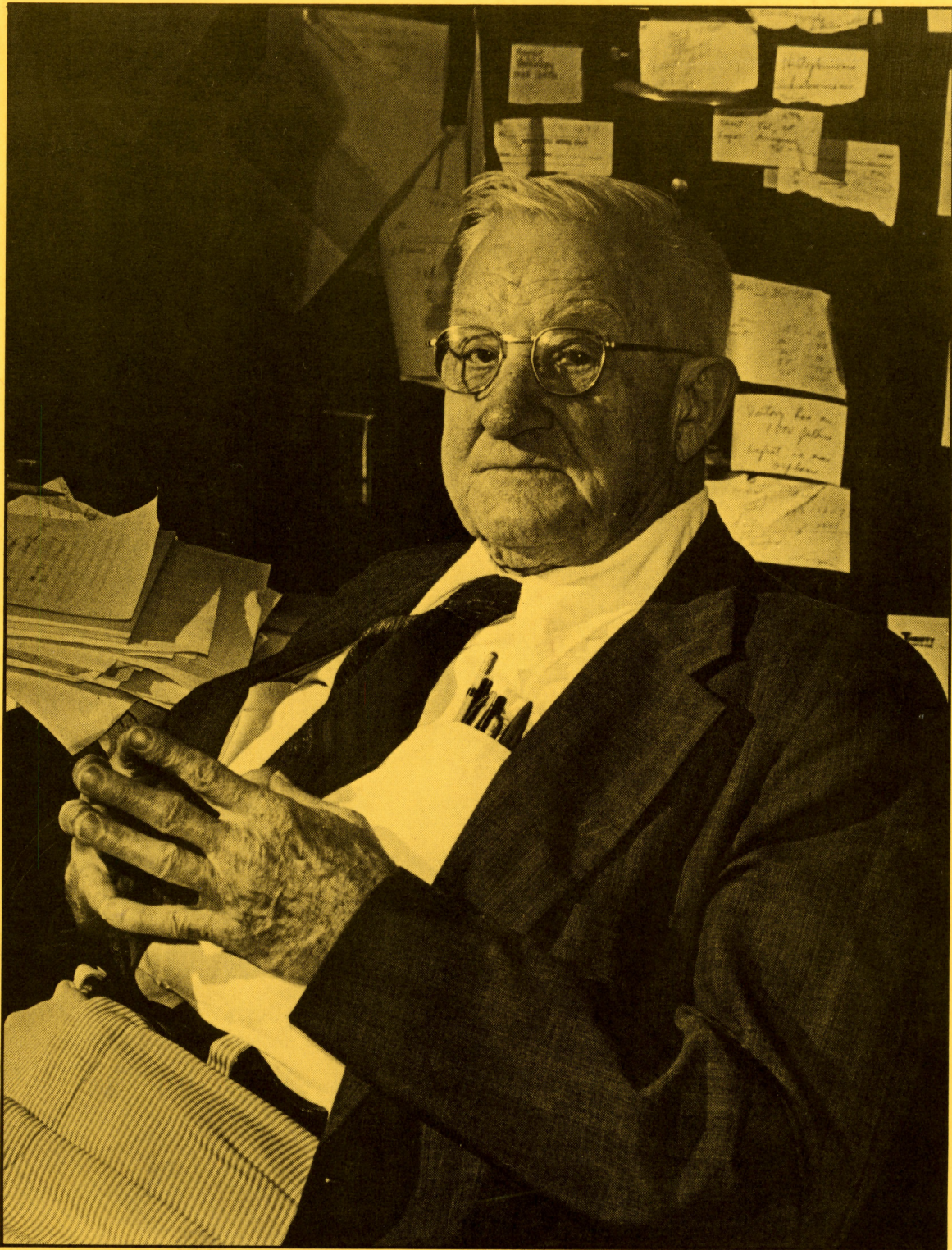


1980 Geology Alumni Newsletter

University of Missouri-Columbia



Keller: 80 in '80

It seems fitting that Walter Keller became an octagenarian in this century's eightieth decade. For six decades Walter Keller has been associated with the Geology Department of the University of Missouri. His career has and still is reflecting favorably on the Department and the University. We are happy, therefore, to feature him in this 1980 edition of the Geology Department newsletter.

We'd appreciate your comments on the newsletter and if you know any Mizzou alumni who did not receive a copy, please tell them to drop us a line.

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Walter D. Keller	1
Publications of Walter D. Keller	2
Note from the Chairman	12
About the Faculty and Staff	14
About our Graduate Students	18
About our Undergraduates	23
Student Awards and Recognition	24
Speakers, 1979-1980	25
Some Special Notes	26
Necrology	27
Alumni News	28
Status of Contributory Funds	44

WALTER D. KELLER

"If you want to cook a pot of beans, you get an iron pot and put the beans in it and put the pot on the stove to cook. The pot protects the beans. But did you ever stop to think, what was the pot made of that held the iron ore when it was being refined? It had to be something that could withstand higher temperatures than iron." This was one of Walter Keller's teaching ploys--to make students think. Another was,

to ask my students in Geology 1, particularly those in the arts and humanities, "on what material do we find the earliest writing?" I'd almost always be told papyrus, but actually that was much later. The earliest records were on clay tablets produced by the Sumerians [early inhabitants of Iran]. So the first writing was on clay. I'd then ask the class, "What are you writing on?" They would look perhaps a bit bewildered because they thought the answer was so obvious. They were writing on paper, they'd say. But I said, "No, you're not writing on paper." Then they would say, "wood pulp." And I would say, "No, you're not writing on wood pulp; you're writing on a thin coating of white kaolin clay. So the earliest writing on record is on clay, and you're writing today on clay."

This fascination with clays has been one of the hallmarks of one of the world's best-known clay mineralogists and one of Missouri's best-known geologists, Walter D. Keller. This fascination is evident in his long career of teaching and research. Walter Keller has been associated with the Geology Department of the University of Missouri more or less continuously since 1921. This association has been mutually beneficial for both. Walt received his A.B. in geology in 1925, an M.A. in 1926, and a Ph.D. in 1933. In between he managed to sandwich in a B.S. in ceramic engineering at Missouri School of Mines (1930) and an A.M. in geology from Harvard University (1932).

Walter Keller has been associated with the Department as an Instructor (1926-1929), and as an Assistant, Associate, and full Professor (1932-1970); he was awarded Professor Emeritus title in 1970. He also served as Departmental Chairman from 1941 through 1945. In addition to his Missouri connection, he has also served as a ceramic technologist for A. P. Green Refractories (1929-31), as Instructor at the U.S. Army University in Florence, Italy (1945), Visiting Professor of Geology at the University of South Florida (1970-73), and as Visiting Adjunct Professor at Texas Tech University (1978). Walt has also served as a consultant, world-wide, and has spent several summers with the U.S. Geological Survey. He remains active in research and in other service to his profession. No longer actively teaching, he did give a "bang-up" lecture to a group of students from Carleton College (Northfield, Minnesota) during their field trip to Missouri last spring.

To review Walter Keller's accomplishments is a mind-boggling task. He has over 150 publications. We include this impressive list for two reasons--it is unlikely ever to be published elsewhere, and it illustrates his breadth of research interests. Walt notes that he is, perhaps, the

only geologist to have ever published in the Journal of Dairy Science (1943). He has received many honors and awards during his career. He is a Distinguished Member of the Clay Minerals Society and the Society of Mining Engineers. He has received the Outstanding Educator of America Award and the Missouri Faculty-Alumni Award; he has also been named a recipient of the NAGT's Neil A. Miner Award and the AIME's Hal Williams Hardinge Award. He is a member of Sigma Xi, Phi Beta Kappa, Gamma Alpha, Sigma Gamma Epsilon, and Alpha Chi Sigma, and, while a student, he was named a Gregory Fellow here at MU and a Saltonstall Fellow at Harvard. It would be redundant to quote the citations from these awards. Walt prefers to think that these honors and awards result from laboratory research with the emphasis on labor, rather than on oratory!

Finally, we think it can be said that the greatest honor Walter Keller has received is the accolades from his former students who continually correspond with him. One such letter arrived early this semester from an alumnus who took Geology 1 from Walt in 1945, but did not major in geology. She had seen his picture in the Missouri Alumnus and, after commenting favorably on the condition of the famous "Keller desk", told him that "your knowledge of geology, and especially your outstanding humanness and ability to teach, made me feel very thankful that I did take your course . . . [and for your] having made this a better world through your studies and teaching."

We agree!

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NOTE FROM THE CHAIRMAN

Having barely settled into the chairman's seat, I am happy to report that the "dust is beginning to clear" and that the Department is in pretty good shape. Since the last newsletter there has been quite a succession of chairmen: George Viele, Tom Freeman (served during Viele's sabbatical), Jim Stitt and myself. In addition, Glen Himmelberg will serve as Acting Chairman from January through August of 1981 when I will be in West Germany on a sabbatical leave. I will return next August, and I am scheduled to serve as chairman until 1983. Despite the rotating chairmanship, the Department is for the most part strong and healthy. There are a few trouble spots on the horizon, but there are also a number of opportunities that we hope to take advantage of.

As you can see in the section, "About the Faculty and Staff", the entire staff is active in a variety of roles: teaching, research, and service. In fact, I can confidently assert that there is no "dead wood" here. Most of the staff is now receiving outside research support and several have received or have been nominated for outstanding teaching awards. Ray Ethington was recently nominated for SEPM vice president, although his low-budget campaign precluded his election. Research recognitions include Best Paper Award of the International Association on the Genesis of Ore Deposits to Glen Himmelberg (with G. K. Cyanske and R. A. Loney) and the Geological Society of America's O. E. Meinzer Award to myself and Pat Domenico of Illinois for contributions to hydrogeology. These are just a few of the more recent recognitions of the across-the-board strength of the staff. This continued faculty excellence in teaching, research, and service is certainly the strongest asset of our Department.

Another continually improving aspect of the Department is the growing strength of the graduate program in both numbers and quality of students. We had a record number of new students this past year, the high quality of which is attested to by the fact that 20 percent of the University's Gregory Fellowships went to Geology students this year. In addition, stronger students are now entering our graduate program without financial support. We, of course, do our best to find funding for them, but an increase in research assistantships is sorely needed.

Undergraduate enrollment is steady, although the number of students entering our lower-level courses is decreasing. Inasmuch as Principles of Geology is by far our largest course, this decrease could cause trouble if University support to our Department grows more contingent upon head-counts. With respect to the Branson Field Laboratory in Lander, major renovation projects loom on the horizon. Some of the buildings are now over 50 years old. Demand for the field course is at an all time high, and the curriculum is still both demanding and superbly educational. Our ace-in-the-hole, Mrs. Aline Brewen, provides excellent meals and we hope that daughter, Rhonda, and grandchildren remain in Riverton as an added enticement for her return in future summers.

The only unfortunate item to report is the loss of two of our faculty members, Mike Foley and Eric Rinehart. Mike left for Battelle Institute in Richland, Washington, and Eric went to Air Force labs in Albuquerque, New

Mexico. We shall miss their participation in the Department. We did, however, survive a raid by a major oil company that tried to hire away Dave Houseknecht. The replacement of departed faculty is becoming more difficult. University salaries have fallen so far behind industry that new Ph.D.' must accept significantly lower living standards at the university. This fact, coupled with intense competition for outstanding new graduates, will make the job of staffing our two vacant positions very difficult. Nevertheless, we feel that UMC has much to offer and that we can compete on a level with other colleges or universities. Hopefully, next year's newsletter will report our success.

Finally, in the maintaining of contact with you, our alumni, we have been somewhat remiss. A continuing dialog between alumni and faculty and students is of benefit to everyone. Certainly, the support of alumni is vital to the health of any department. It is my intention to circulate a newsletter such as this on an annual basis. Furthermore, we intend to hold alumni get-togethers at the national meetings of GSA and AAPG. The cocktail party at last spring's AAPG and this newsletter are a "down payment" on this intent. Also, we shall be holding a cocktail party at the GSA in Atlanta this November. The date is Tuesday night, November 18. A notice of time and place will be posted at GSA.

