

# GEOSCIENCE NEWS

for alumni and friends of the Department of Geological Sciences  
The University of Michigan, Ann Arbor, Michigan



July 1988

## GREETINGS

This is a somewhat melancholic greeting, since it will be my last newsletter; Prof. Henry Pollack is taking over the chairmanship and the reins of the Department per July 1, 1988. All of us have great confidence in his abilities to lead the Department onward on its course and to maintain the considerable momentum of the last decade, while I am looking forward to spending more time with students on tectonic and paleomagnetic research programs. At the time of this writing, I am preparing for a month of fieldwork and sample collecting in Kenya; I hope to be able to sample quite a few Precambrian units both west and east of the Rift during July and August.

Elsewhere in this newsletter issue, you will be able to read about our two new faculty members, James R. O'Neil, a geochemist working in stable isotopes of silicate rocks, and Michael C. Gurnis, a geophysicist who studies convection and other geodynamical phenomena in the Earth's mantle. We are also currently negotiating with a finalist in our search for a replacement of James Lee Wilson in sedimentary geology. With Jim O'Neil's additional expertise in stable isotopes, and aided by a large grant from the State of Michigan, we are expanding the Stable Isotope Laboratory on the first floor of the C. C. Little Building into a large (1500 square foot) facility where Kacey Lohmann and Jim and their students will be able to work on a variety of elements aided by three mass spectrometers. The state grant mentioned, of about \$700,000, involves the acquisition of new geochemi-

cal equipment as well as funds for salaries, travel and supplies, to carry out a large research program to study geochemical dispersion of elements and gases near oil and gas fields in Michigan. Profs. Stephen E. Kesler, Kacey Lohmann, James C. G. Walker and Rob Van der Voo and Research Scientist Joyce Budai are the principal investigators. This grant is part of the state's Research Excellence and Economic Development Fund, created to enhance research opportunities at the major state universities that benefit the economic development of Michigan.

This issue also features reports on the opening ceremony of the Radiogenic Isotope Geochemistry Laboratory, directed by Prof. Alex Halliday, on recent student graduations and theses, and contains the second of our sesquicentennial vignettes. A smaller article on a book written by a Michigan alumnus and other alumni news complete this issue.

From a personal perspective, it has been very gratifying to me as Chairman to get to know many of our alumni. To all those who in these past seven years, while I was Chairman, have contributed to the Capital Campaign, written with some news, attended our cocktail parties at national meetings, served on the Geolumni Advisory Board, or otherwise have become good friends, I am sending not a farewell but a warm greeting in the knowledge that we will certainly see each other again at one or another of our departmental functions.

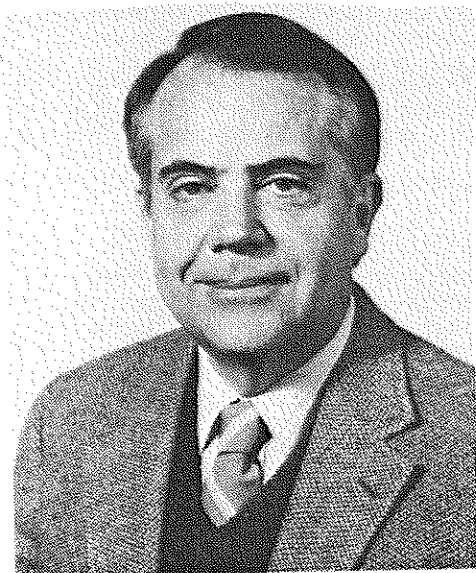
With best regards,

*Rob Van der Voo*

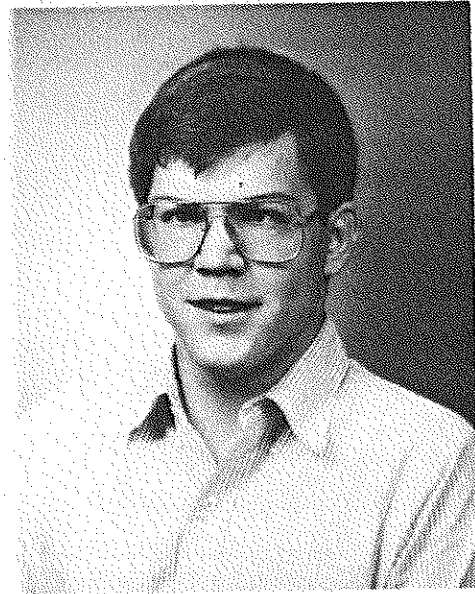
Rob Van der Voo  
Chairman

**PROFESSORS JAMES R. O'NEIL AND MICHAEL C. GURNIS JOIN THE FACULTY.**

James R. O'Neil, previously working for the U. S. Geological Survey at Menlo Park, arrived in Ann Arbor last February and immediately began teaching our basic geochemistry course for undergraduates and graduates. Jim is an internationally recognized expert in the geochemistry of silicate rocks and has published many classic papers on stable isotope studies. One of his first initiatives, with Prof. Kacey Lohmann, was to prepare a proposal to the National Science Foundation for a new mass spectrometer and this request has been granted. In addition, Jim and Kacey are planning a major expansion of the stable isotope laboratory to house this new instrument, as well as the older mass spectrometer of Kacey. In addition, a third mass spectrometer is being purchased with state funds, so that their laboratory will be able to analyze the isotopic composition of O, C, H as well as S. This planned expansion will create a splendid and versatile new facility that will be the envy of other geology departments. Jim obtained his Ph.D. from the University of Chicago (1963), having studied before at Loyola and Carnegie-Mellon universities. While at the USGS, he taught at Stanford and San Jose State



Prof. Jim O'Neil



**Assistant Professor Michael C. Gurnis**

universities as adjunct professor, and he held visiting appointments at the universities of Cape Town, Strasbourg, Paris, Moscow, Australian National University and California Institute of Technology.

