Greetings from the Chair

Dear UCR Earth Sciences Alumni and Friends,

Greetings from your UCR Earth Sciences Department. We are finishing an exciting and active 2007 during which we saw many of you, our alumni, former faculty and staff, at homecoming, at which we were reminded of the legacy of strength from which this department draws. The renovation of the Geology building continues, we have hired three new faculty and initiated a new graduate program in “Global Climate and Environmental Change”. We have achieved our goal in building two primary areas of research strength in the department, in earthquake physics, and in paleoenvironmental and organic change, each now staffed with faculty spanning the range from assistant to full professor levels). We have attracted excellent graduate students to the program and enjoyed the success of former students in securing coveted academic positions. All in all, we are a strong and internationally recognized department poised to address issues of critical societal impact in the coming decades.

Donations have made a remarkable difference over the last year. With the gifts we received last year we were able to facilitate graduate and undergraduate field trips and graduate field research. Your support has brightened our future and makes a tangible difference in the careers of our students and faculty. Notably, thanks to an anonymous donor, the Beihler Fund has now researched its target of $100K. Please know that any donations you care to make are most warmly appreciated and effectively utilized.

We especially enjoy hearing from our alumni so please do keep us up to date on your news and, between issues of the Hewett Newsletter, we will post it on the web site as we do all of our news (www.earthsciences.ucr.edu). We always enjoy visits from our graduates so please stop by if you are in the area. Here we update you on the latest departmental developments and bring you the latest Alumni news. If you have any news or suggestions for the Newsletter please let us know, by contacting Marilyn Kooser (marilyn.kooser@ucr.edu).

Mary Droser
Department Chair
Elizabeth Cochran  Assistant Professor, PhD, University of California Los Angeles. Fault Zone Compliance, Non-Volcanic Tremor, Post-Seismic Displacements Observed with InSAR, and Tidal Triggering of Earthquakes.

James Dieterich  Professor, PhD, Yale University. Geophysics, Volcanology, Fault Systems, Seismicity, and earthquake hazard estimation.

Mary Droser  Professor, PhD, University of Southern California, Paleobiology. Evolutionary paleoecology, Paleoecology of the Precambrian-Cambrian and Ordovician radiations, Phanerozoic trends in ecospace utilization, Cambrian and Ordovician of the Great Basin.

Gareth Funning  Assistant Professor, PhD, University of Oxford, Deformation of the lithosphere, and controlling the behavior of active faults both during and between earthquakes with the use of InSAR and GPS.

Harry Green  Professor, PhD, University of California Los Angeles, Experimental deformation of rocks and minerals at high temperature and pressure, earthquake physics, ultrahigh pressure metamorphism, rheology of the mantle, mechanisms of phase transformations, metastable phase equilibria, nonhydrostatic thermodynamics.

Nigel Hughes  Professor, PhD, University of Bristol, Field and specimen based approaches to questions of evolutionary mechanism in the early Phanerozoic. Trilobite paleobiology. Lower Paleozoic paleogeography and tectonics (particularly the early Paleozoic history of India and the peri-Gondwanan region).

Martin Kennedy  Professor, PhD, University of Adelaide, Paleoclimate events recorded in the stratigraphic record; ancient carbon cycle and biogeochemical feedbacks within the biosphere; oceanographic events surrounding Neoproterozoic glaciation; Modern and quaternary sedimentary systems of California.

Tien Lee  Professor, PhD, University of Southern California, Hydrogeological studies physical, chemical, recharge, modeling; Terrestrial heat flow/geothermal resources; Modeling and inversion/numerical, analytical solutions; Shallow geophysics/environmental, archaeological studies.

Gordon Love  Assistant Professor, PhD, University of Strathclyde. Understanding the global carbon cycle and the long-term fate of organic molecules, and the use of molecular organic geochemistry in monitoring of a variety of organic pollutants and microbial processes.

Timothy Lyons  Professor, PhD, Yale University. Evolution of the ocean and atmosphere from the Archean to present; early biosphere oxygenation and its cause and effect relationship with the evolution of life; biogeochemical cycling of carbon, sulfur, and trace metals; C-S-Fe-Mo isotope applications.

Michael McKibben  Associate Professor, PhD, Pennsylvania State University. Heavy metal contaminants in near-surface geologic environments. Economic geology and geochemistry of metallic and industrial mineral deposits.

Richard Minnich  Professor, PhD, University of California Los Angeles. Fire ecology of southern California, Baja California, and temperate Mexico; exotic plant invasions, climate change.

