

# Carleton Geology Newsletter

Volumes XXII and XXIII

1997 and 1998

## THE LAVA LOUNGE



**A GEOLOGIST WILL DATE ANYTHING.**

Published By  
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Department Of Geology  
Carleton College  
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July 10, 1998

Dear Alumni and Friends,

I start on a sad note. Clement Shearer, Dean for Planning and Budgeting was struck down by a heart attack on May 14, 1998. In addition to his duties in the administration of Carleton, Clem taught almost every spring term in the Geology Department. He brought a great deal of expertise on the issues of ground-water development and exploitation and the management of geologic hazards. His courses were popular and well received by his students. More importantly he was a wonderful role model for us all because of his ability to quietly listen to all sides of an issue before analyzing the problems and suggesting a course of action. Many students have told me that he was a personal influence on their choice of geology as a major. He will be irreplaceable.

Shelby Boardman has finished his stint as Associate Dean of the College and has moved to Tucson, where he and Jean will be studying and doing research at The University of Arizona. Shelby told me that this is where he hopes to catch up on years away from being an active geologist, so that he can be primed and ready to return to the Department in the fall of 1999.

Mary Savina has been very active in providing leadership to the Department in the field of computing and has taken over as our resident guru making certain that we keep our lead in providing important computer applications. During a term's leave last winter she worked on writing up the results of the Greek geoarcheology she has been doing. She tells me that there is a massive amount of information that needs to be compiled and that her term at Trinity in San Antonio was very productive.

Bereket Haileab has been doing an outstanding job teaching introductory courses as well as the mineralogy-petrology sequence. We have asked him to stay on for yet another year. Several majors have told me what fun it is to learn about the geology of Africa from someone who knows it so well!

Dave Bice has returned to the Department full time. He continues to work on his book about computer applications for teaching systems analysis to geology students. Dave starts his duties as Chair of the Department in the fall with his work cut out for him. We will be looking to hire a petrologist-geochemist next year, plus we will host the annual meeting of the Keck Consortium, plus we will begin the process of the ten-year review of the Department and its programs. Whew! What a way to start?

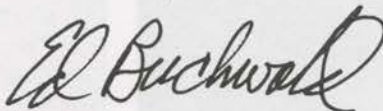
I absolutely have to thank Betty Bray and Tim Vick for their patience and forbearance this year. The Mudd Hall--Olin Hall renovation is now complete. The only reason we made it through without going crazy was that Betty and Tim remained so cheerful and helpful despite having to move equipment and offices several times during the whole affair. We made it through in style because they are so dedicated to the success of the Department.

There is a long list of people, alumni and friends, who have contributed time, money and materials to the Department this year. I want you to be sure to see what they have done. Look for news starting on page 3 of this newsletter.

Last, I get a chance to tell you that I will no longer be chair of the Department. Next fall I will be on sabbatical leave working with the Minnesota Environmental Quality Board and the National Park Service. The following year I will begin a phased retirement, meaning that I will be half-time on the faculty, with full retirement slated to begin in the fall of 2002. It is not too soon. Some of you may have heard that I suffered from a heart incident this spring (it was not a heart attack), but it has made me realize that a healthy life style is not enough; I need to reduce some of the stress in my life, too.

Thanks for all you do for us. I can assure you that the Geology Department at Carleton remains the envy of all the teachers I know. Interested and committed alumni are a big part of that.

Sincerely,



EDWARD BUCHWALD  
Professor of Geology

Lloyd McBride Professor of Environmental Studies



## Italy Program

*The Italy Program has become an institution in the Geology Department. Its popularity testifies to the quality of the program and the wonderful geographic setting of the Osservatorio Geologico in Coldigioco, Italy.*

*In the photo above by Dave Bitner and Kristin Ulstad, (from left) Emily Burton '99, Aaron McDaniel '98 and Marin Byrne '99 rejoice at making the summit of the trail in the Dolomite Mountains.*

*At left, it's not all geology that people learn over there. From left, Karen Bobbitt Gran '96, Dave Bice '81, Erica (a neighbor in Coldigioco) and Gina Michl '96 crush grapes with their feet to make wine in this picture from the Italy Program in the fall term of 1995 by Andrea Stein '96.*

