

# Alumni Newsletter

Fall, 1991

## CONTENTS

Field Camp Photo	Page 1
Chairman's Letter	Page 2
Summer Field	Page 3
ESS Graduate Fellowship Fund	Page 4
Degrees Awarded/Honors & Awards	Page 5
Faculty and Staff News	Page 6
Celebration of an Oil Man	Page 7
Eugene Borax Memorial Fund	Page 7
ESS Advisory Council	Page 7
Salute to Dr. Norman Nichols	Page 8
The Tick Canyon Rabbit	Page 9
Raising Tibet	Page 10
Southern California Earthquake Center	Page 11
Alumni News	Page 12

Welcome to the alternate-year Alumni Newsletter! We want to keep in touch with you annually and keep you informed of Department news and progress. We hope to alternate the large format of last year with the present lighter version. Rest assured, no alumni news is omitted at any time, so keep those updates coming in!

---

### ACKNOWLEDGEMENTS:

EDITOR: Joy Wurdeman  
PHOTOGRAPHY: Richard Mantonya  
SKETCHES: Donna Tucker

---

Thanks to **Fred Vandenberg** for providing the photo below, of "the disreputable-looking field class taken in 1937 near Randsburg, California, at the close of the Pleistocene." Asst. Prof. Robert W. Webb was in charge.



*Front Row (left to right): John Jordan, Mervin Joe Passarini, Iliff Anderson, Paul McGovney, ?, Ross Cabeen, Ray Pearson, Art Phelan, Garnet Oliver. Second Row: Dick Hopper, Al Kerr, ?, Bob Paschall, Harry Allen, Fred Vandenberg, Jim Sheller. Third Row: Jim O'Flynn, Colver Briggs, Jim MacMillan*



DEPARTMENT OF EARTH AND SPACE SCIENCES  
3806 GEOLOGY BUILDING  
LOS ANGELES, CALIFORNIA 90024-1567

September 16, 1991

TEL (213) 825-3880  
FAX (213) 825-2779

Dear Friends:

At the end of 1991, I will step down after serving four and a half years as ramrod of this Department. During this tenure, we have had two successful alumni reunions, the latter of which celebrated the graduates of the 30s and 40s and was particularly well attended. With the able assistance of Jon Engstrom in the Development office, we set up our Advisory Council, the primary goal of which is to establish linkage between our Department and the aerospace, petroleum and mining, and environmental-science industries. Joe Straus of Aerospace Corporation is our first and current Chair. Presently, the Council is working to establish fellowships for graduate students — now our greatest need.

In response to my letter last December, you alumni have contributed over \$16,000 toward our goal of \$150,000 to endow a graduate fellowship. At today's interest rates, each \$150,000 fellowship would provide sufficient return to annually support a graduate student, except for tuition and fees. Currently, our only endowed fellowship is the \$150,000 Wilbur Sherman Graduate Fellowship. Such generous donations will contribute significantly to this Department, ensuring that we will be capable of attracting the best available students.

The past five years have witnessed a rapid turnover in our faculty. Professors Carlisle, Nelson, Oertel, and Rosenfeld retired, and several others moved to other institutions. However, we have breathed new life into our Department by adding eight new members: Jon Davidson (Asst. Prof. Geology & Geochemistry), Mark Harrison (Prof. Geochemistry), Craig Manning (Asst. Prof. Geochemistry), Charles Marshall (Asst. Prof. Molecular Biology & Paleontology), David Paige (Asst. Prof. Planetary Science), Mary Reid (Asst. Prof. Geology & Geochemistry), Bruce Runnegar (Prof. Paleontology), and An Yin (Asst. Prof. Geology). These folks not only bring vigor to our research efforts, they are all outstanding teachers. We are now teaching nearly twice as many students with the same number of faculty as we did five years ago.

We have a large number of faculty and students working in the field, probably more than at any time in the past, commonly with geologists and geochemists working together in collaborative efforts, such as in the Andean volcanic zone, the Himalayas, the Transverse Range, and in western sedimentary basins. Our Center for Isotope Geochemistry will be fully equipped and staffed this year; the flagship of the operation — a High-Resolution Ion Microprobe funded by a major grant from the W.H. Keck Foundation — is scheduled for delivery no later than December. Together with USC and other institutions, we have been awarded a large grant from the National Science Foundation to establish a southern California Earthquake Center. In paleontology, the Loeblich's award-winning tome on foraminifera is being well received, and they are working on another compendium. Our other paleontologists and paleobiologists are continuing to apply modern biological, chemical, and isotopic techniques to discover more about the advent and evolution of life, oceans, and atmosphere. Our geologists and geophysicists are analyzing data from the Magellan mission to Venus, and our space scientists are involved with projects on every planet excluding Pluto. One disappointing note at the time of this writing is the jammed antenna on the Galileo Spacecraft to Jupiter; if it cannot be fully deployed, then the only hope to save the mission will be to launch a communication satellite to Jupiter to relay the signals from Galileo when it arrives in 1995. Professor Margaret Kivelson has been working with the Galileo project for 12 years, and it is fair to say that she is nervous.

For the past two years, the petroleum companies are again interviewing our students and graduate students for summer and full-time positions. In part, this results from the improving exploration picture, but it also results from our increased interaction with industry and our continued commitment to provide first-class students.

Thanks to you who continue to support our Department. I hope that you appreciate our attempts to keep in touch through these Newsletters. In turn, we would appreciate hearing from you. Take a moment to tell us about yourself or to comment on our Department. Remember that it is your Department too.

Personal regards,  
  
 Art Montana  
 Chairman

**CLEM NELSON  
SUMMER FIELD  
SCHOLARSHIP  
FUND**

These contributions, in honor of long-time summer field honcho Professor Emeritus Clem Nelson, by alumni and others who are engineering and environmental geologists in the southern California area, supported summer field students in 1990.

- G.A. Brown
- C. Buckley
- California Geo/Systems
- S.P. Dumas
- R. Escandon
- J. Farrar
- D.J. Grover
- Grover-Hollingsworth
- R. Hollingsworth
- G.S. Kovacs
- M. Lieurance
- R. Lung
- P. Merifield
- D. Parmelee
- S. Watry
- Zeiser Geotech
- R. Zweigler

Thirteen lucky seniors, including myself, spent our summer field camped at Lake Margaret (elevation 10,800') in the High Sierra above Bishop. Our leader was Dr. Ted Reed and our purpose was to map in detail a previously unmapped roof pendant and its associated granitoid plutons; we had the opportunity to work in a real research environment.

Our first two weeks or so were passed in formulating the questions that we spent the rest of our field season trying to answer. We defined, with much debate, the units to be mapped in the pendant and began identifying the intrusive, deformational, and metamorphic events that had affected it. Our explorations led us into the plutons that surrounded the pendant; we utilized intrusive relationships and structural and mineralogical elements in an effort to begin to piece together the geological history of the area.

The project is an ongoing one; several independent undergraduate projects involving petrologic and lab work on the samples we collected have been undertaken by students this year, and at least one graduate student will work on a problem in the area this sum-

mer. This year's seniors will return to pick up where we left off, and we anticipate at least one more class to be held in that locale. Ultimately, Dr. Reed would like to publish a detailed map and field report by compiling the work of the classes who have participated.

Last year's field camp was a real learning experience for all involved. First and foremost, we were able to apply our classroom and controlled mapping exercises in an environment of unknowns. And, perhaps just as importantly, we learned a lot about ourselves; we learned that we could survive in a "remote" area, and that we could behave professionally under difficult circumstances. All members of the group, I think, will be better prepared for the professional world because of our summer 1990 field camp experience. *✍*



*Ted Reed leading the group in a community sing. Or is he telling a fish story?*



*Not all the activities were geology oriented. -- here's Charlene with the catch of the day.*

## ESS GRADUATE FELLOWSHIP FUND

### BENEFACTORS

William Adams  
Allen D. Bailey  
Ted Bear  
Bonnie Bloeser  
Paul Carlton  
Glenn Brown  
Robert S. Burns  
Andrew Diehl  
Martin Goldhaber  
John S. Loofbourow, Jr.  
Conrad McCarthy  
Robert P. Newton  
John Oehler  
Wilbur Sherman  
Ron Shmerling  
Joe Straus  
John Van Amringe  
Norman V. Wagner II  
John N. Wilson

### FRIENDS

Tom P. Anderson  
Morris Balderman  
William Barry  
Bruce Bilodeau  
Loralee Brown  
Philip Christensen  
William G. Dutton  
J.H.N. Ellis  
John D. Frick  
Christopher Gallagher  
Eugene Gottsdanker  
Cliff Gray  
Kempton Hall  
Richard Hopper  
Mark D. Howland  
Robert L. Johnson  
Chas Lee  
Donald Lindsay  
David A. Link  
Rodney Nahama  
Jerome O'Brien  
Robert Paschall  
B.J. Presley  
Richard Redfern  
Donald Ross  
Norman Rousselot  
Jay Smith  
Parke Snavelly  
Norman Wagner  
F. Harold Weber  
Robert G. Wilson

### CONTRIBUTORS

Donald Asquith  
Stanley S. Beus  
Norman Bradley  
Joy Chen  
Bob Countryman  
Marie Deutsch  
Allen Glazner  
D.W. Gresser  
William Hildreth  
Terry Kato  
Peter Kraatz  
John W. McCloskey  
Mary McNeil  
William M. Neill  
Dave Pasta  
Bob Pavlovich  
Brian Rohrback  
Hy Seiden  
E. Reed Wicander  
Wayne Wischart

### Thanks

...to all of you for your support of our Graduate Fellowship Fund. Such support will ensure our ability to attract the quality of students for which the Department has always been known.