David Oglesby  Associate Professor, PhD, University of California Santa Barbara. Earthquake physics, computational models of faulting, wave propagation, and earthquake ground motion; strong-motion seismology.
**Larissa Dobrzhinetskaya**  Adjunct Professor, PhD, Saint Petersburg University. Origin of diamonds occurred in ultra-high pressure rocks of continental affinities, phasetransformations and rock-fluid interactions during deep subduction and exhumation.

**Peter Sadler**  Professor, PhD, University of Bristol. Quantitative biostratigraphy; rates and scaling laws of geologic processes; completeness of the stratigraphic record; synorogenic sedimentation; fire-modulated vegetation patch-mosaics.

**Alan Williams**  Associate Professor, PhD, Brown University. Stable isotope geochemistry; meteoric origin, fractionation mechanisms, and transport of groundwaters. Chemical hydrology; chemical and isotopic interaction of water and rock in environmental, groundwater and hydrothermal circulation systems.

**Douglas Morton**  Adjunct Professor, PhD, University of California, Los Angeles. Regional geology of southern California; tectonics; petrologic aspects of basement rocks of the Peninsular and Transverse Ranges, GIS applications to geologic history of southern California.

**Katherine Kendrick**  Adjunct Professor, PhD, University of California, Riverside. Tectonic geomorphology; fault activity and interactions in Southern California; pedogenic processes as applied to neotectonics; paleoseismicity.

**Wilfred Elders**  Emeritus Professor, PhD, University of Durham, Geothermal resource investigations; water-rock reactions in hydrothermal systems; tectonics of the Salton Trough; the Colorado River Delta and the Grand Canyon.

**Thomas Scott**  Adjunct Professor, PhD, University of California, Berkeley. Biogeography, conservation biology, wildlife management.

**Michael Murphy**  Emeritus Professor, PhD, University of California, Los Angeles, Lower Cretaceous ammonites, Silurian-Lower Devonian conodonts, and Silurian-Lower Devonian graptolites and on the evolution of particular lineages within these groups.

**Michael Woodburne**  Emeritus Professor, PhD, University of California, Berkeley. Accuracy in chronostratigraphy; evolution and biostratigraphy of Cretaceous and Tertiary-aged mammals of the southern hemisphere, especially Australia, Antarctica, and South America; Cenozoic biochronology of fossil mammals of North America; historical geology, stratigraphy, paleontology, and tectonic analysis of Tertiary-aged terranes of southern California.
**WELCOME our New Faculty Member**

**Dr. Gareth Funning** comes to us from UC Berkeley, where he was a Lindemann Postdoctoral Fellow in the Berkeley Seismological Laboratory, working on problems of fault creep and surface deformation using InSAR and GPS data. These are the spacebased geodesic techniques that he uses to solve a variety of problems in earthquake processes such as fault structure, fault slip, and generalized crustal deformation as well as other processes, including landslides and ground subsidence. Dr. Funning has gained considerable attention for his novel use of InSAR.

Dr. Funning received his D.Phil from the University of Oxford, and M.Sc. with Distinction in Geophysics from the University of Durham, and an M.Sc. with First Class Honors in Geological Sciences from the University of Cambridge. He has a variety of teaching experience and is active in departmental affairs. He has won a number of scholarships and prizes during his academic career.

**CONGRATULATIONS Dr. Michael Murphy**

**Dr. Michael A. Murphy** is Professor Emeritus at the University of California, Riverside and a founding faculty member. He is a specialist in invertebrate paleontology and was influential in UCR's early development, especially the creation of graduate programs in geology and earth sciences. His research has centered on determining the age of the earth through the examinations of layers of rock and the placement of fossils. He is past chairman of the International Subcommission on Stratigraphic Classification of the IUGS International Commission on Stratigraphy.

Born in Spokane, WA, he earned his bachelor's and graduate degrees from UCLA and worked briefly as a geologist for Shell Oil before he started his career as a professor at the brand new Riverside campus. He has traveled extensively for his research to Salvador, Brazil, and to Grenoble, France, and Goettingen, Germany. He has served as the chair of the geology department and still maintains active in departmental affairs.
Dr. James Dieterich and Dr. Douglas Morton have both received the Distinguished Service Award from the U.S. Geological Survey (USGS). The award, was presented by Secretary of the Interior, Dirk Kempthorne.

The Distinguished Service Award is granted for “an outstanding contribution to science, outstanding skill or ability in the performance of duty, outstanding contribution made during an eminent career in the Department of the Interior, or any other exceptional contribution to the public service.”

Jim was recognized for his work on originating the ‘rate and state’ friction model, a major advance in understanding friction that may be critical for the eventual development of earthquake prediction strategies. Doug was recognized for his contribution to the USGS Geologic Mapping Program; the initiation and development of a cooperative geologic mapping program between the federal government and state governments; and the development of regional detailed debris-flow susceptibility maps of Southern California.

