



Missouri S&T Magazine, October 1976

Miner Alumni Association

Follow this and additional works at: <https://scholarsmine.mst.edu/alumni-magazine>

Recommended Citation

Miner Alumni Association, "Missouri S&T Magazine, October 1976" (1976). *Missouri S&T Magazine*. 304.
<https://scholarsmine.mst.edu/alumni-magazine/304>

This Magazine is brought to you for free and open access by Scholars' Mine. It has been accepted for inclusion in Missouri S&T Magazine by an authorized administrator of Scholars' Mine. This work is protected by U. S. Copyright Law. Unauthorized use including reproduction for redistribution requires the permission of the copyright holder. For more information, please contact scholarsmine@mst.edu.

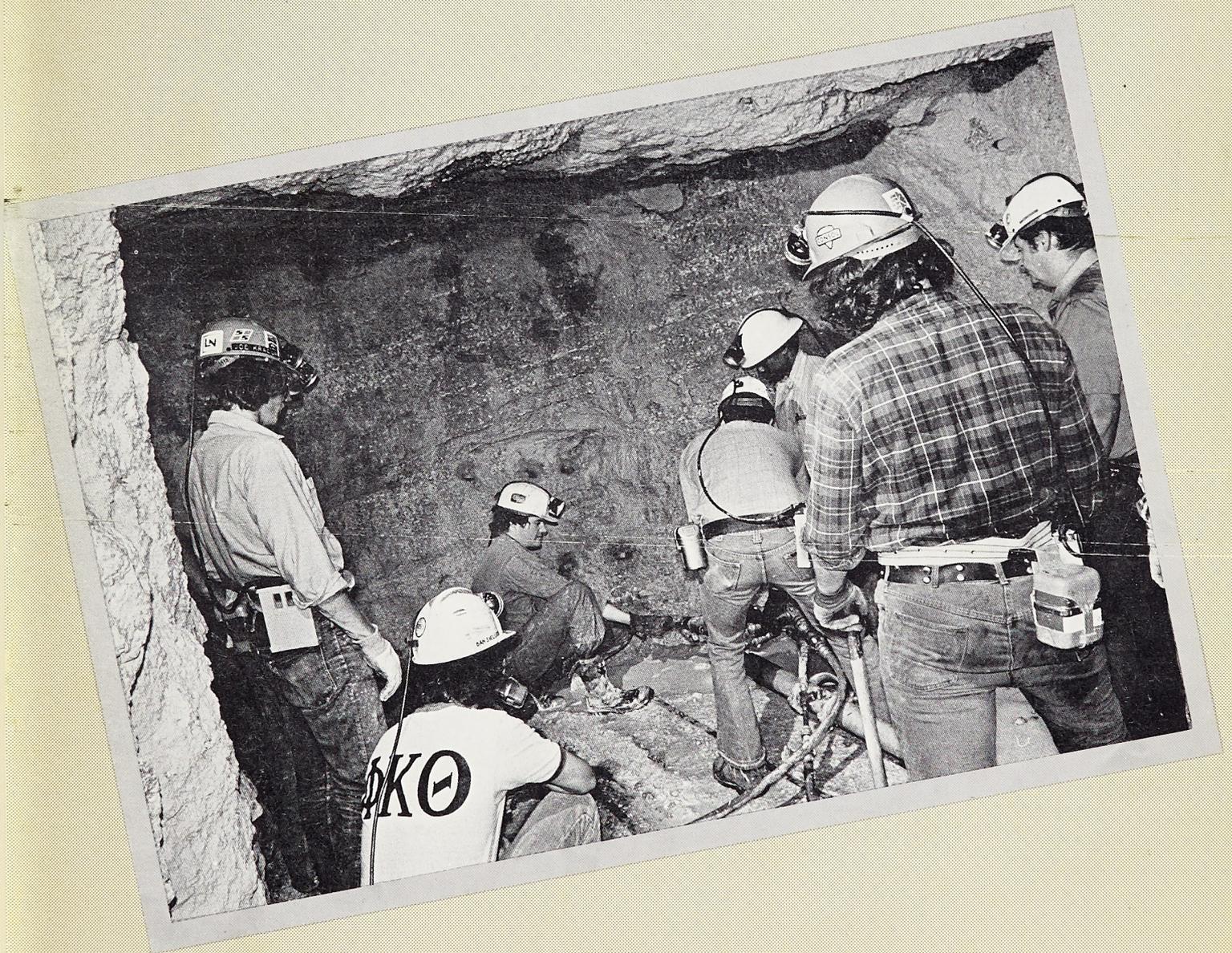
m s m

Alumnus

OCTOBER 1976

NOV 18 '76

UNIVERSITY OF MISSOURI - R O L L A





Alumnus

MSM-UMR Alumni Association
University of Missouri - Rolla
Rolla, Missouri 65401

Volume 50

October 1976

Number 5

On the Front Cover



Students at the MSM-UMR Mine.
Photo by Ernie Guteierrez, Public
Information Office.

Issued bi-monthly in the interest of the graduates and former students of the Missouri School of Mines and Metallurgy and the University of Missouri - Rolla. Entered as second class matter October 27, 1926, at Post Office at Rolla, Missouri 65401, under the Act of March 3, 1897.

MSM-UMR Alumni Association

Telephone (314) 341-4171; (314) 341-4172

		OFFICERS	Term Expires
President	Robert M. Brackbill '42	Texas Pacific Oil Co. 1700 One Main Place, Dallas, TX 75240	1976
President-Elect	Richard H. Bauer '52	Missouri Electrochem, Inc. 8013 Dale Ave., St. Louis, MO 63117	1976
Vice-President	Arthur G. Baebler '55	20 Fox Meadows Sunset Hills, MO 63127	1976
Vice-President	Robert D. Bay '49	222 Magna Carta Dr. St. Louis, MO 63141	1976
Vice-President	James B. McGrath '49	Fruin-Colnon Corp. 1706 Olive St., St. Louis, MO 63103	1976
Vice-President	Joseph W. Mooney '39	7383 Westmoreland University City, MO 63130	1976
Secretary	Robert V. Wolf '51	Dept. of Metallurgical & Nuclear Engr., UMR Rolla, MO 65401	1976
Treasurer	Vernon T. Loesing '42	Route #4, Box 50 Rolla, MO 65401	1976

		DIRECTORS AT LARGE	Term Expires
Allan H. LaPlante '63	12702 Rocky Hill Dr., Houston, TX 77066		1977
Belding H. McCurdy '38	7400 Sun Island Dr., South, Suite 711, South Pasadena, FL 33707		1978
E. L. (Roy) Perry '40	Pres., Fruin-Colnon Intl., Ltd., 8989 Westheimer, Houston, TX 77042		1977
Walter C. Mulyca '65	203 Hillcrest, Marshall, TX 75670		1978
Lawrence A. Spanier '50	5 Pettit Dr., Dix Hills, NY 11746		1976
John O. Wilms '43	7505 Variel, Canoga Park, CA 91303		1976

Area Zip	Code Numbers	AREA DIRECTORS	Term Expires
00-14	H. W. Flood '43	183 Main St., Acton, MA 01720	1977
15-21	J. D. Patterson '61	1660 Ashlawn Dr., Pittsburgh, PA 15241	1977
22-33	John B. Toomey '49	7412 Admiral Drive, Alexandria, VA 22307	1976
35-45	Harold Kosten '60	11197 Marlett Drive, Cincinnati, OH 45242	1977
46-59	Eugene C. Fadler '62	19716 Coachwood, Riverview, MI 48192	1978
60-61	Frank C. Appleyard '37	808 Solar, Glenview, IL 60025	1976
62-62	C. Stuart Ferrell '64	219 Timothy Lane, Carterville, IL 62918	1978
63-65	Alfred J. Buescher '64	28 Regent Lane, Lincolnshire, ILL 60015	1978
63-65	Robert W. Klorer '44	7500 Natural Bridge Rd., St. Louis, MO 63121	1977
63-65	Harold A. Krueger '42	Ozark Lead Co., Rural Branch, Sweetwater, MO 63680	1976
63-65	J. R. Patterson '54	P.O. Box 573, Sikeston, MO 63801	1977
63-65	George R. Schillinger '63	7598 John Ave., Oakville, MO 63129	1977
63-65	Clifford C. Tanquary '57	14219 Denver Ave., Grandview, MO 64030	1978
63-65	Bruce E. Tarantola '51	9000 Skycrest Dr., St. Louis, MO 63126	1978
63-65	George D. Tomazi '58	12723 Stoneridge Dr., Florissant, MO 63033	1978
63-65	R. Michael Salmon '63	2310 Texas, Joplin, MO 64801	1978
63-65	Edwin J. Werner '49	11015 East 39th, Independence, MO 64052	1976
66-74	Herman Fritschen '51	5249 S. 68th East Place, Tulsa, OK 74145	1976
75-79	Rex Alford '40	5743 Jason, Houston, TX 77035	1976
80-90	Thor Gjelsteen '53	3065 South Ingalls Way, Denver, CO 80227	1977
and			
96-99			
90-95	E. Murray Schmidt '49	157 Hickey Blvd., S. San Francisco, CA 94080	1976

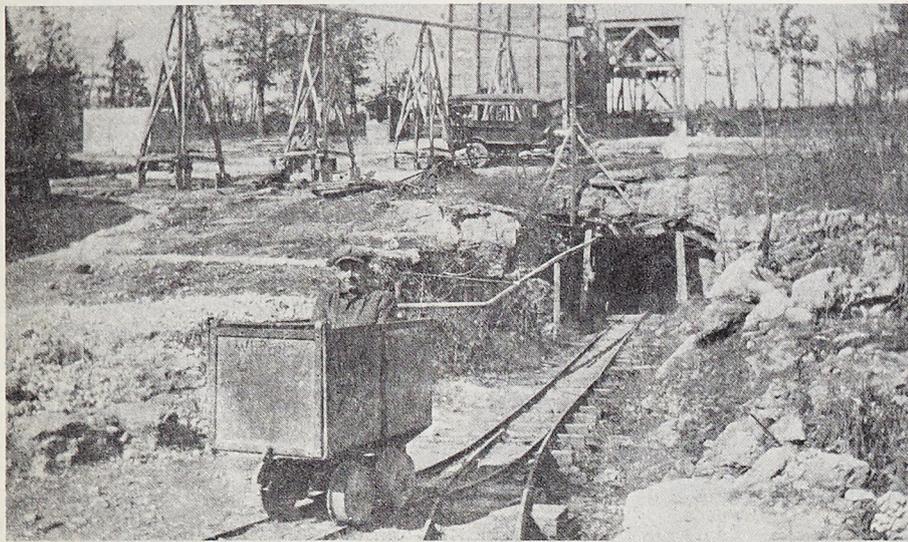
		EXECUTIVE COMMITTEE	Term Expires
Peter F. Mattei '37	9954 Holliston Court, St. Louis, MO 63124		1980
James J. Murphy '35	President, Murphy Company, 1340 North Price Road, St. Louis, MO 63132		1978
R. O. Kasten '43	901 West 114th Terrace, Kansas City, MO 64114		1976

		EX-OFFICIO DIRECTORS
Paul T. Dowling '40	Nooter Corp., 1400 S. Third St., St. Louis, MO 63131	
Melvin E. Nickel '38	10601 South Hamilton Ave., Chicago, IL 61643	
F. C. Schneeberger '25	#1 Briar Oak, St. Louis, MO 63132	
James W. Stephens '47	Missouri Public Service Co., 10700 E. Highway 50, Kansas City, MO 64138	

		STAFF
Frank H. Mackaman	Executive Vice-President, MSM-UMR Alumni Association, and Director, Alumni Activities	
Barbara Petrovic	Staff Assistant, MSM-UMR Alumni Association and Secretary, Alumni Activities	

University of Missouri - Rolla, Harris Hall, UMR, Rolla, MO 65401

School Mine



M S M Mine ~ Oct. 1921

Photo from Album Donated by E. Taylor Campbell '23.

Last summer, Governor Christopher Bond released a sum of reserve money for use by the University just before the end of the fiscal year. It was divided among the four campuses, then among UMR academic areas.

The amount allotted to the School of Mines and Metallurgy was assigned to two projects — completion of Fulton Hall renovation (due to inflation since original appropriation) and purchase of some badly needed equipment and improvements for the experimental mine.

The \$48,400 used for the mine will eventually be spent as follows: \$10,900 for two new trucks to be used to transport students and equipment to and from the mine (approximately a

mile and a half west of UMR on Bridge School Road); \$25,000 for extension of security fencing (\$18,000 for materials and \$7,000 for labor); \$10,000 for an addition to the dry-house warehouse (an equipment storage and repair facility) and \$2,500 for stabilization of the mine adit (entrance).

The mine is used by undergraduate students as an instructional lab, by professors and graduate students for research projects and by the U.S. Department of Interior Mine Enforcement and Safety Administration for mine rescue and training courses and a first aid training course.

You are right, it is the same old school mine, the land was purchased in 1914.

Chancellor Named to National Board

The following remarks were prepared for presentation to the Board of Curators by Interim President, James C. Olson.

“One of the most prestigious appointments made by the President of the United States is one to the membership of the National Science Board, the policy-making body of the National Science Foundation.

“One measure of the Board’s tremendous responsibilities is the fact that the budget for the National Science Foundation for fiscal 1977 is \$773.6 million.

“President Ford has announced the appointment of Chancellor Ray Bisplinghoff of our Rolla campus for a six-year term on this distinguished Board. This appointment, which runs through

CHANCELLOR (Cont.)

May 1982, is pending U.S. Senate confirmation.

“Like the Board of Curators of this University, the National Science Board is a working Board. It meets monthly from September through June, with an executive committee of the Board handling required actions during the interim periods.

“Created in 1950 (26 years ago), the Board consists of 25 members, and the Director of the National Science Foundation serves as an ex-officio member. In its 26 year history, only 101 persons have served on the Board.”