## DEPARTMENTAL NEWS

### *Clement Shearer Dies Unexpectedly*

[The following text is from a letter by President Stephen Lewis to the Carleton community on May 14, 1998]

The tragic news that Dean for Budget and Planning and Professor of Geology Clement F. Shearer died of a heart attack this morning has shocked and saddened this close Carleton community. Those of us who knew Clem find it hard to imagine our lives here at Carleton without him. I'm sure I speak for all at the College in extending to Clem's widow, Cynthia Luck Shearer, our profound condolences. Clem came to Carleton in 1989 after a career in the U.S. Geological Survey. He was the first Dean for Budget and Planning at Carleton and he effectively created the position and set the standards for how the job should be done. He and I developed an extremely close working relationship, and I relied heavily on Clem's judgment, analytical ability and communication skills for the past nine years. His contributions to the planning and management of the College in this decade were critically important, though he carried them out in a low-key style and with an "aw shucks" demeanor that often covered up a shrewd strategic approach to issues.

Dean Shearer was a graduate of Brown and earned his PhD at the University of California at Santa Cruz. During his ten years with the USGS, he served as the head of the National Hazards Program, with responsibility for monitoring earthquakes, landslides and volcanoes. He was known in the Survey as "The Duke of Hazards," and I often said it was good preparation for managing a college.

An elegant person with a wicked wit, a committed Christian and a volunteer leader in many Northfield activities, an enthusiastic and knowledgeable sports fan, and an African-American who knew his roots and who successfully navigated many parts of American society, CF, as many called him, will be enormously missed.

### *GSA Reception*

The Carleton get-together at the 1998 meeting of the Geological Society of America in Toronto will be held on the Monday night of the meetings in the area near the other school receptions. More information will be mailed out separately, but you are all encouraged to come and visit!

### *W.M. Keck Foundation Continues Support Of Geology Consortium*

The Keck Geology Consortium, which includes Carleton College, has received \$900,000 from the W.M. Keck Foundation for continued support of its programs to foster cooperative student-faculty research projects over the next two years.

The consortium, which is celebrating its 10th anniversary this year, brings together geology faculty and students from 12 of the nation's top liberal arts colleges including Amherst, Beloit, Carleton, Colorado, Franklin and Marshall, Pomona, Smith, Trinity University, Washington and Lee University, Whitman, Williams and the College of Wooster.

Ten year funding from the W.M. Keck Foundation, which now totals \$4.4 million, allows the schools to share geology research, equipment and ideas through student-faculty symposia, workshops and four- to six-week summer research projects conducted all over the world.

Last summer the consortium offered six student-faculty research opportunities for students who had completed their junior year, and two projects for those who had completed their sophomore year. The projects included study of the Precambrian geology of central Colorado; analysis of the evolution of the Valley and Ridge landscape in Virginia; and an analysis of the most recent NASA data on the formation and evolution of geologic features on Venus and Mars.

Students who participated in research projects last summer presented their findings at the Keck Research Symposium in Geology this April at the College of Wooster. Next April Carleton will be the host for the symposium; we are looking for an exciting meeting with many excellent project presentations.

Headquarters for the consortium is Carleton College, where Cathryn Manduca, research associate in geology, coordinates the activities.

"This program gives students an outstanding opportunity to pursue their own scientific research, one of the most important aspects of scientific training," Manduca said. "Cooperation within the consortium has also enhanced faculty research and professional growth at all 12 schools and resulted in a vibrant consortium-wide discussion of both scien-

## Departmental News

tific research and educational practice. We are very pleased the W.M. Keck Foundation continues to work with us to improve geology education at our institutions."

The National Science Foundation had pledged nearly \$200,000 to support the participation of students of color in consortium projects.

Keck Consortium alumni number about 450 and provide a good source of professional contacts for students. Approximately 45 percent of the undergraduates who participate in the Keck program go on to graduate school. A study done in 1995 shows 30 percent of Keck alumni are employed in a scientific field and 8 percent are pursuing careers in science education.