Jim, who joined UCR in 2005, is a distinguished professor of geophysics in the Department of Earth Sciences. He was elected to the National Academy of Sciences in 2003 for his contributions to earthquake physics. He is a fellow of the American Geophysical Union, which in 2000 awarded him its Bucher Medal, and a past recipient of the Department of Interior’s Meritorious Service Award and Superior Service Award. Jim also received the Star Award from the USGS. The Fourth International Workshop on Statistical Seismology, held last year in Japan, selected as its theme a paper on earthquake studies that Jim wrote.

The originator of the rate and state friction law, Jim investigates the properties of earthquake faults and does theoretical modeling of earthquakes in geometrically complex fault systems. His interest extends to evaluation of earthquake probabilities. Jim also conducts volcano research – mostly at Kilauea volcano, Hawai`i focusing on the interactions between earthquake faulting and magmatic activity within the volcano.

Doug has served as an adjunct professor in UCR’s Department of Earth Sciences for nearly 30 years. His research focuses on geologic mapping, landslide research, and the origin and history of igneous and metamorphic rocks of Southern California.

He is a past recipient of the Department of Interior’s Meritorious Service Award. In his career, Doug has served as research geologist at USGS. As a former chief of the Branch of Western Environmental Geology, Menlo Park, Calif., he was responsible for regional geologic investigations in the western United States. He also is the former chief of the Office of Regional Geology, Reston, Va. He has also been extremely active within the Department, teaching numerous classes and mentoring graduate students.

We congratulate both of them on their achievements.
As many of you know, the Earth Sciences Department has strived to maintain its field based classes, research, and experiences for both undergraduate and graduate students. Here is a little insight into what a few of our graduate students are doing today, including a short description of their research and where their research has taken them.

Camille Partin's research involves the sedimentology and stratigraphy of the Neoproterozoic Kingston Peak Formation in the Panamint Range, Death Valley, CA, with an emphasis on detailed mapping relationships to understand climatic versus tectonic controls on sedimentation.

Doug John's is researching the systematics and soft-part morphology of the genus *Metaconularia*. His research is a specimen-based study of a collection of Silurian conulariids from eastern Iowa, a locality he visited in summer 2006. Among the specimens collected there was one exhibiting exceptional preservation of internal soft part structures. Doug's research is examining what information this new specimen can yield on the conulariid's internal morphology and their relationship to scyphozoan cnidarians.

Ann Bowers is investigating factors contributing to establishment of historic conditions of dry southwestern mixed conifer forests. The specific objectives are: (1) conduct a field inventory vegetation structure in the SSPM at intervals of time-since-fire (TSF); (2) conduct a statistical analysis of forest structure at different TSF intervals to identify important events and thresholds in stand development; (3) develop a spatially explicit computer model using vegetation, topographical and climate data to determine combinations of factors that produce landscapes with small and large scale patch mosaics over long time scales.

Dave Mrofka is working on the history of ancient climate change at the transition into the Ediacaran Era, a time when the first animals appear in the fossil record. This is accomplished by research focused on the record of ancient glaciations from many different locations worldwide, including their preservation, timing and ways in which their record is effected by concurrent processes like rifting. The Earth's record during this time also provides a valuable tool in the form of carbonates that cap glacial deposits that can be analyzed geochemically and used as proxies for various ocean and atmospheric conditions; this work is carried out in our stable isotope lab.
Autumn Thompson's research interests involve studying morphological variations in trilobites and how these differences can be observed along a spatial/geographic gradient. Currently she is working with calymenid trilobites of the Upper Ordovician Cincinnatian Series in an attempt to relate variations in their cranidial morphology to paleoenvironmental changes recorded within the strata of the Cincinnati and northern Kentucky regions.

Paul Hong's research is understanding the segmentation patterns of trilobites. Early Cambrian eodiscid trilobite *Neocobboldia chinlinica* from China and Silurian trilobite *Aulacopleura konincki* from the Czech Republic are the materials for recognizing trilobite developmental mechanics. He has visited the National Museum and Czech Geological Survey in Prague during the summer of 2007 to collect data on *Aulacopleura konincki*. Paul has also presented the preliminary results on segmentation patterns of *Neocobboldia chinlinica* at the annual GSA meeting in Denver this year.

Thomas Bristow's research is focused on the Ediacaran aged Doushantuo Formation, in South China, that contains some of the oldest fossil animals. He uses mineralogy and geochemistry of Doushantuo Formation sediments to better constrain the environmental conditions these early animals lived in. This research has involved several trips to China, logging and collecting samples for analysis. Tom recently started mineralogical investigations of potentially analogous Eocene lake sediments from Wyoming and Utah. In this system clay minerals provide a sensitive indicator of lake chemistry that may reflect changing climatic conditions.