I wish all of you a good year, and we invite you to stop by your Department whenever you're in Columbia.

Sincerely,

A handwritten signature in cursive script that reads "Jack Sharp". The signature is written in black ink and is positioned above the printed name and title.

John M. Sharp, Jr.
Associate Professor and Chairman

ABOUT THE FACULTY AND STAFF

At present (October, 1980), the Geology Department staff consists of seven full professors, two associate professors, one assistant professor, three emeritus professors (one in full-time residence, one part-time), two visiting professors, one adjunct assistant professor, and one research associate. Individual staff member doings are reported below. As you'll see there, the staff is active and thriving.

BRUCE B. BROSTER is Visiting Assistant Professor. Bruce is in the process of finishing his Ph.D. at the University of Western Ontario under Alexis Dreimanis. His work involves deciphering alpine and continental glacier sediments. Bruce is teaching Geology 127, Surficial Earth Processes, this fall. In the spring he'll be teaching Advanced Geomorphology, and we hope we have him lined up for field camp staff next summer.

ALDEN CARPENTER is working on a variety of projects using geochemistry to solve specific problems in the diagenesis of sediments and in the origin of ore deposits in sedimentary rocks. Some recently published papers include: "Fletcherite, a New Thiospinel from the Viburnum Trend (New Lead Belt), Missouri" (with J. R. Craig); "Origin and Chemical Evolution of Brines in Sedimentary Basins"; "Interim Report on Lead and Zinc in Oil-Field Brines in the Gulf Coast and in Southern Michigan"; and "The Chemistry of Dolomite Formation Part I, The Stability of Dolomite." Alden is working with two graduate students on the mineralogy, geochemistry, and origin of uranium-bearing sandstones in the Canyon City embayment, Colorado, and in the southern Gulf Coast of Texas.

He has also spent the last three summers working at the Chevron Oil Field Research Company on diagenetic alteration of the Nugget Sandstone in the Overthrust Belt. Alden's work on geochemical aspects of diagenesis has produced numerous invitations for talks on these subjects which have been presented at Chevron Oil Field Research, Amoco Production Research, Exxon Production Research as well as meetings sponsored by AAPG, SEPM, and the Society of Petroleum Engineers.

RAY ETHINGTON continues to teach Historical Geology (twice), Micropaleontology, and Stratigraphy during the academic year and to introduce students to the wonders of Derby Dome almost every summer. He still pursues the wily conodonts at every opportunity and has three papers in press concerning Ordovician forms, one of which is a first attempt at zonation of the Lower Ordovician of North America. He has edited another book (the eighth in the past six years); it will appear in November as SEPM Special Publication 28. He spent two weeks in early August on field excursions to classic lower Paleozoic stratigraphic sections in Austria and Czechoslovakia and attending a floating conodont symposium in Vienna and Prague. These activities plus departmental odd jobs (undergraduate advisor, library representative, supervising theses) and tasks assigned by his wife have taken all the time he had.

TOM FREEMAN stayed home from Camp Branson this past summer (for the first time in three years) in order to write up some notes on Spanish geology. He accompanied Paul Gerdemann (A.B. '52), Chief Geologist of St. Joe Minerals Corporation, on a reconnaissance of eastern Spain last year. Some

of the results from his cruise with the Deep Sea Drilling Project were published in Geology in February of 1979. Since our last newsletter, he has served as a United Nations consultant to Brazil, resulting in our having two Brazilian students who received their M.A. degrees in December of 1979. Tom continues to teach Principles of Geology every semester, plus a fall course in carbonate petrology. At present, he is supervising the research of five graduate students. Tom recently received The Purple Chalk and Sigma Gamma Delta Awards for outstanding teaching. These Awards are granted by the students, respectively, of the School of Arts and Science and the School of Agriculture.

GLEN HIMMELBERG has been actively involved in research in Alaska with the U.S. Geological Survey. This not only provides interesting petrologic problems but also provides spectacularly scenic field areas. The major effort of the past three years has been the study of the La Perouse layered gabbro and associated Ni-Cu deposit in the Fairweather Range, southeastern Alaska. This project is nearing completion. A major study of the progressive metamorphism of the Juneau metamorphic belt was initiated in 1978 and is currently in progress. Studies of petrogenesis of other ultramafic and gabbroic intrusions in Alaska are also in progress as is the continuing investigation of the Dufek layered gabbro in Antarctica.

DAVE HOUSEKNECHT is being kept busy teaching sedimentology and sandstone petrology as well as supervising ten Master's theses. Thesis topics mostly involve reconstruction of ancient depositional systems and various aspects of sandstone petrogenesis. Dave's research includes tectonic-sedimentary evolution of the Arkoma Basin during the Pennsylvanian; early Paleozoic tectonic-sedimentary evolution of the mid-continent; the relationships among thermal maturity, diagenetic processes, and porosity in Arkoma Basin sandstones; prediction of coal mining problems using depositional environment reconstructions; and the role of rock fragments in porosity preservation/destruction in sandstones. He is currently awaiting delivery of a reflectance photometer so that he can get deeper into thermal maturity of both dispersed organic matter and coal.

BILL JOHNS continues his studies on diagenesis of pelitic sediments. He has extended these to the Tertiary Vienna Basin of Austria. This study was initiated when, in the summer of 1978, he was invited to join the faculty of the Institute of Petrology of the University of Vienna and taught two short courses in Clay Mineralogy and Organic Geochemistry. At that time, in conjunction with the Austrian Petroleum Administration, he began to investigate the interrelations of clay mineral and organic diagenesis in the Vienna Basin. He returned again this summer (1979) to finish the mineralogical and chemical phases of this study. The organic geochemical aspects of Vienna Basin petroleum occurrences is being studied in partnership with Professor J. Hoefs of the Geochemical Institute of the University of Goettingen, Germany, where the focus is on changes in stable carbon isotope distributions with depth or diagenetic temperature. We now have in our department the preparatory facilities for carbon isotope analyses. The final mass measurements are made elsewhere.

Bill began teaching Principles of Geology last spring semester and finds the experience rewarding, if at times frustrating. Bill is our current Director of Graduate Studies.

CLAY JOHNSON continues to teach Physical Geology and Geology of Missouri, and this semester has taken over Common Rocks and Minerals on a permanent basis. The enrollment in Physical Geology is holding steady at 200-225 per year. He also is revising the department's correspondence course, Man and His Earth, and is completely rewriting the 120-page syllabus for the course. In addition to advising general Arts and Science students, he also advises potential geology majors and Earth Science Education majors. He is advisor to one Master's candidate. Much of his research time is spent in studying areas of special geologic interest in Missouri.

Public service activities include serving on the Columbia Planning and Zoning Commission and the Columbia Environment and Natural Resources Commission and as head judge at almost all the University home track and cross country meets.

WALTER D. KELLER (Emeritus) is as vigorous as ever (see our lead article).

RAY PECK (Emeritus) and wife, Vaona, attended the AAPG-SEPM meeting in Denver last June and report a most enjoyable time visiting with former students and other friends. Ray also managed to attend a limited number of papers. After the meeting the Pecks spent a couple of days at the Federal Center working with Dr. Richard Forester on an article describing North American late Cretaceous Charophyta. From Denver they went to their summer home on the upper Elk River north of Steamboat Springs, Colorado.

RICHARD RECHTIEN is Visiting Associate Professor. Dick comes up once a week from Rolla to teach our exploration geophysics course. We are actively looking for a geophysicist this year.

JACK SHARP took over the chairmanship this fall. Jack served as Director of Graduate Studies until last spring and directed the Branson Field Laboratory last summer. Last year was a big year for Jack. He was tenured and promoted to Associate Professor, and he was awarded the GSA's O. E. Meinzer Award (with Pat Domenico of Illinois) for his contributions in the field of hydrogeology. Jack's research is now focused on the hydrogeology of alluvial systems, energy transport in porous systems, and the application of hydrogeologic concepts in the genesis of mineral deposits. He is currently supervising eight graduate students, but still finds time to play a little handball and chase smallmouth bass during the summers. Jack notes that last year's group of field camp students was the best ever (judged on its high percentage of fly rod fisherman).

JIM STITT has just concluded a 3-year term as chairman of the department, and has returned to full-time teaching and research. His major research interest continues to be trilobite taxonomy and biostratigraphy of the Upper Cambrian and Lower Ordovician strata in the Arbuckle and Wichita Mountains of Oklahoma. Presently he is working on the trilobites of the McKenzie Hill Formation. A Ph.D. student, John Taylor, is making a detailed lithologic and paleontologic study across the Cambrian-Ordovician boundary in Oklahoma and Texas. A field trip to see the results of the latter project is planned for next August as a part of the Second International Cambrian Symposium being held in Denver. Jim is also active on the Working Group on the Cambrian-Ordovician boundary, a subgroup of the International Stratigraphic Commission, and he and several colleagues are preparing a paper on the status of the boundary in North America.

A. G. UNKLESBAY (Emeritus) retired in March, 1979, as Vice President for Administration of the University of Missouri system. We had hoped to have Unk back in the fold with us this year. Therefore, we were both disappointed and elated when Unk became Executive Director of the American Geological Institute immediately upon leaving University Hall.

GEORGE VIELE is still wandering around in the woods of Arkansas, claiming that he is doing research in the Ouachitas. Jeannette, who knows better, says it is a form of therapy. Last summer George spent about 20 days visiting the Alps of Switzerland and came back convinced that it is the largest country in Europe; all it needs is flattening out. Other segments of his time are spent worrying about a short course for the Houston Geological Society, a book for the 1988 GSA Centennial on the Appalachian-Ouachita system, the stock market, and the search for the perfect martini. Next summer he will again head for Wyoming to teach at the field camp and on occasion will try to outthink one of the trout in the Popo Agie. If you can't find him at the camp or in Hudson devouring a steak, look for him up on South Pass, where he will be enjoying the structural mess in the metamorphics.

JIM WHITFORD-STARK is Adjunct Assistant Professor this year. Jim recently received his Ph.D. from Brown. He will be in the Department this year while he maps Io, one of Jupiter's moons. Jim also will be conducting a seminar next spring on the geology of the solar system. We're glad to have him around.

Our non-faculty staff consists of an administrative secretary, a senior stenographer, a microprobe research associate, the Geology Librarian, and (honorarily) our custodians.

BEVERLY SAPP is our administrative secretary and as all recent graduates know, Bev is the one who really runs the Department. She is invaluable; this point is always appreciated when she and husband, Jack, take their two week vacation each fall to New Mexico and Las Vegas.

SANDEE WHITE is our senior stenographer. Sandee originally hails from Rolla, where her Mom is Wally Howe's secretary at the State Geological Survey. Sandee joined us last spring and is working out very well in the front office.

DAVID ROTHBARD is our microprobe research associate. Dave is also pursuing a Ph.D. under the direction of Alden Carpenter.

BOB HEIDLAGE continually battles the central library administration in his attempts to expand our holdings. Bob plans to be at GSA this fall.

DOROTHY AND EARL RAY are still the building custodians, and still try to spur the students to get their homework or thesis done. They send their regards.

We also have some news about some former faculty members.

WILLIAM B. ARPER (Instructor, 1950-1953) retired as Professor in the Department of Geosciences at Texas Tech a little over a year ago. Bill and wife, Betty, have retired to Salida, Colorado, where Bill helped to start Tech's summer field camp in 1957. He is enjoying retirement but is still operating part time as a consulting geologist.

DON BLACKSTONE'S (Professor, 1930-1947) wife, Helen, recently passed away. Don is Professor Emeritus at the University of Wyoming.

RUSS BURMESTER (Assistant Professor, 1972-1977) continues his paleomagnetic investigations of the Antarctic from his base in Bellingham, Washington. He and Sally have two boys, Aaron and Brent, and the usual five dogs.