The W.M. Keck Foundation, one of the nation's largest educational grant-making foundations, was established in 1954 by the late William M. Keck, founder of the Superior Oil Company. The foundation's primary focus is awarding grants to universities and colleges throughout the United States, with particular emphasis in the fields of earth sciences, engineering and medical research.

### ***Italy Program Rocks!***

The 1997 Carleton Geology program in Italy explored active tectonics in ways that previous off-campus programs and field trips could only dream about: they were tectonically shaken by a series of earthquakes rating more than 5 on the intensity scale! The 25-student fall term program on the geology of central Italy was directed by Dave Bice.

The two quakes which initially made international news on Friday, September 26, 1997, measured 5.5 and 5.9 on the magnitude scale, indicating they were moderately strong quakes. While 10 people were killed throughout Italy, including two monks at the famous chapel of Assisi, the epicenters of the quakes were about 100 Km from Coldigioco toward Rome and there was no significant damage to buildings or people in Coldigioco.

According to Sandro Montanari, one of the directors of the Geological Observatory in Coldigioco, the Carleton group was about 5 Km from Coldigioco doing a mapping project when the tremors struck. The first of the two quakes hit about 2:30 in the morning, and some people may have felt it while others slept through it. The second quake was sharper and briefer, and occurred at 11:30 in the morning when people were doing a mapping project. A third quake was reported on October 3 measuring 5.1 on the intensity scale.

In an e-mail after the quake Dave Bice commented, "We survived just fine, though a little excited. We were out in the field mapping when the

bigger one hit and it was kind of fun to ride the waves and watch the ground move."

"The after-shocks continue, but all quite small and we are not even feeling them here. The students were pretty excited to experience the bigger of the two while we were out in the field, sitting on a big chunk of bedrock, which transmitted the waves very well. The sound and visible ground motion were very impressive. Fortunately, Coldigioco is located in an aseismic zone, which means that no large earthquakes have ever occurred right in our vicinity -- we only feel the distant effects of earthquakes originating elsewhere in Italy."

Meg Anderson '98 said, "I was standing on the side of a mountain wondering where the boundary between two rock types was and I heard thunder. I thought, 'Hmmm... thunder... I would like a good thunderstorm... but not until we get back from the field....' and then I couldn't stand up. I felt like I was on a ship, so I sank to my knees and put my hands to the earth. I felt the whole mountain jiggle like Jell-O under my fingertips. It was amazing. We couldn't work for a while after that."

Sandro said some things got knocked off of shelves, but there was no structural damage to any of the buildings and no injuries in Coldigioco. He added these quakes are part of an "earthquake swarm," implying the likelihood of more earthquakes following the initial ones. He said they have felt a number of quakes in the recent past, but this type of quake generally does not exceed 5.5 to 6.0 in magnitude.

### ***Donations of Minerals, Fossils And Books Add To Collections***

Significant donations of mineral specimens and books were made by three alums this year, Helen Holmes '58, R. Craft Dryer '71, and Arthur Radtke '58.

Helen Holmes, of Golden Valley, MN, donated several hundred mineral specimens in two gifts. The minerals are collector's quality crystals and rare minerals, and are being added to the "Dana Set" of minerals which is used for teaching mineralogy classes and also for student research on minerals. This gift not only gave us some beautiful new examples of many minerals which were already represented in the Dana Set, but it actually added 139 new mineral names which were previously not represented in our collection. The Dana Set is a permanent museum set which students may examine with care.

Another donation of approximately 400 rock, mineral and fossil specimens by the family of R. Craft Dryer '71 and Lisa Dryer '99 was made this

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spring in the name of Craft Dryer's parents, Arthur and Virginia King of Duluth. While this donation was given very recently and has not yet been catalogued, it too contains a number of minerals new to our Dana Set. It also contains several very nice trilobite and crinoid fossils and some unusual rock types such as flexible sandstone.

Art Radtke's donation included the ten-volume set of books entitled "The Handbook of Stratabound and Stratiform Ore Deposits" in addition to five large cartons of other books on ore deposits and economic geology. Art, a resident of Palo Alto, CA, is president of Cougar Metals International.