Daniel Garson's research is on the paleoecology of the Middle Cambrian Spence Shale Member of the Langston formation which outcrops in the Wellsville Mountains in northern Utah. He will be documenting the changing nature of the taphonomy and community structure as they relate to paleooxygenation of bottoms waters determined by sedimentary fabric and trace fossils. The Spence Shale is one of many Middle Cambrian lagerstätten which contain soft bodied, Burgess Shale-type preservation and part of the research will be to test paleoecological models developed for another Middle Cambrian lagerstätten from Utah, the Wheeler Shale, to begin to examine what controls this unique type of preservation and what makes it so common only at this particular time in Earth’s history.
Homecoming was a huge success for our Department. Many Geology, Geophysics, and Geography graduates came back to walk the halls one more time and reminisce, introducing family, and getting to know each other again. Marilyn Kooser said, “It’s like old times, again”. This was the first time the department has held a reunion, which also coincided with the anniversary of the first graduating class from the Earth Sciences Department. Many former faculty members were there to share in this occasion. Those included Mike Murphy, Lew Cohen, Wilf Elders, and Mike Woodburne. We are also happy to say that our department had the largest reunion turn out of any department on campus.

During the celebration we took a moment to honor Dr. Michael Murphy, who played critical role in creating the department, as one of the founding faculty. Mike said that he was surprised and overwhelmed by the number of students who came back just to see him. The celebration continued in the courtyard with our own alumni Susan Cummins Miller signing her novels. But the party didn’t stop there, it continued through the night at Mary Droser’s (Chair) place.

At Mary’s home the laughter and conversation continued until the late evening. Then everyone gathered for the traditional Hewett Club Auction. Although, faculty members were not auctioned off, departmental mementos, many of which have been discovered during the renovation, such as maps, the old “GEOLOGY” sign, games, bricks from the building, and various minerals with the proceeds going towards the Earth Science Fund for Excellence.

We know that many of you were unable to make the event, but don’t worry, we will have another celebration as soon as the renovations are complete. So please keep an eye out for your next invitation back home.
The Earth Sciences Department has always enjoyed social activities, such as the pizza sessions at the Getaway Cafe after the Hewett Club seminars. But this year we have re-instituted a regular departmental BBQ held every Friday at noon. This event brings all members of the department together, where faculty and students compete to demonstrate their grilling prowess! The Daniel Garson and Aaron Sappenfield dup is currently leading the field, though among the faculty Tim Lyons is evidently pretty good with the spatula.

Here are a few candid shots from the BBQ. Don't forget, when you're in the neighborhood on any Friday afternoon and are a little hungry please stop by at the BBQ in the Science Lab Courtyard.
As you might have already heard, the University of California, Riverside is going through a major renovation. New buildings have been built and plans are in the works for many more. As for the Earth Science Department, if you walk the halls of the Geology building you will notice that many of the rooms that were previously used as classrooms are now closed and being transformed.

The reason for this is that our department is growing with an increase in the number of student enrollment and as we hire new faculty members more labs and offices are needed. For example, Geology room 1409 and 1429 are being retrofitted into labs for faculty and student use. These labs will add to our other well-equipped labs and assist in our enhancement in studies of paleontology, mineralogy and mineral physics, geomorphology and Quaternary geology, sedimentary geochemistry, and computational geophysics. The second transformation has already taken place. What was once the Science Library, in the middle of the museum, is now a new suite of offices for faculty, students, post docs, and staff. In addition to the offices, we now have a new conference room large enough to hold classes, and seminar comfortably.

With the growing number of faculty, undergraduate and graduate students the expansion and renovation of the Earth Science Department is welcomed news to many, who have seen the department evolve from the beginning to its current status. If you have a chance come back walk the halls again and witness the transformation first hand.
Looking at this picture can you see the excitement in these men’s eyes knowing that this field trip will make a lasting imprint in their lives? This is exactly what Jim Prendergast expressed in his email to the department. He couldn’t wait to share this picture with us to take us on that trip with him. He wanted the current students to see this picture and show them the similarities of his day.

Jim Prendergast graduated from UCR in 1968 with a BA in Geology. During that time he was the Hewett club treasurer. He continued his education and in May of 1975 he received his Masters in Civil Engineering from San Jose State University. Jim started consulting business in San Francisco Bay area in 1976, providing Geologic, Engineering Geologic and Geotechnical Engineering services to mostly private parties for the next 17 years. He also started a spin-off business in 1976 providing Geologic Disclosure information and documents to the Real Estate profession., which is now called NHD Reports. Jim retired and sold the business in the mid 1990s and currently lives in Maine with his wife, four children and six grandchildren to date. Jim still remembers that field trip and the fun and memories during that trip.