Mike Gurnis will join the faculty in the late Summer, to start teaching in geophysics this Fall. Mike obtained his Ph.D. from the Australian National University in 1987, having studied earlier at the University of Arizona. This past year he was a postdoctoral Fellow at the California Institute of Technology. He has been heavily involved in computing with primary research interests in crustal growth, convective mixing in the mantle, and the modeling of subduction zones and mid-plate uplifts. During his interview at Michigan he presented video simulations of lithospheric plate motions as driven by mantle convection. He has published on convection, mantle hotspots, dispersal of supercontinents, and lateral heterogeneities at the core-mantle boundary, as well as some earlier studies of cratering on Mars, Mercury, Ganymede and Callisto. Mike is purchasing a very powerful computer for his research and plans to tie in with national computer networks, such as NSF-NET. His expertise will nicely complement that of Professors Henry Pollack, Thorne Lay and Larry Ruff.

## THE MICHIGAN BOOKSHELF

From time to time we learn of the publication of major scholarly works by one of our geolumni that merits special recognition. Accordingly, we are initiating an occasional column called the Michigan Bookshelf which will feature reviews of such works. In this issue of *Geoscience News*, we note the publication of a book entitled Evolution of Reef Communities, (Wiley Interscience) by J. A. Fagerstrom (Ph.D.'60), Professor of Geology at the University of Nebraska. The volume brings together both geological and biological information on reefs, with the goal of integrating research on modern (Holocene) and ancient reefs from the point of view of environmental factors and processes that influence their success or failure. The volume received laudatory reviews in both *Science* and *Nature*. As one reviewer stated, the great attraction of this book "is the synthesis of data and opinions from numerous disciplines into a very readable dissertation on virtually all aspects of the reef phenomenon." The Department extends its congratulations to Al Fagerstrom for this achievement. We invite suggestions from readers for other contributions to the Michigan Bookshelf column for future editions.

## GRADUATE STUDENTS WIN GEOLOGICAL SOCIETY OF AMERICA GRANTS.

Katherine Heimes won a Geological Society of America grant award with a special outstanding mention for a grant proposal entitled "Deformation mechanisms and tectonic history of the Central Metasedimentary belt boundary mylonite zone, South Ontario and Quebec." Kate works with Profs. Ben van der Pluijm and Eric Essene. Other successful award winners this past year (and their advisors in parentheses) were: Vee Ann Atnipp (Kacey Lohmann and Joyce Budai), Scott Carpenter (Kacey Lohmann), S. T. McWhinnie (Ben van der Pluijm and Rob Van der Voo), Hans Thewissen (Phil Gingerich) and M. Reid Wellensiek (Rob Van der Voo and Ben van der Pluijm).

## IN MEMORIAM: ADA HAYDON, IRVING REIMANN, AND ALUMNI ROBERT DOTT SR. AND ROBERT M. GARRELS

Alumni from the period 1958-1973 will remember Mrs. Ada M. Haydon as the administrative assistant who knew everyone in the University and found solutions to all intractable problems while simultaneously running the departmental administration. Ada died on April 28, 1988, age 85, preceded in death by her husband, Osborne. She is survived by son William, of Ventura, California and son Osborne of Farmers Branch, Texas.

Irving G. Reimann, retired from his position as curator and later director of the Exhibit Museum (associated with the Museum of Paleontology), died on November 14, 1987, after a long illness in Sedona, Arizona. He is survived by Georgina, his wife and by a step-son, grandchildren and great-grandchildren.

One of our oldest alumni, Robert H. Dott, Sr., passed away in Tulsa, OK, on February 2, 1988, survived by daughter Bobette of Portland, Or, and son Robert H. Dott, Jr., (B.Sc.'50 and M.Sc.'51) of Madison, WI, and grandchildren. Bob Sr. obtained his B.S. in Forestry in 1917 and his M.A. in Geology in 1920 from Michigan and was a devoted Michigan fan all his life. Bob Sr.'s father preceded him at U-M and played on the first Wolverine football team; thus, three generations of Dotts have been students in Ann Arbor. In 1978, Bob won the AAPG's Distinguished Service Award, for his contributions to the Association, to geology, and to the petroleum industry. He was AAPG's Executive Director for eleven years, then Book Editor and continued as Editorial Consultant until his death.

Robert M. Garrels (B.Sc.'37, D.Sc.'80) and Ph.D. (1941) from Northwestern, passed away in March 1988. Bob, emeritus professor at Northwestern, stayed active in geochemistry while teaching at the University of South Florida (St. Petersburg) until his death. Bob is survived by his wife Cynthia. In 1980 Dr. Garrels received the honorary degree (D.Sc.) from Michigan for his contributions to geology and geochemistry.

### GRADUATE STUDENT WINS NSF FELLOWSHIP

In the 1988 announcement of new graduate fellows in Geological Sciences by the National Science Foundation, one Michigan student was listed among the 15 award winners: Jodie Hayob, working with Prof. Eric J. Essene on the metamorphic petrology of southern Mexico, will be supported in the coming three years by this prestigious fellowship. Jody studied at the University of Wisconsin before coming to Ann Arbor in 1987.