Chancellor Bisplinghoff’s appointment was confirmed by the U.S. Senate on October 1. He became the second from the University of Missouri and the third from Missouri to become a member of this distinguished Board. The late Dr. Frederick A. Middlebush, president of the University of Missouri from 1935 until 1954, was a charter member of the National Science Board. He served for two terms, from 1950 until 1962. He was originally named to the Board by the late President Truman.



Chancellor Raymond L. Bisplinghoff was one of the participants in the International Space Hall of Fame dedication ceremonies, which took place October 9, in Alamogordo, NM.

The chancellor was master of ceremonies at the dedication banquet and introduced the main speaker, Dr. Thomas Paine, former administrator of NASA.

During the previous week, the International Academy of Astronautics held a week-long conference in conjunction with the Space Hall of Fame dedication. Dr. Bisplinghoff was also leader of a seminar on “Engineering in Space Flight” during the conference.

Student Groups Earn National Awards



Representing Wesley Foundation Clayton Smith, Rusty Brian and Terri Payne; Governor Bond.

National recognition in the form of a citation from the National Center for Voluntary Action was awarded to two University of Missouri-Rolla student organizations by Governor Christopher (Kit) Bond Tuesday, Oct. 12.

UMR's Wesley Foundation and Gamma Alpha Delta were each recognized for the quality and quantity of the volunteer programs undertaken by UMR students during 1975. A total of 84 awards were made nationally from among thousands of programs carried out by individuals, students and groups of citizens throughout the nation.

Wesley Foundation is a Christian group of students, sponsored by the United Ministries in Higher Education (UMHE), whose objective is fellowship and service. Projects undertaken by the group during 1975 include: cutting and delivering firewood for needy persons in Phelps County; painting, plumbing, plastering, carpentry, maintenance and development work at Bowman and Cabanne and Wagoner Memorial Churches in St. Louis; carpentry work at Rolla Area Sheltered Workshop; maintenance, construction, plumbing and electrical work at Epworth-Among-the-Hills, Methodist camp in Arcadia; maintenance and construction work at Boy's Town, St. James; development work at Camp Wohelo, Rolla; Christmas party for Phelps County foster children, and emergency clean-up and assistance at Rolla Towers (apartments for elderly) following a fire.



Representing Gamma Alpha Delta Larry Schipero and Bob Schnell; Governor Bond.

O. R. Grawe Award 1976

David Thompson, student at the University of Missouri - Rolla, was honored Friday evening, Oct. 1, at a banquet meeting of the Association of Missouri Geologists (AMG) in Flat River.

Thompson, who received his B.S. degree in geology from UMR last May, is the recipient of AMG's O.R. Grawe Award for 1976. The award is presented annually to the outstanding geology student in Missouri. The winner is chosen from entries submitted by

Gamma Alpha Delta is an UMHE service fraternity, whose members are 16 fraternities and sororities on campus and whose purpose is to sponsor service projects to be completed by the member groups. During 1975, the member groups worked on 38 projects, sometimes spending several days on a project (mostly weekends). The total included eight projects in St. Louis (inner-city area), six in other areas of the state (Springfield, Metz, St. James and Hillsboro) and 16 in Rolla. Eight groups also spent considerable time cutting and delivering firewood for needy persons within Phelps County and winterizing and repairing the homes of a number of elderly Phelps County citizens — as identified by VISTA volunteers.

Citations were presented to representatives of each group by Governor Bond at the time he was on campus to deliver the keynote address for the 3rd annual UMR-MEC Energy Conference.

colleges and universities throughout the state.

AMG makes the award in memory of Dr. O. R. Grawe, founder of the organization and former chairman of UMR's department of geology and geophysics.

Thompson is currently a graduate student in geology at UMR and was also the recipient of UMR's award of "Outstanding Geologist of 1976" last May. He is the son of Mr. and Mrs. Ray F. Thompson, 1441 42nd Street N.E., Cedar Rapids, Iowa.

President Presents Budget...

Dr. Olson recently presented to the Coordinating Board for Higher Education the University's request for \$148 million in state operating funds for fiscal 1977-78.

At the same time, Dr. Olson questioned the board's revised budgetary formula released on Oct. 1. He said the new formula would provide the four-campus University with base support of only \$123 million next year, about \$5 million less than had been received for the current year.

The Oct. 1 guidelines, Dr. Olson said, differ from guidelines furnished to the University on July 16. The new formula does not take into account the University's uniqueness in academic and physical plant areas, according to Dr. Olson. He asked that the board revert to its July 16 guidelines.

University officials and board members agreed that an additional meeting would be needed to discuss the specific application of the formula and its effects on the University. A date was to be arranged later.

The University's \$148-million request for next year is about \$20 million above the current year's appropriation. Dr. Olson said the additional money is needed to increase the University's salary and wage base by 11 per cent; to

allow an eight per cent increase in the expense and equipment base; and to strengthen University programs in energy development and food production.

He said the University's average faculty compensation dropped to 17th place among Big 8 and Big 10 schools in 1975-76 and that the University's competitive position in attracting and retaining service and support staff must be strengthened.

"The University's highest priority must be to attract and retain quality faculty and staff," Dr. Olson said. "We are deeply concerned that over the past seven-year period the University wage and salary increases have lagged 12 per cent behind the rise in prices of consumer goods and services."

Calling the University "a major state asset," Dr. Olson explained that UM offers instruction to students "from freshmen to postdoctorate and also to those in law, dentistry, pharmacy, engineering, medicine and other areas essential to the well-being of the state."

He said the University also has heavy responsibilities in research conducted in every discipline, plus extension functions, which transmit University knowledge to citizens and aid in problem-solving throughout the state.

English 201 B, A Course Description

The Engineer as Writer is a course designated for anyone interested in the ideas of engineering, the uses of language in engineering, and the role of the engineer in society.

Engineers have always used the written word to communicate their projects and to persuade others to accept them. Successful engineers have usually been the good writers. In this course we shall study some of these good writers of the past — what their ideas were, how they used language as an instrument in communicating their ideas, and how these ideas in turn influenced the age in which they lived. The history of technical invention, we will find, is linked to the language in which the invention was described. Finding that language to conceptualize an idea often was the breakthrough in realizing the invention.

Vitruvius was a civil engineer in the time of Augustus Caesar. His description of cement as a building material is alive with excitement and wonder at the

possibilities for improving Rome's architecture. Frontinus, another Roman, is very sarcastic with those who would attack his plan for an aqueduct, which would put running water in the homes of rich and poor alike. In the 16th Century, Biringuccio writes passionately about smelting metal, disgressing at times on the fires of love. Agricola struggles against superstition; Smeaton imagines a giant tree in describing the design of the Eddystone Lighthouse; McAdam (macadam) images his new road as a "roof" which will keep the ground beneath dry; Captain Eads persuades doubters to accept his radical bridge; Raymond, Douglas Aircraft executive, writes with an artist's sensitivity; and so forth. Engineers, it appears, have been everything but illiterate robots.

The course is being offered by Dr. Douglas Wixson, an engineer turned English teacher, who has worked as an engineer in industry and written on Shakespeare and other literary subjects.

Power Course

The Third Brazil Power Apparatus Testing Techniques Course with Laboratory Work will be held during November 3-6 and November 8-11, 1976 in Belo Horizonte, Brazil. The course director, Dr. J. Derald Morgan, Emerson Electric Professor of Electrical Engineering and Associate Director of the Center for International Programs and Studies, University of Missouri-Rolla, explains that the course is practically-oriented and designed for utility engineers and managers, who are engaged in the use, selection and specification of apparatus used in the electric utility industry. Lecture material is complemented with laboratory, hands-on sessions. The success of the course is possible through the expertise and joint efforts of engineers from A. B. Chance (Messrs. Frank Myers and Robert Harmon) and ITE Imperial (Messr. Jerry Staley), as well as that of Dr. Morgan, UMR.

A similar course is to be offered April 26-29, 1977 in the U.S. at the A.B. Chance Company, Centralia, Missouri, high-voltage facility. For those interested, details may be obtained by writing Dr. J. Derald Morgan, 108 Electrical Engineering, University of Missouri-Rolla, Rolla, Missouri, 65401.

Earthquake Symposium

The International Symposium on Earthquake Structural Engineering was successfully conducted by Franklin Y. Cheng, professor of civil engineering at UMR, and Joseph H. Senne, chairman of the UMR civil engineering department, at Stouffer's Riverfront Towers, St. Louis, August 19-21, 1976. The Conference had representatives of 23 countries participating in the program. The 191 participants from the USSR, Japan, Italy, Portugal, Sweden, Turkey, England, West Germany, China, USA, and others are leading practicing engineers and research workers in earthquake structural engineering. The Symposium activities were reported by the Post Dispatch, Globe Democrat, KSD TV, KMOX radio, KMOX TV, Rolla Daily News, Kansas City Times, and other news media. Ninety full length technical papers were published in two-volume Proceedings.

3rd Annual UMR-MEC Conference on Energy



Governor Kit Bond

Missouri Governor Christopher (Kit) Bond delivered the keynote address at the 3rd annual UMR-MEC Conference on Energy on Oct. 12.

Theme of this year's conference was "Energy Crisis — An Evaluation of Our Resource Potential." Purpose of the conference was to provide social scientists, scientists and engineers a means for rapid communication of their most recent research and studies in the field of energy and offer solutions to energy related problems of interest to local governments, industry, business and the general public.

The conference is an extension activity of the University of Missouri-Rolla School of Mines and Metallurgy, School of Engineering, and College of Arts and Sciences. It is co-sponsored by the Missouri Energy Council, a division of the Missouri Department of Natural Resources.

Other speakers invited to discuss general energy topics included Dr. Herman E. Daly, professor of economics at Louisiana State University. He spoke at the conference luncheon Tuesday on the "Steady-State Economy and Energy Consumption."



Herman E. Daly

Dr. Daly is a member of the Committee on Mineral Resources and the Environment of the National Academy of Sciences and editor of a recent book on environmental economics entitled "Toward a Steady-State Economy."

Wednesday Luncheon speaker was Richard T. Kennedy, commissioner of the U.S. Nuclear Regulatory Commission (NRC), Washington, D.C. His topic was "NRC and the States — Partnership in Regulation."



Richard T. Kennedy

Kennedy retired from the U.S. Army after serving 30 years, most of which was focused heavily on international affairs and strategic defense planning. At the time he was appointed to NRC in 1975, Kennedy was deputy assistant to the president and director of National Security Council Planning.

Robert H. Bauer, manager, Chicago operations office of the U.S. Energy Research and Development Administration (ERDA), delivered the banquet address. His topic was "Midwest Perspective."

Bauer joined the U.S. Atomic Energy Commission (predecessor agency to ERDA) in 1955 and held several positions before being appointed manager of the Chicago operations office in 1972. He continued in the same position



Robert H. Bauer

when the office became a part of ERDA in 1975. He is responsible for the administration of more than 900 contracts involving national laboratories, universities, and private industry in 35 states and several foreign countries.

During the two and one half day conference, 124 technical papers were presented in 23 separate phases of the energy field. They were: energy exploration, energy management, wind and solar energy, chemical energy, alternate energy sources-policy analysis, international aspects of the energy question, material and human resources, resource limits, value clarification in the energy crisis, energy and the environment, energy resources-exploration and extraction, energy demand estimation, demand and metering and rate design, energy independence, energy systems, nuclear power — challenges and solutions, energy from solid wastes, bioconversion, building energy usage, environmental constraint, perspectives on energy policy, economics of geothermal energy and spatial and regional aspects of the energy question.

The 4th Annual UMR-MEC conference is scheduled for October 11, 12, and 13, 1977. Homecoming will be October 14-15. Plan to attend both.



Left to right, Harry Pistole, President Carter Oil; Dr. James Cross, Economist, American Petroleum Institute; Colin Lee, Economist and Long Range Planner, Conoco Oil; Prof. Helmut Merklin, Director of International Research, University of Dallas and William Des Vouses, Instructor, Economics, UMR.

University and UMR Enrollment, 1976 Fall

Enrollment on the University of Missouri's four campuses totals 50,011 this fall, Interim President James C. Olson reported to the Board of Curators. This is a decline of 1,194, or 2.3 per cent, from last fall's 51,205, Dr. Olson said.

Enrollment by campus and the change from a year ago: *Columbia*: 23,325, a decrease of 199, *Kansas City*: 10,746, a drop of 641, *St. Louis*: 11,188, down 655 and *Rolla*: 4,752, an increase of 301.

While the University's total enrollment is down from the record enrollment of last fall, Dr. Olson said scattered reports from other major universities indicate UM may not be alone in experiencing an unexpected drop this fall.

Dr. Joe L. Saupe, director of University Institutional Research, said the University's decline was primarily in graduate students and first-time freshmen. In addition, he said the number of part-time students declined more than full-time students, 837 to 357, respectively.

All four campuses experienced a decrease in graduate students, Dr. Saupe said, with the declines being 150 at Columbia, 237 at Kansas City, 23 at Rolla and 106 at St. Louis. While Rolla's first-time freshmen students increased by 69, St. Louis declined 341, Kansas City dropped 92 and Columbia was down 32.

Dr. Saupe speculated on three possible causes for the University's enrollment drop: (1) Potential graduate students may think the job market for graduate degree holders is not as good as it was; (2) potential students who could not find jobs last fall now have done so, and (3) the \$30 per semester fee increase instituted this fall may have caused some potential students to go elsewhere.

Enrollment this fall by level, with last year's comparable figure in parenthesis, is: Freshman, 11,774 (12,074); sophomore, 8,624 (8,834); junior 9,351 (9,460); senior, 8,484 (8,600); first professional (dentistry, law, medicine, veterinary medicine and doctor of

pharmacy), 2,494 (2,437); master, 7,690 (8,076); educational specialist, 119 (74); and doctor, 1,475 (1,650).

While the number of Missouri residents attending the University declined this fall by 1,372 to 43,344, the number of out-of-state students increased 178 to 6,667.

Males at the University this fall total 30,023, a drop of 1,066 from a year ago, while females total 19,988, a decline of 128 from last fall.