The Department is still practicing the same philosophies and principles that the founding faculty did decades ago. We are still a field based program and encourage all of our students to head into the field to do hands on research activities. All of our students have a chance to go into the fields either on class field trip or with their advisor for research. As you can see, time has passed between the picture above and this picture taken this fall, but the same experience is shared throughout the department as new students embark on our new student field trip.
In Memoriam: Anna Quinn

Anna Marie Quinn passed away on October 6, 2007 in Riverside after a short illness. She was born October 5, 1951 in New York City and also lived in Florida before moving to California 21 years ago. Anna enjoyed spending time with her family, friends, travel, gardening and crafts. Her first career was in nursing, which she loved for many years. She came to UC Riverside in 1990 and was with the Department of Earth Sciences. In December 2005 she transferred to the Department of Physics and Astronomy.

Anna is survived by her husband John; daughter Rosemary; granddaughter Elizabeth, whom she loved for many years.

A memorial church service was held Thursday October 18, 2007 at 9:30 AM at St. Catherine Alexandria Church located at Arlington and Brockton Avenue in Riverside, California.

Anna was always supportive of the Hewett Club in The Department of Earth Sciences at UCR. The family has suggested that gifts be made in honor of Anna Quinn to the Hewett Club in the Department of Earth Sciences and forwarded to the UC Riverside Foundation.

New Graduate Program: Global Climate & Environmental Change

One of the critical issues that faces science today is the effect of climate change on society. Real barriers to understanding climate change include the multidisciplinary nature of the topic which includes physics, chemistry, biology, geology and atmospheric science all contextualized in proxy records of change. Traditional approaches from single disciplines do not adequately capture the complexity nor lead to the intuitive understanding of complex systems and first order controls on climate change. For these reasons the department has initiated a field based multidisciplinary graduate program in Global Climate and Environmental Change (GCEC) that will bridge these different disciplines in a seamless way using field based learning. Field exercises will not only serve to provide important skills to students but provides the holistic approach necessary to understand the Earth System. GCEC immerses students in the first principles of studying and interpreting the actual record of climate change using the Sierra Nevada Mountains of California as its laboratory. From the modern glaciers to ancient bristle cone pine trees, the oldest living organisms on Earth, the high Sierra contains one of the best records of continental climate in North America. This program represents a new initiative in the UC system and field component, will be based at the UC White Mountain Research Station (WMRS). WMRS provides a support and logistical facility in one of the most diverse natural laboratories on the planet that contains a dynamic climate history at numerous time scales, ideal for study in discreet student exercises.
Degrees Awarded 2006 - 2007

Bachelor of Science

Geophysics
Chadwick Edward Marvin
Pierre Edgard Romo

Geology
Lauren Taylor English
Michael Ray Donaldson
Wesley Nathanael Jeffries
Paul David Koster II
Ryan Lee Harris
Halley C. Boatman

Masters of Science

Jennifer Anne Sabado
Computer-Assisted sequencing of species origination and extinction events : exploring the biostratigraphic resolving power of Ordovician conodonts

Yasmin Jahanara von Dassow
Paleoecology of encrusting and boring organisms in Pleistocene molluscan assemblages

Doctor of Philosophy

Diana Lynne Boyer
Middle Ordovician shell beds of the Kanosh and Lehman formations : paleoecological and environmental interpretations

Douglas Michael Ellis
Modeling of hydrochemical transitions in the alluvial aquifers of the lower San Jacinto watershed, Western Riverside County, California

William Tate Phelps
Ecologic changes associated with the late Devonian mass extinction : evidence from the Great Basin and Rocky Mountain Regions, Western United States

Seth Finnegan
Macrofaunal abundance trends across the lower-middle Ordovician (Ibexian-whiterockian) boundary at Ibex, confusion range, Millard County, Utah
Charles Johnson (MS 1968) Charles spent much of his career in the minerals policy area, advising governments on strategies for developing their mineral resources. He undertook projects in 42 countries, and lived in Botswana, Australia and Hawaii. In Botswana, as economic consultant to the Permanent Secretary and Minister of Minerals and Water Affairs (1976-1979), he was on the team that negotiated the largest diamond agreement in history (the Orapa and Jwaneng agreements). Charles returned to Botswana last summer, and saw the phenomenal results from the diamond revenues combined with the wise management of the economy by the Botswana government. He was delighted when the President of Botswana telephoned me on their Independence Day (September 30, 2007) to thank him for his contribution to the country. His lovely wife, Dr. Xiaodong Wang, works for the World Bank, involved with lending to rural energy projects in Africa. They have a charming four-year old daughter, Michelle, who has already traveled to eight countries with them, most recently on an African safari in South Africa, and her third trip to China. After 21 years living in Hawaii, they moved to the Washington, DC area in 2000, so Xiaodong could further her career. Charles is currently taking care of their child and writing adventure novels, and enjoying both immensely. In addition to his masters degree in Geological Sciences from UCR (1968), he also holds a Ph.D in Mineral Economics from Penn State University (1972).