Among donations by friends who are not alums was a very nice gift from Lloyd and Frieda Gunther of Brigham City, Utah. The Gunthers gave us three interesting fossil slabs which add a new dimension to our collection: two slabs showing very distinct bird footprints and one slab of mollusks, mostly gastropods.

### ***Number of Geology Majors Still High But Declining***

The story of our high enrollments continues to be a major concern for the Geology Department. Now that the building renovation is completed we have a bit more space to work in but classroom space is still tight and human resources are at a premium.

We had 35 geology majors in the class of '98, our largest class since the early 1980's. The class of 1999 has 32 geology majors and the class of 2000 at this time has 21 geology majors. Our average number of majors for the past 25 years is 22 per graduating class.

### ***Ed Buchwald Honored With Eagle Scout Award***

Ed Buchwald of Northfield was recognized Wednesday, Sept. 25, 1996, with the "Eagle to Eagle" award at the Indianhead Council's second annual Gathering of Eagles held at the St. Paul University Club.

The "Eagle to Eagle" award is presented to a Scoutmaster who earned the Eagle Scout Award as a youth, and who is now helping Scouts reach the Eagle rank as well. The Scoutmaster must have demonstrated service above and beyond the expected role as a Scoutmaster and a commitment to instilling the virtues of the Scout Oath and Law.

Ed has served for the past 26 years as an Indianhead Council Scoutmaster in Troop 337, sponsored by Carleton College. Throughout these years he has helped guide hundreds of young Scouts

from his troop to success in their lives. Many of these Scouts have also reached the Eagle rank.

### ***Research Ship Named For Larry Gould***

[The Northfield News]

December, 1997 - Laurence McKinley Gould, the Antarctic explorer, professor and former Carleton president, already has a lengthy list of namesakes including Antarctic mountains, bays, glaciers, coasts and the Carleton library. At a dedication ceremony Oct. 9, the world received one more - a 230-foot research vessel/ice breaker.

The R/V Laurence M. Gould, a towering red ship weighing in at nearly 1,600 tons, can support up to 26 research scientists on 75-day missions into the Antarctic region. It will be used for oceanographic and marine biological research by the United States Antarctic Program, while transporting researchers and supplies between Palmer Station and South American ports.

Gould was catapulted to international fame after serving as second in command to Adm. Richard E. Byrd during Byrd's first Antarctic expedition in 1928-30. He came to Carleton as a professor in 1932 and helped establish the geology department. Eventually, Gould became Carleton's fourth president, serving in that position from 1945 until 1962. He later moved on to warmer climates and spent the next 20 years teaching geology at the University of Arizona. He died June 21, 1995, at the age of 98.

Representing Carleton at the ship's naming ceremony was Eiler L. Henrickson '43, Professor of Geology Emeritus of both Carleton and Colorado colleges. He spoke warmly of Gould as a teacher, colleague and friend.

"It would take half a day to relate all of his accomplishments and good deeds," Eiler said. "But the same characteristics of leadership and the respect and following that they generated made for the success of both the polar expeditions and for his remarkable presidency of Carleton."

### ***Four Carleton Geologists Win NSF Fellowships***

Three geologists from Carleton won National Science Foundation fellowships for further study in geology and related areas, and were among the 10 Carleton people overall who won NSF fellowships out of 1,000 given nationally in 1997. This year, Sara Gran '96 was among the five Carleton winners of NSF fellowships.

Angie Dickens '97 is a chemistry major who plans to study geochemistry at Cornell University; Carrie Morrill '96 plans to study earth science at the



## Departmental Trips 1996-97

Our fall field trip in 1996 was to Northern Michigan; the weather was cool throughout the trip but the fall colors gorgeous and our group was enthusiastic. One of the stops was a tour of the Tilden Iron Mine. The group paused (above) to get a personal sense of the scale of the truck tires on display.

On the spring trip to Baraboo, Wisconsin, Fern Schoenbohm '97 (left) made killer omelets in the style of a local gourmet restaurant where she was a breakfast chef.