In addition to the on-campus enrollment, Dr. Saupe reported the University also has 1,652 students enrolled in extension credit courses (down 268), including 634 in graduate engineering programs in Kansas City and St. Louis; 138 in courses taught at Whiteman Air Force Base and Ft. Leavenworth; and 247 in courses taught through the University of Mid-America program.

This makes a grand total of 52,048 students enrolled in credit courses both on and off the campuses, Dr. Saupe said.

Rolla's enrollment breakdown this fall, with last year's comparable figure in parenthesis, is: Freshman, 1,422 (1,277); sophomore, 918 (824); junior, 833 (813); senior, 1,060 (1,045); masters degree candidates, 364 (386), and Ph.D. candidates, 155 (156).

Other interesting Rolla enrollment comparisons are: First time freshmen, 989 (920); full time students, 4,150 (3,935); part time students, 602 (516); male students, 4,048 (3,875); female students, 704 (576); Missouri students, 3,748 (3,556) and out-of-state students, 1,004 (895).

Students enrolled in UMR's Graduate Engineering Center in St. Louis totaled 340 (386) and students enrolled in off-campus credit courses (Fort Leonard Wood, Springfield, Jefferson City, etc.) totaled 117 (190). Only two students were enrolled in credit courses through the University of Mid-America (individual study) this semester as compared with 28 last fall.

UMR Rank

The University of Missouri - Rolla was seventh nationally in the number of B.S. degrees granted in engineering in 1975, according to a report of the Engineering Manpower Commission of the Engineers Joint Council. UMR was 13th in full-time undergraduate enrollment.

The report, which is compiled annually, listed engineering enrollments and degrees granted by 291 engineering schools, which offer engineering programs at the baccalaureate or higher level. The report showed an increase of almost 30,000 full-time undergraduate engineering students in the country over 1974, with a total of 231,379 in 1975. This is the largest number enrolled since the fall of 1970.

Those granting the most degrees are: Purdue University - 946; University of Illinois-Champaign - 676; Georgia Institute of Technology - 656; Pennsylvania State University - 600; University of Michigan-Ann Arbor - 588; New Jersey Institute of Technology - 584; University of Missouri-Rolla - 576.

Largest full-time undergraduate enrollments were reported by the following: Purdue University - 4,999; Pennsylvania State University - 4,866; Texas A. & M. University - 4,215; University of Illinois-Urbana - 4,137; Georgia Institute of Technology - 4,051; Iowa State University - 3,387; University of Puerto Rico - 3,196; University of Michigan-Ann Arbor - 3,099; North Carolina State University - 3,087; University of Texas-Austin - 3,041; Virginia Polytechnic Institute and State University - 2,827; Ohio State University - 2,818; University of Missouri-Rolla - 2,780.

With 213 M.S. degrees granted in engineering, UMR was 16th nationally in that category, and with 29 Ph.D. degrees was 35th nationally.

THE AUXILIARY ENTERPRISES DIVISION OF THE UNIVERSITY HAS A RATHER COMPLETE LINE OF SOUVENIR ITEMS INCLUDING SWEATSHIRTS, CLASS RINGS, DRINKING VESSELS, AND OTHERS. DIRECT YOUR INQUIRES TO MR. JESS ZINK, DIRECTOR.

American Society of Civil Engineers Honors Alumnus . . .



Dr. Danny L. Fread

A research hydrologist with the National Weather Service, an agency of the Commerce Department's National Oceanic and Atmospheric Administration (NOAA), received two 1976 national awards from the American Society of Civil Engineers (ASCE), at their annual convention held the week of September 27 in Philadelphia, Pa.

Dr. Danny L. Fread, who is with the National Weather Service's Hydrologic Research Laboratory, in Silver Spring, Md., was awarded the Huber Research Prize and the J.C. Stevens Award. His research efforts were directed toward mathematical solutions to the problem of predicting impending floods by means of rapid computer calculations.

The Huber Research Prize is for outstanding research in structural, hydraulic-hydrologic, transportation, environmental, and soils engineering. Fread was cited for his hydraulic research on the unsteady open-channel flow of water. His findings have been incorporated into current engineering practice, both here and abroad.

The Stevens Award is given each year to the author the Society judges to have submitted the best discussion of a paper published by the Society in hydraulics, fluid mechanics or hydrology. Fread's award-winning discussion was of the paper, "Comparison of Four Numerical Methods for Flood Routing," in which he introduced a method for predicting floods in rivers with large flood plains.

As a result of Fread's research on the time-dependent flow of water, he has developed an accurate and efficient mathematical method of forecasting floods in rivers. It now is being used on the Ohio-Mississippi River system, and its use is being extended to other rivers to enhance the National Weather Service capability for public warnings of impending floods, as well as for navigation, power, and recreational uses.

Fread holds a B.S., M.S. and Ph.D. in Civil Engineering from the University of Missouri - Rolla.

Extension News

Here's a list of some of the extension short courses and conferences scheduled by UMR faculty and the extension division. Where titles are not self explanatory, you may call for more detailed information including costs. Call "Extension Coordinator," 314/364-4201 or (4202). Written requests should be addressed to Walter Ries, UMR Extension Division, University of Missouri - Rolla, Rolla, MO 65401.

PROGRAM NAME	LOCATION	DATES
19th Annual Asphalt Conference	Rolla, MO	November 18-19, 1976
5th Annual Applied Ore Microscopy	Rolla, MO	December 13-17, 1976
2nd Ground Water Analysis & Dewatering	St. Louis, MO	January 10-14, 1977
25th Short Course for Painting Contractors	Rolla, MO	January 17-21, 1977
34th Introductory Paint Short Course	Rolla, MO	January 24-28, 1977
6th Paint Inspectors Short Course	Rolla, MO	January 31-February 4, 1977
9th Fundamentals of Shallow Foundation Design	Rolla, MO	January 31-February 5, 1977
28th Advanced Chemical Coatings Workshop	Rolla, MO	February 7-11, 1977
Retrofitting Homes for Energy Conservation	Rolla, MO	February 9-11, 1977
2nd Introductory Short Course on Tinting & Shading of Color Paints	Rolla, MO	February 14-18, 1977
Junior Hi Band Clinic	Rolla, MO	February 25, 1977
Foreign Language Fair	Rolla, MO	March 4, 1977
Certified SCUBA Diving	Rolla, MO	April 9-30, 1977
Power Apparatus Testing	Centralia, MO	April 26-29, 1977
Surface Properties of Materials Conference	Rolla, MO	August 1-5, 1977
Mathematical Modeling Conference	St. Louis, MO	August 29-September 1, 1977
4th Annual UMR-MEC Conference on Energy	Rolla, MO	October 11-13, 1977

More Extension News

The University of Missouri has the largest volunteer program of any other agency, according to a survey conducted by the Missouri Volunteer Office coordinated by Lt. Gov. William Phelps.

A survey of state volunteer programs last year reveals that 53,391 Missourians donated nearly two million hours of service to 134 state agencies. The amount of service is expected to be about the same this year.

The Missouri Volunteer Office, using an average hourly wage figure of \$7.40, estimates the value of statewide volunteer service is \$12.8 million.

Of the state total, 32,976 or 62 per cent are involved in helping UM Extension programs.

The largest group of volunteers serving UM are the 17,722 adult leaders of 4-H clubs and 10,747 leaders in extension homemaker clubs.

Other groups serving UM include 2,000 on extension councils, which advise on programs at the county level, 1,231 men and women serving on area advisory committees, and 1,331 women working with the Expanded Food and Nutrition Education Program (EFNEP).

Of the nearly 33,000 volunteers serving UM programs, 25,000 are women.

Alumnus Pre-Med Advisor

Dr. Neal Grannaman, pathologist and director of laboratories at Phelps County Memorial Hospital, Rolla, has been appointed a member of the University of Missouri - Rolla Pre-med Advisory Committee. The appointment was made by Dr. Adrian H. Daane, dean of the College of Arts and Sciences.

Dr. Grannaman received his B.S. degree in chemistry from UMR in 1961 and his M.D. degree from the University of Missouri - Columbia in 1965. He was a member of the U.S. Army Medical Corps from 1965 to 1969, serving his internship at the William Beaumont General Hospital in El Paso, Tex.

After two years spent in private practice in Wisconsin and Illinois, Dr. Grannaman enrolled in a four-year residency program in pathology at Ball

PRE-MED (Cont.)

Memorial Hospital in Muncie, Ind. Upon completion of his residency, he joined the Phelps County Memorial Hospital staff in 1975. He is a Fellow of the American College of Pathologists.

Members of UMR's Pre-med Advisory Committee act as counselors and academic advisers to students, who are interested in preparing for a career as either doctors of medicine or doctors of osteopathy. The committee begins its counseling with the students in the freshman year.

Most of the pre-med students at UMR major in chemistry, life sciences or bio-chemistry, although a few do enter the profession after preparation in one of the other fields of science or engineering. For instance, one of the students entering medical school last year earned his B.S. degree in electrical engineering.

"One of the major facets of the UMR program is that a student is trained to be able to make a living in a field other than medicine," says Dr. James O. Stoffer, associate professor of chemistry and chairman of the committee. "Courses a student needs to enter medical school are an addition to his or her regular degree program. That's why we, as a committee, feel it is important to begin our counseling early in the undergraduate's college career."

For the most part, there are four or five students a year who definitely decide to tackle the pre-med program, although the number has been as high as eight. In the past, about 60 per cent of these have been accepted by medical schools, primarily at UMC, Washington University or the School of Osteopathy at Kirksville.

In addition to advisory and counseling activities, the committee helps prepare UMR students for the tests and interviews necessary for entrance to a medical school. UMR students, for instance, have a good record in results of the MCAT test, a national testing program developed and used by the medical profession.

The evaluation and interview process the students undergo with the Pre-med Committee prepares them for the same process by a medical school. The letters of recommendation prepared and sent by the committee may also have a better acceptance factor than recommendations made by individuals.

Other members of the Pre-med

Advisory Committee are: Dr. Nord Gale, associate professor of life sciences; Dr. Harold Q. Fuller, professor of physics and emeritus dean of the College of Arts and Sciences; Dr. Frank Kern, professor of electrical engineering; Dr. William H. Webb, professor of chemistry; Dr. James Wise, professor of English.

Alumnus Pre-Law Advisor

John D. Wiggins, member of the firm of Hoertel and Wiggins and attorney for the city of Rolla, has been appointed a member of the University of Missouri - Rolla Pre-law Advisory Committee. The appointment was made by Dr. Adrian H. Daane, dean of the College of Arts and Sciences.

Wiggins received a Bachelor of Arts degree from UMR in 1970 and his Juris Doctor degree from the University of Missouri - Columbia in 1973. He was admitted to the bar and began his practice in Rolla later in 1973. He was elected Rolla city attorney earlier this year.

Dean Daane explains that the purpose of the Pre-law Advisory Committee is to support and aid UMR students in their applications to law school. "Because pre-law students major in a variety of disciplines in their baccalaureate program," he continues, "the committee does not serve as academic advisers so much as professional counselors. Wiggins' experience as a lawyer as well as his experience as a former UMR student and an alumnus will bring a very special dimension to the committee."

Other members of the committee are Dr. Lance Williams, assistant professor of history (chairman); Dr. Lawrence O. Christensen, associate professor of history; Dr. Wayne Cogell, associate professor of philosophy, and Dr. Christopher Garbacz, associate professor of economics (on leave).

In addition to its advisory role, the committee sponsors information and discussion programs for UMR students interested in pre-law. It also provides information for high school students about UMR programs, which would be of particular benefit to those interested in a law career.

This fall, approximately 30 UMR students have indicated an interest in making applications to enter law schools.

Curator Vacancy Filled

The Rev. Richard L. Fisher of St. Louis has been named by Gov. Christopher Bond to the UM Board of Curators, succeeding Howard B. Woods, who died Aug. 2. Pending Senate confirmation, the appointment will extend to Jan. 1, 1979, at which time Mr. Wood's term was to expire.

Reverend Fisher, 41, has been minister of the Metropolitan A.M.E. Zion Church since 1972. He has served on the St. Louis Board of Education task force and as a trustee of the Institute for Black Ministries, in Philadelphia. He describes his political posture as independent.

Reverend Fisher is the third black man appointed to the board, the first being Theodore McNeal, a former state senator, and the second being Mr. Woods.

Underwater Exercise

An article entitled "Rehabilitation Through Underwater Exercise" by two University of Missouri - Rolla physical education instructors has been published in the October issue of Physician and Sportsmedicine magazine.

In the article, Robert L. Pease, UMR swimming coach, and William Flentje, athletic trainer and physical therapist, describe a new technique they have developed for treating injuries to the knee and other lower extremity physical problems.

Treatment involves having the patient walk, as normally as possible, through shoulder level water in the swimming pool for about 15 minutes twice a day. As the injury improves, the level of water is reduced.

This underwater treatment eliminates the effects of gravity at the outset, the degree of resistance of movement may be controlled by the patient, blood flow is increased to the injured part and venous and lymphatic return are assisted due to increased pressure exerted on the limb at treatment depths.

According to the authors, when the patient can perform the exercise comfortably in the shallowest part of the pool, he or she has recovered sufficiently to resume normal activity.

Alumni Help Needed

Do you have available any of the following journals? Can you fill in the gaps in the UMR library holdings? Please search your personal or company holdings to see if you can help out. Any missing journals which can be replaced by alumni gifts will save dollars for other vital library needs. This list was prepared by the UMR library staff at the request of the Board of Directors of the Association, who acted with the conviction that alumni could help. Contact the UMR Library, University of Missouri - Rolla, Rolla, MO 65401 for shipping instructions. Certain materials may be deductible for tax purposes.