DAVID K. DAVIES (Professor, 1970-1977) has left Texas Tech and gone into full-time consulting. He and Bill Almon (Ph.D., '74) have established their own firm, Davies, Almon, and Associates.

MIKE FOLEY (Assistant Professor, 1976-1980) moved on to the Battelle Institute in Richland, Washington, this last spring. He will be working on problems of nuclear waste isolation in the basalts near the Hanford site.

STANLEY E. HARRIS (Visiting Assistant Professor, 1948-1949) has been much involved in the Nature Preserves Program in Illinois and in the National Landmark potential natural sites study in the East Central Lowland. Stan notes that the Missouri Department of Natural Resources has also been developing this program--and taken two capable Illinois people.

ERIC RINEHART (Assistant Professor, 1979-1980) left us after a stay of only a year. Eric moved back to New Mexico where he is conducting seismic studies for the Air Force Labs in Albuquerque.

ABOUT OUR GRADUATE STUDENTS

At last count the Department listed 53 graduate students in-house and 8 nonresident degree candidates. We provide support for 26 1/2 students via teaching assistantships, one via fellowship, and approximately 6 via research assistantships. This is the largest number we've ever had, and this is both a problem and an opportunity. We had 21 new students enter our program this past year, and we are pleased to note that 3 of the University Gregory Fellowships were awarded to our new students. We are also pleased to say that for the first time in several years, two foreign students (Abdolali Babaei and Chao-Min Hsueh) entered our graduate program. They lend a broader perspective to our Department. I might add that our standards are not altered in any way for our international students as has occurred at some other institutions. Our new graduate students and their undergraduate schools are listed below:

Babaei, Abdolali (Iran)	(Oklahoma State)
Bernthal, Michael	(Missouri), Gregory Fellow
Brown, Stephen	(Massachusetts)
Carazzo, Roberta	(Indiana of Pennsylvania)
Draney, David	(Missouri)
Fridley, Mark	(Missouri)
Garney, Ronald	(Bridgewater State)
Houser, Kenneth	(Catawba)
Hsueh, Chao-Min (Taiwan)	(Tawain National), A. P. Green Fellow
Hutchinson, Hillary	(Oberlin)
Kortenhof, Michael	(Lawrence)
Lewis, Jean	(SUNY Brockport), Gregory Fellow
Nuzum, Mary	(Southwest Missouri State)
Older, Kathleen	(Temple)
Raker, Gary	(Missouri)
Rovey, Charles	(Augustana)
Satterfield, Joseph	(Rice)
Seiffert, Gregory	(Northern Arizona), Gregory Fellow
Stewart, Craig	(Harvey Mudd)
Thomas, Mark	(Southern Illinois)
Weaverling, Paul	(Indiana of Pennsylvania)

We have granted a number of advanced degrees since the last newsletter. Most of these students have taken positions with major petroleum companies, although some have joined the U.S.G.S., various state surveys, consulting firms, and mining companies. Listed below are these graduates, their thesis titles, and their thesis supervisors' names in parentheses. This will give you some idea of the present direction of our research. An increasing portion of M.A. candidates, in contrast to Ph.D. candidates, is also apparent.

1975 Graduates

- Repetski, John E., Ph.D. (Ethington), "Conodonts from the El Paso Group (Lower Ordovician) of West Texas."
- Baumann, David, M.A. (Johns), "Chemical Diagenesis during Burial of Gulf Coast Pelitic Sediments."
- DeVine, Carolyn, M.A. (Davies), "Sedimentology of the Morrison and Related Upper Jurassic-Lower Cretaceous Rocks, Central Wyoming."
- Potter, Carla (Wilson), M.A. (Ethington), "Lower Ordovician Conodonts of the Upper West Spring Creek Formation, Arbuckle Mountains, Oklahoma."
- Quearry, Michael W., M.A. (Davies), "Continental Volcanic Sediments in the Region of Volcan De Fuego, Guatemala."
- Reinert, Steven, M.A. (Davies), "Environment of Deposition and Diagenetic History of Upper Dakota Group Rocks, Denver Basin."
- Stoufer, Ronald N., M.A. (Carpenter), "The Effect of Organic Carbon on the Concentrations of Iron and Hydrogen Sulfide in Ground Water."
- Warmbrodt, Robert E., M.A. (Freeman), "Sedimentology of the Jefferson City Formation, Franklin County, Missouri."
- Woolverton, Donald G., M.A. (Carpenter), "Cu-Fe-S Mineralization of the Sweetwater Mine, Reynolds County, Missouri."

1976 Graduates

- Kennedy, David John, Ph.D. (Ethington), "Conodonts from Lower Ordovician Rocks at Mount Arrowsmith, Northwest New South Wales, Australia."
- Banet, Arthur C., M.A. (Johns), "Kinetics of a Clay-Catalyzed Cracking Reaction."
- Bergfelder, Bill, M.A. (Burmester), "The Origin of the Thermal Water at Hot Springs, Arkansas."
- Brand, Uwe, M.A. (Ethington), "Lower Ordovician Conodonts of the Kinblade Formation Arbuckle Mountains, Oklahoma."
- Combs, Mary J., M.A. (Davies), "The Use of Probability Plots in Sedimentology."
- Founie, Alan, M.A. (Davies), "Sedimentology of a Marine-Nonmarine-Marine Rock Sequence in Central Wyoming."
- Grannemann, Norman, M.A. (Sharp), "Hydrogeology of the Missouri River Flood Plain near Glasgow, Missouri."
- Hart, Richard, M.A. (Davies), "The Trace-Element Content of Detrital Quartz in Part of the Mississippi River System."
- Hunter, Bruce, M.A. (Davies), "Fluvial Sedimentation on an Active Volcanic Continental Margin, Rio Guacalate, Guatemala."
- Jayyusi, Ghassan, M.A. (Ethington), "Conodont Paleoecology of Little Osage Formation (Desmoinesian) of Missouri."
- Knox, Larry M., M.A. (Burmester), "Microprobe Whole Rock Analysis of Igneous Intrusives from the Southwest Corner of Cony Mountain Quadrangle, Wind River Mountains, Wyoming."
- Oglesby, Thomas W., M.A. (Carpenter), "A Model for the Distribution of Manganese, Iron, and Magnesium in Authigenic Calcite and Dolomite Cements in the Upper Smackover Formation in Eastern Mississippi."
- Petrus, Richard T., M.A. (Burmester), "Geology and Petrography of Portions of Southwestern Cony Mountain Quadrangle and Adjacent Areas of Wyoming."
- Tharpe, Lyle Winston, M.A. (Davies), "Fluvial Sediments of the Rio Achiguate and Its Tributaries, Guatemala."

1977 Graduates

- Beierle, Charles W., M.A. (Burmester), "A Geophysical Analysis of the Bouguer Anomaly Field of Missouri."
- Christenson, Scott, M.A. (Sharp), "Hydrological Alterations Imposed by the Meramec Park Reservoir, Crawford and Washington Counties, Missouri."
- Ellison, John, M.A. (Freeman), "Stratigraphic Distribution of Effective Porosity within the Bonneterre Formation (Cambrian) in Reynolds County, Missouri."
- Eubank, Susan, M.A. (Freeman), "Petrology of the Winterset Limestone (Pennsylvanian) Jackson County, Missouri."

1977 (continued)

- George, Margaret, M.A. (Carpenter), "Carbonate Equilibrium in the Hosston Formation Central Mississippi."
- Goldstein, Barry, M.A. (Ethington), "Computer Applications to Conodont Paleocology in the Blackjack Creek and Excello (Marmaton Group, Desmoinesian Series) Formations."
- Hebberger, John J., Jr., M.A. (Davies), "Recent Laharic and Glowing Avalanche Sediments, Guatemala."
- Jones, Raymond T., M.A. (Johns), "Effect of Clay Mineral Diagenesis on Hydrocarbon-Cracking Ability of Clay Catalysts."
- Malvik, Olav, M.A. (Sharp), "Geophysical Delineation of Buried Glacial River Valley Aquifers in Grundy County, Missouri."
- Miles, Robert C., M.A. (Davies), "Modifications of Sediment Composition and Texture in Two Fluvial Systems."
- Peterson, Mark E., M.A. (Carpenter), "Chemical Composition of Dolomite from the Green River Formation, Wyoming."
- Potter, Ben, M.A. (Davies), "Secular Variation in the Petrology of Some Mesozoic Sandstones, Wind River Basin, Wyoming."
- Shepherd, Rodney, M.A. (Davies), "The Sedimentology of the Upper Cretaceous Horsethief Formation Lewis and Clark County, Montana."
- Vessell, Richard, M.A. (Davies), "Hydrology, Morphology, and Sedimentology of the Rio Guacalate-Volcanic Highlands-Guatemala."
- Wagh, Richard, M.A. (Viele), "Structural Geology of the Southwest Part of the Paron Quadrangle, Ouachita Mountains, Arkansas."
- Zatezalo, Mark P., M.A. (Sharp), "Hydrogeological Evaluation of Pollutant Dispersion from Municipal Sewage Lagoons Located on a Floodplain."
- Zick, Alan, M.A. (Viele), "Structural Geology of the Southeast Corner of the Paron Quadrangle, Arkansas."

1978 Graduates

- Abel, Kathleen D., M.A. (Himmelberg), "Plagioclases of the Dufek Intrusion, Antarctica."
- Dando, Mark, M.A. (Viele), "Structural Geology of the Northern Portion of the Jessieville Quadrangle, Ouachita Mountains, Arkansas."
- Darr, James M., M.A. (Carpenter), "Geochemistry of Ground Water, Southwestern Missouri."
- Kemmer, Andrew D., M.A. (Johns), "Characterization of Kerogen from Gulf Coast Tertiary Sediments."
- Lipke, Audrey C., M.A. (Himmelberg), "Geology and Petrology of the Northeastern Quarter of the Anderson Ridge Quadrangle, Wyoming."

1979 Graduates

- Bez, Lauri, M.A. (Carpenter), "Mineralogy and Geochemistry of the Morro Agudo Zinc-Lead Deposit, Brazil."
- Dyess, James N., M.A. (Viele), "Structural Geology of the Southeast Portion of the Fountain Lake Quadrangle, Ouachita Mountains, Arkansas."
- Felton, Richard M., M.A. (Ethington), "Lower Ordovician Conodonts of the Lower West Spring Creek Formation, Arbuckle Mountains, Oklahoma."
- Ferber, Daniel, M.A. (Viele), "Structural Geology of the Southwest Portion of the Lonsdale Quadrangle, Ouachita Mountains, Arkansas."
- Foreman, Terry Lee, M.A. (Sharp), "Determination of Hydrogeologic Properties of Missouri River Alluvium using Numerical Modelling Techniques."
- Fox, Laura, M.A. (Carpenter), "Porosity and Permeability Reduction in the Nugget Sandstone, Southwestern Wyoming."
- Frank, James R., M.A. (Carpenter), "Dolomitization in the Taum Sauk Limestone."
- Garbarini, J. Michael, M.A. (Carpenter), "Feldspar Diagenesis in the Hosston Formation, Central Mississippi."
- Grethen, Bruce L., M.A. (Carpenter), "The Synthesis of Dolomite at 150°C."
- Hall, Morris D., M.A. (Sharp), "Gravity Geophysical Delineation of Buried Channel Aquifers in Northern Missouri."
- Hesemann, Thomas J., M.A. (Sharp), "Hydrogeological/Geophysical Investigation of the Goodwater Creek Watershed."
- Jackson, Kenneth J., M.A. (Foley), "Paleohydraulic Analysis of Turbidity Currents in an Ancient Canyon-Channel System on the Indus Deep-Sea Fan."
- Madalosso, Antonio, M.A. (Freeman), "Stratigraphy and Sedimentation of the Bambui Group, Paracatu Region, MG, Brazil."
- McQuillan, Kirk A., M.A. (Freeman), "Petrology of Nodular Chert in the Burlington Limestone (Mississippian), Central Missouri."
- Roper, Edith D., M.A. (Stitt), "Paleoecology of the Coral Reefs and Stromatoporocil Faunas of the Callaway Lithofacies, Cedar Valley Formation, Boone and Callaway Counties, Missouri."
- Ulmo, George J., M.A. (Himmelberg), "Geology of Portions of the Cony Mountain, Sweetwater Needles, Sweetwater Gap, and Christina Lake Quadrangles, Wyoming."
- Yunker, Gerald G., M.A. (Viele), "Structural Geology and Petrology of the South Pass City Area, Wyoming."