Dan Seamount Jr. (BS 1973 & MS 1981) Dan has been one of three commissioners for the Alaska Oil & Gas Conservation Commission for over 6 years (2/14/00 to Present). The mission of the Commission is to protect the public interest in exploration and development of oil and gas resources throughout Alaska. The main emphasis is regulation of underground drilling and reservoir development operations to ensure conservation of resources, protection of drinking water, and protection of correlative rights. The Commission staff consists of geologists, petroleum engineers, reservoir engineers, IT personnel, and support staff. While commissioner he has been an associate and official representative of three consecutive Alaska Governors to the Interstate Oil and Gas Compact Commission (IOGCC) and was chairman of the North American Coastal Alliance and Public Lands Committees of the IOGCC. He also was Vice-Chair of DOE’s Ultra-deep Water Advisory Committee. For 27 years prior to that he worked in exploration and development geology at different times for Chevron, Marathon, and Unocal in California, the Rocky Mountains, the Mid-continent, and Alaska. He has an M.S. in Geology from the University of CA, Riverside with an emphasis on geothermal development and exploration and is a licensed professional geologist in Texas and Alaska.

George Jefferson (BA 1964 & MA 1968) George is still the only paleontologist in CA State Parks, and works with the Plio-Pleistocene vertebrates of the Anza-Borrego Desert.
WHERE ARE THEY NOW? News from our Alumni & Friends

Myrl Beck (PhD 1969) I retired in 1998, after nearly 30 years at Western Washington University. My research interests for all of that time involved the application of paleomagnetism to global tectonics. I worked in the Cordillera, the Caribbean, the southern Andes, and the Aegean. My last few years, before and after retirement, were spent developing new interpretative techniques based on the shape of paleomagnetic data sets. My current interests are - surprisingly - mostly botanical; I have helped to put together an addendum to the WWU web site (www.wwu.edu/treetour/) that introduces our campus trees to the general public. As I never was blessed with a scrap of botanical training, this has been an absorbing, engrossing, at times embarrassing experience. Now I am helping to assemble a cactus garden on several windowsills of our geology building - ever the Southern California boy (born in Beaumont), I grow the things in my greenhouse. In the dismal winter months of the Pacific Northwest, I have taken to escaping to Borrego Springs, California, where I hike in the washes and look for vertebrate fossils. My "boss" on such excursions is George Jefferson, a fellow UCR graduate. I greatly appreciate my years at UCR. The appended photograph, taken on an Antarctic cruise in 2004, shows why I never worked south of Patagonia.

Richard Gundry (BS 1977) Following Graduation ceremonies, I went to Arkansas, seeking work in Tulsa, Dallas, Houston, Corpus Christi, Los Angeles, Coral Gables, Caracus, etc. I worked for Schlumberger Well Services out of Alice, Texas, also in Corpus Christi, then in Liberty Texas as Field Engineer, with many visits to Houston, Texas, working in Cased-Hole and Production wire-line bore-hole geophysical logging. Then I worked in the consulting arena for Leighton and Associates, Gary S. Rasmussen and Associates and Action Engineering, with some stints as a Substitute Teacher. I worked for U.S. Department of the Interior, Bureau of Land Management for about 12 years, and then U.S. Department of the Interior, Bureau of Indian Affairs for about 13 years. Last year, I started my own company, Inland Geologic, Inc., consulting services to present. Starting with U.S. Bureau of Land Management, Las Vegas District, Caliente Resource Area, I worked as Geologist-Minerals Specialist in a non-urban, non-rural, but isolated area for about 3.5 years, with 6-months in Phoenix, Arizona, where I trampled that State as well. I was also on assignment to the Esmeralda/Southern Nye County Resources Area, so I trampled nearly all of southern Nevada except for Area 51, and the Nellis Bombing and Gunnery Range, and exploring Utah. I transferred to BLM California Desert District, as Minerals Specialist-Fluid Leasable Minerals in Riverside, California, and later transferred there as Geologist-Solid Leasable Minerals Specialist, so again I trampled all over the southern California Desert and Coastal plains, and some Indian Reservations. I am presently an independently un-employed Consulting Geologist. The business is providing Geologic, Ground-water, and Minerals consulting services. It is licensed as a California Company with the City of Moreno Valley, and Incorporated with the State of California, Secretary of State, with a federal Tax Identification Number.
Dan Chaney (BS 1977 & MS 1988) After leaving UCR Dan and Barb and Erica went to Lincoln, Nebraska for a 3 month stop at the University of Nebraska before moving to the Washington DC. Dan has been working in the Paleobiology department at the National Museum of Natural History, Smithsonian Institution since January 1980. He spent the first 12 years in the fossil vertebrate preparation laboratory. Doing a variety of things including exhibit hall renovation, field work, and specimen preparation and studying consolidants and preparation methods and materials. In 1992 Dan shifted gears and started work on Permian plant remains and is currently where he is planted today. Dan has been fortunate enough to have maintained ties to UCR and his major professor Mike Woodburne who took him to Antarctica on a number of occasions and then continued with Judd Case. Dan just recently returned from Niger on a expedition to collect Upper Permian plant remains.