Name	Vol.-No.-Year
California Management Review	13 #2 1971
Canadian Ceramic Society Journal	15, #3, 4, 1972
Canadian Chemical Processing	V.37, 39, 40 Ja, Apr-Oct, 1969 Feb, Mar, July, 1970
Canadian Geotechnical Journal	V.1, #2, 5
Canadian Mining Journal	V.91, #6, 10, 12-1970 V.92, #3, 5, 6-1971 V.93, #10, 1972 V.94, #4, 1973 V.90, #9, 1974 V.82, #4, 1964 V.82, #4, 1964
Ceramic Age	V.17, #1-4
Ceramic Industry	January 1973
Ceramic Monthly	Jan, Apr, Sept, Dec, -1970
Change	Sept. 1971
Chemical Engineer	Jan-Je 1963
Chemical Engineering	V.80, #13 1973
Chemical Engineering Progress	V.69, #1, 5 1973
Chemical & Metallurgical Engineering	V.33, 1926
Chemical Physics	V.3, 1935
Chemical Physics Letters	V.10, #4-6 V.11 V.43, #8 1970
Chemical Society of Japan	V.103, #5-12, 1970
Chemische Berichte	V.42, #1, 4, 9 1969
Chemistry	Jan. 3rd, #1, 1970
Chemistry & Industry	V.24, #4-12, 1970
Chimia	V.88, Jan. 20, 1971
Christian Century	V.90, #8 1973 V.10, #1, 2, 4, 5-1966 V.12, #2, 1967
Christianity Today	V.14, #4, 1969 V.17, #12, 18, 1972-73
Chromatographia	#1, 6, 1969
Chromatographic Reviews	V.10, #3
CIM Bulletin	Aug. 1971
Civil Engineering (public works London)	V.65, #720, 1972 V.63, #738, 742, 743, 1968 V.64, #755, 1969 V.67, June 1972
Civil War History	V.5, #4 V.13, #3, 4, 1967
Coal Age	V.78, #4, 8 V.79, #4, 5 V.80, #4 V.73, #1

JOURNALS NEEDED (Cont.)

College & Research Libraries	V.6,#1,3, 1945 V.7,#1-4, 1946 V.8,#1-4, 1947 V.10,#3-4, 1949 V.11,#1-2, 1950 V.12,#3-4, 1951 V.13,#1-2, 1952 V.19,#5-6, 1958 V.20,#1-2, 1959 V.213,#5499,5505, 5509, 1966 V.58,pt.1 of pt.2 #4, 1963
Colliery Guardian	V.5,#5,6, 1970
Colorado School of Mines	V.3,#4, 1967 V.16-17, 1970
Columbia Jr. of World Business	V.6
Combustion, Explosion & Shock Wave	V.1,#3, 1971
Combustion & Flame	V.3,#4,5, 1969
Combustion Science & Technology	V.83,#6,7,8, 1965-66 V.91,#23-24, 1969
Comments on Atomic & Molecular Physics	V.3,#4-12, 1960
Comments on Nuclear & Particle Physics	V.16,#4, 1963
Commonwealth	V.26 & V.27 V.1,#1, 1960 V.2,#3, 1961 V.3,#2, 1962 V.5,#4, 1964 V.10,#4-6, 1969
Communications of the ACM	V.265,#17,ser.A,B,D V.267,#7,ser.A,B,D V.270,#6,ser.D V.279,#10,ser.C,D
Communications on Pure & Applied Mathematics	V.13,#1, 1969
Compositio Mathematica	V.12,#9,12 Sept, Dec.
Compost Science	V.14,#4
Comptes Rendus	V.1 &2 V.14,#6, June, 1965 V.15,#1,7,11,12, 1966 V.6,#2,5,9,11, 1972 V.9,#2,4, 1975
Computer Bulletin	V.46,Mar, Aug, Nov, 1967 V.47, Aug, Sept, 1968
Computer Design	V.7,#2-4 V.6,#4
Computer Journal	V.30,#10, 1964
Computers & Automation	V.51,#1,4 V.4,#2 V.17,#3, 1971 V.19,#7,11,12, 1973
Concrete	V.23, Feb, 1970 V.50,#5,7,9 V.51,#3 V.34, Feb, 1970
Congressional Digest	V.17,#11, 1972 V.1,#4,5,12 V.2,#1
Constructional Craftsman	
Construction Equipment	
Construction Methods	
Construction Products, Technology	
Construction Review	
Construction Specifier	
Constructor	
Consulting Engineer	
Contemporary Psychology	
Control & Instrumentation	

MSM Alumnus

Alumni Suggestions Solicited

Robert Davis, chairman, has issued the following statement in connection with efforts of the Dean of Engineering Search Committee: "The Search Committee is very much interested in receiving nominations and comments from the Alumni in regard to the selection of a new Dean for the School of Engineering."

Both nominations and applications are sought for the position and the qualifications are: Earned doctorate in an Engineering discipline, sound credentials as a teacher and scholar, evidence of administrative capability, and facility in interpersonal relationships. The responsibilities of the Dean, who reports to the Chancellor of the University, are for operation of the School including instruction, research, extension, and public service. Academic departments include Chemical, Civil, Electrical, Mechanical and Aerospace Engineering, Engineering Management, and Engineering Mechanics. The salary is commensurate with qualifications. The deadline for receipt of applications is January 15, 1977. The appointment date is no later than August 1, 1977. All materials should be sent to: Dr. Robert L. Davis, Chairman; Dean Search Committee; Office of the Provost; Parker Hall; University of Missouri - Rolla; Rolla, Missouri 65401.

History Professor Honored

Dr. Lawrence O. Christensen, associate professor of history at the University of Missouri - Rolla, has received an engraved citation and a cash award of \$100 from the Missouri State Historical Society.

The honor was accorded Dr. Christensen for his article entitled "J. Milton Turner: An Appraisal" which was published in the October issue of the Missouri Historical Review. The article was judged by a panel of historians as the work, which contributed "the most significant, in-depth study — in a scholarly and popular sense — to the history of our State" to appear in the Missouri Historical Review during 1975.

Section News

Pac NW

On September 11, 1976, at 2:00 p.m., the Northwest Chapter of the MSM-UMR Alumni Association held a family picnic at the home of Vic and Rosie Hoffmann in Kent, Washington. The weather was typically cloudy and somewhat cool; however, the potluck dishes and the abundance of cold beverages insured a good time for all. The following people were in attendance at this function: Mr. & Mrs. Glenn O. Schaeffer, Mr. & Mrs. Kenneth V. Crowder of Portland, Oregon, Dr. & Mrs. Les Spinnell from Bellingham, Washington, Vic and Rosie Hoffmann, Mr. & Mrs. Russ Bausch, Mr. & Mrs. Pat Duvall, Mr. & Mrs. Thomas Allen, Steve Strauss, Mr. & Mrs. Steve Wright, Mr. & Mrs. Charles Hollenbeck, Mr. & Mrs. Pete Malsch and Mr. & Mrs. Gerald Hammond.

All Miners in attendance greatly appreciated the hospitality of Vic and Rosie Hoffmann in offering their beautiful home and adjoining grounds situated on colorful Lake Morton to the Association for this memorable occasion. The fact that the Association's secretary forgot to bring snacks for the outing and had to make an emergency run to a local supermarket for chips, pretzels, etc., fortunately did not dampen the spirits of the Miners and their families.

SPE - New Orleans

Larry Boston and his brother-in-law, Ron Featherstone, when asked to arrange a meeting in New Orleans during the SPE meeting, answered with an enthusiastic "yes". It wasn't actually quite that way, Larry said "yes" for Ron. But they put it all together at noon on October 6 in the Wildcatter Room of the Fairmont Hotel. The program was presented by former professor Bob Carlile, present professor Marion Arnold and Frank Mackaman. It should be noted especially that the all time outstanding volunteer was there, Ed Barsachs, famous for his Tulsa days. It was the consensus of those present, who had paid \$12 per place and \$1.75 per libation that next year the MSM-UMR party might be better arranged as a cocktail one, on Tuesday night, with

SPE (Cont.)

dinner on your own. Attending were: Gary Gerhard, Bob L. Paulsell, Harold Weinland, Mr. & Mrs. Edwin H. Barsachs, Marion & Carolyn Arnold, Jim Paul, Colin R. Guneo, C. R. Featherstone, Larry L. Schepbach, Jack B. Dowell, Russell Dessieux, E. R. Stoddard, Promod Taneja, V. N. Simlote, Frank Mackaman, Bob & Charlotte Carlile, Bob White, Dennis Gleason, William K. Ott, Mr. & Mrs. Robert P. Schafer, Harry J. Fitzgibbon, Mr. & Mrs. Frank King, Don R. Greenwalt, Roger A. Hill, Rhonda Rand, Larry Boston, John L. Schwagre, Thomas A. Schob, Mr. & Mrs. George E. Fort, Ray V. Huff, R. C. Minton, Curtis Leach, H. R. Willis, Dave Bergt, Tom Schmidt, David Dudzik, Phil Ilavia, Jay & Lynn Jhole, Omer Roberts, G. W. Achenbach, Ed Emery, Nace Mefford, Vernon D. Volker, Hans Patel and Greg Praznik.

Southern California

The following was prepared by John O. Wilms, '43, Chairman of the Southern California Chapter.

Subject: Homecoming Meeting Report, Southern California, September 25, 1976.

The featured subject at the Homecoming Meeting of the Southern California Chapter was Americanism. Forty Alumni, spouses and guests excitingly became involved in an analysis of Americanism, "A state of being, which assures each citizen the freedom to be responsible for the development of his or her own aspirations." *A primary key to engineering creativity.*

This later freedom provides society with millions of differently qualified, differently creative, and differently ambitious people, which make the free enterprise system the most productive social system on earth.

In contrast, Government control of the development of an individual puts a damper on this process, the desire for individual improvement is stifled, ambition and creativity is smothered, and the ability to assume responsibility stops. Societies' productivity decreases, workmanship loses its excellence, individual responsibility vanishes, and crime and inflation increase. These are signs of the weaknesses of Socialism — not Americanism.

SO. CAL. (Cont.)

If a conclusion could be derived from the meeting, it would be that extra effort must be made by every citizen to give greater support to national programs which give, *which demand*, that the individual assumes *more* responsibility, *not less* responsibility.

It was resolved that we must scrutinize more closely government programs and candidates who advocate expanding the scope of welfare, increasing government control of industry and medicine, greater support for unionism without demanding that unions be responsible for upgrading the capability of the work force they represent. Only by demanding more responsibility from the individual, from business, from unions, etc., will we be able to revitalize the freedom and productive excellence, inherited from our forefathers. Our legacy is Americanism, we resolved to keep it strong. Those who attended this thought-provoking meeting are listed as follows: Jane Bennett '68, Roy Woodle '51, Vic Trincamo '72, Tad and Shirley Graves '50, Karl Allenbach '27, Ed Kayser '15, Lloyd Jenkins '56, Mark Fehlig '73, Harry Kruger '56, Harry Miller, Bill Schirmer '49, R. K. Rasmussen '43, Floyd Smith '41, Victor Andoe '68, Jay Tibbles '67, Al and Margaret Fowler '60, Ted Weissmann '49, Eva Hirdler Greene '11, Don Huseman '43, John and Phyllis Wilms '43, and James and Theta Gostin '44.

On the registration list after certain of the names, the number "2" appeared, in absence of positive proof of who the #2 person was, we have exercised the editorial prerogative of listing only this information.

Murphy Co. Listed

Murphy Company, Mechanical Contractors and Engineers, Inc., 1340 N. Price Rd., is listed as the largest mechanical contracting firm in the Greater St. Louis Metropolitan Area by *Domestic Engineering Journal's* 1976 Book of Giants. The listing is based on certified gross annual volume reported by 200 of the nation's larger mechanical contracting firms. The publication lists Murphy Company as the 62nd largest firm nationally and the second largest in Missouri. Last year Murphy Company was listed 81st nationally. James J. Murphy, '35, is president of the firm.

Alumnus Joins UMR Staff

LTC Charles G. Marvin, Professor of Military Science, and family arrived at UMR after three years in Germany. LTC Marvin's prior duties in the U.S. Army Europe included Director of Facilities Engineering, Nurnberg and Chief, Resource, Management, Facilities Directorate, VII Corps. LTC Marvin has a BS in Ceramic Engineering, Alfred University and an MS in Engineering Management, UMR. Civilian employment experience includes Bethlehem Steel Corporation, Ferro Corporation, and General Refractories Company. Military Schooling includes Engineer Officer Basic and Career Courses, Facilities Engineer Management, Contract Construction Management, Installation Management and Command and General Staff College. LTC Marvin, his wife Sandra, and daughters, reside at 5 Dogwood Lane in Rolla.



LTC Charles G. Marvin '69

More ROTC News...

Army ROTC Program is alive and getting well at UMR. Enrollment in the program has increased 51% over last year. Freshman enrollment is the largest since 1970; sophomore enrollment in the program is the largest since 1971. There are currently 8 four year and 5 three year scholarship students in the program. Close coordination with the Minority Engineering Program has increased minority enrollment in Military Science from 2 to 14. The Program is still under evaluation by Department of the Army. Department of the Army has placed a goal of a minimum of 15 juniors in the program in order for the program to be "cost effective". There are currently 9 juniors enrolled. While Department of the Army does not want to disestablish any ROTC Program, Congress is pressing the Department of Defense to cancel any programs which are not "cost effective". It is interesting to note that 23 of the 53 ROTC programs, which have been on evaluation are at colleges and universities, which offer degrees in accredited engineering curricula. The disestablishment of ROTC at these institutions would seriously limit the Army's source of commissioned officers who are science and engineering oriented. We are fully confident that the UMR

ROTC Program will pass the "cost effectiveness test" during the next school year, if Congress does not force the issue at an earlier date. Any Alumnus with an opinion on the ROTC program should express the same to his representatives.

Invents Energy Saver

Dan David, '65, a graduate in civil engineering, is the inventor of a device known as Energy Sentinel. David, owner of Bay Harbour Trane Air Conditioning of Virginia Beach, VA, says that under certain conditions the device can cut energy costs from 20 to 40 per cent. His invention is designed for individual applications for users who are subject to a demand charges billing system.

