send in their remembrances of their time at UT Austin. "Does anybody besides Dr. Bullard remember the 'Old Main Building'? 'Q Hall'? Dr. Bybee's lectures?..."

Fred D. Spindle (BS '49), retired in Sugar Land, Texas, writes, "Having survived early retirement programs and being the 'axman' for many of my young staff, I read the tea leaves of my company's near term future and the industry's problems and opted out when I reached the age necessary to get my lump sum. Now I battle the stock market, rapidly thinning hair and a tendency to slice the golf ball. Since I have been away from home for

about two-thirds of the time since graduation, my wife of 40 years and I are getting reacquainted. I am helping her as best I can in her quest for a black belt in bridge - otherwise known as a life master. I have proved to be a natural 'dummy' in the bridge game, which means I don't get chastised in public, at least not very often. Geology treated me well, and I can't imagine a life that wasn't tied to thrills of discovery and even the agonies of high and dry! Time and consumption will again restore some normalcy to the industry - I only wish the young people and more especially the not-so-young - could have been spared this terrible ordeal which many are undergoing."

Maria Spitler (att. 9/79 - 12/82) is presently living in Austin. "After graduating in geography I went to Barcelona to teach English to young people. It was an interesting experience."

Cathy R. Stallings (BS '79), a geologist for the Texas Water Commission in Austin, writes, "Still enjoy living in Austin. I like being on the regulatory side of the environmental protection business."

John Stanford (BS '49) is semi-retired in Austin, but still keeping up with the Gulf Coast drilling activity.

Theodore E. Stanzel (BS '56) is retired in Houston.

Walter W. Stein (BS, MA '52) is an independent oil producer in Dallas. "A great many of the vexing problems presently being faced by the independent oil producer could be alleviated by \$28.00/bbl oil."

Sheree Lynn Stewart (BA '84) is "still enjoying my work as an environmental scientist for HDR Techserv, Inc., in Santa Barbara, California. I generally spend about half my time doing research at UCSB on health risk assessments and current environmental issues. I recently attended an interesting conference on indoor air quality in Washington, DC. I enjoy the opportunity to travel a lot. I miss Texas, but could never complain about living in 'paradise'! Lots of new hobbies...I am a crew-member of a sailboat that races every Wednesday. Learning to play golf now, too, and I still hike the mountains often. By this time next year, I hope to be a commissioned officer in the Naval Reserve. Hook 'em Horns!"

Bill St. John (BS '58, MA '60, PhD '65) is president and director of Primary Fuels, Inc. in Houston. "I remained on the payroll although 1986 was a disaster for the company and its stockholders. Firming prices have 1987 looking better. I have genuine concern for our nation when the coming natural gas shortage hits, as it inevitably will!"

Richard Stoneburner (BS '76) is vice president of Romoco Resources in Richardson, Texas.

Glenn Storrs (MA '81) comments, "After receiving my PhD from Yale in 1986, I have accepted responsibility for organization and curation of the Princeton Collection of fossil vertebrates, now housed at Yale Peabody Museum of Natural History." At present, Glenn lives in New Haven, Connecticut.

Michael Stowbridge (BS '82) is working as a geologist for Polk and Patton, Inc. in Abilene. "Dr. (Dick) Bloomer is famous here for his work on channel sandstones. Mapping these sands is an endless challenge and I'm lucky to have the chance to work on them, too!"

Robert Stowers II (BA '86) is a graduate student in geology at Mississippi State University in Starkville, Mississippi. "My research topic is titled 'Stratigraphy and geochronology of Quaternary eolianites on southern San Salvador Island, Bahamas.' My wife and I plan on returning 'home' to Texas in 1988, so I can seek employment in the petroleum industry."

Michael Strickler (BS '78) lives in Houston where he is geological manager of Trafalgar House Oil & Gas.

Carroll Stroman (BS '58) is owner of Bitter Creek Farm in Sweetwater, Texas, and has recently established a sheltered work program, Covenant Growers, Inc., for developmentally disabled adults. They now have three state contracts for services using this work to provide training and employment for clients.

Eric Stroud (BA '81) is a general partner with Herbert Minerals in Fort Worth.

George Sutherland (BS '84) writes, "I am still working for Anadrill/Schlumberger since one month after graduation, two years ago. Drilling engineering has become my main emphasis, however. Still hoping to get into basin analysis on a more exploratory/research level. The last six months I have not had to go offshore, or to a rig site and it feels good. I am working more at an interpretation level. I would like very much to hear from old class friends. 504/525-2611." George lives in New Orleans.