1980 Graduates (to date)

- Fagerlin, Stanley C., Ph.D. (Ethington), "Lower Ordovician Conodonts from the Jefferson City Formation of Missouri."

1980 (continued)

- King, David T., Ph.D. (Freeman), "Genetic Stratigraphy of the Mississippian System in Central Missouri."
- Cooper, Alice C., M.A. (Ethington), "Early Ordovician Knox Group Conodonts from the Subsurface of Clinton County, Kentucky."
- Flachmann, Jane R., M.A. (Sharp), "Pore Fluid Release and Soft-Sediment Deformation."
- Frick, Douglas R., M.A. (Sharp), "Hydrogeology of Mississippian and Ordovician Aquifers in Southwest Missouri and Southeast Kansas."
- Huxol, David L., M.A. (Foley), "Quaternary Terraces of the Salt River Basin, Northeastern Missouri."
- Mills, William H., M.A. (Ethington), "Conodont Biostratigraphy of the Upper West Spring Creek Formation, Arbuckle Mountains, Oklahoma."
- Steinbis, Martin T., M.A. (Freeman), "Bed-Selective Dissolution of the Jefferson City Formation (Ordovician), Cole County, Missouri."

ABOUT OUR UNDERGRADUATES

The number of our undergraduate majors has stabilized at between 90 and 100. An increasing proportion of these students are selecting the B.S. degree, while the numbers of A.B. candidates and earth science education majors have declined. Our B.S. candidates are required to take courses in petrology, mineralogy, historical geology (which recently added laboratory exercises prepared under the direction of Ray Ethington and Larry Tedesco), surficial processes, optical mineralogy, and field camp. Students also select at least three other upper level courses, covering a variety of geological topics. Recently, a new exciting dual degree program (B.S. in civil engineering and geology) has been added to our program. This 5-year curriculum already has eight hardy souls. We feel that this program greatly expands the students' education and subsequent career opportunities. Further expansion of our undergraduate program will require a major increase in laboratory facilities.

Our undergraduates still attend the Branson Field Laboratory near Lander, Wyoming. Last summer 30 UMC students and 21 students from other colleges and universities comprised the camp's student body; we had over 100 applications from non-Missouri students for those 21 slots. With the number of geology majors increasing nationwide, and with the number of field camps slightly declining or stationary, this demand is expected to increase. While the curriculum at the camp is in many respects similar to those of past years, we have added exercises in Pleistocene geology of Sinks Canyon and in metamorphic rocks of the South Pass City area. Mrs. Aline Brewen again returned as camp cook, much to our gustatory delight. A group of able fishermen caught enough trout for two immense fish fries this summer, even though the water was too high most of the time. Major changes at the field camp were the installation of a sewer system at the lower unit and the loss of most of the island's big pine trees to bark beetle infestation. We anticipate a need for some major maintenance and repairs within the next decade.

STUDENT AWARDS AND RECOGNITIONS

A number of our undergraduates and graduate students have received scholarship and teaching awards. These students reflect the best qualities of character and scholarship at the University of Missouri. In addition to the Gregory Fellows mentioned above, these recognized students include:

Chevron Scholarship--given to an outstanding junior or senior geology student.

1980--Peter McMahon (Pete also received a NAGT scholarship to attend the Branson Field Laboratory last summer).

James G. Mitchell Scholarship--given to an outstanding junior in geology.

1979--Pat Vezeau.

M. G. Mehl Scholarships--for student research in paleontology and stratigraphy.

1976--Stan Fagerlin and Ghassan Jayyusi

1977--Bruce Hunter

1978--Richard Felton, Bill Mills, Edith Roper, and John Taylor

1979--Lee Burgess, David King, and John Taylor

1980--Steve Morreale, Peggy Sporer, and John Taylor.

A. P. Green Fellows--for graduate research in clay mineralogy or closely related studies.

1976--Ray Jones

1979--Bob Horton

1980--Chao-Min Hsueh.

The Palmer Award--for graduate research in paleontology.

1977--Stan Fagerlin

1979--Dave Brezinski.

W. A. Tarr Scholarship--for an upper-level undergraduate or first-year graduate student in mineralogy or economic geology.

1976--Mike Garbarini (as an undergraduate)

1977--James R. Frank

1978--Mike Garbarini (as a graduate)

1979--Melanie Sievers

1980--Don Claassen, Dallas Greenburg, Dave Rothbard, and Georgia Stallman.

Graduate Student Teaching Awards--award on recommendation of the entire faculty to the teaching assistants who best exemplify the spirit of teaching.

1976--Jim Darr, Stan Fagerlin, and Bruce Hunter

1977--Jim Frank, Bob Miles, and Rich Waugh

1978--Terry Foreman, Doug Frick, and Dave King

1979--Edith Roper, John Taylor, and Larry Tedesco

1980--B. B. Broom, Carla Kertis, and Georgia Stallman.

SPEAKERS, 1979-1980

The 1979-1980 school year benefited from a number of exciting guest speakers. These are listed below. In addition, 10 graduate students presented thesis talks.

Dr. Russell Burmester, Western Washington University, "Paleomagnetic Research in Antarctica."

Harry King, Conoco, "Mining Oil in Wyoming."

Antony Inannachione, U.S. Bureau of Mines, "Gas in Coalbeds."

Dr. Charles Belt, St. Louis University, "Flooding History and Trends of Missouri River."

Ernie Knirk, Superior Oil, "Silurian Carbonate Problems in the Oil Industry."

Dr. Ray Thomasson, McCormick Oil & AAPG Visiting Scientist, "Examples of Small Oil Company Exploration Projects" and "The Energy Picture for the 1980's."

Dr. John Rinehart, University of Colorado (emeritus), "Geysers."

Dr. David Scholl, USGS & AAPG, "Resource Potential and Plate-Margin Geology of Frontier Basins of North Pacific and Bering Sea."

Charles Robertson, Missouri DNR, State Geological Survey (Rolla), "Missouri Coal Resources."

Dr. Kevin Burke, SUNY (Albany), "Ocean Basin Openings and Closings."

Warren Hamilton, USGS (Denver), "Geology of Indonesia" and "Mesozoic Tectonics of the Western U.S."

Dr. Bert E. Nordlie, Iowa State, "Evolution of the Galapagos Islands."

Dr. Patrick Sutherland, University of Oklahoma, MASUA Honor Lectures, "Mississippian-Pennsylvania Shelf to Basin Transition, Ozark and Ouachita Mountains, Oklahoma and Arkansas."

Dr. William Hinze, Purdue University, "Models for Midcontinent Tectonism."

Dr. Dennis Wood, University of Illinois, "Strain and the Fabric of Deformed Rocks" and "Melange, Olistostromes and the Recognition of Ancient Plate Margins."

SOME SPECIAL NOTES

RICHARD A. BISHOP (M.A., '69) received AAPG recognition last June for the best paper published by a person under 35 years of age. The paper was entitled, "Calculated Compaction States of Thick Abnormally Pressured Shales." The paper appeared in the AAPG Bulletin (v. 63, no. 6, pp. 918-933) in June, 1979.

THOMAS A. BOND (A.B., '61) is President of Clarion State College in Pennsylvania.

HOWARD R. BRECK (A.B., '34) retired in 1978 from his post as Executive Director of the 12,000-member international Society of Exploration Geophysicists (SEG). Breck, who graduated from MU in 1934 with an A.B. in geology, has served as the chief staff officer of SEG for over 16 years. Recently, he was awarded Honorary Membership in SEG, one of the highest honors conferred by the scientific organization.

His accomplishments while chief administrator of the Society were recognized as "distinguished contributions" to the advancement of the profession of exploration geophysics in the citation which accompanied the presentation of Honorary Membership. Breck is one of only 55 scientists since 1930 to receive Honorary Membership in SEG.

Breck was appointed to the helm of the SEG staff after a 22-year career in the geophysical exploration contracting industry which combined technical publications with administrative and managerial responsibilities. This culminated in an executive position with Seismograph Service Corp., in Tulsa, where he managed the operating division that introduced commercial acoustic well logging to the petroleum industry. His industry experience began shortly after leaving MU and included work as a seismograph exploration party chief and supervisor of U.S. and Venezuelan crews (reference: SEG News Release).

RICHARD FREY (Ph.D., '67), whose unexpected death saddened us, bequeathed a special fund of \$6,525 to the Department. Dick designated that his bequest be used to add to, improve and/or catalog our invertebrate fossil collection, and, more specifically, to increase the collection's value as a teaching and research collection. Accordingly, Jim Stitt set up Dick's bequest as a paleontologic fund and is already working on the collection. We know that our future students will benefit greatly from his generous gift.

EMMETT HERBST (A.B., '50, M.A., '52) a long-time member of Holmes & Narver, Inc.'s Antarctic Support Division, recently received the distinction of having a glacier in Antarctica named in his honor.

Herbst glacier, as it is now called, is located on the Hobbs Coast region of Marie Byrd Land. On a map, it can be pinpointed at 75 degrees 40 minutes south, 132 degrees 7 minutes west.

Herbst was notified of the honor in a message from Dr. Robert Rutford, director of the National Science Foundation's Polar Programs. Rutford cited Herbst for his many contributions to the United States Antarctic Program.

Herbst's first tour to the Antarctic was in 1968, when he participated in drilling activities at Byrd station. And, except for 1969, he has returned to the continent every year thereafter.

He recently transferred from the Antarctic Support Division to another Holmes & Narver project where his experience with the remote and unusual will be utilized.

In his message, Rutford praised the extra time and effort Herbst has spent toward increasing the effectiveness of the program support. And Rutford went on to say, "His guidance has been instrumental in the many improvements over the past ten years."

MISSOURI AT THE A.G.I. - Fred Honkala (M.A., '42) retired as Executive Director of the Institute. His place was taken by our own Professor Emeritus A. G. Unklesbay. Wendell Cochran (A.B. '53, M.A. '56) continues as editor of Geotimes and Bob Heller (M.A. '43, Ph.D. '50) is now President of the Institute. Congratulations to these gentlemen. These positions certainly reflect creditably on them and, we hope, on the Department. Under their guidance we feel sure that the A.G.I. will continue to serve well the interests of our profession.

JOHN P. GALLAGHER is President and Chief Executive Officer of Dome Petroleum, Limited, in Calgary, Alberta, Canada.

NECROLOGY

We are sad to announce that we have received notice of the passing of the following alumni and friends of the Department.

Carl C. Branson	(A.B., '26, M.A., '27)
James T. Buffum	(A.B., '29, M.A., '31)
W. R. Donnell	(A.B., '39)
Richard P. Frey	(Ph.D., '67)
Max Hembree	(M.A., '49)
Edward A. Koester	(M.A., '29)
Paul W. Long	
Gerald C. Maddox	(B.S., '24, M.A., '25)
J. Wallace Owen	(M.A., '31)
W. V. Searight	
C. D. Stephenson	(A.B., '18)
Delbert David Ware	(A.B., '57)

ALUMNI NEWS

We have heard from a large number of our alumni. We have correct addresses for all former students and colleagues listed below. Please write us if you'd like their address or those of other geology alumni you'd like to contact. Without further ado, here are accounts of alumni happenings, class by class.

EDGAR OWEN (M.A., '16) writes that "at age 84 my activity comprises enough housekeeping to prevent my deterioration from exceeding the rate of that of the general environment."