He built the Energy Sentinel to prevent energy systems from exceeding demand peaks.

Using a combination of sensors, a timing device, "slave" units to turn systems on and off in stages, and complex circuitry, he found he had a tailor-made "computer" that will monitor and control energy usage.

David said the Energy Sentinel will reduce electric usage, through monitoring and control, even if a customer isn't subject to a demand charge, but greatest savings go to those who are.

Rolla Night - St. Louis

"Engineers for the Nation's Third Century" was the theme for "Rolla Night" Thursday, Oct. 7, at the Engineers' Club of St. Louis.

St. Louis area high school and college students, their teachers and parents were invited to attend. "Rolla Night" is held annually by the St. Louis engineers' group to help acquaint St. Louis area students with the engineering profession and the University of Missouri - Rolla.

A panel of St. Louis area engineering students at UMR presented the program. After a brief slide show, students discussed their education at UMR for engineering careers. They answered questions on all facets of student life — classes, laboratories, athletics, social activities, employment opportunities — anything of interest to the college-bound student. UMR faculty and administrators were on hand to visit informally with guests on such things as admissions, costs, scholarships and loans, housing, and cooperative education.

Panelists were: Louann Ruyle of Medora, Ill., a junior in mechanical engineering; Steve Treis of St. Louis, a sophomore in electrical engineering; Mark Dolecki of St. Louis, a senior in electrical engineering; Rex Cramer of Hazelwood, a senior in petroleum engineering.

This year's attendance set an all time record.

NOTICE

The Alumni Association through the Awards program recognizes individuals with honors appropriate to achievement, service and merit. The Awards Committee solicits suggestions of alumni and faculty and friends of the university who should be considered for such honors. Please send names with supporting information to the alumni office. All names previously suggested are maintained in the active file. An Award, presented at Homecoming, is not normally made to any member of a Reunion Class and honorees who are in that category are carried forward to a non-reunion year.

Jackling Summer Institute 1976

Daniel Jackling, Class of 1892, during his lifetime and through his Will provided the Curators of the University of Missouri with gifts to establish two funds for the use of the University of Missouri School of Mines and Metallurgy, now the University of Missouri-Rolla. These two funds are known as the Jackling Loan Fund and the Jackling Educational Fund.

The Jackling Loan Fund, the first of the two established, cannot exceed in assets \$100,000, a sum reached when settlement was made at Jackling's death. The Loan Fund is administered by the Financial Aids Committee of UMR with the advice and consent of the MSM-UMR Alumni Association's Jackling Fund Committee chaired by director Al Buescher, '64.

The Jackling Educational Fund was established by the Will and received from the bequest about \$40,000. A maximum limit on assets for the Educational Fund was set at \$500,000. This figure was to be reached by crediting any monies in the Loan Fund over the maximum set for it plus the earnings on capital in the Educational Fund. There is a proviso that after the Educational Fund reaches \$100,000,

two-thirds of the income may be spent for purposes set out in the Will. The Educational Fund now totals over \$140,000.

The Jackling Mineral Industries Summer Energy Careers Institute was established as a joint venture of the Association and the University in 1974. The Jackling Institute is a program designed to encourage students to enter the minerals industries and it is financed by earnings in the Educational Fund. The Association and the University are pleased to recognize annually the distinguished alumnus Daniel Jackling whose benefactions make this Institute possible.

The format of this year's Institute was nearly identical with the previous years. Alternating days on and off the campus and a reasonable mix of lecture and demonstration provided the variety needed to keep the participants alert and interested.

Faculty presentations were soft sell. All students were aware that the purpose of the Institute was recruitment, but the presentations were honest and straight-forward so that they understood why it is necessary to inform them of the opportunities available in

the curricula of the School. Many students expressed their appreciation for the opportunity to learn about these curricula and it appears likely that a significant percentage will appear as majors over the next one to three years.

The trip to the Brushy Creek Mine of St. Joe Minerals was quite successful and the Current River float trip was a high point enjoyed by all. It provides the students with an opportunity to associate with and discuss career opportunities with faculty and UMR students in an informal way.

In addition to presentations by the departments, information about the Student Financial Aids Office was provided. The workings of the Co-Op program were explained, and the services of the Career Development and Placement Office and other student affairs offices were described. These presentations were quite effective and appreciated.

Inquiries for summer '77 should be directed to Professor Charles A. Sorrell, Dept. of Ceramic Engineering, University of Missouri - Rolla, Rolla, MO 65401.

Participants were:

Thomas Michael Cole Eagleville, MO	Benjamin P. Winter Rolla, MO	James Davidson Kansas City, MO	Steve Rohde Florissant, MO	Letitia Parker St. Louis, MO
Bonnie Hubert Kirkwood, MO	Clark D. Mashburn, Jr. Independence, MO	Jennifer Barton St. Louis, MO	Victor Schelin Verona, MO	William R. Evans Lecoma, MO
Mark Alan Tarbet Shelbina, MO	David Mayer St. Joseph, MO	Michael Loida St. Mary's, MO	Terry Lee Brandt Lebanon, MO	Cathy Carroll Vienna, MO
Harold E. Brooks St. Louis, MO	Tammy Leigh Kirby Fayette, MO	David Lazure Neosho, MO	Jennifer L. Dawson Rolla, MO	Becky Redel Vienna, MO
Edward Nobus Perryville, MO	Charlotte Pavelka Troy, MO	B. Garth Studebaker Neosho, MO	Kim Bowyer Goodman, MO	Robert Denise Independence, MO
Patricia Kloepfel Dixon, MO	Bradley K. Baker Ozark, MO	Kenneth John Schmitt Leslie, MO	Bob Darnell Ridgeway, MO	Karen R. Miller Chesterfield, MO
Kevin D. Allen Aegyle, MO	Marilyn Daum Crestwood, MO	Kelly Busch Sullivan, MO	Jeff Pierson Eagleville, MO	Jeff Davis Gainesville, MO
Charles Wills Perryville, MO	Christy Wunderlich Cape Girardeau, MO	Don Brunnert, Jr. Vienna, MO	Loretta Bommersheim Sullivan, MO	Rod Thrailkil Eagleville, MO
Janet L. Coy Graham, MO	Lisa Wunderlich Cape Girardeau, MO	Paul Dennis Keaton Dixon, MO	Debbie Benson Sullivan, MO	David Dierker Webster Groves, MO
Agnes Kathryn Fox Hannibal, MO	Greg Lawrence Craig, MO	Duane Lanwermeyer Washington, MO	Dorothy M. Munch Edgar Springs, MO	Sybil Smoot St. Louis, MO
William J. Nix Des Peres, MO	Jon Brown Mexico, MO	Anne Lesko Jennings, MO	Glen Strong Ava, MO	Tom Baltezone Faucette, MO
Chris Thomason Desloge, MO	Dan Victor Salem, MO	Ellen Follou St. Louis, MO	Laura E. McGrath Salem, MO	

Job Opportunities

For information concerning positions listed below, please contact Mr. Larry Nuss, Director of Career Development & Placement, UMR, Rolla, Missouri 65401, giving File Number of the position, state your degree, discipline and month and year of your graduation.

During times of high activity in the employment market, some positions will be filled before they are published. The Placement Office will make a search for similar positions that may be open if you enclose your resume with your inquiry.

- | | | | | | |
|------|---|------|--|------|--|
| 1136 | BS Met. Mid-South bronze melting. | 1148 | BSEE or ME 1-3 yrs. Small electric motors. Upper mid-west. | 1173 | Agency listings. Mining related, all levels, all areas. |
| 1137 | BS or MS Chem Eng 0-8 in R&D Lab support for mfg. | 1149 | Experienced BS in mining or MS. Mid-south locations. Multi-openings. | 1174 | BS Geology and MS Geophysics. Oil company. Ivory coast. |
| 1138 | BS Met or ME Foundry Superintendent. Mid-west. | 1150 | Mid-west food processor. BS through Ph.D. openings. Multi-disciplines. | 1175 | Upper mid-west food processor. All levels. All disciplines. |
| 1139 | General Operations Super and mine plant engr. Both require exper. Mid-west. | 1151 | BS with packaging Exper. Missouri location. Minimum 5 yrs. exper. | 1176 | State govt. environmental engrs. New and exper. |
| 1140 | Production Super, experience in cement and working with labor unions. Mid-west. | 1152 | Agency listings. | 1177 | State govt. BS Economics. 1 yr exper. |
| 1141 | BS Civil-Sanitary. Waste water design desirable. Mid-west. | 1153 | Agency listings. | 1178 | BSME Quality Control. Mid-west mfg. |
| 1142 | BSME or CE 1-3 exper. Must travel. Mid-eastern state. | 1154 | Corps of Engineers listings. Multi-disciplines. | 1179 | All disciplines for NWTs program. |
| 1143 | Agency listings. | 1155 | BS Mining underground ventilation specialty. Near-west location. | 1180 | Ceramic, Chem Eng, exper process engrs. Southern and eastern states. |
| 1144 | Agency listings. | 1156 | Multi-openings with the Golden Company. | 1182 | BSEE, ME or Mgt. Service Super. Missouri. |
| 1145 | Major food processor — multi-openings. Upper mid-west. | 1157 | BS, MS Comp. Sci. software and systems engineering. Mid-west. | 1183 | N/A |
| 1146 | Prefer MS Chemistry with 2 yrs. lab work. Small mid-west operation. | 1158 | BSEE Mid-west mfg. | 1184 | BSEE or Physics. Semi-conductor emphasis. Solid state component mfg. Mid-west. |
| 1147 | Plant engr and mining engr for mid-west gypsum operation. | 1159 | Major mfg. Mid-west multi-openings, especially BSME, EE & CSc. | 1185 | Exper. Me's. Country wide metal mfg. All levels openings. |
| | | 1160 | Food mfg. Mid-west sales openings. | 1186 | BSEE. Applications engr. Mid-west utility. |
| | | 1161 | Ph.D. minerals. State agency-University joint appointment. South. | 1187 | See 1156. |
| | | 1162 | New plant-fractional horse power design exper. On the fringes of the Ozarks. | 1188 | BSME Plastic. Mgr. project engr. Mid-west. Multi-openings. |
| | | 1163 | BSCE mech and material testing — cement. East. | 1189 | Exper Super. Marble mining co. |
| | | 1164 | Energy related international corp. Multi-openings. | 1190 | Agency listing. |
| | | 1165 | BS Chemistry or radiation physics + 3 yrs. State Govt. mid-west. | 1191 | Agency listing. |
| | | 1166 | Major mfg. exper. engrs. All disciplines. Hiring continuously. | 1192 | See 1164. |
| | | 1167 | Exper. EE. Eastern Iowa REC Plant. | 1193 | BSME Plant construction. Mid-west. Exper. |
| | | 1168 | Recent Met for process opening, copper. | 1194 | BSEE, ME. Missouri underground mining. |
| | | 1169 | BS/MS/PhD, Mining, Geology or Geo. Engr., to locate in ROLLA* man Missouri-Tennessee area. | 1195 | BS/MS CE Structural. PE desired. Mid-west RR. |
| | | 1170 | Chem Eng exper in electroplating. Mid-west headquarters staff. Consulting firm. | 1196 | Mining engr. 3-6 exper. Surface bauxite. South and overseas. |
| | | 1171 | N/A | 1197 | BS Chem Eng. Construction exper. Utility scrubber. Upper mid-west. |
| | | 1172 | Eastern firm multi-openings. Technical sales. | 1198 | Agency listings. |
| | | | | 1199 | Major auto mfg. Entry levels predominate. Ail fields. |
| | | | | 1200 | BSEE Mid-west utility application engr. |
| | | | | 1201 | Multi-national mfg. Preference for entry level and exper ceramic engrs. |
| | | | | 1202 | BSME 5 yrs. exper. Material buyer for chem. const. plants. |
| | | | | 1203 | See 1166. |
| | | | | 1204 | Lubrication engrs. Interest in heavy equip. Mid-west. |
| | | | | 1205 | See 1145. |
| | | | | 1206 | BS Met or met background. Product engr. Cold rolling exper. Upper mid-west. |

THANK YOU

It has been called to our attention that the MSM ALUMNUS carries frequent invitations to membership in the Century Club without any instructions as to how you join. It is simple, just make gifts to the Annual Fund totaling \$100 between September 1 and August 31 in any given fund year.

Alumni Personals

1 9 0 7

Aubrey Fellows, 103 W. 6th, Salisbury, MO, writes in a firm and steady hand, "91st birthday, August 21, 1976. I am still interested in all things at Rolla."

1 9 1 7

Mrs. Helen Porter of 780 Ash St., Denver, CO 80220, has notified us that her husband, George S. Porter, died May 23, 1976.

1 9 1 8

Edward, the son of Ing. Raul Chavez Acosta, has written to inform us that his father is seriously ill. He is suffering from Parkinson and arterosclerosis. His home address is Juarez 4708, Chihuahua, Chih. MEXICO.

1 9 2 2

Daniel E. Huffman reports that there are four Miners at Orangewood Senior Citizen Estates, 7550 N. 16th St., Phoenix, AZ 85020: Milan Detweiler, Ben Cody, Clyde Bower, and Dan — all over 80. Dan is owner and manager of Gedona TV Sales and Service. He and Lydia live in Apt. 216-7.

1 9 2 3

David J. Flesh, 406 Delta, Jefferson, TX is active in petroleum geology in Harrison County, Texas, where he's brought in a discovery well, three additional wells and has four active locations under consideration.

1 9 2 5

The Alumni Office has been notified that William Hewitt Bush, 86-C Brandywine Heights Road, Brandywine, MD 20613, died March 8, 1976.

The Alumni Office only recently received information that Oscar William Johnson died in 1935. His son, Oscar W. Johnson, 6230 Smith Blvd., Oklahoma City, OK 73112, graduated from UMR in 1967.