Leonard J. Svajda (BS '40) is a retired geologist/dentist in Houston. Leo comments, "Cee and I are grandparents to a bright handsome lad of four years named Matthew as well as having a beautiful grand-daughter age three months whose name is Lindsey; her brilliant mother wanted a name that would flatter both Grandma (Cee) and Grandpa (Len). Clever, eh? Had the fine fortune of locating my very dear friend Raymond A. Riley who was in our Geology 1940 Class. He was with the Houston City Water Department for years. Still lives in Houston. Might say here that after ten years of marriage without children, Cee and I began adopting babies and finally stopped after we filled the car with

Teresa, Robert, James, Kathryn and Thomas. Really liked Roy H. Guess' poetic philosophy in the 1985 alumni news. He, too, was in the Class of 1940. From what you say, Roy, I surmise that you despise the guys who criticize and minimize the other guys whose enterprise has made them wise and given them rise above the guys who criticize and minimize the other guys. Hope more of you 1940 men come to my rescue after all this foolosophy. Surely, a lot of you are still out there somewhere! My brother Jerome and I both abdicated from our positions with Gulf Oil after about 14 months of service as geologists, volunteered (Army) for the draft, then got caught by the declaration of war on the eve of our serving our one year. As a result, both of us had about 16 months more of military life than the average GI in WWII. We had been roommates all thru our pre-college days, then spent four years as roommates in the first ever privately owned mobile home to be located on the campus property exactly where the Alumni Center is located today, and were compelled to move our mobile home because we had begun a fad and Dean Arno Nowotny had no place to put those coming after us; to keep peace we had to move our unit behind the Czech House at 1906 Speedway. Our very primitive 'box-on-wheels' which measured 8' x 14' was a magnet for the curious, and it was not uncommon to have as many as eight male students at a time lying on the bed and all over the floor cramming for an exam. Our two-burner had to work overtime making french-fries for this crowd. When WWII ended, Jerome and I both enrolled at the UT Dental College in Houston and graduated in Dentistry in June of 1950. We had always wanted to be dentists, but Dad did not have the funds to put two boys thru six years of college. The GI Bill did it for us - having been in dentistry for some 37 years now we have lost contact with our classmates in geology, so your *Newsletter* is a most welcome item for me. Keep it coming."

Eric Swanson (MA '74, PhD '77) is an associate professor of geology at UT San Antonio. "Moved into a new house, have two children, age five and two. I am graduate advisor for a new MS program in geology at UT San Antonio."

Patrick Talamas (BS '81) reports, "I have been working at Placid Oil as a geologist for five years, and it's never been dull. One year we'll set drilling depth records in the Gulf of Mexico and the next we'll spend in bankruptcy court trying to get funds to drill 2000' Wilcox development wells. It's truly a dynamic business!" Patrick resides in Dallas.

James Tartt (BS '48) is retired and enjoying doing the things he wants to do in Houston.

Leslie Armour Taylor (BS '41) is retired in Austin.

Dick Teel (BS '39) writes, "I retired from Amoco Production in July, 1986 after 40 years in the exploration department. In August of that year I went to work for Petroleum Information in Houston as geological systems consultant. In March, 1987 I was on a tour of Tahiti, New Zealand, Australia and Fiji. I plan to go to Africa sometime this year on a hunting safari."

Robert T. Terriere (PhD '60) is continuing to enjoy retirement in Lakewood, Colorado, and having no trouble keeping busy, "though less and less of my time is spent on geological activities. With all the family in other areas, there seems to be little excuse to get back to Texas, although I continue to remember my friends there."

Megs Testarmata (MA '78) is a marine technician for the University of Alaska Seward Marine Center in Seward, Alaska. "Have spent the last 2 1/2 years living on a boat in Seward, and working various part-time or seasonal jobs (teaching community college geology and math, swimming instruction, surveying). Am now a technician on the university's oceanographic research vessel. Sea kayak and cross-country ski in my free time. I moonlight as a fisherwoman for halibut and shrimp. Enjoy marine life, but not always the seas!"

C.B. (Tim) Thames, Jr. (BS '53, MA '57), an attorney and petroleum consultant in Bismark, North Dakota, reports, "We are doing well here in the North Country. Practicing oil and gas law, some consulting, and operating a small producing company. We do a little walleye fishing, try a few cases, and drill a well now and then."

E. Eilene Theilig (BS '76) completed her PhD at Arizona State University in December, and is now working as a National Research Council Associate at the Jet Propulsion Laboratory in Pasadena, California. "I would enjoy hearing from any of the great group I went to school with. If you are ever in the LA area, give me a call!"