\$500 or above = Benefactor  
\$100-499 = Friend  
\$≤ 99 = Contributor

*Summer 1990 through Spring 1991*

**Bachelor of Science**

Deborah Lynette Barr	Geology
Nevine Dikran Boghossian	Geology
Donald Edward Crowell	Geology
Andrea Darcy Gill	Geology
Elizabeth Ann Heise	Geology
Maria Louise Herzberg	Geology
Kenneth Daniel Keegan	Geophysics (G&SP)
Mercedes Kim	Geophysics (Applied Geophysics)
Ann McLean	Geology
Charlene Montierth	Geology
Frederick James Pinzon	Geology
Anthony Phillip Weber	Geology

**Master of Science**

Haydar Azzouz	Geology
Gregory Kim Crawford	Geophysics & Space Physics
Shawn Bernard Doherty	Geology
Xiaobin Bob Ge	Geophysics & Space Physics
Changming Ho	Geophysics & Space Physics
Michael Dismas Krajnak	Geophysics & Space Physics
John Fredrik Leland	Geology
Marie Michelle Ong	Geophysics & Space Physics
Paul Frederick Short	Geology
Christian Zam	Geology

**Doctor of Philosophy**

Lee Frost Bargatze	Geophysics & Space Physics
Denise Anne Battles	Geology
Anne Elizabeth Beachey	Geophysics & Space Physics
Gilles Yves Albert Bussod	Geology
Andrew J. Gratz	Geology
Robert Paul Ilchik	Geology
Donald George Isaak	Geophysics & Space Physics
Eric Alan Jerde	Geology
Anne Marie Linn	Geology
Kurt R. Moore	Geophysics & Space Physics
Elizabeth Anne Myhill	Geophysics & Space Physics
Bonnie Marcia Packer	Geology
Zhengkang Shen	Geophysics & Space Physics
Heather Elizabeth Trim	Geochemistry
Ke-Shan Zou	Geophysics & Space Physics

**HONORS & AWARDS**

**JOHN W. & FRANCES R.  
HANDIN  
SCHOLARSHIPS**

Julie Jeannine Norris  
Daniel Allen Swensson

**LIEN/RUBEY/MURDOCH  
SCHOLARSHIP AWARD**

David Hirsch

**SABINS/CHEVRON SUMMER  
FIELD AWARD**

Elizabeth Forshee  
Gerald S. Goodman  
John M. Holodnik  
Dana K. Polacsek

**ESS ALUMNI SUMMER FIELD  
AWARD**

Andrea D. Gill  
David Hirsch  
Kimberly S. Holland  
Fabio M. Minervini  
Andrea E. Rice  
Vivian Yu-Wen Woo

**WILBUR B. SHERMAN  
FELLOWSHIP**

Michael D. Campbell

## FACULTY AND STAFF NEWS



*Gerhard Oertel and John Rosenfeld both retired since the last Newsletter and were honored at annual faculty/staff dinners -- Gerhard (above) at 94th Aero Squadron, Van Nuys, in 1990 and John at Mays' Landing, Malibu, in 1991, here pictured with Jim Thompson, fellow petrologist and friend for more than 50 years.*



Contributions by alumni, faculty and staff totalling \$1800 were made to the UCLA Geology-Geophysics Library in honor of John's retirement (See p. 19 for a list of donors.). Those funds will be used for the acquisition of otherwise-unobtainable monographs.

The last year has seen many changes in the staff of the Department. Five long-time employees took advantage of the University's early retirement program and became staff emeriti on April 30. They are Gen Kurtin (25 years of service), Julie Guenther (26 years, some of them as one of Santa's original elves), Les Faus (27 years), Jimmie Yamane (24 years) and Gerry Stummer (27 years). All were honored at a festive retirement party on March 27 and are reportedly enjoying their newfound spare time.

Delaying not at all, the Stummers took a six week-vacation to visit their hometown in the former East Germany as well as spending a week in Bayreuth with Wayne and Ellen Dollase who are there on sabbatical. Last July, Ned Swift decided that he and his family would return to their roots and now are happily re-established in Spokane, Washington.

Not all the changes have been departures—Ken Richardson has replaced Ned in the front office and Ben McClellan has recently been hired to run the machine shop. Our staff continues to be of the highest quality. This year, in an unprecedented triple sweep, the University gave Achievement Awards to Matt Heizler, Bob Jones and Spring Verity. Congratulations to the awardees, our retiring staff and new arrivals! 🎉



*Awardees Bob Jones, Spring Verity and Matt Heizler.*

*Foraminiferal Genera and Their Classification*, authored by Alfred R. Loeblich, Jr. and Helen Tappan and published by the Van Nostrand Reinhold Company, won an award from the Professional and Scholarly Publishing Division of the Association of American Publishers. These awards, which are given annually, are selected by a committee of people in the publishing business. The Loeblichs' book won the award for the best 1988 professional and scholarly book in the category of Geography and Earth Science.

CELEBRATION OF AN  
OIL MAN

When Ed Scott (B.A. 1932) was born—

Arizona was still a territory.  
Babe Ruth was only nine years old.

The Wright Brothers were celebrating the 5th anniversary of Kitty Hawk.

Boxers fought bare fisted.  
And the Czar still ruled Russia.

Ed was in grade school during the first World War when pilots dropped bombs from their bi-winged airplanes and Generals still paraded on horses. He was a freshman at UCLA when it was just a cluster of buildings on Vermont Avenue in Hollywood. Charlie Chaplin was still making silent movies down the street.

He graduated from college at the height of the Great Depression when there were no jobs, so he worked for room and board as a geologist the summer before Union Oil had an opening that paid a salary. They must have liked his work. They kept him on for 41 years.

He went to Alaska in the Thirties to look for oil like a character out of a Jack London novel, sailing from Seattle on a ship with pack horses and supplies. It took 3 weeks to reach his base camp. He would live to retrace the same route in 5 hours via jetliner and helicopter.

He was a sportsman who fished for salmon and arctic char — hunted ducks from North Dakota to Louisiana — landed a Blue Marlin in Mexican waters — shot a white-tail deer in a West Texas pecan grove — and ended his sportsman's life with guns and rods in the closet, spotting birds through binoculars and armed with a nature book.

He touched every continent except Antarctica. He looked for oil in Louisiana marshes, on Montana plains and Alaskan slopes, in tidal waters off British Honduras and shallow reefs along Australia. He toured refineries in

the Soviet Union and plotted charts across the world. He was an oil man when being an oil man had the ring of adventure and the image of John Wayne bringing in a gusher.

And finally, Ed Scott was a LUCKY man. Lucky to have a job that he loved. Lucky to be an "oil man" in the most exciting times of the oil business. Lucky to work for a company that grew from a tiny California firm into an international giant while he was aboard. Lucky to be able to combine his profession with the outdoor life he thrived on. Lucky to be able to extend his career beyond retirement to government service. Lucky at gin rummy and dominoes...and



the most incredible luck of all, the luck to find the perfect wife to share 60 years of life and love with! Ed's life stretched across 10 decades, from 1909 to 1990. Few people have ever had the opportunity to live such a full and rewarding life. God offered him the opportunity; he seized it and lived it to the fullest.

Doug Scott  
June 16, 1990

Eugene Borax fought a two-year battle against multiple myeloma and amyloid cardiomyopathy, which was diagnosed at UCLA Medical Center. He never complained, kept a scientist's log of his every pill & procedure. His wife Anne, with whom he married almost 40 years ago, his daughter Jean and his sister Ruth were with him. John and Betty Crowell visited with him the day before he died.

Eugene requested that donations be made to UCLA Foundation, E&SS Student Aid. Those listed below have donated to the fund:

Alice & Bill Diamond  
Alice Donald  
William & Eleanor Ebanks  
Sigmund Gayer  
William C. Goth  
Martha Kawa  
Marilyn W. Linley  
Carole & Morton Lipman  
Gerald E. Marrall  
F. Earl Turner  
Mr. & Mrs. Roy Turner  
Byron E. Van Arsdale, Jr.

## Earth &amp; Space Sciences Advisory Council

Founded three years ago, our Advisory Council consists of scientists and administrators from the petroleum, aerospace, and environmental industries, together with faculty and staff in our Department. Objectives of the Council include fostering interaction at all levels between our Department and industry, with mutual benefit to both, and providing guidance and support to the teaching and research programs in our Department. We are fortunate to have Dr. Joe Straus of the Aerospace Corporation as our first Chairman.

We are working diligently to fund fellowships for graduate students — currently our greatest financial need. At our past two quarterly meetings, Cheryl Brown, Associate Director of Major Gifts and Planned Giving, indicated several methods by which people could make significant contributions to the University, while also retaining income during their lives and reducing their estate taxes.

Many alumni and other friends of the Department may not appreciate the financial advantages that Planned Giving affords. In particular, many people may not know that they can contribute an appreciated asset (relative to the original cost), receiving income for the remainder of their lives that can be larger than the asset currently generates, but also, at the same time, avoiding the payment of capital gains and receiving a charitable tax deduction, all while greatly assisting the Department and UCLA. If you'd like further information about a planned gift, please call the Department at (213) 825-9784.

Current membership of our Council includes: **Ted I. Bear**, Bear & Kistler; **Sheldon Breiner**, New Ventures West; **Glenn A. Brown**, Law Environmental, Inc.; **Richard Carlsberg**, Carlsberg Financial Corp.; **Bernard Cohan**, SpaceCal Consortium, Inc.; **Ray Ergas**, Chevron Oil Field Research Center; **E. David Hinkley**, TRW; **Leslie Hromas**, TRW; **George Mueller**, Consultant; **John J. Rosati**, Bainbridge Technology Group; **Floyd Sabins**, Chevron Oil Field Research Center; **Wilbur B. Sherman**, Petroleum Consultant; **George Solomon**, Consultant; **Joe Straus**, Aerospace Corporation; **John H. Van Amringe**, UNOCAL. ☞

## SALUTE TO DR. NORMAN NICHOLS

by Spring Verity

In the summer of 1989, Dr. Norman Nichols, on a nostalgic visit to the University he had left forty-five years earlier, wandered into the Geology Building; our lives have not been the same since that memorable day.