ROY H. HALL (B.S., '17, M.A., '21) is a retired petroleum geologist with oil interests in Kansas. His most recent discovery was in Murdock, Kansas.

H. S. MCQUEEN (A.B., '22, M.A., '23) is presently engaged in exploration for oil and gas.

JOE M. CLARK (A.B., '25, M.A., '26) retired from Arkansas Western Gas Company in 1968. Since then he has consulted some and for the last 10 years, canoed, hiked, and enjoyed the out-of-doors, helping wife, Maxine, with her botany and flower photography. Joe and Maxine have edited the Ozark Society Bulletin for the last 14 years. This is a publication of a conservation society which led the fight to prevent the damming of the Buffalo River. The Buffalo was then made the first national river. At 77, Joe states that his fondest memories include the field trips of 1923 on the Capau Gres and of 1924 to Lander.

CHESTER D. WHORTON (A.B., '25, M.A., '26) has not retired; he still consults. Chester spends his winters in Arizona, but stops by the Department every fall to take in a football game and see classmate Walter Keller. Chester is in good health and plays lots of golf.

D. A. (DON) ROSS (1924-1927) is playing golf or working on his flower beds in Midland, Texas.

NASON NEILL DUNCAN (A.B., '24, M.A., '26) retired from Northeastern Oklahoma State University after serving as a teacher of earth science for a third of a century. Presently, he is Director of the Northeast Oklahoma Public Facilities Authority in Tahlequah, Oklahoma.

ANTONIO M. IRISARRI (M.A., '29) has retired as Principal of Colegio de la Esperanza (Colombia, S.A.) after 50 years of service. Antonio vacations twice a year in Fort Lauderdale, Florida.

CARL R. SWARTZLOW (M.A., '29, Ph.D., '32) has had a siege in the V.A. hospital in Martinez, California, but hopes to be going home soon. Carl and wife, Ruby, now have three great grandchildren - 2 boys and a girl.

HAROLD GARNER (A.B., '30) retired in 1970 after 10 years as a geologist and soils engineer for the Missouri Highway Department and 30 years as District Engineer for the Portland Cement Association. Harold and his wife now live in southwest Atlanta.

See you at GSA, Harold.

J. NEIL MURDOCK (M.A., '31) is semi-retired but does some engineering geology consulting.

H. GLENN WALTER (M.A., '31) says that "the past 50 years have been much finer geologically because of the Department of Geology." Glen retired from the petroleum industry in 1962, and retired again as a college instructor in 1971. He is, however, active in Senior Citizen's Education. Glen is living in Sherman, Texas, and notes that the Preston Anticline and Arbuckle Mountains are a geologist's paradise.

FRANK B. CONSELMAN (Ph.D., '34) has retired from Texas Tech University and resumed his consulting practice in applied economic geology and hydrology. Recently Frank accepted a position as Director and Exploration Manager for Westico Energy Corporation in Abilene, Texas. Frank and his bride of 46 1/2 years, Grace (also known as "Tillie" or "Susie") will be moving to Abilene after 11 years at Lake Ranson Canyon near Lubbock. Grace, by the way, is a former secretary of the Geology Department.

RICHARD M. SMITH (A.B., '34) has moved from West Virginia to West Palm Beach, Florida.

JACK W. GARDNER (M.A., '36) retired from the CIA in 1972. Jack and his wife, Jane, brought 2 floor looms home from England, thinking they would have lots of time to weave, but they haven't even had time to weave a neck tie! Jack and Jane run a gift shop on Orcas Island in the San Juan Archipelago (the far NW corner of Washington State).

ROSS R. HEINRICH (A.B., '36) recently retired as Chairmen of the Department of Earth and Atmospheric Science at St. Louis University. After 42 years on the St. Louis University Faculty, he will become Professor Emeritus at the end of 1980.

GEORGE E. MOORE, JR. (A.B., '36, M.A., '38) spent the past summer travelling and teaching at Ohio State's field camp in Utah. George eventually made it up to Anchorage to visit with his daughter and son-in-law. He had a nice visit with Joe Jones, who is the boss of George's son-in-law. George notes that he has seen Pete Peterson in Sullivan, Missouri, a few times in recent years. George teaches structural geology and introductory petrology at Ohio State.

MAX E. FERRELL (A.B., '36, M.A., '40) retired from Exxon in 1976. He is now engaged in trying to shoot golf consistently in the '70s.

JOSEPH F. HASEMAN (A.B., '36, Ph.D., '44) has been retired since 1976 but he is still consulting in the field of phosphate mining and metallurgy. The Haseman's enjoy their beach cottage in Anna Maria Island, Florida, and take yearly vacations to Lake City, Colorado, in September.

HIRAM B. WOOD (A.B., '37, M.A., '38) is semi-retired in San Diego, California, but remains a part-time consulting geologist on uranium, fluorite, and lithium exploration.

GERTRUDE BURNLEY (M.A., '38) retired from the Wisconsin Social Services Department in 1977. She writes that "I find it true that I'm busier than ever since retiring--enjoying every minute, doing travelling, volunteer work in the local hospital and nursing home."

SAMUEL P. ELLISON, JR. (M.A., '38, Ph.D., '40) became Professor Emeritus in September, 1979. Sam is now writing two books, Geology of Energy Resources and (with Bob Boyer, past chairman at Texas) Geology of Texas. His miscellaneous activities include lecturing to the Texas Association of Water Well Drillers; writing a section for a West Texas Geological Society field trip guide; conodont studies; and various consulting activities. Most recently, Sam was awarded a Senior Research Fulbright Fellowship to Germany from March to July 1981. Evidently becoming Professor Emeritus is not synonymous with retirement!

C. W. SCHWARTZ (A.B., '38, M.A., '40) is "thinking" of retiring after 40 years of service with the Missouri Department of Conservation.

HAL G. STEPHENS (A.B., '39, M.A., '41) retired from the USGS in 1977 after 35 years of federal service. He is active in local NRA pistol competition and in the National Association of Retired Federal Employees. Hal also enjoys motorcycle touring throughout the west.

JOE JONES (A.B., '39, M.A., '40) is Conservation Manager for the Alaska Region, U.S. Geological Survey Conservation Division. Joe is in charge of OCS oil and gas development for Alaska.

ROSELLA BUNCH (1940) has not worked in geology since leaving Shell Oil in the 1950's. Rosella took a J.D. degree at University of Missouri-Kansas City in 1969.

MRS. EDWARD (BETT ESTILL) O'NEILL (A.B., '40) is living in St. Louis where her husband is chairman of Marathon Electric Manufacturing Company. Bett writes that her four sons are scattered--Bob to Wausau, Wisconsin; Bruce and wife Mary live in St. Louis with Bett's three grandchildren, Molly, Maureen, 4, and Kevin, 2; Andy and wife Alicia live in Houston, Texas; and Ted lives in Sacramento, California.

ROBERT H. WEAVER (1938-1941) has retired and has not done anything in the way of work since undergoing open heart surgery in 1975.

WILLIAM A. RYAN (M.A., '40) became Professor Emeritus in 1979 after 33 years of college teaching. Among the schools Bill taught at were Washington University (St. Louis), Bradley University, Bay City Junior College, Delta College, and finally, Schoolcraft College (Livonia, Michigan). Bill is currently president of the Sigma Chi Alumni Society (Detroit) and has been playing clarinet and sax in Dixieland bands in Michigan, Ohio, Texas, and Louisiana. He also recently returned from a trip to Alaska.

JANE E. (MRS. ROY) MEYER (B.S., '41, M.A., '46) recently returned from a trip to Germany. She has retired.

FRED S. HONKALA (M.A., '42) was Executive Director of the American Geological Institute, the publisher of Geotimes, from 1974 to 1979. Since 1979 Fred has been a geological consultant. For the past year, specifically, he has been a full-time geological consultant for the U.S. Senate Select Committee on Indian Affairs.

HENRY H. KRUSEKOPF, JR. (M.A., '43) is Assistant District Director for the Texas Railroad Commission, Oil and Gas Division.

EDWARD M. RYAN (M.A., '43) spent the summer of 1980 studying the volcanoes of the San Francisco Peaks volcanic field near Flagstaff, Arizona. With the cooperation of U.S.G.S., a number of interesting conclusions were drawn pertaining to these volcanoes. This field research was followed by a leisurely trip to Mt. St. Helens (and his son's wedding in Portland). Ed had quite a productive summer. He is still teaching geology at Stephens College.

H. BURNETT ELLIS (A.B., '44, M.A., '48) is Director of Audio Visual Media Services and Associate Professor of Geology at Columbia College.

WALLACE B. HOWE (A.B., '47, M.A., '48) continues as the Missouri State Geologist. As State Geologist and Director, Missouri Department of Natural Resources (DNR) Division of Geology and Land Survey, Wally has responsibility for the Geological Survey, the Land Survey, the dam and reservoir safety programs, as well as the Missouri Oil and Gas Council. In addition, Wally chaired the Governor's Advisory Council on Missouri Coal.

MARY H. MILLER (A.B., '47, and M.A., '55) works in the Central Mineral Resources Branch of the U.S.G.S. out of Lakewood, Colorado. She has for the past 2 years been part of a team assessing the mineral resource potential of the Rolla 1°x2° quadrangle. Mary plans to be mapping in Missouri this fall. Stop by the Department, Mary.

HUGH M. LOONEY (M.A., '48) and wife, Tillie, enjoyed seeing friends and renewing acquaintances at the recent AAPG meeting in Denver.

LESLIE K. MARVIN (A.B., '48, M.A., '50) has retired and returned to the Show Me State after 20 years in Houston, Texas. Les now lives in Kimberling City, Missouri.

ROMAINE L. KUPFER (M.A., '49) spent the past summer in Orono, Maine, where she attended the 35th reunion of her entering class. (She graduated in 1947 because of several years in the WAVES.) Mary's husband, Donald, will be retiring from Louisiana State University this December after 25 years of service. During April and May of 1979 the Kupfers visited Greece and Israel. In Israel they were guests of the Hebrew University in Jerusalem and did fieldwork along the Dead Sea and at Mt. Sodom. Don went on to Poland and Romania in July of 1979 where he visited various salt deposits.

JIM CONNELLY (A.B., '49, M.A., '50) retired from Chevron in 1977 and accepted a position as Exploration Evaluations Manager for Amerada Hess Corporation in Lafayette, Louisiana.

GEORGE L. HERRELL (A.B., '49, M.A., '50) is presently associated with McRae Oil Corporation in Shreveport, Louisiana. He recently wrote a short paper on the Welcome Field, Columbia County, Arkansas, which was published by the Shreveport Geological Society along with several other papers in the Report on Selected Oil and Gas Fields, North Louisiana and South Arkansas. George has kindly donated a copy of this report to the Departmental Library.

CARL B. REXROAD (A.B., '49, M.A., '50) continues research on Silurian and Mississippian conodonts and biostratigraphy. Carl spent two months this year in England (mostly), Belgium, and Holland working with European specialists, but he missed a trip to Prague, where he was to present a paper, because the Czech embassy held his passport.

Ray Ethington can commiserate with you, Carl. He had some problems with the Czechs too.

DONALD L. BIGGS (A.B., '49, M.A., '51) is teaching mineralogy and sedimentary petrology at Iowa State University. His current research interest is in the mineralogy of coal deposits. Don is also program chairman for this year's North-Central GSA. This will be held in Ames, Iowa, next April 30-May 1. Don assures us that there will be an excellent program.

JOHN R. CROCKER (A.B., '50) writes that he is "just trying to make ends 'meat' with what Dr. Clay Johnson taught me. I should have listened!" In Dallas, John is a partner in Ribelin Distribution which supplies raw materials to the coatings industry. These materials include bentonites, calcium carbonates, magnesium and aluminum silicates, etc.

MARVIN L. DWIGHT (M.A., '50) is still working for Exxon. He represents Exxon matters of unitization and conservation before the Louisiana Dept. of Conservation and the Mississippi Oil and Gas Board. He works in New Orleans, commuting from Covington, La., via the Lake Pontchartrain causeway.