Bert C. Timm (MA '41) is a consultant and gas supply expert in Plano, Texas. "Since the crash of the petroleum industry I have found little need for geology or exploration and development. I am applying my skills to gas supply and marketing. We buy in Louisiana, Texas, New Mexico and Oklahoma and market in 12 major northern cities. But it is not as exciting selling old discovered supplies as it is creating the prospects and finding the new."

Laurie Thomas (BA '85) is a tenant coordinator for an office building developer



May, 1966 Field Trip, Al Scott's Coastal Processes. Peggy Walkington Harwood (far left), Al Scott with backpack, Susan Burton Longacre (second from right). Photo sent in by Gerry Barton.

in Dallas, and is one-third of the way through her MBA at UT Dallas.

Jennifer Thompson-Hare (BS '86) has been working for Texas Instruments in Dallas since 1986 doing research in magnetics, and hopes to return to graduate school soon to do work in structural geology or geophysics.

David Tolces (BS '85) is a law student at University of Florida in Boca Raton. "Just a big hello to all my friends from field camp 1985! If anyone is near Gainesville, stop by!"

Robert Joe Tondy (MA '76) is owner of Tondy Interests, Inc. and Tondy Energy Systems, Inc. in Houston.

Elsworth (El) Tonn (BS '55) is president of Ramel Corporation in Houston.

Donald H. Torgerson (BS '52) is retired in Littleton, Colorado and "traveling to places not seen before - enjoying every day."

John M. Townley (BS '54) writes, "Although I have worked at historical research for almost twenty years, I still keep licenses in geology and engineering geology (California) valid. A UT degree must have had some influence since most of my publications in history have been in natural resources (water, mining). My most interesting project has been a recent detailed inventory and appraisal of the 3000 cubic feet collection of geological data recently donated by Anaconda Minerals Corporation to the University of Wyoming. Next major project is a bibliography of the history of mining and mining districts worldwide. It would be pleasant to hear from some of the Class of '54 - will there be a 25th graduation party?" John continues as

director of the Nevada State Historical Society.

Brian Trask (MA '72) is an associate geologist with the Illinois State Geological Survey and is living in Champaign.

Everette Travis (MA '51) is "retired - but not tired" in Buchanan Dam, Texas.

Robert F. Travis (BS '57) comments, "Nothing new! I guess that is good - no new loss of jobs, no new foreclosures, no new visits from the sheriff." Robert is vice president of exploration for Royal Oil & Gas in Corpus Christi.

Arthur J. Tschoepe (BS '50) is an independent geologist in Corpus Christi. "I take great pride in the fact that all six of my daughters have now graduated from college, and my wife and I are thoroughly enjoying our seven grandchildren."

Delos Tucker (PhD '62) is a professor of geology at Glendale Community College in Glendale, California. Del, who experienced some health problems in early 1986, writes, "I'm running and playing racquetball, and feel great! I took this year (86-87) as a sabbatical leave and have travelled a lot. I am finishing up a paper for the GCAGS, and developing prospects in south Louisiana."

Edd R. Turner (BA '43) is retired and living in Kerrville, Texas. "After serving one year on the Kerrville City Council, I have been elected Mayor Pro Tem. Geological background has helped me much in water supply, sanitary landfill and street and road building considerations. But, believe me, geology is better than politics!"

Lee Roy Tydlaska (BA '49, MA '51) retired from Amoco in July, 1986 after 35

years. Lee Roy is presently doing consulting in Metairie, Louisiana, and waiting on the next surge in exploration, "sometime in 1988."

Martin B. Ullrich (BS '75), an independent geologist in Houston, writes that "geologists are thinning out a bit in Houston. Hope to see friends at the football games this fall."

L. Scott Underwood (BS '85) is a geologist for Hall Southwest Water Consultants in Austin, monitoring water conditions in local aquifers associated with Wilcox lignite deposits in east Texas. "Have one wife, one son and one dog."

Don Urbanec (BS '60, MA '62) is an independent geologist in Boerne, Texas and comments that "things have not been a bed of roses the last two years, but I see a light at the end of the tunnel."

Robert Valerius (BS '59) is an independent in Corpus Christi. "If there is to be a recession in 1987, as there was in 1986, I've elected to go non-consent."

Amy Wharton Vanderhill (BS '83) writes that she has been transferred to Midland from Dallas by Mobil, and is now working in production geology. **Jim Vanderhill** (PhD '86) has relocated to Midland with Amy. They are looking for a house and hope to be settled by Christmas.