Norm, an enthusiastic mineral collector since he married the daughter of a miner in 1965, was appalled at the condition of the wall cabinets and determined to do something about them. He had been looking for a new home for his collection since his retirement a year earlier, and decided that these cabinets, most of which had admittedly been untouched since the Pleistocene, would be a suitable place to display them. When Norm decides something needs doing, it gets done.

Norman Nichols was born in Kansas City, Missouri, in 1921 and raised in Seattle. The parental budget being inadequate for Harvard fees, Norm matriculated in 1939 as a pre-med student at UCLA. A year later his parents divorced and Norm had to leave school. He went to work at Lockheed, in Burbank, assembling fighter planes. After a year, he returned to UCLA part time, taking classes during the day and working at Lockheed at night. For the following three years Norm continued this schedule, sleeping an average of four hours a day and eating sandwiches in his car en route from Westwood to Burbank.

In April 1944 Norm was moved to Lockheed's new plant in Los Angeles. Finding himself in the vicinity of USC, Norm visited the medical school there after work one day. In his dirty overalls, and with aluminum filings in his hair, he found the Dean, who invited him in for coffee. Norm asked what he still needed to be eligible for admission to medical school. The Dean told him that if he took 14 more units in the Fall Semester, he could start medical school the following March.

It was somewhat intimidating to find himself, without even a Bachelor's degree, having classmates with Ph.D.s in biochemistry. Undaunted, Norm graduated first in his

class, and went on to an internship at Los Angeles County Hospital and a residency in Ventura. In 1949 he joined the Air Force and was posted to Wiesbaden, Germany, which gave him intensive experience in general surgery.

Following his three-year tour of duty, Norm established himself as a



general practitioner in Mariposa, where for many years he served as Chief of Staff at the local hospital. His fascination with minerals began in 1965, when he married Diane, the daughter of a miner.

After learning all he could from Diane's father, Norm took courses in mineralogy at Merced College. He went to all the mineral shows he could find and prowled through rock shops for rare specimens. He also bought cabinets to display his specimens in his office and waiting rooms. Some of his patients paid their bills in minerals; most of the gold, for instance, was payment for a hip replacement. Norm suffered a heart attack in 1988 and decided to retire from medical practice. When he sold his office and donated his equipment to medical missionaries, he started looking for a good place for his minerals. He wanted them to be of educational, as well as aesthetic, value, and this was our very good fortune.

When Norm visited UCLA a year

after his retirement, he was amazed at the changes since 1944. Even the bridge was gone! But he noticed the Geology Building on his way to look at the medical school (which had not existed when he was here). Wandering in out of curiosity, he saw our display cabinets and recognized that here was where his minerals were needed. He asked for the Chairman, who was away, so he saw Wayne Dollase and informed him that our displays stank. Wayne was a bit taken aback, but amused, and agreed. Norm's offer to donate his collection to the Department was referred to Art Montana on his return. Art was enthusiastic, but in light of our lack of personnel and resources to do justice to the gift, suggested that Norm should oversee the installation of the displays.

This was unexpected, but Norm agreed. Since then, most of Norm's spare time has been donated to the project. He wanted the minerals to be useful educational tools, as well as attractive displays. With the help of our Museum Curator, Jamshid Hassanzadeh, and artist Julie Guenther, and advice from Wayne Dollase and everyone else whose expertise he could use, Norm Nichols is putting together museum-quality displays which are transforming our third-floor hallway. We now have cabinets which demonstrate crystal classes and morphology, crystal habits, polymorphism, isomorphism, carbonates, silicates, sulfides, etc. He has also worked with Bill Schopf and Bruce Runnegar to display stromatolites and other fossils, and has installed fluorescent lights in another cabinet to display the fluorescent minerals. Several other displays are planned.

Norm's gift of his magnificent collection of minerals is very much appreciated. His gift of his time, effort, and expertise is extraordinarily generous. We thank you, Norm, and hope you will never quite finish the project, so that we can continue to enjoy your visits. ✍



Filling out the ranks of venerable yet vague beings such as Yeti, the Abominable Snowman, Bigfoot and the Loch Ness Monster, we now have . . .

## The Tick Canyon Rabbit

a special report from our correspondent in the field,  
Dean Clarence Hall

During the early seventies, Stephen Alpert (UCLA Ph.D. 1974) first chronicled the Tick Canyon Rabbit. It was never quite clear if Stephen was serious or if he had hatched an Alpertian Loch Ness Monster that inhabited the region near Vasquez Rocks, about 45 miles from Los Angeles. A number of us went along with the "gag," an Instant Seminar was held on the subject, and every once in a while the story of the five-foot-tall Tick Canyon Rabbit was repeated during a lunchtime conversation with a new group of students. Thus, any sightings claimed by new students were suspect, even if the story had ostensibly not been related to them.

Curiously, the sighting of the Rabbit occurred relatively often, certainly once every two or three years. One smiled at the wily student and trudged on after a discussion of how tall the rabbit was. All sightings noted that the Rabbit was between three and five feet in height. For those who taught the Tick Canyon class, clearly Stephen Alpert was immortalized. This then is the background for the beginning of what I believe will be the final chapter in the saga of the Tick Canyon Rabbit.

Unable to

resist the lure of that locale, I have been making a relatively detailed geologic map of the region between the crystalline basement rocks to the north of the Tick Canyon

area mapped by UCLA students and the basement rocks bounding the southern flank of the Soledad basin along the Soledad fault. One hot spring day in 1991 I stumbled out of a tributary canyon to Tick Canyon, approximately two miles south of Davenport Road. I was startled, as I came into the Canyon, to see a large elephant being ridden by a bikini-clad young

Davenport Road there is a wild animal farm: lions, monkeys, a camel, parrots and exotic birds, and an assortment of other animals which make a cacophony of wild noises as one approaches the owner's house.

Said owner, Brian, and I chatted

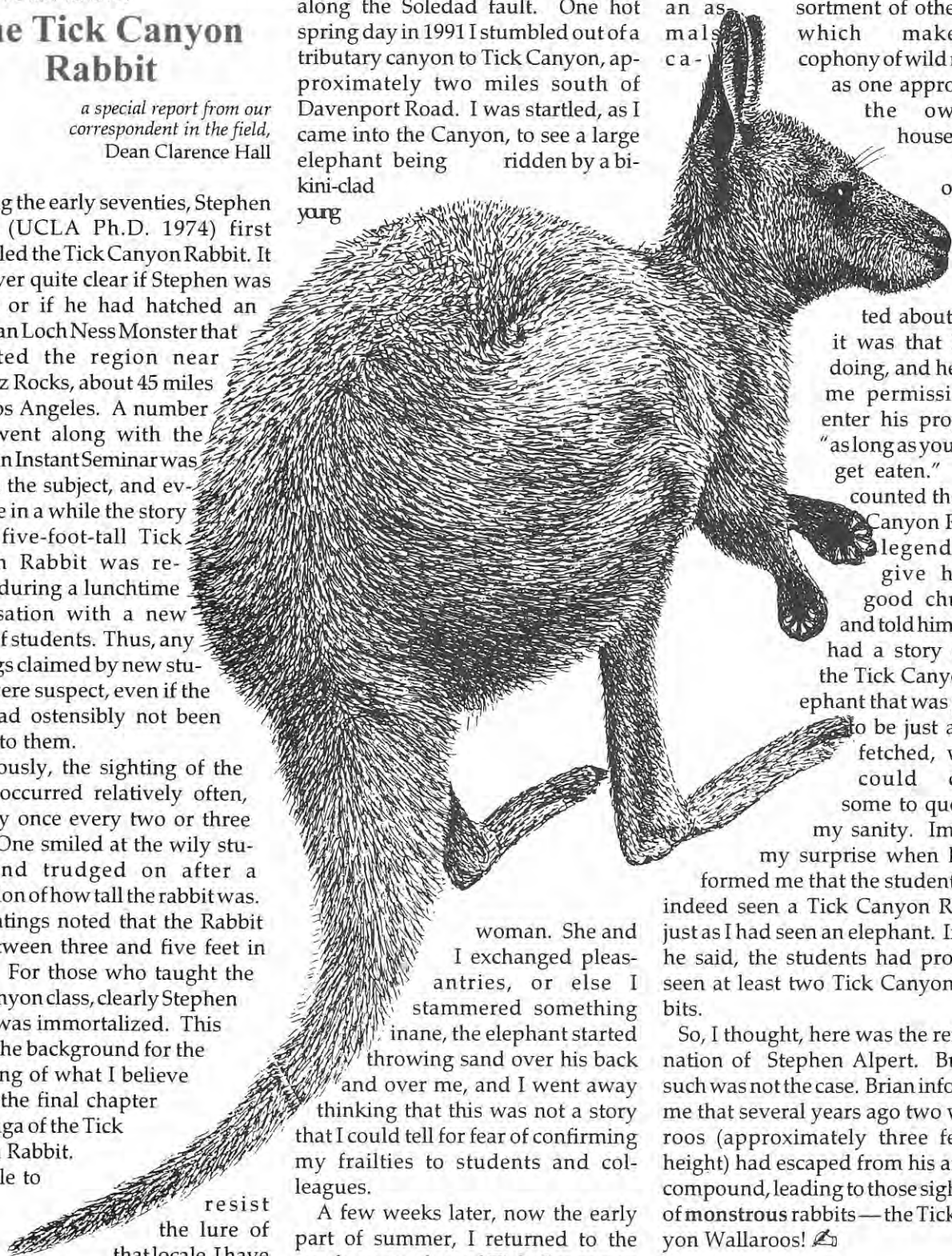
about what it was that I was doing, and he gave me permission to enter his property, "as long as you don't get eaten." I recounted the Tick Canyon Rabbit legend, to give him a good chuckle, and told him I now had a story about the Tick Canyon Elephant that was going to be just as far-fetched, which could cause some to question my sanity. Imagine my surprise when he in-

formed me that the students had indeed seen a Tick Canyon Rabbit, just as I had seen an elephant. In fact, he said, the students had probably seen at least two Tick Canyon Rabbits.