ROBERT L. HELLER (Ph.D., '50) is at the University of Minnesota-Duluth.

F. D. HOLLAND, JR. (M.A., '50) recently completed restoration of a Triceratops skull at the University of North Dakota Geology Museum and also excavated the bones of a second specimen this summer. He writes, however, that he hasn't really turned into a vertebrate paleontologist and that he plans to be at GSA this fall.

EDWARD T. LUCAS (A.B., '50) is semi-retired although he still works some for Sears and Roebuck.

HERBERT O. SARTORI (A.B., '50) has been managing the Howard Johnson's restaurant in Poughkeepsie, New York, for the past seven years.

JIM SPENCER (B.S., '50) has moved to Olney, Illinois.

CLIFFORD A. BALSTER (1950-1951) is a consulting geologist in Billings, Montana.

ELMER D. PATTERSON (A.B., '50, M.A., '51) is the 1980-81 President of the Roswell, New Mexico, Geological Society. He is semi-retired.

JOHN H. SPOTTS (A.B., '50, M.A., '51) is Chief Geologist for Chevron Resources, a subsidiary of Standard of California, which explores for minerals and energy. John hasn't seen a lot of Mizzou alumni recently although he had a pleasant lunch with W. T. Cancer (M.A., '56).

PAUL C. KNOWLTON, JR. (A.B., '51) is now Manager of Exploitation Geology for McMoran Exploration Company in Metairie, Louisiana.

HAL LEVIN (A.B., '51, M.A., '52) is presently Professor in the Department of Earth and Planetary Sciences and Associate Dean in the College of Arts and Sciences, Washington University (St. Louis). He has just completed a textbook entitled Contemporary Physical Geology which will be a companion to his earlier historical geology text, The Earth Through Time. Hal is also revising several earlier books and beginning a manuscript for an invertebrate paleontology. He hopes to resume his coccolithophorid studies shortly.

JAMES HADLEY WILLIAMS (A.B., '51, M.A., '52) is Chief of the Engineering Geology Section, Missouri Geological Survey. Jim is also heavily involved in proposing a licensure or certification procedure for geologists in Missouri.

R. L. RAYL (A.B., '51, M.A., '52) recently transferred to Houston after a three-year assignment in London. His job in Houston involves exploration and production throughout the southern and eastern U.S.A.

PAUL BIRKHEAD (A.B., '51, M.A., '60) is Professor of Geology at Clemson University.

GEORGE FRAUNFELTER (M.A., '51, Ph.D., '64) writes that he "certainly enjoyed the alumni cocktail party at the AAPG in Denver and welcomes the rebirth of the departmental newsletter."

We certainly plan to keep these going, George. See you at the next GSA or AAPG.

PAUL E. GERDEMANN (A.B., '52) is engaged in domestic and foreign (Europe, Australia) exploration for St. Joseph Minerals.

R. D. (BOB) DIEM (A.B., '52, M.A., '53) is head of the Geological Department for Texaco's Los Angeles office covering the west coast and Alaska.

A. J. EHLMANN (B.S., '52, M.A., '54) is currently in his 12th year as chairman of the Geology Department at Texas Christian University. He was elected a University Honors Professor in 1978. He notes that he frequently sees Dr. Keller at professional meetings.

WENDELL COCHRAN (A.B., '53, M.A., '56) says, "I'm again working with Unk after a lapse of more than 20 years. . . . Among new duties: teaching annual workshop on writing. . . . After the recent IGC in Paris, I attended (Unk's influence again) a Wilton Park Conference, in Sussex."

DENNIS B. DUEWEL (A.B., '53, M.A., '57) presented a paper on the "Geology of Nevada Barite" at the Industrial Minerals Forum in St. Louis last March. Dennis currently serves as Manager of Nevada Operations for Chromalloy American Corporation.

TROY J. LASWELL (Ph.D., '53) says that our reply card doesn't have space to list all the activities accompanying the departmental Chairman's position, the position he still occupies at Mississippi State. Troy's son, David, is now a junior in the College of Business and Industry at Mississippi State.

JERRY D. VINEYARD (A.B., '53, M.A., '63) became Assistant State Geologist in May, 1979. Jerry notes that "the Missouri Survey now has a full-time staff of 50, plus 20 or so on Federal grant projects, plus 10-20 students part-time during both summers and school months. And geology is more interesting than ever."

The answer to your question, Jerry - 1975!

RAY H. POTTS (A.B., '54, M.A., '59) is now living in Oklahoma City.

RICHARD HAMILTON (M.A., '55) is still teaching and enjoying earth science at Mt. Greylock Regional High School in northwestern Massachusetts. Dick received approval four years ago to institute a year long course in physical and historical geology for college-bound juniors and seniors. Geology teaching now accounts for about 60 percent of his time.

PHILIP D. HOFFMAN (A.B., '55) is Vice President of Aaron D. Cushman and Associates, an international public relations agency out of Chicago. Philip is active in the Winnetka Community Theatre and Tower Players. Son, Alan, is a freshman at R.P.I. and wife, Eileen, is a substitute teacher for suburban north shore schools.

HERMAN PONDER (A.B., '55, Ph.D., '59) is Director of the Colorado School of Mines Research Institute. The Institute provides professional services (geological, mineralogical, metallurgical, and environmental) to the mineral industry. Other Missouri grads at the Institute include W. T. Caneer and Jerry Krause. Herman and wife, Barbara, have been in Golden now for 17 years.

EARLE F. MCBRIDE (M.A., '56) was President of SEPM for 1979-1980; he became Chairman of the Department of Geological Sciences at Texas this last September. Earle attended the International Geological Congress in Paris and a pre-Congress field trip in the United Kingdom. Later, he conducted field work and oenological studies in the Appenines.

WILLIAM C. BRIDGES (A.B., '56, M.A., '57) is a Vice President of DeGolyer and MacMaughton, an international consulting firm operating out of Dallas. Bill's work includes geological and economic evaluations on all continents of the world. Most recently he has been in Algeria, Australia, Colombia, Libya, Nigeria, the North Sea, the Persian Gulf, and Peru. In 1981 he will be evaluating the petroleum potential of offshore Uruguay.

H. L. (HANK) OTT (M.A., '57) returned from a 4-year assignment in Australia to Denver in 1971. Since then he has been working on the Thrust Belt geology of western Montana. Since 1976 Hank has been Division Geologist for the Rocky Mountain Division of Chevron USA. Hank will be visiting OI' Mizzou as part of a Chevron recruiting this fall.

ROBERT K. SYLVESTER (M.A., '57) was recently appointed Division Geologist for Texaco's New Orleans Division.

DENNIS R. OJAKANGAS (M.A., '58) is Director of Computing at the University of California, Davis. Dennis teaches a course in Computer Applications in Geology and individual projects in Advanced Computer Applications in Geology.

GERALD W. KINSLEY (A.B., '58, M.A., '60) is an independent consulting geologist currently representing Helmerich and Payne Drilling Co. (Tulsa) in exploration for oil and gas in the southeastern U.S.

JOHN H. WALL (Ph.D., '58) is now with the Micropaleontology Section of the Institute of Sedimentary and Petroleum Geology, Canadian Geological Survey. His principal research interest is in Mesozoic microfaunal biostratigraphy of the Canadian Arctic Archipelago. For the past two summers John has been attached to field parties on Ellesmere and Axel Heiberg Islands. He also works on the Cretaceous of Alberta and has conducted collecting excursions for the local paleontological society.

JESSIE ELLIS (Ph.D., '59) is Professor of Geography at Columbia College.

LLOYD J. SCHMALTZ (Ph.D., '59) is still serving as Chairman of the Geology Department at Western Michigan University. He will be at the Atlanta GSA next fall.

DAVID D. SMITH (A.B., '59, M.A., '63) is still teaching at Lompoc Senior High - physics, ninth grade physical science, ninth grade earth science, 11th and 12th grade earth science, and math. Dave says, "If that sounds placid, undemanding, or boring come walk in my moccasins." We have also heard from an anonymous source that Dave now runs "miles and miles and miles."

MARVIN J. ANDRESEN (Ph.D., '60) is with Alaska Energy Corporation and is engaged in oil and gas exploration and production in Alaska, Wyoming, Colorado, Nebraska, and Oklahoma and gold production in Alaska.

RICHARD W. OJAKANGAS (M.A., '60) is Chairman of the Geology Department at the University of Minnesota-Duluth. Dick was in Antarctica last November through December. He has been investigating uranium deposits in Australia and Saskatchewan and the results of his sedimentological studies of the Precambrian will appear in Geology of Minnesota (in press).

THOMAS A. BOND (A.B., '61) left the position as Provost and Vice President of Academic Affairs at Eastern Illinois University. He is now President of Clarion State College, Clarion, Pennsylvania.

EUGENE J. KINERNEY (M.A., '61) is currently Associate Professor of Geography at the University of the District of Columbia in Washington, D.C. He recently co-authored a book for the U.S. Census Bureau, entitled Mapping for Censuses and Surveys. He also has conducted international workshops on census mapping in Honolulu, Hawaii, and Jakarta, Indonesia.

ARTHUR REESMAN (M.A., '61, Ph.D., '66) spent 3 years as Chairman at Vanderbilt. The Vandy Geology Department moved into new facilities a year ago. The past year was spent unpacking and in familiarization with the new SEM and XRF instruments. Art will be at GSA this fall.

J. O. (JOE) SNOWDEN (M.A., '61, Ph.D., '66) is Professor of Earth Sciences at the University of New Orleans. He is currently on sabbatical, working with the Naval Ocean Research and Development Activity. The research involves uptake of radium from oilfield brines by Mississippi Delta marsh sediments.

NICK SAUM (M.A., '62, Ph.D., '70) is living in Golden, Colorado. He spends about 50 percent of his time flying in one of the three hot-air balloons he owns. These are leased by Coors Brewery. The other 50 percent is spent in exploration geology. Nick presently has four mining properties leased out to major companies.

FRANK G. HARRIS, III (M.A., '63) lives in Shreveport, Louisiana, and dabbles in oil and mineral leases. Frank is becoming well known in the fish-and-game circles of Louisiana and has a duck camp hidden in the swamps. He is raising three children, a boy and two girls, in Shreveport and a crop of alligators at his duck camp.

WAYNE F. CANIS (M.A., '63, Ph.D., '67) just joined the faculty at the University of North Alabama, which is initiating a new geology program. Wayne is now researching Cretaceous and Eocene barnacles. He is also working (with William J. Neal, Missouri Ph.D., '68) on a handbook for those living on or near the barrier islands of Alabama and Mississippi. Wayne sends regards to all.

KARL M. LOOFF (A.B., '63, M.A., '68) was Chief Geologist at Tenneco Oil Corporation until July, 1980, but he was recently promoted to Manager of Tenneco's Mineral Exploration Department.

TROY L. HOLCOMBE (M.A., '64) is still employed by the Naval Ocean R&D Activity, where he is head of the Geology Branch. Currently he is on a one-year sabbatical at Texas A&M where he is working on a review of Caribbean deep-sea stratigraphy and tectonics to accompany the USGS/NORDA "Geologic-Tectonic Map of the Caribbean Region."

C. FREDERICK LOHRENGEL II (M.A., '64) is Associate Professor, Chairman, and the entire faculty of the Geology Department, Snow College, Ephraim, Utah. He is consulting on limestones and clays.

CHARLES E. PAYTON (Ph.D., '64) is Conoco's Manager of Operations, North American Exploration. Charlie spent some time at the Department last year and gave several stimulating talks on the oil industry. Thanks again, Charlie!

HUGO THOMAS (Ph.D., '64) is the Connecticut State Geologist.

WILLIAM D. BALGORD (M.A., '65) is President of Environmental and Resources Technology, Inc. His firm operates out of Brookfield, Connecticut and is engaged in sampling of acidic precipitation, visibility impairment modelling, and emissions controls evaluation.