Tracy Vaught (BS '77) is still operating her restaurant (Backstreet Cafe) in Houston. Tracy comments that she is still single, no kids.

Harry A. Vest (MA '59) is retired in Houston. "Just playing golf and the stock market - nothing new there - they are both going up!"

Robert (Bob) Vickers (BS '47) is a semi-retired investment consultant in Abilene, Texas.

M. C. (Morty) Vinson (BS '51) is owner of Vinson Exploration, Inc., and president of Vinson Drilling in Midland.

Kenneth D. Vogel (MA '85) comments from The Woodlands, Texas, "Laura and I are proud parents again! Eric Easton Vogel was born March 12, 1987. Ryan Matthew is now a very energetic toddler going on two years old - and he loves to play with Daddy's rock collection! I am currently employed by Exxon, USA in the Offshore/Alaska Exploration Division out of Houston. After sitting the most remote wells ever drilled offshore North America (Navarin Basin, Bering Sea, Alaska), I've moved inland and am now assessing the petroleum potential of interior Alaska. Last summer included one month of helicopter-supported fieldwork - sure beats the heck out of foot-powered graduate field work! Hopefully this summer will offer more of the same."

Curry Vogelsang (BS '60) is an attorney in Sherman, Texas.

William Vrana (BA '39) says, "My wife Joyce and I, also our sons Larry and

Randy, have lived in Corpus Christi since 1953. This is a fine city and we plan to spend the remainder of our lives here. The city growth is orderly so perhaps we will be spared some of the problems which some of the larger cities have encountered." William is a consulting geologist.

Martin James Wachel, Jr. (BS '56) is superintendent of the Field Production Division of Texaco - Kuwait. He is "still working in partitioned neutral zone for the joint operations (Getty Oil Company/Kuwait Oil Company). Activity centered around workovers, repairs of casing leaks, etc."

William R. Waddell (BS '38) is an independent geologist in Houston. "I am worried about the US becoming so dependent on foreign oil. The powers in Washington have just agreed to buy Canadian gas, and a well I have an interest in is shut in as a result of this. We need to show the public a better image of the oil industry."

Andrew H. Wadman (BS '84) is a processing geophysicist with Digicon, Inc., in Houston.

A. H. (Al) Wadsworth, Jr. (BS '41, MA '41) is owner of Wadsworth Oil and Dorado Mining Company in Houston, and serves on the SIPES Foundation board of directors.

Richard B. Waitt (BS '66, MA '70), a geologist with USGS in Vancouver, Washington, is doing research on recent and Holocene volcanism and on non-volcanic surficial geology in the Pacific Northwest.

Joe D. Walker, Jr. (BS '51, MA '54) notes, "I retired from Aminoil USA as explorationist. My retirement was hastened by Phillips Petroleum's 'buy-out.' I am presently acting as an independent in the south Texas Eocene. I have lots of interests and hobbies, and reasonable to good security. I would like to thank the editors of the *Newsletter* for keeping me in touch with the other geology alumni." Joe lives in Houston.

Gus W. Walla (BS '49) is retired and living in Houston.

Joseph Walter, Jr. (MA '51) is president of Walter Oil & Gas Corporation in Houston.

Rusty Walter (BS '80) is executive vice president of Walter Oil & Gas Corporation and living in Houston.

Anne H. Walton (MA '86) is working on her PhD at Southern Methodist University in Dallas.

Anthony W. Walton (MA '68, PhD '72) is chairman of the Department of Geology at the University of Kansas in Lawrence.

Bernie Ward (BS '55) is an independent petroleum geologist in Tyler, Texas.

William C. Ward (BS '55, MA '57) and **Kathleen Agnew Ward** (BA '57) write, "Last summer we visited our son in his dissertation field area in a remote part of Northwestern Australia. He is

working in the famous Devonian reef complex in the Canning Basin - great rocks! On the way to Australia we stopped to visit Texas Exes Bob and Wynne Warren Hall, who live in a beautiful area south of Brisbane. Also took a side trip to Guilin, Southern China, where we were guests of the Karst Institute. More Devonian limestone in the spectacular Tower-Karst Hills around Guilin." Bill is a professor of geology at Louisiana State University in New Orleans, and Kathy is a high-school science teacher. This summer Bill and Kathy will spend a month in Mallorca (Spain) to sample Miocene limestone.

Ralph H. Warner (MA '61), a consulting geologist in Humble, Texas, is "still trying to hang on in the oil business. I think I recognize the cycle from 30 years ago in 1957 when I went back to UT to take up geology and most geologists were looking forward to being shoe salesmen. This too shall pass. Youngest daughter Julie is preparing to enter UT as a freshman. Looking forward to '88 when business is great."