### DR. RALPH BALDWIN AND PROF. WILLIAM R. FARRAND RECEIVE GEOLOGICAL SOCIETY OF AMERICA AWARDS

A graduate of Michigan's Astronomy Department, Dr. Ralph Baldwin of Grand Rapids received the G. K. Gilbert prize of the GSA for his contributions to our knowledge about the surface geology of the moon and planets. Congratulations from all of us.

Prof. William R. Farrand was the recipient of the Archeological Division Award from the GSA, for his contributions to archeological geology. The Department is proud of Bill for receiving this recognition.

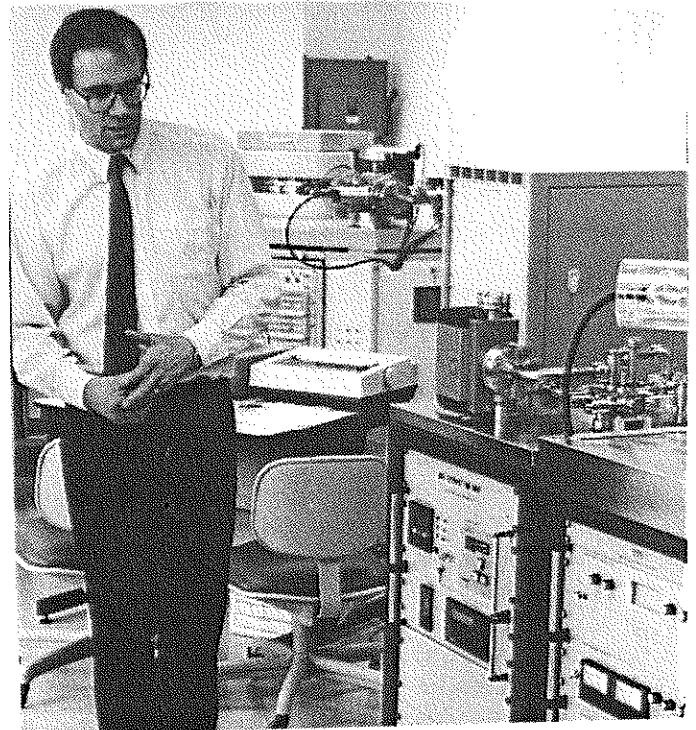
### EMERITUS PROFESSORS CAN'T STOP PUBLISHING

Many of our alumni may have seen the article published by Prof. Robert Kesling in LSA Magazine, which reaches upwards of 75,000 households all over the world. The article focusses on Bob's research on fossils (e.g., ostracods) of the last few decades.

Prof. E. Wm. (Abe) Heinrich recently published, together with Dr. Richard S. Mitchell, an article on "Who's who in mineral names: minerals named for Michigan mineralogists and geologists." Abe also served recently on a Committee of Contributing Scientists for the Hammond-Barnhart Dictionary of Science, which was published in 1986. As one of 9 scientists on this committee, Abe played a critical role in reviewing more than 16,000 definitions together with citations and explanatory notes.

### GRAND OPENING OF THE RADIOGENIC ISOTOPE GEOCHEMISTRY LABORATORY

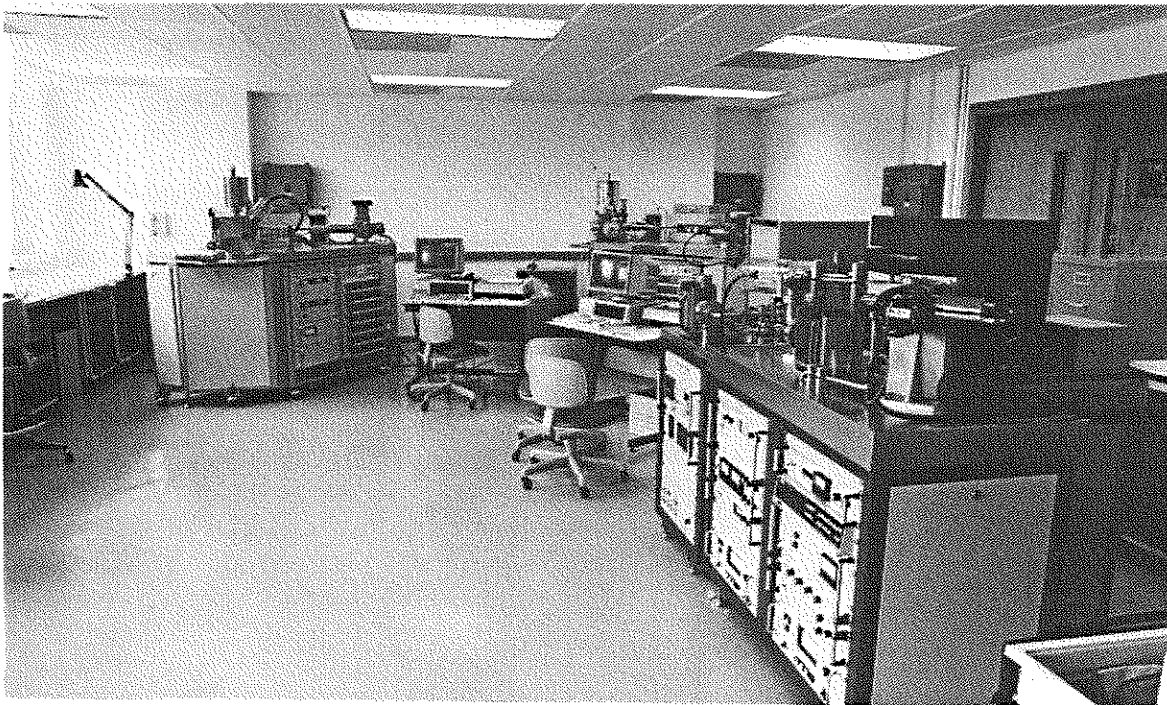
The laboratory had been operational for a while already, but on April 4 the Department organized an opening ceremony so that university officials, representatives from industry, the National Science Foundation and other universities could tour the clean-air chemistry and the mass spectrometer rooms of this spectacular facility. Funded for a large part by the University, but with considerable contributions from Shell Companies Foundation, the Union Pacific Foundation, NSF, and from accumulated alumni contributions to the Capital Campaign, this \$1.5 million laboratory is truly a showpiece, and a proud Professor Alex Halliday (as can be seen in the picture below) provided background explanations during the tour. Some introductory remarks were made by Vice-President and Provost James J. Duderstadt (soon to be the University President) and by Dean Peter O. Steiner of the College of Literature, Science and the Arts. The facility is already in full use by Alex, his two postdocs and three grad students.