Bill stopped by Camp Branson last summer on a scouting trip for his program for sampling acid rains in the Western United States.

JOHN J. (JACK) GALLAGHER, JR. (M.A., '65) has been appointed manager of the Basin Study Department for Cities Service. Jack has a paper on the tectonics of China coming out in a future AGU Memoir. He spent last February in Singapore studying the tectonics of East Asia and Australia and last September studying Alpine geology. Jack coauthored 2 papers at the 1980 AAPG: (1) Continental Tectonics using China as an Example, and (2) Rifts and Plate Tectonics of East India. The latter was rated one of the top 5 papers at the AAPG.

ART KASEY (1965-1971) is teaching six sections of advanced earth science at Fox Senior High in Arnold, Missouri. The main emphasis is geology and he writes that, "I thoroughly love my work." Art works directly with 160-180 students per year and with the help of various grants has provided research experience to advanced students in geochemistry, mineralogy, optical mineralogy, petrology, and invertebrate paleontology, all modified for high school.

ERNIE KNIRK (B.S., '65, M.A., '70) has moved from Superior Oil to a position of Division Exploration Manager for Hamilton Brothers in Lafayette, Louisiana.

MICHAEL W. MARTIN (B.S., '65, M.A., '71) has left Cities Service and joined Cosela Resources in Denver as an exploration geologist. Mike's projects are now in Colorado and Utah.

PHILIP C. WICKLEIN (M.A., '66) works for AMAX Exploration, Inc. in Salem, Missouri. Phil reports "two kids and one on the way."

R. E. (BOB) BUSCH, JR. (A.B., '67) is engaged in a number of pursuits - finishing his Ph.D. at the University of California at Davis; geological consulting on slope stability; working as a geologist for an engineering firm; creative writing (science fiction); and publishing the 1980 Beaches Weekly Engagement Calendar, an educational tour of northern California.

ARTHUR B. MERKLE (Ph.D., '67) is working for EDAX International, Inc., in Prairie View, Illinois. Art is an applications engineer working on energy dispersive x-ray analysis in mineralogical systems and light element applications development (C, O, N analysis). He also teaches in EDAX EDX schools.

DOUG ELLEY (B.S., '68) continues to make his stained glass and artwork in the Missouri River town of Lupus. Doug reopened the Lupus general store and was last year elected Mayor by "a landslide of 16 of the 18 votes cast." He continues research and development on his solar powered outhouse--

"the Skycraper"--for which he received both a Department of Energy grant and Senator Proxmire's "Golden Fleece Award" (see Time last summer). Doug states that "all of these activities complement my fascination with the history, culture, and quality of environmental experiences on the Missouri River."

BOB F. MALLORY (Ph.D., '68) is teaching at Northwest Missouri State University. Bob served as Chairman at Maryville until recently; he has also published two textbooks.

ROBERT M. (BOB) SIEBERT (B.S., '68, M.A., '70, Ph.D., '74) is currently Senior Research Scientist with the Exploration Research Division, Conoco, Inc. He is performing research on logging tools and problems of geochemistry and diagenesis. Bob's other career is the raising, with the help of wife, Donna, of course, of their two children, Jon and Chris.

VAN BRAHANA (M.A., '68, Ph.D., '73) is with the U.S.G.S. in Nashville and is an Adjunct Professor at Vanderbilt, University of Tennessee-Nashville, and Austin Peay. Among his present projects are groundwater flow modelling in 2 and 3 dimensions; modelling solute transport in groundwater systems; environmental hydrogeology of the Tennessee-Tombigbee waterway; and delineation of aquifers suitable for underground waste. He also doubles (quadruples?) as a naturalist, poet, and song writer.

DONALD G. BUCHANAN (B.S., '69) is a major selectee for the U.S. Air Force. Don received an M.S. from the Navy Postgraduate School in Oceanography (1975). He is currently assigned to the Pentagon as a climatologist for the Defense Department. He is also Secretary of the Washington, D.C., Chapter of the American Meteorological Society.

CHRIS KIERST (A.B., '69) is in Casper and engaged in "work, hunting, and parenting."

BOB PAUKEN (Ph.D., '69) is with the Energy Minerals Special Projects Group of Mobil Oil. Bob is presently conducting regional geologic evaluations of selected countries in Africa for the purpose of identifying areas with undiscovered uranium potential.

EVERETT J. KASTLER (B.S., '70, M.A., '72) is now employed by Mobil Exploration in New Orleans.

STEVEN W. SISK (B.S., '70, M.A., '72) presently works for EPA's National Enforcement Investigations Center in Denver. Steve is involved in groundwater studies relating to hazardous waste sites. EPA is trying to build a sufficient technical base for legal enforcement of regulations. Presently Steve is working on plant sites in West Virginia, Tennessee, Iowa, Missouri, Michigan, and California.

MARTHA M. HAMIL (Ph.D., '71) is now with the Research Division of Engelhard Minerals and Chemicals in Edison, New Jersey. Martha is Senior Research Microscopist working with clays and catalysts. Martha's spare time (and money) is spent showing her dogs.

MIKE NAVIN (B.S., '71) is a geologist with the Army Corps of Engineers, working out of the St. Louis District.

DAVID L. LEACH (M.A., '71, Ph.D., '73) is now with the Branch of Exploration Research of the U.S.G.S. in Colorado. Dave is involved with a number of geochemical and statistical studies related to mineral resource assessment. He recently commenced a geochemical and fluid inclusion study of the Coeur d'Alene mining district in Idaho.

JACK BERKLEY (M.A., '72) is currently employed with the Lunar Planetary Laboratory at the University of Arizona. Jack is working on achondrite ultramafic meteorites and terrestrial analog studies to Martian weathering products and processes. Wife, Mira, is expecting in April. Jack says, "We're hoping it will be either a boy or a girl, but if it turns out to be a geologist, we'll adjust!" Jack sends best regards to all.

JAMES P. MURRAY (M.A., '72) is with the Division of Applied Sciences at Harvard.

DIETMAR SCHUMACHER (Ph.D., '72) is presently Supervisor of Petroleum Geology Section, Phillips Petroleum Company Research Center in Bartlesville. Diet joined Phillips in 1977 after seven years of teaching at the University of Arizona.

GERALD L. FEDER (Ph.D., '73) is with the Water Resources Division of the U.S.G.S. in Denver. Gerry is working on problems of the geochemical environment and human health and disease, complexation chemistry of metals and humic acids, and the toxicity of Mt. St. Helens ash on aquatic systems.

PAUL L. GEBHARD (M.A., '73) left Exxon in 1978 to work for Delta Drilling in Pittsburgh. Last July he joined Appalachian Exploration and Development in Charleston, West Virginia, as District Geologist.

JOHN KARLO (M.A., '73) has left Central Michigan University and gone into the petroleum industry with Mobil in Dallas. At John's recommendation we had two fine field camp students from CMU last summer.

JOHN R. LYLE (M.A., '73) is Regional Geologist with Kerr-McGee. He announces that a new family member, Heather Lyle, arrived safe and sound last year.

TOLA MOFFETT (M.A., '73) has left the Alabama Geological Survey to work on a doctorate in civil engineering at the University of Alabama.

ED WILLIAMSON (M.A., '73) and wife, Connie (the former Geology Librarian) have moved to New Orleans. Ed is Regional Geologist for Amoco there. We've enjoyed Ed's visits as an Amoco recruiter the past few years.

MIKE QUEARRY (B.S., '73, M.A., '75) married Lucia List, another former M.U. student in 1975 and has been in New Orleans since then. Mike is currently District Geologist in charge of exploration in the Meocene of Southern Louisiana. Lucia finished her B.S. at the University of New Orleans and is a geophysicist at Louisiana Land and Exploration Company. The Quearrys still enjoy the outdoors and spend much time canoeing in

Mississippi and occasionally in "tougher water" (Arkansas, Colorado, and Rio Grande Rivers). If they aren't camping, they're at home working on their 35 year old house. They have no children yet and no plans for any at present.

JOHN REPETSKI (M.A., '73, Ph.D., '75) is still looking at Cambrian and Ordovician conodonts and other phosphatic "micro-what-nots" for research. He is also doing conodont age dating for other scientists (both within and outside the U.S.G.S.). John's research area has expanded to the limits of U.S. Ordovician rocks (i.e., Alaska and New England) and to Tibet. John is at the U.S.G.S. "paleocolony" at the Smithsonian in Washington, D.C., but he has "given up handball (no partners and too expensive here) and taken up distance running (finished 4 marathons and umpteen shorter races)." John and Donna also say that they miss the Friday evening softball games at Mizzou.

ROBERT L. BAUER (M.A., '74) is with Macalester College in St. Paul, Minnesota. Bob is in the process of finishing (perhaps already finished!) a Ph.D. at Minnesota and is studying metamorphic fabrics in the Canadian Shield.

SHIRLEY DREISS (M.A., '74) completed a Ph.D. at Stanford in September, 1979, and has been teaching since then at the University of California at Santa Cruz.

TIM MCHARGUE (M.A., '74) is pursuing a doctorate at the University of Iowa.

GARY WALTER (M.A., '74) is considering returning to the "shelter of academia." Gary's wife, Peggy, is in the process of finishing up her nursing degree.

BOB WARMBRODT (B.S., '74, M.A., '75) has worked a mixture of geology and geophysics since graduation. Bob is currently Supervisor for West Texas Exploration for Superior Oil in Midland, Texas. He, Chris, and their two sons, Joe and Tom, are enjoying life in "remote West Texas," but plan to visit us in Columbia next year.

MARY COMBS (B.S., '74, M.A., '76) is now with the Michigan-Wisconsin Pipeline Company in Oklahoma City, Oklahoma.

How do you explain that geography, Mary?

CAROLYN DEVINE (M.A., '75) is a Lecturer for the Department of Geosciences, Texas Tech University. She is currently writing a dissertation on low temperature geochemistry. Carolyn anticipates receiving her Ph.D. next June from Northwestern University.

ROBERT C. MILES (B.S., '75, M.A., '77) has worked for Amoco Production Company in Houston for the past 3 years. Currently, Bob is Area Geologist, supervising the Eastern New Mexico Geological Operations Group.

MICHAEL PATTERSON (B.S., '75) is a production geologist for Gulf Oil in Oklahoma City. Mike is working with the Enhanced and Secondary Recovery Group. This group is involved with reservoir characterization, core analysis, unitization, electric log analysis of wellbores and general geological consultation with Gulf's enhanced recovery engineers.

STEVE REINERT (M.A., '75) is now with POGO Oil Company in Denver.

RON STOUFER (M.A., '75) has left the Delaware Department of Natural Resources and joined Wehran Engineering in Middletown, New York, as senior geologist. Wehran is a consulting firm specializing in solid and hazardous waste management. Ron is conducting hydrogeologic investigations of existing and proposed landfill sites.

DONALD R. BOOTHBY (1975-1976) is with Texas Oil and Gas Corporation. Don is involved in development work in the Denver Basin.

ROD HAENNI (1975-1977) began work with Urangesellschaft based in Denver in March, 1978. In January, 1980, he joined Marathon Resources. Rod is currently working on base metal projects in Missouri, Ohio, and Tennessee. He will be in New Zealand this fall on a combined vacation and business trip. As busy as he is, Rod still plans on defending his thesis this year.

AUDREY LIPKE (A.B., '75, M.A., '78) is working on a Ph.D. in crystallography under S. W. Bailey at the University of Wisconsin. She is refining the crystal structure of the mineral fuchsite. Audrey recently became engaged to Bill Rule, a Canadian engineer, who works for Shell Minerals of Canada in Calgary, Alberta. Audrey and Bill are planning a July wedding.