Kenneth Warren (BA '34) is an investor in Dallas. He and his wife Emma will celebrate their 50th wedding anniversary in August, and are planning a two-week cruise on the Cunard Princess departing from Vancouver.

Leslie L. Warren (BS '85) is a geological technician with Pringle Petroleum in Houston. Leslie writes that she and Scott recently celebrated their one-year anniversary with a trip to Ixtapa, Mexico, and are proud to announce the addition of Smokie, an eight-month-old Golden Retriever, to their family.

Wm. E. (Ed) Watkins (BS '54) is president of Lindsay Water Conditioning of Austin. "I retired after 33 years as owner of Acme Rubber Stamp Company in Dallas, and relocated to the Hill Country. The new direction of a career in water conditioning installation will be very exciting. As distributors of Lindsay Water Conditioning of Austin for Travis and surrounding counties, I expect to build a lasting and gratifying new business in home water purifying system."

John Allen Watson (BS '56) is a hydrologist in Austin, and is associated with Creation Evidences Museum and Archeological Excavations of Glen Rose, Texas, and with Genesis Institute in Richfield, Minnesota. John researches geology and hydrology as they relate to scientific creationism. "Presently I am extensively involved in researching the geology, paleogeography, and hydrology of the Middle East, and in research of the Bible for its full input into these sciences. Tectonics and historical geology of the Dead Sea Rift are my focus right now, and my hope is to publish this year."

Albert W. Weeks (PhD '41) is retired and living in Wynnwood, Pennsylvania.

Bonnie Weise (BS '74, MA '79) has been busy enjoying life in San Antonio and consulting on a full-time basis. Bonnie is also getting ready for the 1987 GCAGS meeting, serving as vice-chairman for GCS/SEPM.

Frank Welder (BS '49) is a retired geohydrologist living in Meeker, Colorado. "My wife Jean and I spend our summers in the mountains of northwest Colorado and usually sail and beach-comb at Port Aransas in the winter."

James A. Wheeler (BS '47) is president of James A. Wheeler, Incorporated in Houston, where he continues to maintain an office, "but there is very little consulting work in exploration and development geology. At this point in time I should consider retirement, but I find it very difficult to quit doing something I enjoy."

David J. White (BS '41) is retired and living in Austin. David writes, "I am enjoying retirement from Texas Department of Water Resources by doing volunteer work and by reading books on many subjects, such as the Civil War, the US exploration and settling of the western US, other history books, fiction, medical technology, geology and hydrology."

Hugh G. White, III (BA '52) is a consulting geologist in Midland, where he is involved in "advancing and concentrated poverty as the oil and gas business gets worse. One could say we are all involved in 'sour gas', but that may be 'sour grapes'..."

Leslie P. White (BS '56), a geologic advisor in Tyler, Texas, has "the same old house, same old job, I'm happy to report. The oil industry has had its ups and downs, but being a geologist working in geology for 30 years has all been up."

Robert R. White (BA '64) is a hydrologist in Albuquerque, New Mexico. "The *New Mexico Historical Review* will publish an article of mine this summer on the first US Geological Survey employee murdered in the line of duty - which happened near Albuquerque in 1880."

Steve White (BS '78) is a consulting geologist in Tyler, Texas.

Charles D. Whiteman, Jr. (BS '58) is a hydrologist with the US Geological Survey in Denham Springs, Louisiana.

F. L. Whitney (BS '43) is retired and living in Kerrville, Texas.

Marion I. Whitney (BA '30, MA '31, PhD '37) is enjoying retirement in Shepherd, Michigan, and is currently doing research on wind erosion.

Fred Wiegand (BS '69) writes, "In 1986 I worked for the commander of the Southern US Command on the staff of Four Star General John Galrin, in the Republic of Panama. My wife Charlotte and I have just had a new son,



Spring, 1941 Sigma Gamma Epsilon initiates, Bull Creek. Top row, left to right: Jack Kern, Harry Phillips, Jack Hughes (?), Louie Sebring. Bottom Row, left to right: Rex Alcorn, Homer Wilson, Howard Gibson. Photo sent in by Homer Wilson.

Douglas Charles Wiegand. We live on the Wiegand Ranch near Lockhart, Texas."

William David Wiggins (PhD '82) is an exploration geologist for Chevron Oil Field Research. Currently, he is "on loan" to Chevron Canada Resources in Calgary until 1988.

Roscoe C. Wilber, Jr. (BS '37) is a retired geophysicist in Seguin, Texas. Roscoe keeps busy working in the yard and garden, and doing maintenance work around the house.