Stanley C. Finney (BS 1969 & MS 1971) Presently, Stan is the Chair of Geological Sciences at CSULB for the past 20 years. Stan's main research projects include 1) paleogeographic and geotectonic history of the Argentine Precordillera based on U-Pb geochronology of detrital zircons from Cambrian to Carboniferous sandstones; 2) the Late Ordovician mass extinction; 3) the stratigraphy and structure of the Roberts Mountains allochthon of north-central Nevada; 4) paleobiology and biostratigraphy of graptolites; and 5) Chronostratigraphy. He has a well equipped macrophotography lab for the study and illustration of graptolites. Stan is regularly in the field in Nevada and Argentina. U-Pb geochronology of zircons is carried out with colleagues and instrumentation at the University of Arizona and UCLA. He currently serves as Vice-chair of the International Commission on Stratigraphy (2000-2008) and previously served as Chair of the ICS Subcommission on Ordovician Stratigraphy (1996-2004). He also serves as Director of the Environmental Science & Policy degree programs.

Benjamin Weink (MS 2001) Presently, Ben is an Associate Director with Tetra Tech, Inc., an Environmental Consulting Firm in San Bernardino, CA. He is a Registered P.G.. He is happily married with two kids (pictured here) and living in Chino Hills, CA.
WHERE ARE THEY NOW? News from our Alumni & Friends

**Bernard Gilpin (BS 1974 & MA 1977)** Bernie is in his 30th year of teaching physics and geology at Golden West College in Huntington Beach Ca. He has also been a faculty member for the Summer of Applied Geophysical Experience (SAGE) for the last 25 years. The program has 625 geophysics students since the program began in 1983. His wife Gail (UCR 1974) is teaching 2nd grade in the Capistrano school district for the past 30 years. They have two sons Sean(24) and Kevin(21). Bernie said that both should be finishing college soon so they can retire and they can take care of them.

**Judd Case (PhD 1986)** is an accomplished biologist, was one of a team of scientists who discovered the fossilized bones of a previously unknown carnivorous dinosaur in Antarctica. He has extensive experience on the world’s coldest continent, most recently researching vertebrate evolution and biogeography in Antarctica. The National Geographic Society tabbed him to lead fieldwork for research in Australia from 1989-91. Case’s experience isn’t just relegated to searching the far ends of the Earth, however. He comes to Eastern from St. Mary’s College of California, where he was dean of the college’s School of Science for the past five years. He also served as a professor and chair in the college’s Biology Department and as acting dean of student development. He also held research positions at the University of California Museum of Paleontology and the University of California-Riverside. He has recently moved to Washington State to become Dean of the college of Science, Health and Engineering at Eastern Washington University in Cheney. Congratulations and we wish him the best of luck!

**Mary F. Stechmann (BS 1982)** and her husband Bob Stechmann are running their own environmental consulting business, Stechmann Geoscience, Inc, from home. Her projects mainly deal with commercial real estate development. They often return to their favorite geological hunts at Rainbow Basin and Joshua Tree with their three children. They have a 14 year-old daughter and twin 11 years old sons, who love the outdoors as much as their parents.
WHERE ARE THEY NOW? News from our Alumni & Friends

Christine (BS 1985 & MS 1989) and David Jones (BS 1984 MS 1988) both reside in the Inland Empire. Christine is working at Cemex as an Environmental Manager overseeing five aggregate mines and 24 ready mix concrete batch plants from Riverside County to Kern County. David is currently the Chief Engineer Geologist for Riverside County. They both love to travel, traveling extensively throughout Italy, Alaska, Bahamas, and many other states with their adorable son Zachary who is now two.