Prof. Alex Halliday explains the features of the rare-gas mass spectrometer. (Photo by Bob Moustakas)



Before the ceremonial opening of the Radiogenic Isotope Geochemistry Laboratory, guests assemble for some speeches: (from right to left) Dean Peter O. Steiner of LSA, Vice-President and Provost James J. Duderstadt, David G. Nussman of Shell (M.A.'61, Ph.D.'65), David Clark of the University of Wisconsin, Bill Kelly, Thomas Donahue of Atmospheric, Oceanic and Space Science, Alan F. Gaines of the National Science Foundation, Chuck Cowley of Astronomy and Chairman Rob Van der Voo (Photo by Bob Moustakas).



The mass spectrometer room in the new Radiogenic Isotope Geochemistry Laboratory: to the right the Mass Analyzer Products Ltd. rare-gas mass spectrometer for Argon-Argon work, and in the background the two solid-source VG mass spectrometers (Photo by Bob Moustakas)

## GRADUATE STUDENTS COMPLETE DEGREES

Again this Spring, the Department held a reception for graduating students and their families. Below follows a list of the new alumni who have completed their degree programs since the June 1987 issue of *Geoscience News*.

### Bachelor's Degrees since May 1986

Darr, Kathleen  
Johnson, Jeffrey  
Kreckman, Eric  
Spearing, Dane



Recent graduates Kathleen Darr (left) and Dane Spearing at the departmental reception in May (Photo by Bill Wilcox).

### M.S. Theses

Bloomfield, Anne, 1988, "Petrogenesis of the O'Leary Peak and Strawberry Crater volcanics of the San Francisco Volcanic Field, Arizona."

Cohee, Brian, 1988, "Modeling teleseismic SV waves from underground explosions with tectonic release: results for southern Novaya Zemlya"

Fernberg, Richard, 1987, "Diagenetic history of cyclic platform sequences: Virgilian Holder Formation, Sacramento Mts., New Mexico."

Gales, Julie, 1988, "Structural analysis and paleomagnetism, the Silurian Botwood Group: Change Islands, Newfoundland."

Gorman, Jonathan, 1987, "Distribution and genesis of argillic alteration, southern OH vein system, Creede Mining District, Colorado."

Kersting, Annie, 1988, "Experimental oxygen fugacity measurements of Skaergaard layered intrusion."

Kesler, Kimberly, 1987, "Mineralogy of tills in southeastern lower Michigan using X-ray diffraction techniques."

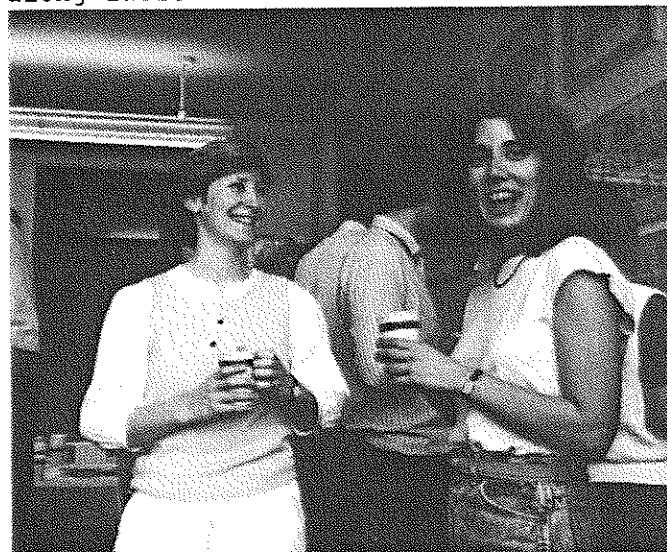
Keating, Steven, 1987, "Mineralogy and petrogenesis of cumulate inclusions in lavas from the San Francisco Volcanic Field, Arizona."

### Ph.D. Theses

Beck, Susan, 1987, "Rupture process of subduction zone earthquakes."

Christensen, Douglas, 1987, "Intraplate earthquakes and seismic coupling."

Craddock, John, 1988, "The evolution of the Idaho-Wyoming fold and thrust belt along latitude 42°45'."



Recent graduates Susan Schwartz (Ph.D., right) and Julie Gales (M.Sc.) are happy after graduation at the departmental reception in May (Photo by Bill Wilcox).