Bill Wilbert (MA '63) is an independent geologist in Helotes, Texas. Bill comments, "I am editor for *GCAGS Transactions* for 1987. I've been independent by choice since 1982, and am now working serpentine plugs, Wilcox, and Cretaceous out of San Antonio."

Michael A. Willey (BS '57, MA '63, PhD '70) is president of The Consulting Operation, Inc., with offices in Phoenix, Arizona and Framer's Branch, Texas.

Bruce Wilkinson (PhD '73), a professor at the University of Michigan in Ann Arbor, writes, "Got promoted, got funded, got pregnant, got a daughter, got a farm, got two horses, two goats, ten ducks, eight geese, six cats, twenty chickens, and three dogs. Honest!"

James L. Williams, II (BS '81), a geologist in Corpus Christi, comments, "I am a newlywed! My wonderful bride, Shannon, joined into our holy partnership

on January 24, 1987. Our business is stable with a slight upward swing recently. Thank you, Sheik."

James Richard Williams (BS '50) is a semi-retired consultant in Bullard, Texas.

Mark Williams (BS '50) is a petroleum geologist in Wellington, Texas.

Robert R. Williams (BS '54) is a geological consultant in Dallas.

Susan Williams (BS '86) is a flight attendant with American Airlines in Chicago. "Hello to the Class of '86! I'm out of the business and out of the state right now, as I'm living in Chicago and doing a stint with American until the industry picks up. Look for me when you fly! Best wishes in all your endeavors!"

Duncan Wilson (BS '50, MA '51) is busy running his ranch in Fort McKavett, Texas.

Homer C. Wilson (BS '42) is a volunteer docent with the Dallas Museum of Natural History, continuing his association with the academic side of geology. Although he works primarily with fossils and minerals, Homer finds that the younger tour groups (grades 2-6) much prefer programs on dinosaurs!"

James Lee Wilson (BA '42, MA '44) writes, "In 1986 my wife, Dell, and I returned to Texas and moved to New Braunfels after I retired from the University of Michigan. I am continuing work in Mexico and overseas, doing some

consulting but mostly writing on aspects of carbonate geology."

William Feathergail Wilson (BS '60, MA '62) is vice president of exploration at Placid Oil in Dallas. "I'm working with NASA on the Bee Bluff meteor crater south of Uvalde for recreation in these trying times."

Jan Winter (PhD '61) comments, "The last two years I have held the position of managing director for Floyd Oil Participation in London, a small British oil company. London has become my hometown and I am still enjoying its cosmopolitan atmosphere. Maureen, my eldest, has a job in France to brush up on her French, and Nicole is at Long Island University studying Business Administration.

Robert L. Wood, Jr. (BA '56) is executive vice president of Occidental Oil and Gas Corporation, and president of Occidental Crude Sales, Incorporated in Houston.

James T. Woodman (MA '75) is a geophysicist with Exxon in Houston.

Arnold Woods (MA '81) is a senior geologist with Conoco in Ponca City, Oklahoma. "I'm working in their International Exploration Division. Just back from four months in Tunisia, heading to Angola in June, and Gabon toward the end of the year. Next year's projects, as of now) include Ireland, Ecuador, and Italy. Aside from traveling, I'm also involved in a telecommunications

project, and a couple of computer application projects. I'm still chasing women, but they seem to run a lot faster now."

Charles R. Word (BS '37) reports, "I retired in 1978, but still maintain my office. My wife and I love to travel - have been to Scandinavian countries, Russia, China, Germany, Italy, England, Greece, Egypt, Jordan, Hong Kong, Singapore, Bangkok and several other places. I love to hunt and fish and have done both in Alaska and China. Our children graduated from UT, and our oldest daughter is in charge of the costume shop in the Performing Arts Center. Our middle daughter lives near Kerrville, Texas, and our youngest is living in Houston. She is a dancer and choreographer. We try to make all the home games each fall." Charles lives in Conroe, Texas.

Charlie Workman (MA '61) is teaching 10th grade algebra and geometry in Monterey, California.

Gail Fisher Worrell (BS '82) is a geologist with Exxon in Midland, and writes that her husband, Danny (BS '80) will be starting law school at Texas Tech University in the fall of 1987.