So, I thought, here was the reincarnation of Stephen Alpert. But no, such was not the case. Brian informed me that several years ago two wallaroos (approximately three feet in height) had escaped from his animal compound, leading to those sightings of monstrous rabbits—the Tick Canyon Wallaroos! 🐨

woman. She and I exchanged pleasantries, or else I stammered something inane, the elephant started throwing sand over his back and over me, and I went away thinking that this was not a story that I could tell for fear of confirming my frailties to students and colleagues.

A few weeks later, now the early part of summer, I returned to the southern reaches of Tick Canyon to map and to secure permission to enter private property. On this outing I discovered the home of the elephant. In the Canyon a few miles south of



## RAISING TIBET

by Professor Mark Harrison

About forty-five million years ago, India collided with the southern margin of Asia, beginning a process that would create an uplifted region of such exceptional extent (nearly half that of the lower 48 states) and height (the *average* elevation throughout Tibet and the Himalaya is *higher* than Mt. Whitney's 14,494' peak) that its equal has probably not existed on this planet for over one billion years. Our good fortune in arriving in time to witness the waning phase of this continent-continent collision is the wealth of information available from active seismicity, geodetic changes, and seafloor magnetic stripes that is unavailable when studying older orogens. It is then all the more ironic that, despite these privileged insights, details of the timing and mechanisms responsible for creation of the Himalaya and Tibetan Plateau are today the subject of considerable dispute.

Many and varied theories have been advanced to explain how the Tibetan crust came to be doubly thickened. Most notable are the proposals that Tibet was completely underthrust by India (first proposed in 1924, this notion remains popular among authors of introductory textbooks) and that Asia "accordioned," *i.e.*, vertically stretched, due to the impact of India (the current rage). Because the controversy is focused on how the crust came to be thickened rather than details of its present structure, its resolution requires knowledge that cannot be gleaned solely from our present-day geophysical snapshot of the collision.

One effective means of exploring the timing and duration of past events is to utilize natural radioactivities. The decay of potassium continuously produces the daughter element argon within the lattices of potassium bearing minerals and is the basis of the K-Ar geochronometer. Being chemically inert, this radiogenic argon is incompletely retained by minerals during cooling in the crust, causing a thermal chronology to be recorded by the crystal. Because vir-

tually all tectonic events involve heat flow discontinuities (*e.g.*, rifting, thrusting, normal faulting, denudation) we can use the cooling-related

ing its present extent and elevation beginning 8 million years ago, about 3 million years earlier than previously believed. This event can be

explained by the loss of a doubly thickened mantle lithosphere, a mechanism anticipated in the early work of Prof. Peter Bird. This would cause a sudden increase in the potential energy of the crust resulting in about 2 km of rapid uplift and the onset of collapse.

Both the vertical stretching and underthrusting models predict that thickening and concomitant uplift began in southern Tibet almost immediately

following collision ca. 45 million years



*Tibetan on the floor of a graben formed by extensional collapse of the plateau when it achieved maximum elevation. The dip-slope of the detachment fault can be seen in the background.*

isotopic variations within minerals to reveal past tectonic and/or erosional activity. Using the mass spectrometers of E&SS's Keck Center for Isotope Geochemistry to probe the distribution of argon within even tiny single crystals, we can now read this preserved history with great precision and accuracy. We are investigating the evolution of the Indo-Asian collision using this new tool, called *thermochronology*, and have discovered two remarkable pieces of a very large puzzle.

By determining the thermal history of structures resulting from the incipient gravitational collapse of the Plateau (see photo), we found that Tibet attained something approach-

ing its present extent and elevation beginning 8 million years ago, about 3 million years earlier than previously believed. This event can be explained by the loss of a doubly thickened mantle lithosphere, a mechanism anticipated in the early work of Prof. Peter Bird. This would cause a sudden increase in the potential energy of the crust resulting in about 2 km of rapid uplift and the onset of collapse. Both the vertical stretching and underthrusting models predict that thickening and concomitant uplift began in southern Tibet almost immediately following collision ca. 45 million years ago. Our second, and perhaps more significant, discovery is that the onset of uplift was forestalled for over twenty million years until the early Miocene. Beginning 21 million years ago and lasting only about three million years, the rate of unroofing (and therefore uplift) increased an astonishing thirtyfold in southern Tibet. Uplift at reduced rates appears to have continued throughout this region until the present.

One possible interpretation is that between about 40 and 21 million years ago, much of the Indo-Asian convergence was taken up by the southeastern extrusion of Indochina, along the Red River strike-slip fault, to its present location. The Red River

fault, a major structural discontinuity in southeastern Asia, stretches over 1000 km from Tibet to the Gulf of Tonkin. The "escape" of this continental mass away from the collision front would have accommodated the northward migration of India, retarding crustal thickening and uplift in Tibet until the early Miocene. Together with Prof. An Yin, we have developed a working tectonic hypothesis that describes how this might have been accomplished. An important, and until recently unknown, feature in this model has been the timing of movement on the Red River fault. If it could be shown that strike-slip motion ceased about 21 million years ago, our thermochronological results may well reflect subsequent Indo-Asian convergence being immediately translated into rapid uplift of southern Tibet. Our 1990 field excursion was to sample exposures of the Red River fault in southeastern China for thermochronological analysis to test this hypothesis. Unfortunately, our vehicle careened off the road near the Burmese border, seriously injuring post-doctoral fellow Dr. Herve Leloup. In a coma and with a broken leg, Herve was immediately evacuated to Hong Kong for superb medical attention. Now nearly fully recovered, Dr. Leloup joined us in time to participate in mass spectrometric analysis of the Red River fault samples. The results: it now appears virtually certain that ductile strike-slip motion did indeed cease in the Red River fault zone about 21 million years ago!

Whether the events in southeastern China and central Tibet are related in the manner we propose will only be decided after much additional study. This December we return to Yunnan to complete sampling cut short by last year's calamity, and next year propose to visit new localities in Tibet. Once we gain a complete understanding of how continents behave when plate tectonics comes ashore, one of the most controversial questions of modern earth sciences will finally be resolved. 🏠

UCLA and several allies have begun a major new initiative, funded by the USGS and the National Science Foundation as a Science and Technology Center. It includes USC, UCLA, Caltech, Columbia, UCSB, UCSC, UCSD, and USGS. Prof. Kei-iti Aki at USC is the Principal Investigator and Chairman of the Board of Directors. At UCLA, Prof. David Jackson is the vice-Chairman of the Board of Directors and the Chairman of the Geodesy Working Group, Prof. Leon Knopoff is the Chairman of the Earthquake Physics Working Group, and Prof. Paul Davis is active in the Seismic Imaging Working Group. The UCLA component of the Earthquake Center will have a yearly budget of nearly one-half million dollars, including a \$100,000/year contribution from the Cloegee of Letters and Science.

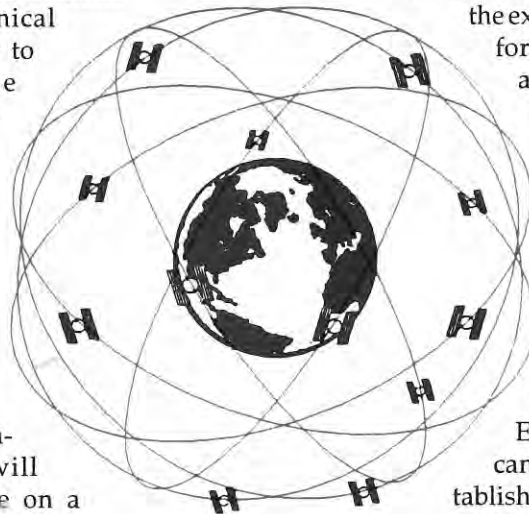
The Center's primary goal is to provide the scientific and technical capability to reduce earthquake risk in southern California. To accomplish this goal, Center scientists will collaborate on a "Master Model" GPS Satellites merrily encircle the globe. specifying the spatial and temporal variations in physical properties and state of stress and strain throughout southern California. These quantities, and the physical relationships between them, will be stored in a relational database, known as a Geographic Information System, accessible to all scientists through a computer network. An example of the output from the Master Model will be maps of the predicted amplitude ground motion from earthquakes throughout southern

California. These maps will include the effects of local geology and soil conditions, and a suite of possible earthquakes weighted according to their probability of occurrence.

Several major efforts will be conducted at UCLA. Prof. Jackson will coordinate an extensive survey of crustal deformation using repeated, high accuracy geodetic surveys with the Global Positioning System (GPS). GPS is a military satellite system used extensively in the recent Gulf War. It also allows high accuracy (mm level) position measurements, sufficient to measure ongoing plate tectonic motions, or slip on major faults, within a few years observation time. Prof. Knopoff is spearheading a major theoretical study of fault rupture, with the goal of simulating earthquake occurrence in California. And Prof. Davis is carrying out a study of the seismic velocity variation throughout southern California, using data from

the existing southern California seismic network as well as from portable seismograph stations installed specially for this project.