Lynnes, Christopher, 1988, "Seismic velocity heterogeneity in the crust and upper mantle under the Nevada Test Site (Part I) and Source processes of great intraplate earthquakes (Part II)."

Schwartz, Susan, 1988, "Fault zone heterogeneity and earthquake occurrence in subduction zones."

Sharp, Zachary, 1988, "Metamorphism and oxygen isotope geochemistry of the N. Wind River Range, Wyoming."

Stearns, Carola, 1988, "Middle to Late Paleozoic paleomagnetic results from the Appalachian-Caledonian and N. Greenland fold belts."

150 YEARS OF GEOLOGY AT MICHIGAN  
1839 - 1989

WILLIAM HERBERT HOBBS AND THE GREENLAND CONNECTION by William S. Carlson

As early as 1911 Prof. W. H. Hobbs propounded his theory of the "glacial anticyclones," contending that about the geographic North Pole there is a vast area of normal air pressure, while the "northern wind pole" is represented by the glacial anticyclone over Greenland, 15 latitude degrees from the geographic pole. The fierce outward-blowing winds of former continental glaciers, akin to those now found in Greenland, he said, accounted for the deposits that ages ago formed the rich soils of Russia's Ukraine and our Upper Mississippi Valley. The potentialities of a glacier's effect on surrounding land so intrigued him that he decided to study and "reinterpret" the Greenland glacier at first hand. He then undertook to arrange the University of Michigan expeditions to Greenland, with study of glaciers as the primary goal, and balloon exploration of the glacial

anticyclones as the secondary purpose.

Just before sailing for Greenland, Hobbs and other explorers were entertained by Vilhjalmur Stefansson, the Arctic expert. Already familiar with the entire surface of the earth, as well as many of its inner secrets, Hobbs nonetheless was a neophyte in the exploration game as he recounted the modest aims of his forthcoming journey. Other guests at dinner, telling of future explorations, were Sir Hubert Wilkins, who crash-landed shortly afterward on an Alaskan Arctic flight, and Carl Akeley, who perished on his subsequent African safari.

Hobbs was on cordial terms with many of the world's most restless souls, and he regularly encountered them in unlikely places. His conversation was studded with off-hand references to these meetings: "I was having a bite between planes at the Amsterdam airport," he would reveal, "and was surprised to hear someone say 'Well Hobbs, what brings you here?' It was Hubert Wilkins on his way to London to be knighted." Or, "En route from Copenhagen to Stockholm, I fell in with Baron Nordenskjold; flying about the world as one does now, one is constantly meeting with explorer friends," was how Hobbs, in his courtly way, described this circumstance.

A score of explorers gave Hobbs the ultimate accord of the fraternity: the naming of various geographical areas for him. So, today, honoring a man whose last European ancestor emigrated to America in 1671, there are Hobbs glaciers in Palmer Land and South Victoria Land of the Antarctic, and in the New Zealand Alps; the Hobbs Coast (a stretch of one hundred miles in the Antarctic named by Admiral Byrd), two Hobbs glaciers and a nunatak in Greenland, the Hobbs mountain range in southwest Ellesmere Land, Mt. Hobbs in Utah, and Hobbs Land of East Greenland.

Before Hobbs' 1928 summer trip, Bert Hassell, the aviator, who planned a 4200-

mile hop from his home at Rockford, Illinois, to Stockholm, approached Hobbs for advice. "Make a way station at Sondre Stromfjord," the Professor urged. "You'll have virtual freedom from fog there. Furthermore, glacial anticyclones will aid a plane crossing the island's icecap".

Hobbs argued better than he knew. Hassell not only agreed to stop at a base in Greenland on his trans-Atlantic crossing, but he became a complete convert, convinced that he could find a practical commercial route from America to Europe across Greenland. He never did, but not because of lack of trying. Our first big job in Greenland was to find a suitable place for Hassell. After considerable search, we found an almost ideal field, a raised clay terrace, covered in places with boulders, and gullied in other spots (This is the location of Sondre Stromfjord air base). However, misadventures to Hassell's monoplane, Greater Rockford, delayed his flight with co-pilot Parker Cramer until mid-August, and the plane then disappeared into the mist over south Greenland. For nearly three weeks there was silence while our camp and numerous other expeditions searched fruitlessly. Finally, early in September, Hassell and Cramer stumbled out of the wilderness. Out of fuel, the plane had landed ten miles within the western border of the icecap and about 120 miles from our camp.

In the winter of 1928-29, I ventured several miles onto the ice dome during a two-week journey on the glacier, looking unsuccessfully for the Greater Rockford. It finally was sighted from the air about 15 years later by an Army flier.

Despite the ill-fortune accompanying the Hassell flight, Hobbs, from 1928 to 1941, was an undaunted supporter of the northern airway. Hobbs, in his 1931 book North Pole of the Winds, argued the case for Greenland for military and civilian use. Its message fell only on deaf ears, but in the end Hobbs prevailed.

In July, 1941, we sent in our first advance task force of engineers, coast artillery, and general service troops to the southern coast at Narsarssuak, which became Blue West One. But this base plainly couldn't handle all the Great

Circle route traffic, so two months after BW-1 started, work began at Sondre Stromfjord. This was to be Blue West Eight, but no code was used when a stream bordering the field was tagged Hobbs Creek. The flat area, picked out by Hobbs 13 years before, was rediscovered, and with removal of boulders which the Michigan expedition hadn't been able to budge, the field took on the added dimensions necessary to accommodate the huge warplanes.