Steve Zappe (MS 1979) worked in the Gulf Coast from 1979 until 1993. Steve then moved to New Mexico and has worked for the past 13 years for the New Mexico Environment Department, regulating federal hazardous waste facilities like Los Alamos National Laboratory and the Waste Isolation Pilot Plant, a deep geologic repository in bedded Permian salt near Carlsbad, NM. He has been the lead state regulator of WIPP since 1994, and has come back to UCR for a couple of talks in 1999 after NMED issued an historic permit that year to WIPP for disposal of plutonium and chemically-contaminated waste from research, development, and production activities across the Department of Energy weapons complex.

James Huning (PhD 1976) is a part of a small section that oversees the University Corporation for Atmospheric Research (UCAR), the management entity of NCAR, the National Center for Atmospheric Research in Boulder, CO. Its primary goal is to address pressing scientific and societal needs involving the atmosphere and its interactions with the oceans, land, and Sun. Jim also has research facilities at several universities. He joined NSF after many years at JPL, FAA and NASA Headquarters.
Doug Mason (Former Faculty 1978-80) Doug and his wonderful wife Jo started a petrological consulting business 13 years ago and it is a success. They provide detailed petrological consulting services to the minerals exploration sector in projects throughout Australia and worldwide. Doug continues to thoroughly enjoy the intellectual stimulation of petrological work, particularly of lode-gold systems over the last 10 years. In addition to running the business aspects of Mason Geoscience, Jo also provides professional scientific editing of research papers, books and other publications for university and government departments around Australia. They last visited UCR in early 1986, when they completed some field research on magma mingling in granitoids of the Bernasconi Mountains southeast of Riverside. Doug published a joint paper with Lew Cohen from the results of that work. Both Jo and Doug remember their 2 years of teaching and research at UCR (1978-80) with great affection, especially because of the wonderful friendships they developed with staff and students. One of his prized possessions is a signed and annotated copy of the American Geological Institute's Glossary of Geology, a gift from the students at UCR on my departure. They have continued to correspond over the years with Wilf and Lola Elders, Pete Sadler and Marilyn Kooser, and Mike and Janice Woodburne. Their daughter Beth was born in Adelaide in October 1980. She graduated with her Bachelor of Landscape Architecture at Adelaide University a few years ago, and now practices as a landscape architect in Adelaide. Their son Simon was born in 1982 and graduated as a Mechanical Engineer 1 year ago, also from Adelaide University, and is now practicing as a mechanical engineer in Sydney. They send warm wishes to all their friends.

Susan Cummins Miller (BA 1973 & MS 1978) Susan worked for the U.S. Government (primarily with the U.S. Geological Survey) in Menlo Park for nine years, conducting fieldwork in California, Nevada, Idaho, and Utah. When the USGS was downsized Susan taught geology and oceanography courses at San Mateo Community College. After moving to Reston, VA for four years Jon and their two sons returned to the West Coast. Susan began to write fiction and nonfiction, while offering the occasional short course and field trip in geology paleontology, oceanography and writing in Tucson area schools. In the last five years she has published three mystery novels with Texas Tech Up (Death Assemblage, Detachment Fault, and Ouarry), featuring geosleuth Frankie MacFarlane. Currently, she is finishing up her fourth novel HOODOO, set in the Chiricahua Mountains of SE Arizona.
Many of you have asked us how you might help the Department maintain the type of student experiences that you had at UCR, given the impact on our program of declining state and federal funding. There are two ways in which you can help the department. First is to donate to the department's annual Earth Sciences Fund for Excellence. These monies are used to fund such activities as undergraduate and graduate field trips that are not associated with classes, graduate field research, and the Friday afternoon BBQ. The second option was inspired by Jerry Weber, we set up a new endowment which we have called the “Rock Solid Fund”. Our goal is for this fund to become endowed once it reaches the necessary funding level required by the University, which is $100,000 by 2012.

Establishing an endowment is an effective means of insuring the viability and progress of the Department. The purpose of the Rock Solid Fund is to create a substantial impact in the areas of effective instruction, innovative research, and to insure that the undergraduate and graduate experience is special. This is a powerful way to help the Department financially and your contributions will jump-start this Endowment.

Please see the website for more information on the various donation options and also how you can donate. Gifts of all sizes are welcomed, extremely appreciated, and will be put to very good use. If you wish to contribute, please do not hesitate to call me (951-827-3797) or email me (Mary.droser@ucr.edu). Many thanks to our recent donors for their contribution to the department.

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