Earthquakes are complex, and effective prediction may be far in the future. But the Southern California Earthquake Center can reduce risks by establishing the likelihood of large earthquakes in specific places, and by predicting the effects of these earthquakes. 🏠



## ALUMNI NEWS

**Robert Abelson** (Ph.D. 1981) is a member of the technical staff at TRW Space and Defense, Redondo Beach.

**Morris Balderman** (M.S. 1972), self-employed consulting geologist, has been spending a lot of time on studies of hazardous materials in soil and groundwater and on the drilling program for the superconducting supercollider site, southeast of Dallas.

**Robert L. "Bob" Beatie** (M.A. 1958) retired as a Geology/Geography teacher, Napa Valley College, and now spends time traveling and windsurfing. His current research is on Pliocene "Lake Coombsville," a probable volcanic crater lake, today severely eroded.

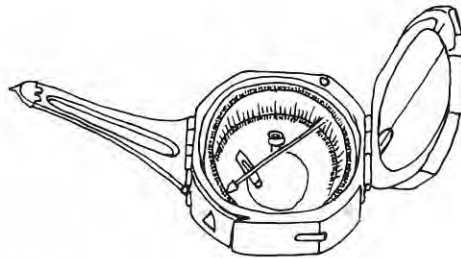
**Stanley S. Beus** (Ph.D. 1963) is a Regents Professor of Geology at Northern Arizona University. He spent the fall of 1990 on sabbatical in New Zealand studying brachiopods, living and fossil.

**David Bissiri** (B.S. 1986), as a geophysicist at Spectrum Environmental Services Inc., in Sylmar, is doing a lot of work with proton precession magnetometers and ground-penetrating radar.

**Bonnie Bloeser** (B.S. 1974; M.S. 1978), after working for Texaco since 1973, began a Ph.D. program at USC. Her research involves cyclostratigraphic high frequency lamination signatures in the Miocene Monterey Formation.

In 1988 she moved to San Diego and had a two-year stint teaching at San Diego State University and then briefly consulted for an environmental firm, Moore & Taber. However, having discovered petroleum running in her veins, she returned to the industry and is now an area geologist for Unocal International. She is working in the Asia Pacific group on several exciting and challenging projects.

**Harold F. Bonham, Jr.** (B.A. 1954) is a research geologist for the Nevada Bureau of Mines & Geology. He will be General Chairman in April 1991 for the Association of Exploration Geochemists International Symposium. He does research and



writes publications on the geology of precious metal deposits.

**Eugene Borax** (B.A. 1940; M.A. 1942), retired, died at home as he wished, without tubes, etc. (see p. 7)

**Allison Zweigler Bormuth** (B.S. 1979), presently living in Morgantown, NC, is the mother of two, a cellist with the Western Piedmont Symphony and a financial manager of Bormuth Associates.

**Ed Carpenter** (B.S. 1974) received his M.S. in Management from Troy State University in 1982 and is now a pilot for the U.S. Navy, stationed in San Diego.

**Jon Duckett Champeny** (M.S. 1961), Venture Manager at Exxon in Houston, belongs to AAPG and the Houston Geological Society.

**Gerald G. Cooper** (B.A. 1951) does geology consulting in the Rocky Mountain area and is presently on full-time retainer by Petroleum Incorporated of Wichita, Kansas, exploring in parts of Wyoming and Montana. He says, "Having been everything from exploration manager for a major oil company to president of a very small independent oil company, I'm finally doing

what I've always wanted to do — using my own knowledge and talents searching for oil and gas.

**Kevin Corbett** (Ph.D. 1989) and his wife, Cynthia, were expecting their first child in July.

**Warren Dean Delahaut** (B.S. 1986) is a Geological Engineer for FMC Gold Co., Paradise Peak Mine, Gabbs, Nevada.

**Edmilson Santos de Lima** (Ph.D. 1986), Professor at the Universidade f. Pernambuco, studies metamorphic evolution of the central structural domain, NE Brazil. He is a member of the Brazilian Committee for Earth Sciences (1990-1992).

**A. Lee Diehl** (B.A. 1948) moved to Gainesville, Florida to retire from active duty in the service.

**Thomas G. Drake** (Ph.D. 1988), while a postdoc in the Department, received a Cray Research Gigaflop Performance Award from Cray Chairman and CEO John Rollwagen at a ceremony held in Reno in conjunction with the Supercomputing '89 conference. Tom's computer model of flowing granular materials allows him to peer into the interior of rockfall avalanches and other granular flows that are usually inaccessible to observation.

The award recognizes his program for its blazing speed of 1.05 Gigaflops, which is just over one billion floating-point operations per second. In layman's terms, the process of adding or multiplying two numbers roughly constitutes a single



floating-point operation. The program, which ran for an hour on the Cray supercomputer, would take upwards of ten years on a typical desktop computer.

Tom and his wife, Elizabeth Burke, had their first child, a boy, on August 19, 1991.

**Paul H. Dudley, Jr.** (M.A. 1955) of Bend, OR, as part owner/director of Energy Exploration Management Company of Houston, and a sometimes consultant, is kept traveling a bit, but not too much.

**Robert Eganhouse** (Ph.D. 1978) heads chemistry at the Southern California Coastal Water Research Project. He moved in 1987 from Boston, where he was an Assistant Professor in the Environmental Sciences Program at the University of Massachusetts.



**Stephen Ehrenberg** (Ph.D. 1978), senior geologist with Statoil Geological Lab, since moving to Stavanger from Houston in 1985, has been employed to explain patterns of variation in sandstone reservoir quality for Norway's state-owned oil company. His publications include "Relationship between diagenesis and reservoir quality in sandstones of the Garn formation, Haltenbanken, Mid-Norwegian continental shelf," *AAPG Bulletin* (scheduled for November 1990) and "Correlation of carbon dioxide abundance with temperature in clastic hydrocarbon reservoirs: relationship to inorganic chemical equilibrium," with J.T.

Smith of Shell Oil Co., in *Marine & Petroleum Geology* v.6 p. 129-135 (1989).

**William D. Emerson** (B.A. 1949), Haddonfield, NJ, retired from EXXON Overseas at the end of 1982, after five years in Brazil. He spent much of 1987 and 1988 in South Africa on a consulting project and found "delightful and hospitable people, grand scenery and fantastic geology."

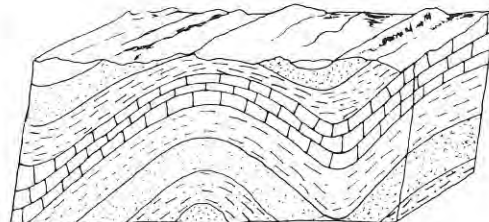
He located several Lost Souls, among whom were **Miles Colligan** ('40), who now lives in Alameda, **Howard S. Sonneman** ('56), who has retired from Exxon and is living in Kingwood, TX, and **Joseph E. Pelling** ('53), who is listed in the AAPG directory as living in Bodega Bay.

**Frank Exum** (B.A. 1956; M.A. 1957), retired, spent a week on a Caribbean cruise with **Doug Stiles** ('53) and seventy other Marathon Oil Company retirees. "On the way home we ran into **Dave Poole** ('44) at the New Orleans airport. Both Stiles and Poole are aging gracefully!"

**Alfred Peter Fernandez** (B.A., M.A. 1976) received his Ph.D. in Higher Education and Administration from USC and is now Chancellor of the Coast Community College District. He has also been President of Los Angeles Mission College, Dean of Instruction at Ventura College, Associate Dean of Continuing Education at Santa Monica College, Admission Officer, California State University, Los Angeles, Associate Professor of Geology, Chaffey College, Alta Loma, California, and Associate Engineering Geologist, California Division of Highways, Los Angeles.

His publications include *Physical Geology Workbook*; "Educational Park: A Second Look," *Journal of Secondary Education* (1970) v. 51, No. 5; "Ventura College Responds to

the Challenge of Teaching Composition", *The Community and Junior College Journal*, (1980-81) v. 51, No. 4; "Student Matriculation: A Plan for Implementation in the California Community Colleges" a monograph introduction for a *Report to the California Legislature* produced by the



Task Force of Academic Quality (1984).

**Steven Garrison** (B.S. 1987) is presently employed as a full-time charter pilot for Spirit Aviation and a part-time flight instructor.

**Merle R. Gilb** (B.A. 1941) wrote the following to update the information John Truex sent us for the last *Newsletter*: "After W.W. III decided to try a career in the telephone industry. Then came marriage, California National Guard and then Japan with the 40th Division. Then we decided to move to Oregon, forecasting accurately how bad L.A. would be for those who were born there, and saw the area being ruined.

"The telephone company here in Lebanon, OR, has been good to me, and I have never regretted the move. I retired in September of 1983."

**M. Charles Gilbert** (Ph.D. 1965) left his position as Professor of Petrology at Texas A&M to direct the School of Geology and Geophysics, University of Oklahoma, Norman.

**Michael W. Gjerde** (B.S. 1978) received his M.S. in Geology from San Diego State in 1982 and is now a Project Manager at Georesearch in Long Beach.

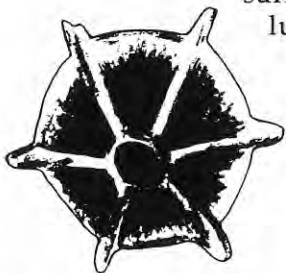
**Donald W. Gresser** (B.A. 1947), Houston, writes that he "very much

enjoyed looking through the *Newsletter*."