ART BANET (M.A., '76) is now with the U.S.G.S. Conservation Division in Billings, Montana. Art is presently involved in coal exploration and evaluation work in the tertiary of the Williston Basin. This has led to two Open File Reports with another in progress and three 7 1/2-minute coal series quads (now in editorial review). These quads are the result of Art's detailed field mapping around the north end of the Cedar Creek anticline. More recently, Art addressed the Fort Union Regional Coal Team to delineate coal tracts and explain selected Logical Mining Units in eastern Montana. In his spare time, he edits coal reports and trains personnel.

AL FOUNIE (M.A., '76) is now with Texaco's Research Evaluation Group in Denver.

BILL BERGFELDER (M.A., '76) is now with Conoco in Casper.

BRUCE HUNTER (M.A., '76) received his Ph.D. from Texas Tech in 1979 and is now employed by Exxon.

DAVID J. KENNEDY (Ph.D., '76) is "still trying to find a permanent job in teaching." Dave has spent a year each at Monmouth College, Monmouth, Illinois, and Colorado College in Colorado Springs. Dave is now continuing his research on conodonts at the University of Waterloo, Ontario, Canada.

STUART MAIER (B.S., '76) is a geologist with Gulf in the Oklahoma City Area Office.

RICH PETRUS (M.A., '76) is moving to Denver.

That's O.K., Rich, the Penn State game wasn't all that great.

CECIL SLAUGHTER (B.S., '76) is with Kerr-McGee in Grants, New Mexico. Cecil is, however, considering returning to graduate school.

KENNY SUSEWIND (B.S., '76) is now with Exxon in Houston.

TERRY FOREMAN (B.S., '76, M.A., '79) is now with Nortec (a subsidiary of Fluor). Terry is evaluating the hydrogeological effects of the Alaskan pipeline.

JAMES R. FRANK (B.S., '76, M. A., '79) is a Development Geologist with Chevron in Denver.

KIRK A MCQUILLAN (B.S., '76, M.A., '79) is a geologist with Texaco in Midland, Texas. Kirk is working with problems of exploration and enhanced recovery, primarily in carbonates.

SCOTT C. CHRISTENSON (M.A., '77) is currently doing digital simulation modelling of the North Canadian River stream-aquifer system in northwestern Oklahoma for the Water Resources Division of the U.S.G.S. Scott recently married and says that marital status suits him well.

JOHN W. ELLISON (M.A., '77) is with Hickory Creek Oil Company in Parsons, Kansas. John has some specific messages:

To Jane Flachmann: "Hope to see you in ski country soon."

To Zatezalo & Petrus: "Do you guys really drink Iron City?"

To Kate Abel: "Maybe next year in Houston."

To Kenny & Bonnie Susewind: "Thanks for the great times in Louisiana."

To Mark Peterson: "What happened to that spare tire?"

To Jim Darr: "Those girls weren't that great."

To Andy Kemmer: "Good to see ya, Andy."

To Meg George: "A dress every day?!"

To Art Banet: "Still up in Billings--where men are men and so are the women?"

RAY JONES (M.A., '77) recently married a Texan.

ROB KALISH (B.S., '77) says that he is "finishing thesis (honest George!); moderating my drinking; trying to get out of Houston; and, in general, trying to be a fine, upstanding citizen. If you find this difficult to believe, just remember if Abbie Hoffman can do it so can I!"

Rob, did Abbie Hoffman really ever finish his thesis?

OLAV MALVIK (M.A., '77) was not on the rig that collapsed on the North Sea, but he did know two that died on it. Olav is still residing in Stavanger, Norway, but he now owns a farm in Ireland. Olav has two big announcements. He married last June. His wife, Joanne, is from Wisconsin, but they met in Norway. Olav and Joanne were recently in Israel and Ireland. Secondly, Olav has also been selected to play for the Norwegian National Rugby Team. Norway defeated Denmark 41-0, but soon face the prospect of playing in Sweden, Wales, and London. Olav is now Staff Geologist on the Eldfisk field, but expects to be transferred soon.

MARK PETERSON (M.A., '77) is with Marathon. Mark served as an interviewer for Marathon this fall and presented us with a check from Marathon Foundation.

RODNEY D. SHEPHERD (M.A., '77) is a petroleum geologist for Texas Oil and Gas in Billings, Montana.

KEN JACKSON (B.S., '77, M.A., '79) is employed by Amoco Production, working on Texas Coast exploitation projects.

DAVID HEARN (1978) is working as a consulting geologist in the Sweetgrass Arch and in the Northern Montana Overthrust, just outside Glacier National Park. Dave wishes "the buckies in Houston some cool weather."

KEVIN O'DEA (B.S., '78) is an engineering geologist for Woodward-Clyde Consultants, working out of their Chicago office. Kevin recently relayed some job openings to us to advertise to our students.

STEVE CHATMAN (B.S., '79) is working for Layne-Western in Kansas City as a hydrogeologist. Steve married recently.

JAMES DYESS (M.A., '79) is working for Marathon. Jim has been involved in exploration and field work in both California and Alaska. He says that "Alaska is a great place to work (and visit), if any of my friends from Mizzou want to stop by [in Anchorage], please call him at 907/274-1511." Jim also notes that the petroleum industry seems to have finally discovered the Ouachitas.

MORRIS HALL (M.A., '79) recently transferred to the Hydrology Unit-Earth Sciences Group with Rockwell International. Morris is presently concerned with field hydrology--pump tests and analyses, modelling of nuclide transport and writing a methodology to perform radioactive waste site assessment.

EDITH ROPER HARRELL (M.A., '79) spent four months last summer and fall travelling around the western United States. Since November Edith has been working for Amoco Production in the Enhanced Oil Recovery Group. She is now conducting field studies to determine how a particular oil field will respond to CO₂ flooding. Edith and Tom Harrell were married in St. Louis last summer; several members of the Department were in attendance.

KURT SKINNER (B.S., '79) is now working with the Defense Mapping Agency in St. Louis as a cartographer.

JERRY YUNKER (M.A., '79) is with Amoco's Texas Coast Division and is involved with tertiary sediments. Jerry says, "Never thought I'd look at such young rocks--especially sedimentary rocks." Jerry and Rob Kalish (B.S., '77) are keeping "the Atlantic City Mercantile spirit alive in the South."

STEVE BIDDICK (B.S., '80) is a geologist with ONG Exploration, Inc., in Tulsa.

STAN FAGERLIN (Ph.D., '80) is Assistant Professor at Southwest Missouri State University. Stan's teaching duties include introductory geology lecture and laboratory, historical geology lecture and laboratory, depositional environments, and geophysics.

JANE R. FLACHMANN (M.A., '80) is Associate Geologist with Conoco in Denver.

DOUG FRICK (M.A., '80) is now with Hydrosearch in Austin, Texas. Doug, with the help of his wife, Barbara, recently produced a healthy baby girl, Samantha. Doug's primary work is in dewatering analysis and environmental assessment of lignite mines in Texas and uranium mines in New Mexico. Doug will be at the NWWA in Las Vegas this October.

DAVID T. KING, JR. (Ph.D., '80) is Assistant Professor at Auburn University where he functions as a physical stratigrapher/sedimentary petrologist.

LEE WILKENING (B.S., '80) was our field camp caretaker last summer and did a great job. Lee is now with Kerr-McGee in Grants, New Mexico.

STATUS OF CONTRIBUTORY FUNDS

We now have six gift-supported funds for the benefit of students and faculty in the Department of Geology. Two of these six were implemented since the publication of the last newsletter. They are the Geology Endowment Fund and the James C. Mitchell Memorial Fund. A brief accounting of all six is given below with their balances as of June 30, 1980.

GEOLOGY DEVELOPMENT FUND (\$13,900)--The principal of this fund used for general support of the Department. Uses include faculty travel to professional meetings, research support for staff and students, equipment, publication of this newsletter, and many other items. As such, this is our most useful fund. The Development Fund receives about \$5,500 per year royalty from the sale of geology lab manuals, \$2,500 from Exxon, \$1,000/year from Marathon, \$1,000/year from Phillips, and \$500/year from Mobil. The rest of the contributions are from individuals (often matched by their employer). Total contributions for 1979 were \$4,807, for 1978, \$11,996, for 1977, \$7,248, and for 1976, \$6,525.

Alumni and other individual contributions in 1979 were received from H. W. Allen, Bill Back, Donald G. Buchanan, the Rev. Torrey Curtis, James D. Davies, Stephan M. Elsner, Neil Elfrink, Mr. and Mrs. Evard Ellison, Richard M. Foley, Mr. and Mrs. Donald S. Garvin, John B. Hendren, Dr. and Mrs. Chauncey D. Holmes, Donald L. Kling, Stuart Maier, Mr. and Mrs. J. H. Marshall, Jr., Mr. and Mrs. Leslie K. Marvin, Earle and Donna McBride, Mr. and Mrs. Tola Moffett, Dr. and Mrs. George E. Moore, Jr., Elmer Patterson, Michael and Lucia Quearry, Mary Louise Rhodes, Carl B. Richardson, Dr. Lloyd Schmaltz, Richard J. Schmitz, Dietmar Schumacher, Mr. Fred H. Strothman and Jack Tlapek.

GEOLOGY ENDOWMENT FUND (\$12,500)--This fund was established in January 1978 with a transfer of monies from the Development Fund. Interest payments are designated for graduate student thesis support.

EDWARD B. BRANSON MEMORIAL FUND (\$4,345)--Principal and interest from this fund are designated for low interest loans to geology majors, graduate and undergraduate. Recent contributors were John Karlo and Edward Melsburger.

M. G. MEHL MEMORIAL SCHOLARSHIP FUND (\$13,992)--Interest from this fund used to reward and support worthy students interested in paleontology and stratigraphy. Recent contributors were Mrs. Martha Buchanan, Mr. and Mrs. Burnett E. Ellis, Dr. and Mrs. Sam Ellison, Mrs. Herbert E. French, George Fraunfelter, Dr. Richard Gentile, Mr. and Mrs. F. D. Holland, Jane Meyer, Mr. and Mrs. Ray Meyer, Arthur Moore, Dr. Robert Parker, Mr. and Mrs. Kenneth Smoot, Bill and Joan Street, Mr. and Mrs. Hugo Thomas, Mr. Robert Warmbrodt, and Chester Whorton. Total contributions for 1976, 1977, 1978, and 1979 were, respectively, \$1,630, \$1,470, \$500 and \$642.50.

JAMES G. MITCHELL MEMORIAL FUND (\$2,821)--This fund was established in March of 1977 is to recognize our outstanding junior major in geology. This scholarship is awarded every other year from interest on the fund. James G. Mitchell (A.B., '33) was the retired president of the American Stratigraphic Company. Since the last newsletter contributions have been received from Mr. and Mrs. William Barksdale, Mr. and Mrs. H. C. Bemis, Mr. and Mrs. Jerry E. Blair, Mr. and Mrs. Joseph L. Borden, Mrs. A. E. Brainerd, Mr. and Mrs. Lyman C. Dennis, Mr. and Mrs. Robert H. Erickson, Mr. William C. Fackler, Mr. and Mrs. Charles K. Fisher, The Geolly Boys, Mr. Bill Goodin, Mr. and Mrs. Darsie A. Green, Mr. and Mrs. John Greene, Mr. and Mrs. Kenneth Griffith, Mr. Jack W. Knight, Mr. and Mrs. Wallace E. Lumb, Mr. R. R. Munoz, Mrs. C. G. Nielsen, Jr., Oddlotter Investment Club, Mr. and Mrs. Paul S. Pustmueller, Rocky Mountain Association of Geologists, Mr. and Mrs. R. L. Sprinkel, Mr. and Mrs. F. A. Thurman, Mrs. Rose E. Wells, Mr. and Mrs. Charles R. Wilcox, and the employees of the American Stratigraphic Company.

W. A. TARR SCHOLARSHIP FUND (\$11,323)--The interest from this fund is used to support and recognize promising seniors or first-year graduate students who are interested in mineralogy or economic geology.

The staff and students of the Geology Department are appreciative of your continued support.

INVITATION TO JOIN THE ALUMNI ASSOCIATION

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