Charles Curran Irving, 956 La-Huerta, Green Valley, AZ 85614, died September 19, 1976. He was a retired civil engineer and vice president of J. M. Corbett of Chicago. He was an honorary member of the ASCE. His survivors include his wife, Mabel, a son, and two daughters. Mrs. Irving is temporarily staying with their son at 15 W. 711 Butterfield, Elmhurst, IL 60126.

1 9 2 9

Joe Williamson, Jr., 6731 Manchester Ave., St. Louis, MO 63139, was recently elected Fellow of the American Consulting Engineers Council. Joe is owner and principal engineer of Williamson & Associates.

1 9 3 1

Mrs. Heiser, 1107 Trinket Court, St. Louis, MO 63131, has notified us that her husband, Alfred Phillip Heiser, died September 9, 1976.

1 9 3 2

W. R. Mays, 207 Horseshoe, Kilgore, TX 75662, retired in May from Kilgore College as instructor for Oil & Gas Technology and Geology.

1 9 3 3

James F. McDonald, 7085 E. 52nd Place, Tulsa, OK 74145, writes to tell us that he is snowed under with forming a new company "Universal Wellhead Company" specializing in custom valves for the Oil & Chemical Industry.

Ellen Woodman Doll, 814 Beech Avenue, Charleston, WV 25302, recently retired after 20 years in the same Junior High School, 11 years as a math teacher and 9 years as a guidance counselor. Ellen will be active in church and civic work and will travel.

1 9 3 4

Lauren P. Tuttle, 1126 Bunker Hill Blvd., Jacksonville, FL 32208, is retired. He was with the U.S. Army Corps of Engrs. from 1951 to 1970 and worked with the Florida State Dept. of Health as a Sanitary Engineer, Water Supply, from 1970-74.

John Benard, Abbingdon Dr., Apt. D-30, Hightstown, NJ 08520, retired from American Cyanamid Company in May of 1976 as Senior Electrical Engineer.

1 9 3 5

William E. Bates retired in 1973 from the Tennessee Dept. of Highways, having reached compulsory retirement age. He now spends much time with his "ham" radio and amateur photography. William and Lucile are at home at 3810 Bedford Ave., Nashville, TN 37215.

1 9 3 6

W. H. Schwalbert, 7718 Ironwood Circle, New Port Richey, FL retired October 1 from his position as Vice President. Administrative Services for Toledo Edison and now lists himself as chairman of the board of Energystics, Inc.

1 9 3 7

Wilfred K. Rodman, 2306 Kirkstone Rd., Irmo, SC has retired as chief sanitary engineer, U.S. Department of Housing and Urban Development, Washington.

Frank S. Millard, 10211 Holly Springs, Houston, TX 77042, recently retired from Exxon Production Research to enter Consulting Business in Formation Evaluation. He is also a Consultant for Exxon Research and teaching "Borehole Geophysics" at the University of Houston, Geology Graduate School, and lecturing at the AAPG Exploration School.

1 9 3 8

Norman Louis Peukert, 14077 Ladue Road, Chesterfield, MO 63017, died suddenly, October 1, 1976. Mr. Peukert was head of sales and development for Carondelet Foundry. He is survived by his wife, Bernice, and two children.

1 9 3 9

Robert P. Dieffenbach, Box 131, Pleasant Valley, IA plans to retire from ALCOA at the end of the year.

1 9 4 0



Rex Alford '40

Rex Alford, 5743 Jason, Houston, TX 77035, has recently been made Manager-Industry, Conservation and Environmental Affairs, North American Production, Continental Oil Co. Rex is also an area director for the MSM-UMR Alumni Assn.

Huey Summers retired from the U.S.A. Corps of Engineers in 1976 and is raising flowers and doing woodworking as the spirit moves. He is at home at 2713 Woodland Rd., Mobile AL 36609.

ALUMNI PERSONALS

1941

Mr. and Mrs. George M. Pace, of 7083 Paddison Rd., Cincinnati, OH, 45230, write to tell us that their daughter and son-in-law, Mr. and Mrs. Dan R. Smith are now at Rolla. Dan is studying Mining Engineering.

1943

Jack and Sue Fleischli, 26092 Via Remolind, Mission Viejo, CA report their children as Karen, married and 28, Jack, a lawyer and 26, Ginger, a tenth grader and 15, Michael, first grade and 6 and still at home, Gretchen, 3.

Morris E. Allen, of 1755 Elmcrest Drive, Reno, NV 89503, died of cancer September 11, 1976.

Jim Paul, 610 No. Wilcrest, Houston, TX received the Century Club Award from the Society of Petroleum Engineers, he recruited 100 members for SPE, one of only 12 to do so, out of 30,000 members.

Nat Larson, who is plant manager of American Standard, Inc., 6920 Franklin Ave., New Orleans, LA 70122, reports his oldest son, David is a plastic surgeon, next son, John is also an M.D., and that his daughter is a senior at LSU Baton Rouge.

1943 (Cont.)

Morris E. Allen, Reno, NV, died September 11, 1976, at the Veterans' Hospital in Reno. Mr. Allen was a commander in the Navy Reserve, a member of Lambda Chi, and a Mason. He is survived by his wife, Louise, three children, a sister, and five grandchildren.

1947

Chester M. Pomery, 15 N. Cliffe Dr., Wilmington, DE 19809, has been elected president of the Mid Atlantic Shrine Association, which includes 22 Shrine Temples in 7 mid Atlantic States and the District of Columbia for a total of 127,000 members.

1948

Phil A. Browning, Route 2, Box 237, Logansport, LA 71049, has been Shell Oil Company's senior man on floating drilling rig "Ocean Prospector" for the discovery well off Long Beach, CA. Now Phil is commuting to Yakutat, Alaska to start the "Sedco 706".

Wilbert F. Stoecker, 1506 South Maple, Urbana, IL 61801, was invited by the Australian Institute of Refrigeration, Air Cond. & Heating to present a keynote address to the annual meeting in Melbourne in March 1976.

1948 (Cont.)

Jorge and Helen Jackson send greetings and notice of a change in the company name to MARAVEN S.A. Refinena Cardon, Punto Fijo, Falcon, Venezuela.

Robert J. Niewoehner has been appointed vice president of Marketing for Callier Steel Pipe and Tube, Inc., 100 South Hanley Rd., St. Louis, MO 63105.

John Griessen III, 10522 Knoboak, Houston, TX 77043, reports his son, John IV, is an honor student in the engineering school at U.T. Austin.

Harry Gordon Grigsby, Box 678, Kearny, AZ 85237, died last April following complications from a stroke. Mr. Grigsby was a retired quality control engineer for Kennecott Copper, Ray Mines Division. He is survived by his wife, Leora, a daughter, and two sons.

Personals received after October 10, 1976 will be published in DECEMBER ALUMNUS.

1949

The Alumni Office has been notified that Harold Douglas Castleberry, Jr., died March 28, 1976.

Elmer G. Knutson, 10616 Hutton Dr., Sun City, AZ 85351, says, "He is enjoying retirement very much here in Sun City." There are lots of Miners in Sun City who would agree with him.

1950

Harold R. Roenfeldt, 10126 Hammerdale Lane, St. Louis, MO is Chief Engineer, in charge of engineering design and construction management for all plant engineering, with the Defense Mapping Agency-Aerospace Center.

1950

B. B. (Bill) West, 7 Queensbury Place, Glens Falls, NY 12801, reports his wife, Norma, passed away after a lingering illness in June 1976. Bill and Norma have been active in alumni affairs and were familiar figures at the AIME national meetings.

Clarence A. Isbell, Jr., has son Richard, who is a freshman at UMR and third generation of the family to be so enrolled. Richard's maternal grandfather is Walker E. Case, '22. Clarence and Bettye live at 14435 Avocado Lane, Florissant, MO 63034.



In an effort to be self-supporting in a wide range of activities including the semi-annual outings, field trips, honor banquets and special projects, the student chapters of the AIME, including the American Society of Mining Engineers, Petroleum Engineers and Geological Engineers, commissioned the design and casting of a antiqued brass buckle pictured above. Mail orders may be made through the use of the form below and the delivered price of \$5.00 per buckle will not only give the recipient a permanent handsome memento, but will support the worthwhile activities of students presently on the campus.

Orders and checks payable to Joint Alumni Clubs, John Little, Agent, should be mailed to SME, Mining Bldg., UMR., Rolla, MO 65401.

Please ship _____ buckles at \$5.00 each to address below. _____

Enclosed find check for \$ _____ . Thanks.

Mail to: Name _____

Address _____

1950 (Cont.)

Don Zimmerman is now president and owner of Rogers Metal Processing and Custom Met. Inc., located at 7330 N. Monticello Ave., Skokie, IL 60076.

Robert N. Brown, 25 Harding Ave., Edison, NJ 08817, has been elected president of United States Metals Refining Company, a wholly owned subsidiary of AMAX. Mr. Brown joined AMAX in 1950 as a metallurgical engineer and held a variety of technical positions before being elected executive vice president of U.S.M.R. in 1974. He is vice president of the Carteret Industrial Association, a member of AIME, Wire Association Inc., ASM, and the American Society for Testing and Materials; and a trustee of Kennedy Medical Center, and of the Carteret branch of City Federal Savings and Loan Assn.

W. G. Paulsell, 323 Mobil Avenue, Suite 10, Camarillo, CA 93010, has opened an office for consulting in Petroleum Engineering in Southern California.

Michael Buel, son of Robert and Mary Jane Buel, 65 High Valley Drive, Chesterfield, MO 63017, has enrolled as Freshman at MSM-UMR this fall.

1951

Charles R. (Ron) Ferry, 11310 Pecan Creek Dr., Houston, TX 77043, reports the death of his wife, Patricia Ann Ferry, of cancer on March 22, 1976.

1952

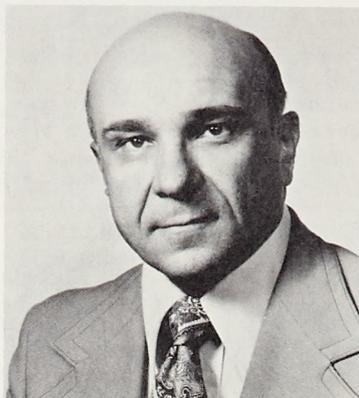
James and Theresa Unnerstall are at 20900 Sparta Lane, Olympia Fields, IL 60461. Since Jim's transfer from refinery manager at Casper, WY to his present position as general manager of purchasing in the Chicago Office of Standard Oil.

Allan Cole of 231 Weed Ave., Stamford, CT 06902, says, "No news is good news, but would love to be able to write something exciting here."

T. H. Lentz is president of Worth Chemical Co., a subsidiary of AZS Corp. of Atlanta and is general manager of Worth Chemical Operations, 762 Marietta Blvd., NW, Atlanta, GA 30318.

Mrs. Billy M. Drewell, 1211-A West Miller, Jefferson City, MO 65101, has notified us that her husband, Billy Maurice Drewell, died August 27, 1976.

1952 (Cont.)



J. E. Walizer '52

James E. Walizer of 3010 Bryan, Groves, TX, has been named Manager-operations at Gulf Oil's Port Arthur Refinery. Formerly he had been at Gulf's Toledo, Ohio, refinery.

Bruce R. Doe, 815 Estes Street, Lakewood, CO 80215, has been appointed chief of the Branch of Isotope Geology in the U.S. Geological Survey of the Interior Department.

1958

K. R. Withrow, 7708 La Bolsa, Dallas, TX 75248, has been elected vice president, Drilling and Production of the Amco Energy Corp., also of Dallas.

LTC Paul W. Taylor and his wife Liz send the following message, "Just reported for duty in the Pentagon after commanding the 20th Engineer Battalion at Ft. Campbell, KY. We invite all our friends visiting the Wash. D.C. area to come and see us at 1 King Court, Annapolis, MD 21401."

1959

Stan Waxman reports he and his wife are at a new address, 18 Rossmore Terrace, Livingston, NY 07039.

Gary Y. Gunn has been involved since 1975 as project engineer for planning and design of power generating stations. He is a civil engineer and has been with Black & Veatch since 1959. Gunn has designed metering facilities for a metropolitan natural gas plant, done designs for electric transmission lines and gas distribution systems, and has served as resident engineer in charge of construction of natural gas distribution systems, transmission lines, and of construction of sewage facilities. He and his wife and their daughter, Erin, now live at 4903 W. 77th Terrace, Prairie Village, KS 66208.

THE AUXILIARY ENTERPRISES DIVISION OF THE UNIVERSITY HAS A RATHER COMPLETE LINE OF SOUVENIR ITEMS INCLUDING SWEATSHIRTS, CLASS RINGS, DRINKING VESSELS, AND OTHERS. DIRECT YOUR INQUIRES TO MR. JESS ZINK, DIRECTOR.

1960

Tom Penning, 812 Dutch Mill Dr., Manchester, MO 63011, was promoted to district sales manager of the St. Louis Office of Allen Bradley Co. Tom was a sales engineer in the Indianapolis Office for 11 years.

Jerry Alyea, 305 Gulf St., Lamar, MO is a lumber purchasing consultant, working with retail lumber dealers in their business use of plywood and lumber futures.

Jhon L. McDaniels, 3208 Greenwood Lane, Godfrey, IL is in his second year of teaching mathematics at Lewis and Clark Community College.

1961

Ronald R. Pfeuffer, of 22 Hilson Drive, Rome, New York 13440, was promoted by Revere Copper and Brass to Production Manager at Rome Division from Production Manager at Michigan Division June 1, 1976.

Chuck and Sandy Hollenbeck, 9415 NE 25 St., Seattle, are parents of a second girl, Mary Ann, born April 8, 1976. Chuck is a Civil Engineer with the Corps of Engineers.

1962

Gerald and Opal McMurtrey have moved back to Missouri and are at home at Route 3, Box 607, West Plains, MO 65775. Gerald is vice president of West Plains Bridge and Grading, Inc.

H. Pat Duvall, sterling secretary of the Pacific Northwest Section, noted for his fabulous memory, sends us the following news: "We are proud parents of an adopted 2 year old Korean girl. She joined us on Jan. 20, 1976. Michael, now 6 years old is proud of his new sister."