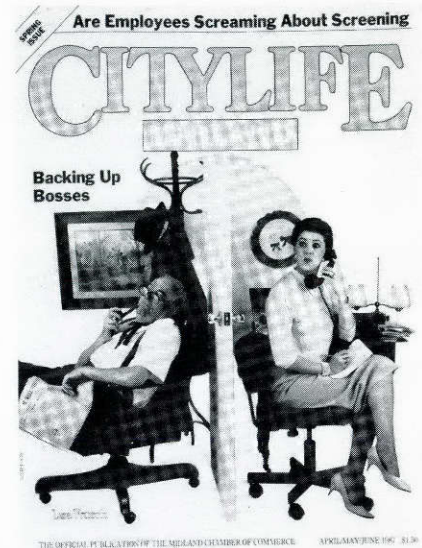
David Worthington (BA '86) is doing consulting in Austin.

Phillip E. Wyche (BS '51) is retired from Gulf Oil Corporation, and has recently moved into a new home at Lakeway near Austin. He continues to be active on the Geology Foundation Advisory Council.

John C. Yeager (MA '60) writes, "I became an independent in February of 1987 after being with two companies that closed their offices because of the oil recession. Russ graduated from LSU in May, 1986 and will go on staff of Campus Crusade for Christ at Rice University in Houston in September. Katy will graduate from high school in May, and youngest daughter, Ann, is a sophomore in high school. Always enjoy the *Newsletter*, keep it coming!" John lives in Lafayette, Louisiana.

Michael L. Zientek (BS '76) is a research geologist for the US Geological Survey in Menlo Park, California.

James B. Zimmerman (MA '50) is a consulting geologist in Midland, and does some modeling on the side (see picture at right). "The oil business is not too good these days. A geologist has to be flexible to make a living!"



James B. Zimmerman (left)

(Editor's note: We acknowledge the generosity of the Midland Chamber of Commerce for allowing us to reprint the cover of the spring issue of CityLife Magazine.)

We are anxious to keep your current address on our mailing list, and, therefore, solicit your cooperation in advising us if your 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.

The Editors

We want your photos of past field camps, field trips, Department social functions, etc. for future Newsletters. We will return your pictures after making copies if so desired.



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DEPARTMENT OF GEOLOGICAL SCIENCES
THE UNIVERSITY OF TEXAS AT AUSTIN

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Dear Friends of the Department:

An unprecedented tragedy has struck the Department of Geological Sciences. Harlan Tod Sutherland, age 24, was murdered near Fort Bragg, California on July 31, 1987 while doing field work for his M.A. thesis under my supervision. I would like to give you a bit of background and share the eulogy (on back) that I gave at Tod's funeral.

Tod's father was a career pilot in the U.S. Air Force. Consequently, his family lived in many cities across the United States, including Austin where Tod attended Bedichek Junior High and Crockett High School while his father was stationed at Bergstrom Air Force Base. He graduated from Carroll High School in Fort Wayne, Indiana in 1981 where he also was a Golden Gloves state champion boxer. Tod's family moved to Berkeley, California when his father retired from the Air Force. He received a B.A. degree in Geology from the University of California at Berkeley in 1985 and was employed for one year at Chevron Geosciences Company in San Ramon, California as a geophysical technician working on seismic data processing. He then fulfilled his dream of returning to Austin and attending the University of Texas by entering our graduate program in September, 1986.

Tod was killed instantly from a single gunshot to the back of his head. It occurred while he was standing on an outcrop from which he was collecting the final rock samples he needed for his thesis research. He probably never knew what happened. He had been to this outcrop near the north end of Westport-Union Landing State Beach several times before and this visit was on his last or next to last day of field work, after nearly 6 weeks in the area. His wallet and camera were stolen. The murderer has not been caught but an intense investigation is underway. Faculty and friends of the Department have established a reward fund for information leading to the arrest and conviction of the perpetrator of this senseless crime. We remain optimistic that some small justice will be done.

Tod is survived by his parents, Mr. and Mrs. Harlan T. Sutherland who reside at 934 Shattuck Ave., Berkeley, California, 94707, two sisters, Tammy and Lisa, his maternal and paternal grandmothers and a host of friends across the United States.

The creation of an endowment for a Harlan Tod Sutherland Scholarship was proposed by his fellow graduate students as a permanent living memorial which will help future generations of students attain those career goals so tragically denied of Tod. Contributions can be made to the Harlan Tod Sutherland Memorial Scholarship in the Geology Foundation.

Sincerely,

A handwritten signature in cursive script that reads "Mark Cloos".

Mark Cloos
Associate Professor
August 31, 1987

EULOGY PRESENTED AT TOD SUTHERLAND'S FUNERAL

Mr. and Mrs. Sutherland,

Family,

Friends of Tod.

This is most difficult for me. I am used to speaking but always with color slides of tall mountains and such in the background.