The Sondre Stromfjord route was thought, at first, to be an alternate when BW-1 was overloaded or weathered in. But to the surprise of everyone except Professor Hobbs, after BW-8 was opened for flying on March 15, 1942, the flying weather was better there than in southern Greenland, because of the distance from the warm moist air of the Atlantic Ocean. Hobbs' persistent advocacy of the North Atlantic air route proved justifiable.

Professor Hobbs' proclivity to do battle for a cause did not begin, nor end, in his successful pre-Pearl Harbor sorties against the Washington brasses' opposition to the northern air route. He was always a vigorous advocate of military preparedness. In a 1925 debate on the subject: "Should war be abolished as a means of settlement of international disputes?" he took the negative view, locking horns with many an internationalist and pacifist. Rabbi Stephen S. Wise devoted much of a lecture at the University of Michigan to a bitter attack on Hobbs, whose response was so sulphuric that Wise demanded that the University "try" the Professor and fire him if Hobbs was not found justified. The trial never came off.

I dedicated my book Greenland Lies North (Macmillan) to William Herbert Hobbs, Good Friend and Great Teacher.

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William S. Carlson (A.B.'30, M.Sc.'32, Ph.D.'38, L.L.D. (hon.) '50) was a field leader of two U-M expeditions to Greenland. He later served successively as president of four universities: Vermont, Delaware, State University of New York, and Toledo. He currently resides in Florida.



## ALUMNI NEWS

1940's

Jean (Richards) Carpenter, B.Sc.'45 and MA '48, spent six weeks in the Fall of 1986 in a bush village, Kithasya, in Kenya's Kibwezi Division doing preliminary work for a potable water pipeline. This will provide drinking water for some 9,000 villagers who now must walk as much as ten miles for water that is not even fit to drink, because it is alkaline and infested with bacteria and parasites. Back in the U.S., she started fundraising with a goal of \$80,000 in a first phase which involves at least three miles of pipe to a storage location at a central hill. The project is with the Ecumenical Committee for the Barkley Pipeline Fund through the First Presbyterian Church in Hackettstown, New Jersey.

Mary Webster Lamoreux, B.Sc.'45, has written that her son Scott is now Landscape Architect for the Chugach National Forest in Alaska. Older daughter Susan is a medical technologist at Walter Reed Army Hospital, whereas younger daughter Linda is on a maternity leave from her position as Personnel Staffing Officer at the Treasury. Mary adds that she has day-time care of her grandchildren, 8 and 13 years old, which means a bit of volunteer work at school also.

Dorothy M. Skillings, B.Sc.'47, has retired from Michigan's Geological Survey since January. She enquired about Prof. Don Eschman, and we are happy to report that Don is doing well and enjoying his retirement. Her son Jerry, also a U-M graduate, received a doctorate in Psychology from Yeshiva University in 1987 and is now employed by the Medical College of Pennsylvania in Philadelphia.

Mary (Morris) Walker, A.M.'47, and her husband Eugene, A.B.'37, A.M.'42 and Ph.D. from Harvard in 1947, with faculty appointment at U-M in 1946-47, attended the 14th International Botanical Congress in 1987 in West Berlin, with a field trip to Yugoslavia and another one to eastern

Switzerland. Mary, past-president of the New England Botanical Club, continues her volunteer work as librarian for the New England Wild Flower Society, developing the collection for twelve years. Daughter Cynthia was married in November to Edward C. Gray. Eugene retired from the USGS in 1980 and now does a variety of volunteer activities. They spent part of this past Winter in the West Indies.

William K. Miller, B.Sc.'49, noticed that six other Geolumni live in Hawaii. We have since then sent him names and addresses so that he can get in touch.

1950's

Robert H. Dott, Jr., B.Sc.'50 and M.Sc.'51 (and Ph.D. from Columbia, '55) and his wife Nancy, B.Sc.'51, have been busy globetrotting, visiting England in 1985-86, returning home via China and Australia, followed by 2 months in New Zealand, where Bob was invited to be an Erskine Fellow at Canterbury University. Nancy is busy as a part-time naturalist in a suburban school district, which provides an outlet for her U-M geology background plus a lot of additional knowledge of the natural world about us. At times they see other Geolumni friends.

John W. Keeler, B.Sc.'50, M.Sc.'51, is retired from his job as geophysical advisor with Esso Expro U.K., since September 1986. He moved from the U.K. to Houston and just returned from a visit to the U.K. and West African countries by cruise on the QE II. He mentions that he has visited Ann Arbor twice now since his retirement. Although threats of consulting jobs keep appearing, his first love is beach bumming at Camp on Galveston Island. The only thing he misses about full-time employment is lunch.

Kenneth E. VanLier, B.Sc.'50, is retired from the Water Resources Division of the USGS since 1980, having worked there for 30 years. Since then he has consulted, but plans to retire fully in a year or two. Summers are spent in his cottage on Lake Michigan near Shelby.

James H. Zumberge, Faculty 1950-62, writes that the Whittier earthquake in October 1987 gave the USC campus quite a jolt, but that damage was slight and that there were no injuries among the 30,000 students, 2,000 faculty or 8,000 other staff. Jim returns often to his cabin in Jackson Hole in the summers, giving him a chance to see the Michigan vans with our students in the fieldcamp area, but he wonders why the Stagecoach, his favorite bar, is not visited by our people. He adds that he enjoys Geoscience News and is glad to be kept up-to-date on departmental affairs.

Philip H. Lamberton, B.Sc.'51, sent us a business card of his marquetry and wood turning shop, which he is running full time after retirement.