Jeff Grossman (Ph.D. 1983) and Sorena Sorensen (Ph.D. 1984) announced the birth of their son, Joel Soren Michael Grossman, on April 14, 1991.

Henry I. Halpern (Ph.D. 1981) joined Shell in Houston, where he is now a senior research geochemist, after four years with Arco in Plano. He is currently working on the geochemistry of Alaska and the Gulf of Mexico oils and rocks. Research studies concern kerogen evolution. He co-authored a recent AAPG paper on sequential effects of biodegradation.

Walt Hamann (M.S. 1985) is a senior geologist for McClelland Consultants in Ventura, CA. He is working on site assessments for hazardous waste jobs and is project manager of seismic design studies for office oil platforms worldwide. He writes: "Enjoying life in Ventura County, working in Ventura, living in Ojai. I work it so that I go body surfing during lunch time



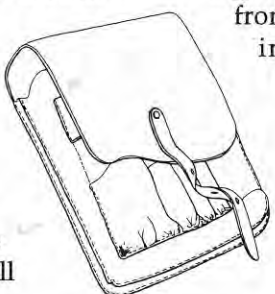
when the surf is up." [An enviable life! - Ed.]

John W. Handin (B.A. 1942; M.A. 1948; Ph.D. 1949) was cited for the Career Contribution Award of the Structural Geology and Tectonics Division of the Geological Society of America. This citation was presented by Fred A. Donath at the annual meeting of the Structural Geology and Tectonophysics Division in Denver on November 2, 1988. The following was excerpted from that presentation:

"Achievement can be measured in many ways. By any measure, John Handin's contributions have been distinguished. Suffice to say

that he was awarded the Walter H. Bucher Medal of the American Geophysical Union for his 'striking and profound scientific accomplishments.'"

Fred L. Hantsch (B.A. 1949), Santa Monica, retired in 1982 as a Communications Engineer with GTE and has since enjoyed his lifetime hobbies of micropaleontology and micromineralogy. He attends the yearly Socorro, NM, Mineral Symposium and numerous other mineral and paleontological meetings and shows. He is an active field collector and has worked numerous U.S. localities, as well as some in Europe.



He is affiliated with the Los Angeles Microscopical Society (Publicity Chairman), Southern California Micromineralogists (Previous Secretary), Southern California Paleontological Society, Westside Mineralogists (previous President, V.P. and Secretary).

Alan Harris (M.S. 1966; Ph.D. 1975), Supervisor, Earth and Planetary Physics Group, JPL, has had Asteroid #2929 named Harris in recognition of his research in asteroids. He is Vice President of Commission 15 (physical studies of comets, minor planets, meteorites) in the International Astronomical Union (IAU), 1988-91, and President-elect for 1991-94. He is also Vice Chairman of the Division on Dynamical Astronomy of the American Astronomical Society (AAS), 1990-91, and Chairman-elect, 1991-92.

Frank C. Horacek (B.A. 1953) retired from J.M. Huber Corporation and is making Colorado mountain traveling and golf full-time activities.

Kenneth J. Hsu (Ph.D. 1954), Pro-

fessor of Geology at the Geological Institute, Zurich, Switzerland, writes: "My students and friends held a Festschrift symposium on the occasion of my 60th birthday to discuss *Modern Controversies in Geology*, as an honor. Or was it a dig? Although I am still working hard on geology, having just published *Physical Principles of Sedimentology* (Springer) and completed (with Ueli Briegel) a textbook on *Geologie der Schweiz* (Birkehousei), I am preparing for my retirement four years from now. Getting tired of arguing with biologists about Darwin's Three Mistakes, I am becoming an inventor of music, having just patented an invention with my musician son, Andrew, on the Fractal Reduction of Music. I have not made my million with geology. Perhaps I might have a chance with the entertainment industry, where the money lies. (For curious music lovers among the alumni, you might want to look up our article at the *Proceedings of the National Academy*, v. 87, p. 934-941.)"

Donald Isaak (Ph.D. 1990), while still a graduate student, was the winner of the first Mineral Physics Student Award. The award was scheduled to be presented to Don at the Tectonophysics section dinner of the AGU meeting in San Francisco on December 7, 1989, and was expected to be awarded annually or biannually.

The award honors the geophysics graduate student deemed as most productive in mineral physics research, and is open to any student member of the AGU. Special consideration is given to the contributions made at AGU national meetings. The 1989 award was the first of its kind and was expected to be given annually or biannually.

Howard Niels Jensen (B.A. 1946) is deceased.

Gary S. Johnson (B.S. 1971) has, since June 1989, been Supervising Geologist in the Hazardous Material Section of the Department of Environmental Management, Napa County.

Robert R. Knapp (B.A. 1949) is retired.

Richard V. Lamb (B.S. 1981) is a second-year Ph.D. student in biology at the University of Michigan and a teaching assistant during the school year for introductory biology for majors (lots of pre-meds!). During summers he is a curatorial assistant in the Museum of Zoology.

He relates: "I moved out from California in August 1989. I worked as a paleontologist on MetroRail under Bruce Lander ('65) from August 1987 to August 1989. I earned my M.S. in geology from Cal State, Northridge, thesis entitled 'The nonmarine mollusks of Pit 91, Rancho La Brea, Southern California, and their paleoecologic and biogeographic implications.' Co-authored with George Jefferson a short note: 'Mollusks associated with articulated vertebrate remains from Rancho La Brea,' which appeared in *Current Research in the Pleistocene* for 1989.

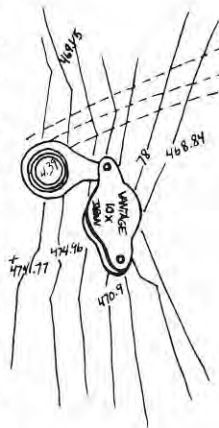
"I am presently working on a seminar, 'Phylogeny of Pulmonate Gastropods from current evidence,' and a review paper, 'Uniparental reproduction in Mollusks, with emphasis on self-fertilization,' for my Ph.D. qualifying exam to be administered in October 1990. I will then begin work on my dissertation, 'Systematics of the genus *Fosseria* (Gastropoda: Pulmonata: Lymnaeidae).'

"Got married to Laurie Dean Swaim (B.S.N. 1975, U. of Texas) on May 20, 1989. Went on honeymoon in London. Moved to Ann Arbor August 22, 1989. Celebrated our first anniversary in Niagara Falls. I have a wonderful stepson, Kyle, and we are expecting a daughter in July. We love Ann Arbor, but miss the

California weather and our California friends and family. The winter was an experience! The summer here is glorious. We don't miss L.A. traffic and smog — miss Mexican food. I want to hear from all of you with electronic mail. INTERNET: R i c h a r d \_ V . \_ L a m b @ub.cc.umich.edu. BITNET: USER60T4@UMICHUB."

Robert I. Levorsen (M.A. 1947) retired in July 1984 and is still involved in the sport of sled dog racing, currently Chairman of the Board of the International Sled Dog Racing Association.

Karen Bettina Loomis (B.S. 1985) received her Ph.D. in Geology from Stanford in 1990 and is now a Research Geologist in the "Clastic Depositional and Diagenetic Systems" Group of Exploration Research within Arco Oil and Gas Company, Plano, TX. She sends the following list of her publications: Loomis, K.B. and Ingle, J.C. Jr., 1988, "Geohistory analysis of the Neogene Point Arena basin, California: implications for its tectonic evolution" (abs.); *American Association of Petroleum Geologists Bulletin*, v. 72, p. 386, 1988; "Paleoenvironmental and paleoclimatic interpretation of upper Miocene-Pliocene lithofacies and macrobiota of the Etchegoin Group, Vacalitos Cyn, San Joaquin Valley, California," in Graham, S.A., ed. *Studies of the Geology of*



*the San Joaquin Basin: Pacific Section, SEPM*, v. 60, p. 303-318, 1989; "Lithofacies and depositional environments of the Etchegoin Group; A model for late Neogene Sedimentation in the western San Joaquin basin" (abs.); *AAPG Bull.*, v. 73, p. 544, 1990A; "Depositional en-

vironments and sedimentary history of the Etchegoin Group, west-central San Joaquin Valley, California," in Kuesreit, J.G. and Reid, S.A., eds., *Structure, Stratigraphy, and Hydrocarbon Occurrences of the San Joaquin Basin, California: Pacific Section, SEPM*, v. 64, p. 23-45.

Bob Luth (Ph.D. 1985) is now employed at the University of Alberta as an Assistant Professor of Geology where he has been since September 1989. Previously he was at the Bayerisches Geoinstitut (Bayreuth, FRG) for a year. He is still doing experiments, but at higher pressure, thanks to the multi-anvil press at U. of A.

Calum Macdonald (Ph.D. 1986) has a new job in the Hague, with Shell Oil. He and his wife also have a new son, Malcolm, born June 3, 1989. Mother Pamela and sister Sarah are both well.

John E. Marzolf (Ph.D. 1970) is doing research in the Department of Geology, Southern Illinois University, Carbondale, Illinois. This consists of Reconstruction of Early Mesozoic Sedimentary Basins from SW Colorado Plateau to E. Mojave and Sierra Nevada Implications for (1) Early Mesozoic Tectonics, and (2) Post-Early Mesozoic Compressional and Extensional Deformation.

Conrad J. McCarthy (B.S. 1975) is a Senior Research Engineer for Shell Offshore Inc. and is eagerly awaiting a transfer to the U.S.A.

Dave Miller (Ph.D. 1978) is still "geologizing" with USGS in Menlo Park, and his interests continue to be broad aspects of the evolution of the U.S. Cordillera, such as Proterozoic assembly of the continent, Mesozoic tectonics and magmatism (particularly in the backarc) and Cenozoic extension. Much of this work is focused on the eastern Mojave Desert, the north-eastern Great Basin, and

northernmost Idaho.