1964

Jack Suetterlin and Sandra of 2843 Amberglow, St. Louis have a second daughter, Lynda Kay, born April 20, 1976.

1965

Tom Gardner was married on July 16, 1976, to Sheila Collins and they live at 112 East Gambier St., Mt. Vernon, OH 43050. Tom has a new job as manager of advertising and public relations for Cooper Energy Services of Mt. Vernon.

1966

Larry and Diane Rich of 1884 Los Gallinas Ave., San Rafael, CA 94903, report Larry's appointment as senior employee relations representative for Standard Oil of California's Richmond Refinery. He represents management in company benefits and union negotiation problems.

Captain Harro Ackermann has, for meritorious service as a sensor space surveillance officer and sensor operations officer at Diyarbakir Common Defense Installation, Turkey, earned his third award of the US Air Force Commendation Medal. Captain Ackerman was presented the medal at Wright-Patterson AFB, Ohio, where he is now a student at the Air Force Institute of Technology. He was commissioned in 1967 through Officer Training School.

Charl and Sandra Luke, 4840 Sheringham, Sylvania, OH have three daughters and are expecting their fourth child in February. Charl has been promoted to Manager, Toledo Plant, of the Sterling Drug's Lehn & Fink Division. The plant, with 170 employees, makes consumer products.

1967

Howard W. Myers and Sharon Ruth (Stene) Myers, who live at 393 Warwick Lane, Crystal Lake, IL 60014, list Howard's new job as software director, Sterling Controls. The following is a direct quote, "Second son was born on June 9, 1976. Name: Andrew Carter Myers, weight (huge) 9 lbs. 15 oz. Bicentennial Baby baptized on July 4."

Eugene Dengenhardt, whose home address is 8437 Penhurst Dr., Springfield, VA 22152, reports, "I am in Washington, D.C. for a year of advanced training with the Board of Engineers for Rivers and Harbors in their planning associates program, which covers all phases of water resource planning."

1967 (Cont.)

James W. Scanlan was recently promoted to Assistant Chief-Facilities, Bureau of Water Quality Control, AZ Department of Health Services. He and his wife, Diana, and their son James Jr., and daughters Susan and Cynthia reside at 4803 W. Solano Drive, S., Glendale, AZ 85301.

Philip and Elizabeth Brave, 4745 Groveton Way, St. Louis, announce the birth of their first child, a daughter named Laura, on June 27, 1976.



E. H. Baumeyer '67

Ervin H. Baumeyer, P.E., 5140 Towne Central Dr., St. Louis, MO 63128, has been appointed an Associate of Kenneth Balk & Associates, Inc., Architects-Engineers Planners. Mr. Baumeyer manages the firm's engineering services, including Civil, Structural, Mechanical/Electrical and Environmental Engineering and Land Surveying. He joined KBA in 1974 with 15 years experience with the St. Louis District Corps of Engineers. Mr. Baumeyer was recently elected president of the ASCE, St. Louis Section and is a member of the NSPE, MSPE, SAME, ACE's Council, and the AMA.

1968

William M. Larson and his wife, Mary Jo, of 2012 Sycamore Dr., Forrest City, AR 72335, are parents of a daughter, Kristin Jean, born in August 1975.

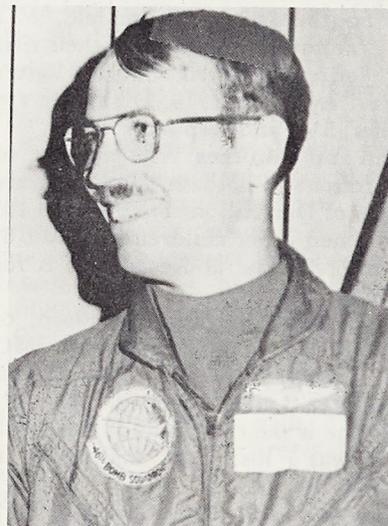
Don Harris spent the 1975-76 year at Purdue, where he earned his Masters in Mechanical Engineering. He and his wife Marlene are now at Route 1, Box 205F, Hollywood, MD 20636. Don is a project engineer with NATC at Patuxent River.

1968 (Cont.)

Marilyn and Neal Schaeffer are living at 8002 Triola, Sharpstown, TX 77036. They have added a new daughter to the family, Julie Ann, born Feb. 3, 1976. Neal, a senior engineer with Monsanto, was moved to Houston for a 4 year assignment to design and build an ethylene plant at the Monsanto Chocolate Bayou plant. Conoco is a 50% partner in the venture and will provide the crude feed stock for the plant.

Robert C. Palmer and his wife, Mary Jo, live at 175 Delano Dr., Pleasant Hills, PA 15236. They have two children, Roashan, 3, and Jason, 1. Bob has been promoted twice since he joined the Mellon Bank in Pittsburgh.

The Floyd L. Mitchells of 508 Country Club Drive, Blue Springs, MO 64015, have a new daughter, born April 8. She has been named Christine Tonya. Floyd is a project engineer, Gas Turbine Construction of the Missouri Public Service Company.



R. A. Beck '68

Captain Roger A. Beck has received a regular commission in the U.S. Air Force on the basis of educational background. He previously held a reserve commission as an Officer Training School graduate. The Captain holds a BS from UMR and an MS from USCLA. He is assigned at Grand Forks AFB, ND 58201, as an electronic warfare officer with a unit of the Strategic Air Command.

1968 (Cont.)

Roger L. Cannady has been named Southwestern Bell's wire chief for Hannibal. Cannady was first employed by Southwestern Bell in Kansas City as a student engineer during summers. Upon receiving his degree in EE, Mr. Cannady attained full-time employment with the company as a service foreman. After military duty with the USAF, he returned to work with Bell in 1975 as Eldon plant foreman — the job he held until his transfer to Hannibal. Cannady and his wife, Vicki, and their two children, Michael, 6, and Marcia, 5, are in the process of relocating.

Richard Brown, 2516 New Orleans, #5235, presented a paper on Normal Ranges in Medical Diagnosis to the 9th International Biometric Society in Boston in August.

1969

Warren Dean and Janet Graham, of 3142 South Marlan, Springfield, MO 65804, announce the birth of their first son, Jeffrey Warren, born Easter Sunday, April 18, 1976. His sisters are Jennifer, 5½, and Stephanie, 2½.

John and Dorothea Wiesenmeyer, of 92 Carefree in Chatham, IL 62629, are parents of Darren Jon, born March 10, 1976. Their other children are Scott 6, and Eric, 2. The above address is for their new home.

William and Barbara Davidson, of 1395 St. Francois, Florissant, MO 63033, are the proud and happy parents of Jennifer Lynn, born on May 11, 1976. She is their first child; her birth weight was 7 lbs. 9 oz., and she is in excellent health.

Raymond and Rita Shaefer, 1612 College St., NE, Olympia, WA 98506, report Ray's recent promotion to senior associate bridge engineer with Wash. State Dept. of Highways. He also recently passed the Structural Engineering Branch Examination.

Eugene Buerke, LHOK Seumawe, Ache Utara, Sumatra, Indonesia is on loan from Mobil R & D as a civil engineering consultant to Pertamina on construction of a 1.2 billion ft. per day natural gas liquifying plant. His wife, Rosemary and three children are with him and enjoying the south sea type island of Sumatra.

1970

Billy F. Kelling was recently appointed as Chief of Enforcement, Missouri Department of Natural Resources, Division Environmental Quality, Air Quality Program. He and his wife, Janet, and son William Curtis reside at 219 Halifax Rd., Holts Summit, MO 65043.

Kenneth and Donna Kuebler are proud to announce the birth of their daughter, Michelle Marie. Her two brothers are proud also. Kenneth is with ACF Ind. as of May, 1975. The family resides at 2524 Park, St. Charles, MO 63301.

Ronald Habegger has a new address, 6605 Clayton Ave., #107, St. Louis, MO 63139, and a new job as deputy administrator, Traffic and Transportation Div., City of St. Louis.

Dennis L. Chasten, a senior engineer with Texas Pacific Oil, will be transferred to Dallas Nov. 1. No home address available yet.

STUDENT PUBLICATION

The *UMR Engineer* is the engineering college magazine written by the students at the University of Missouri-Rolla. It is issued in October, December, February and April. This magazine is an 8-½" x 11", twenty-four to thirty-two page, high-quality student journal with technical articles of general interest, local & national advertising, and campus & organizational news.

Each issue has 3,000 copies circulated. Two-thousand are distributed on campus to UMR students and faculty, and one-thousand are mailed to high schools, alumni and companies.

Subscriptions are available at \$4 per year by writing to the following address:

UMR Engineer
Bldg. T-1, Room 102 (subscription)
University of Missouri - Rolla
Rolla, MO 65401

**THE AUXILIARY ENTERPRISES
DIVISION OF THE UNIVERSITY
HAS A RATHER COMPLETE LINE
OF SOUVENIR ITEMS INCLUDING
SWEATSHIRTS, CLASS RINGS,
DRINKING VESSELS, AND
OTHERS. DIRECT YOUR IN-
QUIRES TO MR. JESS ZINK,
DIRECTOR.**

1970 (Cont.)

The following was received on Oct. 4, 1976, from Frederic Schiller, 1433 Grouper Dr., Marathon, Florida Keys, FL 33050: "On Friday, Aug. 13, 1976, Frederic Schiller ('70) and his wife Lenore put their heads on the Bow Channel Bridge, Overseas Hwy., Florida Keys. Frederic, an attorney, and Lenore, a C.P.A., live in Marathon, Florida Keys." Any enlightenment readers can give the editor about the above would be appreciated.

James and Gerri Harlan Tyler announce the birth of their daughter, Kathy, on August 7, and Kathy has taken over the household at 454 Pasadena, Webster Groves, MO 63119.

Brian, '69, and Beverly, '70, Smith of 5013 Tanaka Ct., Fair Oaks, CA 95628, now have two children, Beverly Charlotte, 3, and Cameron Cooper, born Feb. 23, 1976.

James R. Pierce is a Project Engineer with Alton Box Board Company, at the paperboard mill in Alton, Illinois. He and his wife, Barbara, and 1½ year old daughter, Erika, reside at 3398 Rockingham Drive, Florissant, MO 63033.

Tom Nebel and his wife Susan, of 5 DuSable Ct., St. Charles, MO are expecting their second child in late October. Their son, Matthew, is three. Tom is with Hewlett-Packard training to become a Electronic Field Engineer.

1st Lt. Clark D. Mikkelsen, having recently completed the Ph.D. requirements in ME at the Univ. of Illinois at Urbana-Champaign, is currently serving with the US Army Missile Command, Redstone Arsenal. His mailing address is 2024 N. Memorial Parkway, Apt. G-4, Huntsville, AL 35810.

R. G. Bullinger has been named mechanical design engineer with the Gulf Oil Corp. in Houston, TX. Mr. Bullinger joined Gulf in 1970 and has held several engineering posts at their Alliance refinery. In 1975, he was named maintenance engineer, a position he held until his recent appointment. His business address is P.O. Box 395, Belle Chasse, LA 70037.

Sam J. Duckworth, Jr. and Linda Dunchew were married on July 30, 1976, at Cape Girardeau. Both Mr. and Mrs. Duckworth are working toward Master's Degrees at SMS. Their home address is 1217 College St., Cape Girardeau, MO 63701.

1 9 7 1

Carl and Mary Ann Dufner report a new address at 22 Churchill Dr., Chatham, IL 62629. Carl has accepted the position as Assistant Director of Energy in the Environment and Engineering Dept. for the Association of Illinois Electric Coops in Springfield.

James A. Butler, 212 W. Forest, Columbia, MO 65201, has been made production manager of KBIA radio. The position is being funded by a Corporation for Public Broadcasting grant.

Robert R. Morrison, Jr., married Elizabeth Stancil, St. Louis, on July 3, 1976. They are living at 312 N. Green Bay Rd., Apt. 702, Waukegan, IL 60085. Bob is with Abbott Labs and Elizabeth, a graduate of SMS in Marketing, is a sales rep. for P & G.

Gordon Erickson, 837 San Gabriel Place, Colorado Springs, CO 80906, has been promoted to Captain with the permanent duty station in Ft. Carson, CO. He is on temporary duty with the Army Research Institute in Washington, D.C.

Harry A. Benhardt and Margaret A. Rozycki were recently married and spent their honeymoon in New Orleans. Mrs. Benhardt is a compute programmer for Missouri Pacific RR. Mr. Benhardt is an electrical engineer at Union Electric. The couple lives at 12427 E. Horizon Village, St. Louis, MO 63138.

Mr. and Mrs. Thomas M. Hayden, of 5825 Underwood Avenue, SW, Cedar Rapids, IA 52404, wish to announce the birth of their first child, Kimberly Dawn, born July 20, 1976. Mr. Hayden is a Project Engineer for Shive-Hattery & Assoc.

Ronald Gaus, 425 Tuxedo, Webster Groves has ventured the prediction that his wife Sandy will have their first child on Christmas.

Victor and Elaine Wilreker, Route 3, Box 285A, Greensburg, PA 15601, are pleased to announce the birth of a son, Benjamin Curtis, born September 15, 1975.

Lee A. Gladish, 2124 Grant, Springfield, IL, is Electrical Supervisor for two power plants in that city and recently obtained the P.E. registration for the State of Illinois.

1 9 7 1 (Cont.)

Dr. A. Ismail Abdel-Latif, who was a research associate at the Ceramics Dept. at Penn State Univ. has accepted a new position as senior project engineer with the Process Development Lab at Pittsburgh Corning Corp. in Port Allegany, PA.

John A. Reynolds, 5909 Ranchester #1122, Houston, TX 77036, was recently transferred to Texas Instrument's Houston plant in the MOS memories group. He is involved with final testing and improving yields on the 4K RAM product line.