The 200 graduate students, 35 faculty, and 20 staff in the Department of Geological Sciences at the University of Texas at Austin have been stunned, as you are, since Monday. I represent them.

Today the Texas and U.S. flags on the large poles on the South Mall in front of the Main Tower of the University are flying at half-mast, in memory of Tod. At this very moment, some of Tod's fellow students, teachers and Departmental staff are at the South Mall.

Over the six years I have been at Texas I have often stopped to look at the plaques that are put on the poles when they fly at half-mast. Today its not the rare case of someone I vaguely heard of, but its for someone I considered to be a very special person - one of MY students. It is so hard to believe.

I cannot begin to answer the question of why it happened but I can answer why Tod was at the beach that day for I was the supervisor of the research project for which Tod was collecting rocks. I can also give you my insight into Tod's last year, what he had done and where he was headed.

What was he doing at the beach?

A graduate degree in geology involves taking classroom courses and doing a research project which will be written up as a thesis. During the past year Tod had nearly completed all of the course requirements for a M.A. degree. He had done superb in the classroom. He was now working on his thesis research project. He was excited by it and I think he would like each of you to know something about what he was trying to accomplish.

Most theses in geology involve field work of some sort. Every summer there are 1000s of geologists climbing mountains, sailing on research ships or as in Tods case, working on beach exposures. Travel and working outdoors is what gets most of us into the business. It was one of the big attractions to Tod.

Tods thesis research project was aimed at understanding how water escapes from sedimentary rocks deposited on the ocean floor that become deformed where the Earths tectonic plates converge. This is now occurring off of Oregon and Washington. It occurred along California until the San Andreas Fault developed and the rocks were uplifted to form the Coast Ranges; to form the Berkeley Hills. Explosive volcanoes and great earthquakes are the effects of tectonic plate convergence that most of you are best aware of. They are some of the things that attracted Tod to Geology.

Tod wasn't working on volcanoes or earthquakes, directly. His research was aimed at collecting new information about rock waters that precipitated the white colored veins of the minerals quartz and calcite. This is what he was searching for on the beach. He was going to bring the mineralized rocks back to Austin and analyze them in various ways over the next year.

The results of this work would tell us the temperatures and compositions of the waters once in the rocks. This information in turn would give us some new understanding of the mechanical and chemical properties of the rocks and ultimately something more about explosive volcanoes, great earthquakes.

Basically Tod was working on one small piece of the enormous jigsaw puzzle that so fascinates those of us who call ourselves geologists. That puzzle is understanding how the Earth works.

Tod was doing science. He enjoyed it. And I was the one in the special position of teacher watching him change from student to attain his chosen career objective of earth scientist.

I spent over a week with Tod in the middle of June taking him to rock outcrops that show important geologic relationships in central and northern California. We camped and stayed up late most nights. By the campfire we drank a beer or two and talked about volcanoes, earthquakes, how his new computer would help with his thesis, Golden Gloves boxing, the antics of his new dog Jenny. We also spent a few days as he showed me around his field research areas. He had done his homework for his field work and I was impressed.

He was doing the job and doing it well.

When I last saw him at his family house on my way home to Texas on July 3rd, I felt a confidence and sense of mission in him that left me looking forward to his return to Austin and upcoming laboratory studies.

Tod was doing everything right.

His transition from student to scientist was well underway.

At that time he also told me of his upcoming trip to Lake Tahoe with family and friends. I am so glad that Tod took that trip. Tod loved his family and friends so dearly. He had a special place in his heart for everyone. Always a kind word. Always ready to come to others assistance. In fact, the day before he died he spent time with a family who lived in a house above a beach he was working at to help them decide where to drill a well for water on their property. I am sure he felt unusually good helping these people because he was using the knowledge he learned in a hydrology class he took last spring. Thats the Tod I knew.

Now I will takeover and finish his research project. It will eventually be published with his name on the cover. Its only a small piece of what his life was about. But its a piece I think he would like to see completed.

When I left Austin, students and faculty were working to establish a memorial endowed scholarship in Tods name in our Geology Foundation. Their contributions will create a permanent living memorial to Tod. The monies earned from the endowment will help future students attain the career goals that Tod was so tragically cut short of. I know he would have liked that.

I am glad I knew Tod Sutherland as a person. I wish it was for longer.

I am proud to have had him as my student.

They don't make'em any finer.

Tod, we miss you.

Mark Cloos
August 7, 1987

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.

Editor and Contributor: Joyce E. Best
Assistant Editor: Melissa G. Smith
Photographer: David M. Stephens

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