Isadore Million, B.Sc.'51, writes that he has transferred his geological interests to ranching and farming in the San Luis Valley of Colorado. He also has a coffee shop in Boulder, where he meets many unemployed geologists. He adds that his first grandson arrived in 1987.

Douglas E. Masten, B.Sc.'52, M.Sc.'53, mentions that there is very little prospect generation in the business in Midland, TX, adding that he concentrates on properties with secondary recovery potential.

Ronald E. Seavoy, B.Sc.'53, M.A.'65 and Ph.D.'68, has published two books: Origins of the American Business Corporation, 1784-1855 (1982) and Famine in Peasant Societies (1986; both published by Greenwood Press, Westport). Numerous articles on the economic development of the U.S., detailing how state laws in the antebellum period facilitated industrialization, and on peasant agriculture, have also been published by him. Some of the latter deal with Indonesia, where he was a consulting geologist for ALCOA in 1970 and 1971.

Curtis L. Lundy, B.Sc.'54, M.Sc.'58, writes that his employer, MichCon (Michigan Consolidated) Gas Company continues

to serve its customers in the State with clean efficient natural gas. His primary assignments are in petroleum engineering. He enjoyed seeing other Geolumni at the AAPG Convention in Houston in 1988. This Summer, he plans to sail his 17th Port Huron to Mackinac boat race.

Murray J. Copeland, Ph.D.'55, took early retirement in 1987 from the Canada Geological Survey, although he continues to work on some micropaleontological projects in the Gaspé Peninsula, Quebec, and in Ontario.

James E. McClurg, B.Sc.'55, M.Sc.'59, has become Chairman of the Geology Department at the University of Wyoming.

John J. Amoruso, M.Sc.'57, and John Greene, B.Sc.'63, M.Sc.'70, helped Prof. Phil Meyers with co-hosting the cocktail party at the AAPG Convention. At that meeting AAPG awarded John Amoruso an Honorary Membership, for which we extend our congratulations.

William H. Dixon, B.Sc.'58, M.Sc.'59 has been doing well-site work on a "Rank" wildcat off Anwar in the Beaufort Sea. He adds that the Michigan winters seem mild by comparison.

Donald E. Hillier, B.Sc.'59, received the U.S. Geological Survey's Meritorious Service Award for excellence in editing U.S.G.S. reports, particularly on water-resource topics, and for teaching scientists how to write reports and prepare illustrations for them. Don and his wife Barbara Mills Hillier, B.Sc.'59, who is also an editor with the USGS, have two adult daughters and are living in Denver. Barbara is pleased to see so many female alumni with Ph.D. degrees.

1960's.

Ralph M. Perhac, Ph.D.'61, is still with the Electric Power Research Institute, where he is Director of Environmental Science Research. He regularly sees two former colleagues, Charles Salotti and Jim Rhodes.

John S. Crossman, B.Sc.'64 and M.A. '71 from Michigan State, is now a Colonel in the U.S. Army Corps of Engineers and works for the Defense Mapping Agency in the realm of establishing requirements for topographic products worldwide. He is acting as the liaison between actual map producers and DMA's many customers, with involvement in DMA's evolution to an all-automated mapmaking capability. He looks forward to military retirement in the mid 1990's, after which he will move back to Steilacoom, Washington.

1970's.

John W. Geissman, B.Sc.'73, M.Sc.'76 and Ph.D.'80, writes that life in "Nuevo Mexico" has its ups and downs, so that looking back at his Michigan years he very much appreciates the stimulating group of scientists and personalities in the Department at U-M. He adds that it is nice to be tenured; John is now busy building up a super paleomagnetic lab, with a second cryogenic magnetometer to arrive this year. Son Thomas is quickly growing up and John's wife Molly is very active as a partner in a fiber arts store in Albuquerque.

Warren E. Brennan, A.B.'75, went to the Pakistan-Afghanistan border area in 1987 to purchase Swat Valley emeralds and Gilgit corundum, with a side trip to Mt. Everest. Later in the year, he consulted for mining interests in Minas Gerais, in Brazil, evaluating new alexandrite finds near Nova Era. The quality of these gems surpasses the best of traditional Ural Mountain sources. It was definitely exciting, judging from Warren's report that 60 military police with submachine guns were attempting to control 1500 pistol-armed "garimpeiros" (miners). Shooting occurred almost nightly, he added.

Tami (Conley) Williams, B.Sc.'77, was married to Larry Gunn Williams on October 10, 1987 in Grosse Pointe. She enjoys Geoscience News and adds that she found the time in the Department stimulating academically and socially and the source of many great memories. Tami com-

pleted a M.A. degree in Radio/TV/Theatre in 1979, after living in Boulder, running a coffee shop for six months and then graduate work. She adds that she gave up army pants and has become a capitalist. For the last 7 years she has been writing and producing corporate video programs, first as a free lancer, then for Owens-Corning Fiberglas Corp., and now with her own small agency. Husband Larry Williams is a meteorology-oceanography graduate (U-M'69) who went into advertising.

Kathy (Binkley) Treese, B.Sc.'78, M.Sc.'80, and husband Tom had a second child, Stephen, last September, and they enjoy parenting Daniel (3) and Stephen. Since Kathy quit her oil industry job in 1985, she has been working in research for a coatings company involved with the asbestos removal industry. At night she has been taking classes at the University of New Orleans. Now a student teacher in Earth Science, she hopes to obtain a M.E. with certification in math and science. Tom is working for Southern Coatings as a QC chemist. They are hoping a transfer away from Louisiana will take them to the snow belt, and they look forward to the Camp Davis reunion in 1989.