Dave says that Fred Miller and Bob Castle, both oldsters with USGS, send their fond hellos. He would like us to keep up the good work with the *Newsletter*.

**Holmes O. Miller** (B.A. 1932) has been retired since 1968. During his career, which began in the '30s, he worked as an engineer for Shell, Texaco and Intex oil companies in Louisiana, Texas, New Mexico, Illinois, Colorado and California.

Having enjoyed photography since high school, he has photographed wildlife in Alaska, Hawaii, Mexico, the Galapagos Islands, Argentina, Chile and Antarctica, as well as the western U.S. and Canada; he has been honored by the Photographic Society of America as an Associate and diamond exhibitor.

Holmes says, "My only sadness was the loss of my wife Margaret after 52 years of joy." His future



plans include Africa, Antarctica again and Alaska.

**Marcia Nelson** (B.S. 1976) writes that her work as a museum guide at Griffith Observatory led her to JPL, where she worked on the Voyager Science Integration Team for several years, helping to plan the science sequences for part of the Jupiter and Saturn encounters. Later at the University of Hawaii, she worked with Tom McCord on Voyager Galilean satellite imagery. Developing an

interest in reflectance spectroscopy, she completed at Master's Degree with Roger Clark in 1986; she did her Ph.D. on Hapke bidirectional reflectance theory. She is now a postdoc at the University of Arizona, Lunar and Planetary Laboratory with Larry Lebofsky, applying Hapke theory to the analysis of reflectance spectra of asteroids. Her office mate is **Steven Croft** ('79).

**John Olson** (Ph.D. 1970) is a Professor of Physics at the University of Alaska.

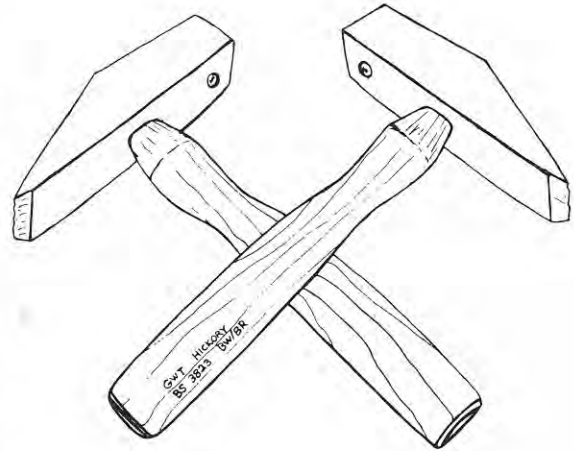
**James Paull** (B.A. 1932; M.A. 1940), retired, passed away in December 1990 after a difficult illness.

**Everett W. Pease** (B.A. 1941) is retired. He writes of **Lost Soul J.A. (Jess) Calleri** that, "as of 1982 or so, he was the owner of an oil products distributing company located in or near Fremont, south of Oakland. Jess and I attended Sacramento Junior College and UCLA together and were roommates much of the time."

**Ron Philippsborn** (B.S. 1973) is a pilot and works for the National Oceanic and Atmospheric Administration. He has flown weather research aircraft since October '88 and flew in Hurricane Hugo as it made landfall at Charleston. He is currently in the Masters of Public Administration program at Florida International University.

**Robert L. Post, Jr.** (Ph.D. 1973), according to an article in *Physics Today*, April 1990, "went on special detail to OSTP from OMB in May 1988, while William Graham was director and science adviser to President Reagan. He stayed on at OSTP during the interregnum, preparing

for Bromley's official succession in August 1989. In the transition period, Post served as OSTP's executive director. He is currently



assistant to the director and responsible for ostp activities in materials science and engineering.

"Post received a Ph.D. in geophysics from UCLA in 1973 and an MBA from Harvard in 1976. From 1971 through 1974 he served on active duty as a captain at the Air Force Weapons Laboratory in New Mexico, where he developed predictive techniques for nuclear weapons effects. In 1976-78 he was a consultant to R&D Associates, a science think tank in Marina Del Rey, California, which often works for the Pentagon. In 1978, he became an OMB budget examiner for DOE's nuclear-energy defense programs."

**William Donald Poyner** (B.A. 1957; M.A. 1960) is Vice President-Exploration for Sandefer Offshore Co in Houston.

**Donald L. Protzman** (M.S. 1960) died in late 1990.

**Gilbert J. Reyes** (B.A. 1962) has been deceased since March 1989.

**Tracey Rice** (B.S. 1978) is a flight officer with United Parcel Service



and co-pilot on a Boeing 747. He says he has been involved in aviation since graduation, and although the thought of going back to school has crossed his mind, raising two small children and working away from home on odd schedules keeps him too exhausted to initiate the action.

**Veronique Robigou-Nelson** (M.S. 1984) is an Oceanographer III at the University of Washington, School of Oceanography, in Seattle, and is part of a very active research team



working on multiple aspects of the evolution of oceanic ridges. She says that since the team's last diving cruise in 1988 with ALVIN, she has been studying the geology of the Endeavor Vent Field located on the Juan de Fuca Ridge. She is also involved in several other projects to map steep underwater scarps both in the North Pacific and in the Atlantic.

**R. Burton Rose** (B.S. 1936; M.S. 1939) died December 22, 1990 after a stroke suffered on December 2.

**Gary D. Rosenberg** (Ph.D. 1972), Associate Professor, Geology, Indiana/Purdue University, writes, "Please tell my fellow alumni that I brought a group of students from IUPUI on a 'mini' field trip to the West last summer and that a highlight of the tour was a week at UCLA's White Mountain Research Station. On behalf of all of the stu-

dents I would like to thank UCLA faculty and WMRS staff — especially Clarence Hall, Ray Ingersoll, Vicki Doyle-Jones, Clem Nelson and Janet Rantz for a wonderful time. I recommend WMRS to all alumni and students for its fascinating geology, botany, excellent meals and hospitality, and I am proud and honored that my alma mater should have established such a fine facility."

**David C. Salter** (B.A. 1957) retired August 31, 1990. He is Secretary for the Coast Geological Society.

**Mark William Sandstrom** (Ph.D. 1982) is a Research Chemist with the Methods Research Program, National Water Quality Laboratory, USGS, Colorado.

For the two years that Mark has been at USGS, he has been involved in research on organic contaminants in surface and ground water. Prior to that he was in Australia for about eight years, where he completed his Ph.D. from the Australian National University, Canberra in 1982 and then worked as a Research Scientist at the Australian Institute of Marine Science in Townsville.

**Edward W. Scott** (B.A. 1932) passed away on June 14, 1990, in Sun City, CA.

His wife Winifred (UCLA 1931) writes, "Ed held various executive positions with Unocal from 1932-1975. After retirement from Unocal, he served as consultant to the USGS-Resource Appraisal Group from 1975-1984.

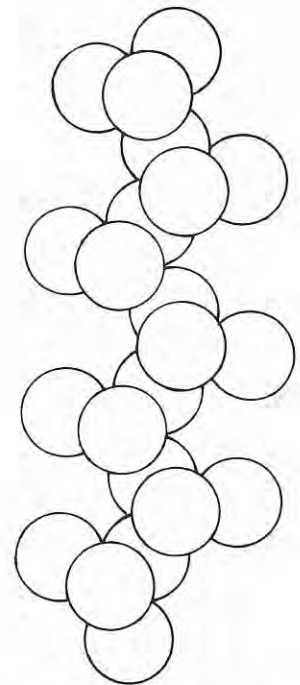
"You may find the enclosed 'Celebration of an Oil Man,' written by our son Doug, of particular interest." [see p. 7]

**Robert Shamlian** (M.A. 1979) is a Senior Geologist employed by Marathon Oil, New Ventures — Asia/Pacific.

He said he recently ran into **Lost Soul Scott Fenton** ('76), who is working for Phillips Petroleum in Bartlesville.

**William N. Sharp** (B.S. 1948) died May 3, 1988.

**Michael P. Stark** (B.S. 1970) earned his M.S. in Geology in 1973 at Iowa State University. He is Exploration Manager for Occidental of Pakistan, residing in Islamabad Pakistan. He and his family have been there a little over two and a half years and have enjoyed the experience immensely. Michael says that professionally it has also been very interesting exploring for OXY in the Potwar Basin and in the Sind area of southern Pakistan. Prior to moving to Pakistan he was in Bakersfield for a year, working on International New Ventures (1986-87) and before

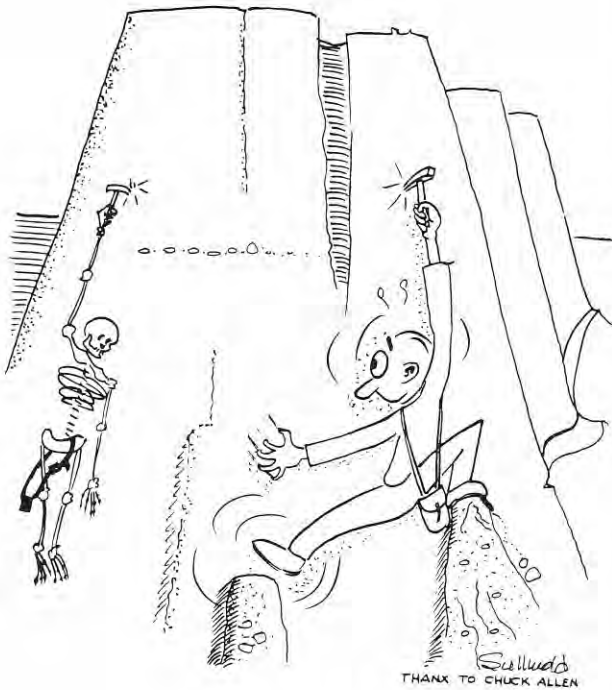


that spent five years with OXY in London as Chief Geologist working on North Sea Exploration (1981-86).