**Personals received after
October 10, 1976 will be published
in DECEMBER ALUMNUS.**

1 9 7 2

James S. Lyon, P.O. Box 142, Meta, MO 65058, has become an itinerent fire-fighter. He spent last summer in Idaho and will leave for Alaska in June — maybe to rejoin "rat-race" in fall '77. He is currently a forestry aide with the Missouri Dept. of Conservation. "This is what comes of cutting class to fight fire!" says James.

Andres and Patricia Dietrich report a new address, 2313 Cambridge Court North, League City, TX 77573, where they live with their three year old daughter, Amy Dawn. Andrew is associate engr. with Houston Lightning and Power.

Alan W. Carson, P.O. Box 83, St. Joseph, MO, 64505, is proud to announce his engagement to Nancy Stiegemeier, a school teacher of St. Charles, Missouri. A February 12, 1977 wedding is planned.

Dean and Vicki Park, 2440 Country Run Ct., Maryland Heights, MO are parents of their first child, a daughter, Keri Linn, born July 23, 1976. Kerri weighed 6 lb. 7 oz.

Robert S. Davis, 407½ Greenbriar, Apt. 1SW, will graduate from Illinois State with a M.B.A. in December. He is looking for a technical sales or sales support opening and would like to hear from fellow alumni.

C. R. Lambe was married to the former Nancy Jakocko on Sept. 4, 1976. The couple reside at 2626 N. Lakeview, Apt. 3212, Chicago, IL 60614. Ron Ziegler, Class of '69, was best man.

1 9 7 2 (Cont.)

The Alumni Office has been notified that Martin Ellis Katz of Maryland Heights, MO, died in 1972.

Mrs. Nancy Doering, 1810 Swift's Highway, Jefferson City, MO 65101, has been appointed assistant reference librarian with the Thomas Jefferson Library System, and will give professional library assistance to patrons throughout the system's four-country area. Work responsibilities will include answering reference requests made by patrons.

1 9 7 3

Wayne Paul Bremer bought a house and got married last June — both facts that will keep him in debt for many years to come. Wayne and his wife, Janet, a school teacher from St. Louis, now reside at 400 E. Newkirk, Tuscola, IL 61953. Wayne is still employed as a Technical Service Engineer for polyethylene at U.S. Industrial Chemicals Co.

Lyndell R. Brown was married to Darla June Kelly of Lancaster, CA, on May 29, 1976. Their home address is 4 Glasgow Circle, Edwards, CA 93523. Lt. Brown is attending the USAF Test Pilot School.

When you read this, George Gulley and his wife Sandy with son Matthew will be in Johannesburg, South Africa. George is joining classmate Bob Milne on a new plant project for Crawford & Russell. Sorry, we have no residence mailing address for either couple.

Rolland Kluge retired from the U.S. Army Aviation Systems Command in St. Louis after 15 years service and from the U.S. Naval Reserve with 31 years service. He and his wife Rosemary reside at 1519 Salerno Dr., St. Louis, MO 63133.

Frank Martin Yates whose home address is Route 2, Nevada, MO, on October 15th completed three years in the Peace Corps in Ghana, West Africa. He is due home Dec. 15, 1976.

Jack North, 140 East Jackson Rd., Webster Groves, recently assisted in the supervision of several electrostatic precipitators erected for TVA. He also did a hitch in Brazil on a cement plant job.

Lawrence L. Lewis is employed by Zeigler Coal Company as division mining engineer for their Spartan Mine. He and his wife Betsy live at #8 Birch Lane, Sparta, IL 62286.

1973 (Cont.)

Michael R. Behr married Deborah Ann Roberts on 11 Sept. '76, in San Jose, CA. Mike, a Navy Pilot, is currently deployed in the Mediterranean aboard the USS FDR (CV-42). Debbie is in school at California State at Fresno.

Frank A. Dickof reports, "I have a new job with Exxon Co. USA at Headquarters in Houston, TX, as senior staff engineer in the Minerals Dept." We do not have a home address for Frank and his wife, Nancy, but their mailing address is P.O. Box 2180, EXXON Co. USA, 1127 Dresser Tower, Houston, TX 77001.

1974

The former Colleen A. Collins is married to Michael F. Fitzgerald and the couple reside at 4250 Saratoga Ave. #L110, Downers Grove, IL. The bride is assistant sales engineer with Westinghouse and the groom is a '71 graduate of UMC with a BSEE. The marriage took place 8/21/76.

Robert A. Engberg, Route 4, Box 289, St. Charles MO, is now a registered Professional Engineer in the State of Missouri as of 1976. Robert is employed by McDonnell Douglas.

Charles Raab and his wife, the former Annette Thresher, of 5828 Tracy, Kansas City, MO, are the parents of a son, Patrick, born May 27,

The Alumni Office has been notified that Edward V. Stickler, P.O. Box 67, Pierce, FL 33867, died October 1, 1976, of cancer. He was employed as a project engineer with Conoco-Agrico Chem. Co. Mr. Stickler is survived by his wife, Mary.

1975

Allen B. Agnew, BarMe's Trailer Court #4, RFD 3, Newburg, MO, is married to the former Joyce E. Willman, Willman, Willman, not Williams.

William Patrick, 35B Rutgers Rd., Piscataway, NJ, announces his engagement to Doristine Freeman, graduate of Southern University in Baton Rouge.

David E. Cobb, 10329 E. 61st, Apt. 2, Raytown, MO has recently been transferred by Burns & McDonnell from Hattiesburg, MS to Kansas City.

1975 (Cont.)



Stephen Burton '75

Stephen Burton of 202 W. Colorado, St. Joseph MO 64504, recently received a \$250 scholarship from Midwestern Baptist Theological Seminary in Kansas City. He will be studying to achieve the Master of Religious Education degree.

Mark and Nancy Giulvezan, 9246 Tasmania, Baton Rouge, LA, are living in their new home with their daughter Stacia, born 9/15/75. Mark is with Ingersoll-Rand.

Cyrus Edgar Crowder and Mary Elizabeth Clouser were married July 17, 1976, in Marshall Junction. Their home address is 209½ W. Washington, Vandalia, MO 63382. Mr. Crowder is employed by the Van-Far school system as a high school chemistry and physics teacher. Mrs. Crowder is employed by Van-Far as a teacher's aide in remedial reading.

1976

John W. Critchfield, wife Janet, and daughter Jessica, are now living at 2604 B Wellington Dr., Champaign, IL, where John is a research assistant-graduate student in geotechnical engineering at the University of Ill.

Stephen Chilton was married on June 5, 1976, to the former Patricia Dean Blankenship. Stephen is an associate chemical engineer with Kerr-McGee and Patricia, who has the BS & MS in Chem. Engr. from UMR, is a candidate for the Ph.D. at the University of Oklahoma. The couple reside at Valley View Apts. #C-3, Purcell, OK 73080.

1976 (Cont.)

Kenneth and Marilyn Rapplean, 1002 Inverness Court, Greensboro, NC took a vacation trip to Williamsburg, VA. Ken, with Ebasco, has been to Duluth several times on a siting study. Son Brian celebrated his first birthday on September 19.

Ed Mushill, 8-C Cherry Lane Apts., Vermillion, SD, earned his MA in Human Factors Psychology from the University of South Dakota and is employed as a research assistant by the University.

Steven J. DuPont, assistant analyst with Burroughs, lives at 13921 13 Mile Road, Bldg. 8B, Apt. 8, Warren, MI 48093, and sends the following news: "I have joined the American Way at last — by going into debt! Just bought at '76 VW Rabbit. I shouldn't have too much trouble fighting off any creditors, because I was just awarded the blue belt in the Korean Martial Art of Hapkido.

Sue Hadley has moved in St. Louis to 7575 Amherst, University City, 63130. She is presently on the general headquarters engineering staff at Southwestern Bell and, outside of work, is active in local politics.

Michael and Deborah Sue Miller, 106 Merrimac Heights, Selma, AL 36701, announce the addition of Christopher Michael to their present family of three. Mike is in advanced training at Craig AFB flying the 338. He loves flying.

Bruce and Marcia Bonczyk are currently residing at 920 N. Almond, Carbondale, IL 62901, where Bruce is assigned as Building Engineer in the Southern Division of General Telephone Company. Marcia is student teaching at Murphysboro Junior High in the English Department.

Mark S. Schankman and his wife, Marsha, moved to 11330 Garden View Lane, Apt. #2, St. Ann, MO 63074, where Mark is now employed with McDonnell Douglas Corp. They had been living in Manchester, TN where Mark worked at A.R.O.

"Still single and bald," reports James S. Jones from his new address at 7316 Parkwood Ct., #103, Falls Church, VA 22042. He is now an EDP Instructor with the US Govt. teaching computer related courses.

Personals received after
October 10, 1976 will be published in DECEMBER ALUMNUS.

MSM-UMR ALUMNI ASSOCIATION COMMITTEE MEMBERS

MEMBERSHIP..... Joseph W. Mooney

LOCAL CHAPTER DEVELOPMENT... Herman Fritschen, Chairman
John Toomey, John Wilms and J. D. Patterson.

CENTURY CLUB..... Belding McCurdy, Chairman
Murray Schmidt and A. H. LaPlante

DEVELOPMENT..... Jim McGrath

HIGH SCHOOL RELATIONS..... Bob Bay, Chairman
Bruce Tarantola, Ed Werner, J. R. Patterson, Cliff Tanquary and
R. M. Salmon

NEW STUDENT AID..... Stuart Ferrell

COMMUNITY AFFAIRS..... Art Baebler, Chairman
Harold Krueger, Ray Kasten and J. R. Patterson

PUBLIC RELATIONS..... Belding McCurdy, Chairman
Dick Bauer, Frank Mackaman and Ed Werner

AWARDS COMMITTEE..... E. L. Perry, Chairman
Bruce Tarantola, Peter F. Mattei, L. A. Spanier and Hans Schmoltdt

NOMINATING COMMITTEE..... H. W. Flood, Chairman
Rex Alford, Thor Gjelsteen, Frank Appleyard and Jerry T. Berry.

FINANCE COMMITTEE..... Vernon T. Loesing, Chairman
George Schillinger, John B. Toomey and E. C. Fadler

JACKLING FUND..... Alfred J. Buescher, Chairman
Richard H. Bauer, Robert W. Klorer, Robert V. Wolf and
Frank Mackaman

CONSTITUTION & BY-LAWS..... James J. Murphy, Chairman
Arthur G. Baebler and Raymond Kasten

ALUMNI FINANCIAL AID..... Robert V. Wolf, Chairman
Ray Pendergrass, L. Brant Robison, Hardy Pottinger, Jerry Bayless,
Anthony Homyk, Bruce Tarantola, Peter G. Hansen and Frank Mackaman.



BUSINESS REPLY ENVELOPE
First Class Permit No. 18, Sec. 349, P.L. & R., Rolla, Mo.



**MSM-UMR Alumni Association
University of Missouri - Rolla
Rolla, Missouri 65401**

CLIP AND FOLD TO FORWARD YOUR CHECK

MSM-UMR ALUMNI ASSOCIATION
 University of Missouri - Rolla
 ROLLA, MISSOURI 65401

2ND CLASS POSTAGE
 PAID AT ROLLA, MO. 65401

JOHN W KOENIG 2171500
 UMR
 204 ROLLA
 ROLLA MO 65401

ALUMNI-STUDENT-FACULTY CONFERENCE APRIL 14-15, 1977

**C
L
I
P
F
O
R
M
F
O
R
Y
O
U
R
1
9
7
7
G
I
F
T**

1977 ANNUAL ALUMNI FUND CONTRIBUTION

NEWS FOR THE MSM ALUMNUS

FROM NAME: _____ CLASS _____

SPOUSE'S NAME: _____ PLEASE SEND _____ MINER DECALS

STREET _____ NEW

CITY _____ STATE _____ ZIP _____

TITLE _____ NEW

EMPLOYMENT _____ NEW

STREET _____ NEW

CITY _____ STATE _____ ZIP _____

**ANNUAL ALUMNI FUND CONTRIBUTIONS ARE TAX DEDUCTIBLE
 CHECKS PAYABLE TO MSM - UMR ALUMNI ASSOCIATION**

ENCLOSED: \$100.00 \$250.00 \$500.00

DONORS OF \$100.00 OR MORE QUALIFY FOR THE CENTURY CLUB

\$10.00 \$15.00 \$20.00 \$25.00 \$50.00

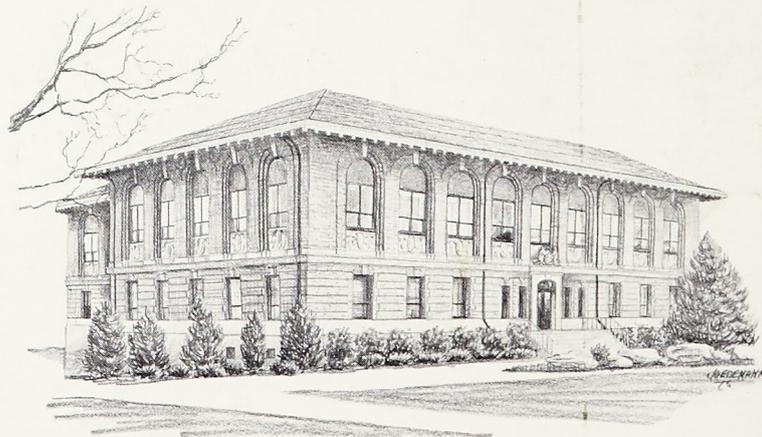
COMPANY MATCHING GIFT FORM ATTACHED

**THE MSM - UMR
 ALUMNI ASSOCIATION**

Supports:

- Commencement
- Alumni-Student-Faculty Conference
- Libraries
- Scholarships
- Faculty Awards
- Homecoming
- Alumni Directory
- Area Meetings
- Class Reunions
- MSM ALUMNUS
- Special Projects
- Alumni Awards
- Newsletters
- Grants-in-Aid
- Alumni Records
- Educational Assistants
- Student Awards

(Gifts Are Tax Deductible)



— PARKER HALL, UMR

1977 ANNUAL ALUMNI FUND