1980's.

Roger E. Brown, M.Sc.'80, and wife Denise moved from Houston to Portland, Oregon, where Denise now works for Arthur Andersen and Co. Roger went back to grad school at Portland State in hydrogeology and computer science. They are redoing an older home they just bought and expect their first child this October. All in all a lot of changes, but they are happy with the move, change in career, climate, and lifestyle.

Stuart K. Habel, B.Sc.'81, is now working for Hughes Aircraft in Segundo, California, after obtaining a second B.S. degree in computer science at Colorado State. His job entails designing, testing and implementing computer programs. He is still very active in skiing, jazz guitar playing and mountain climbing, which this year took him to some Mexican volcanoes.

James P. Leege, B.Sc.'83, succumbed, as Eric Essene would say, to the lemming-like urge to reside on the San Andreas Fault, making his home in San Jose. He is currently working for ESL, a division of TRW in Sunnyvale, as an image-processing programmer. Weekends and vacations are spent hiking and backpacking the Sierras, Cascades and Coast Ranges, occasionally sampling the wines of Napa Valley. Jim sends warm greetings to 1983 Camp Davis friends.

Kris C. Matson, B.Sc.'83, M.Sc.'85 from Columbia, has taken a position at the Conservancy's Environmental Protection Division in Naples, Florida. Most of his work is in hydrology, says Kris, doing mapping and giving technical advice to groundwater protection committees. He thinks it is exciting to be involved in the political process, especially in the progressive environment of Florida. The work, he says, is part of Florida's comprehensive growth management plan for the coastal areas, partly funded by federal programs of Coastal Zone Management. Kris is windsurfing in his spare time. The plans for the Camp Davis reunion got him all excited.

Fred M. Haynes, Ph.D.'86, and his wife Patty (Schnorr) Haynes, M.Sc.'85, are living in Thousand Oaks, California, where Fred works for Exxon as Production Geologist. He mentions that he enjoys the challenges of understanding, evaluating and exploiting the Monterrey Fmn., looking at drill core, well logs and getting out on drilling platforms. Son Tommy keeps them busy, but weekends are a good time to enjoy the beaches, mountains and watching birds. Missing hockey, Fred adds a "Go, Flash Figures" !

Christopher P. Weiss, B.Sc.'85 and M.Sc. in 1987 from Montana, is currently at the University of Calgary in the Ph.D. program, having worked as substitute teacher and Park Naturalist Ranger for a year in between grad schools. He plans to do a thesis in geomorphology. Chris adds that he would like to hear from Paul Dunn and Clint Cowan.

## PERSONALIA

### Deaths

Robert H. Dott, Sr., B.S. Forestry '17 and M.A.'20, February 2, 1988.

Robert M. Garrels, B.Sc.'37, D.Sc. '80, Ph.D. from Northwestern, March 1988.

Ada Haydon, Admin. Assistant 1958-1973, April 28, 1988.

Allan L. Horvath, M.Sc.'57, died in 1983. Allan was the author of the book The Hills of Hocking.

Irving G. Reimann, formerly Director of the Exhibit Museum, and author of many articles in paleontology. November 14, 1987.

Richard B. Ross, B.Sc.'49, M.Sc.'50, died in 1984.

### Births

Julian, son of Peter M. Brown, M.Sc.'82, and Cathie Brown, January 19, 1988.

Geoscience News is compiled twice a year for alumni and friends by the Department of Geological Sciences at the University of Michigan, Ann Arbor, MI. 48109-1063.

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Dept. Faculty: R. J. Arculus, C. B. Beck, J. P. Davidson (vis.), E. J. Essene, W.R. Farrand, D.C. Fisher, P.D. Gingerich, M.C. Gurnis, A. N. Halliday, W. C. Kelly, S.E. Kesler, J.A. Kitchell, T. Lay, K.C. Lohmann, N. McLeod (vis.), P.A. Meyers, J. R. O'Neil, S.I. Outcalt, R.M. Owen, D.R. Peacor, D.K. Rea, L.J. Ruff, G.R. Smith, B.A. van der Pluijm, R. Van der Voo, J.C.G. Walker, and B.H. Wilkinson

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Street Address

Spouse \_\_\_\_\_  
Name Year of Wedding

Children \_\_\_\_\_  
Name Birth Date Name Birth Date

Children \_\_\_\_\_  
Name Birth Date Name Birth Date

Children \_\_\_\_\_  
Name Birth Date Name Birth Date

Please send us any news of your "doings" to be included in the next issue; simply write it on the reverse side of this sheet.

**SESQUICENTENNIAL REUNION AT CAMP DAVIS, AUGUST 18-20, 1989**  
 Informal questionnaire and preliminary expression of interest  
 (If you have responded previously, there is no need to repeat.)

- For those considering the re-union please indicate below the number of persons that might attend and the type of accommodation preferred:
- Number: 1 2 3 4 5 6 7 8 9
- Accommodation:
  - Stake out a campsite for us
  - Bunks in the Camp cabins
  - Will be fine
  - A motel room with hot shower in Jackson, please.
  - Presidential Suite in Jackson Lake Lodge.

- I think the reunion is a great idea—count me in!
- Sounds like fun—I'd like to come if possible.
- August 1989? I can't plan that far ahead—ask again next year.
- Camp Davis reunion? You couldn't pay me enough to go back there!

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