To any other alumni who are in his neighborhood he says, "Drop by!"

**Nancy S. Stehle** (M.A. 1965) is Deputy Director, Environment Office of the Assistant Secretary of the Navy (Installation and Environment), Washington, D.C.

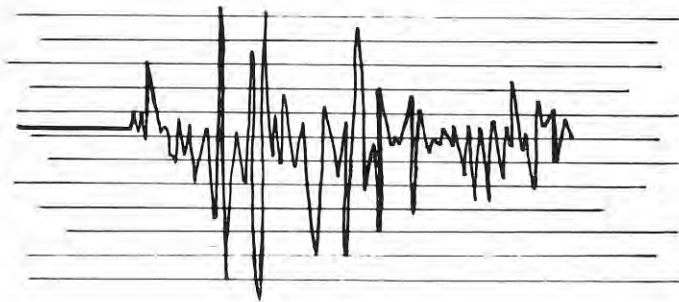
She is Past President, Women's Aquatic Network, President, Capi-



**Harold H. Sullwold** (Sully) (B.A. 1939; MA 1940; Ph.D. 1959) is a semi-retired independent geologist, specializing in the Sacramento Valley. He is currently President of Carpinteria County Water District. Sully says, "Last year I earned my 50-year pin from AAPG and UCLA, was put on the board of the Dibblee Geological Foundation, was appointed to the three-man National Screening Com-

mittee of AIPG, and was made an Honorary Life Member of the Pacific Section of AAPG. See what happens if you live long enough?"

He writes of these Lost Souls: Cliff Anderson, actually Iliff Anderson ('40) is deceased, Tennant Brooks lives in Bakersfield, Gilbert Goldstein, now known as Gilbert Gaines ('50) is in Los Angeles, Robert Levorsen ('47) resides in Novato, CA, and John Wiese ('47) is



Goldstein, now known as Gilbert Gaines ('50) is in Los Angeles, Robert Levorsen ('47) resides in Novato, CA, and John Wiese ('47) is

a fine artist up in the Morro Bay area who also dabbles in engineering geology.

**Steven Swanson** (M.S. 1982) reports: "I survived British Petroleum's 6th annual reorganization and am now a Senior Exploration Geologist with Gulf Coast Tex/Con Oil & Gas Company (Subsidiary of British Petroleum), Houston. My current area of responsibility is onshore south Louisiana, where I am busy generating and drilling prospects and evaluating their production properties." A discovery well was recently drilled on one of his prospects.

He says his wife Sharon is fine and is still working as a speech therapist. "Jeanine (9) just had her appendix out and has recovered. Kristina (7) is growing up fast. It's hot and flat in Houston; let me know when the Big One is over and I'll move back to California!"

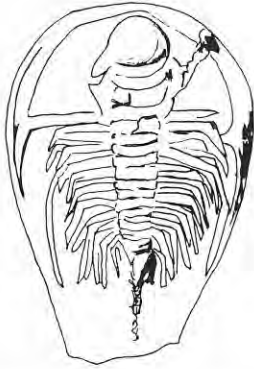
**James B. Taylor** (M.A. 1963) is Vice President, International Operations, Occidental Oil and Gas in Bakersfield. He has been in his present position four years. Prior to that he was V.P. for Latin American Exploration.

He is engaged in management of Occidental's developing and producing areas, including Columbia, Ecuador, Peru, Bolivia, Argentina, China and the Philippines. OXY operates about 350 UBD from these areas.

He writes that **David R. Martin** ('58) is President of Occidental Oil and Gas in Bakersfield.

**Mark William Tippie** (B.S. 1980) received his M.S. in Geophysics from the University of Utah in 1984. He is a computer systems analyst for the Federal Bureau of Investigation.

**Robert D. Trace** (M.A. 1947) retired in 1981 after thirty-six years with USGS and four years with the Kentucky Geological Survey.



**John A. Van Couvering** (M.A. 1962) is Editor in Chief of *Micropaleontology Press*, American Museum of Natural History, NY.

His publications include *Encyclopedia of Human Evolution*, Delson, E., Tattersall, I. & Van C. - New York, Garland Press; *Eocene Age of Fayum Vertebrates*, Van C. & Harris, J.A. *Jour. Human Evolution*; "Micro Base, Text Image DataBase Environment for Taxonomically Structured Image Files."

He lists Lost Souls from the early 1950s-1960s: "Joe Ziony ('66) is head of California Division of Mines or even higher and he's not listed anywhere! Mark Kovinick ('56) was the the guy we all wanted to drink like, that year. Ditto listing! W.S. 'Bill' Bazely ('56?) works for Arco Dallas. [Bill Bazely, are you out there? You're not to be found on our alumni list. - Ed.] Bruce Hamilton (56?) went to work for Oasis Oil but came home again. Kaye McKeown ('56) headed his own independent producing company last I knew—5 years ago. Lives in the L.A. area."

**Theodore A. Vierra** (B.A. 1953) is an Associate Pastor at St. Philip Neri Church, Portland, Oregon.

**Warren Wegner** (Ph.D. 1978) recently retired from his second career as a bookseller when he sold the retail bookstore he had owned for five years. He will enter the teacher certification program at UNC on August 29, hoping to emerge two years hence as a math teacher. He

never expected to go back to school and never expected to be a University of North Carolina Tar Heel. He plans to wear a La Brea Tar Pit tee shirt to reflect mixed heritage.

Warren relates that "Judith Wegner, JD '76, was named Dean of UNC School of Law, so we'll probably remain in Chapel Hill for a while. Rumor has it that Roy Budnick, Ph.D. '74 has just opened his first retail bookstore, possible employing W. Phelps Freeborn, Ph.D. '77, to help with startup.

**Robert A. Witter** (M.S. 1978) died July 25, 1990, ten months after domino transplant surgery.

According to an article in The Arizona Daily Star on October 6, 1989, Rob, a 37-year-old Sun City man with cystic fibrosis and a 60-year-old Tucson man with heart disease were the UA's fifth domino transplant pair.

Rob, a statistician, had received the heart and lungs of an unidentified donor; his own heart was

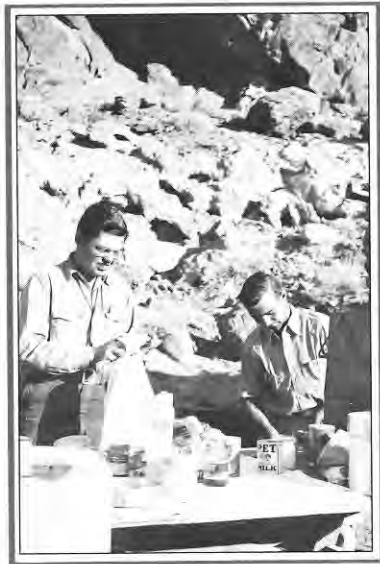


healthy enough to be donated, so he was a good candidate for a domino transplant.

**Perry R. Wood** (B.A. 1949) is retired from the USGS Water Resources Division and working as a private consulting engineering geologist with homesites and housing tracts.

**Contributors to the  
UCLA Geology-Geophysics  
Library  
in honor of  
John L. Rosenfeld  
on his retirement  
June 8, 1991**

Herb Adams  
Arden Albee  
Mario Baur  
Lawrence and Margaret Blade  
Don and Gloria Carlisle  
Bill and Suzie Carlson  
John Christie  
Paul and Cecily Davis  
Gordon and Virginia Eaton  
Gary and Charlotte Ernst  
Lynne and Jon Engstrom  
Les Faus  
Clarence Hall  
Donald and Margaret  
Henderson  
Robert Holzer  
Diane and Tom Hunter  
Ray and Mary Ingersoll  
Carl and Carol Jacobson  
Bob and Vicki Jones  
Bill and Gene Kaula  
Gen Kurtin  
Steve Lipshie  
Helen and Al Loeblich  
Anne Loi  
John Lyons  
Craig Manning  
Paul and Ruth Merifield  
Art Montana and Asenath  
LaRue  
Clem Nelson  
Norm Nichols  
Gerhard and Irmgard Oertel  
Edwin and Kathleen Roedder  
Nita Rosenfeld  
Jerry and Joyce Schubert  
Ron and Jean Shreve  
Richard and Edna Stoiber  
Warren Thomas  
James B., Jr. and Eleanora  
Thompson  
Spring Verity  
John and Gudrun Wasson  
Mary Watson  
Dave and Joyce Winter  
Joy Wurdeman  
Jimmie and Kazie Yamane  
An Yin



*“John Crowell (Ph.D. 1947) and oil company president Harold Lian (Ph.D. 1952) doing dishes in Muddy Mountains, 1950.”  
Photo by Donald C. Ross (Ph.D. 1952)*

---

UCLA  
EARTH & SPACE SCIENCES ALUMNI & FRIENDS

Please take a moment to drop us a note regarding your current circumstances. Just tear off this sheet and mail it. If you have informal photos you think might amuse other alums, please include one or two.

University of California, Los Angeles  
Department of Earth & Space Sciences  
Alumni Newsletter  
3806 Geology  
405 Hilgard Avenue  
Los Angeles, CA 90024-1567

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phones: \_\_\_\_\_

UCLA degree(s) and date(s):

Present position, company or institution, address: Recently transferred, promoted, retired?

Professional and other activities (degrees from other schools, current work, research studies, awards, publications, offices in professional societies):

News, addresses of other alumni, other information:

Photo Caption(s):