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University of California, Santa Cruz; and Matt Reuer '95 is going to MIT to study marine science.

Sara Gran has just completed her first year of graduate study in geology at the University of Vermont, where she's working on geomorphology, neotectonics and cosmogenic isotopes. Congratulations and good luck to all of you!

### ***Thanks For Your Help!***

We'd like to extend special thanks to a number of alums for your contributions during the past two school years:

Three alums were guest speakers in Mary Savina's Soils class during the fall term of 1996. They were Kelton Barr '72, Holly Ewing '89 and Jenn Macalady '91.

Two hapless alums were among the job applicants who were squeezed for as many talks as we could get out of them last year, Pete Reiners '91 and Clint Cowan '83. Clint ended up with the job but we very much appreciated the excellent talks given by Pete and all the other candidates.

Among the speakers giving talks in the Geology Department this year were some distinguished alums. Bevan and Mary Hill Kueffner '38 French visited and presented a talk on the Sudbury impact structure in Ontario, Canada; Jeff Hanor '61 came by and gave two talks, one on Mississippi Valley type ore deposits, and the other on the origins and migration of saline fluids in sedimentary basins; and Charles Umbanhowar '85, a biologist, spoke on the role of fire in the prairie vegetation history.

Extra special thanks go to Robb Jacobson '79 and Maria Panfil '93 for leading our Missouri field trip group on a day-long tour of their field area on the Jack's Fork River in southern Missouri. They dedicated not only the day, but a lot of preparation time and driving time and the results were the best!

Several excellent poster displays were shown in the Mudd hallway during the 1996-97 year, thanks to several alums. They included:

- George McGill '53, "Geology of the Sappho Patera (V20) Quadrangle, Venus;"
- Norris Jones '59, "Linda Vista Pluton and the latest Permian-Late Triassic orogeny, Las Delicias area, Coahuila, Mexico;"
- Jeff Strasser '87, on subglacial sediment and ice freeze-on; and
- Pete Reiners '91 and Bruce K. Nelson '77, "Geologic and petrologic evolution of the Lihve Basin and implications for the origin of post-erosional volcanics, Hawaii."

Posters shown during the 1997-98 school year included:

- Dave Rodgers '81, "Style, Kinematics and Timing of Neogene-Quaternary Extension in the North-eastern Basin and Range;"
- Mary-Russell Roberson '86, "Learning in the Natural Laboratory: Outdoor Lab Exercises for Introductory Geology Students;"
- Mel Kuntz '61, "Spatial, Temporal and Compositional Relationships Among Holocene Flows of the Craters Of The Moon Lava Field, Idaho." Thanks to all of you for your help!

### ***Network For Lesbian, Bisexual, Gay and Transgender Alums***

The Network For Lesbian, Gay, Bisexual and Transgender Geology And Natural History Alums provides students and alums with career information, fellowship and support. The network was founded in 1990 and now has 31 members from coast to coast.

The network has the twin objectives of helping reduce isolation among alums and helping to provide a more open, accepting and informative environment on campus for students in geology and related fields.

The network consists of a confidential list of names and addresses, circulated only to members of the network, maintained by Marilyn Yohe '88, Dan Spencer '79, and Tim Vick. Inquiries about joining may be addressed to any of them.

LGBT folks might also be interested in the general alumni group called Out After Carleton. We happily will provide contacts for them as well. As announced in the Carleton VOICE this spring, all LGBT alums are encouraged to attend the special "GLBT Family Reunion" on campus October 9-11. Information about that event is available through the Carleton Office of Alumni Affairs.

### ***Three Geologists Win Prestigious Fellowships***

Stephanie Phippen, a 1996 graduate from Bloomington, Minn., who has spent the past year studying a volcano in Ecuador, was among the six Carleton College seniors and three alumni who were awarded Fulbright Fellowships for the 1997-98 academic year. The award allows a student to pursue course work or a research program in a foreign country and provides round-trip travel, a maintenance stipend, a research allowance, a tuition waiver and insurance.

Adam French '98, a Natural History major whose major work was about half geology, won a Watson Fellowship to study grassroots conservation movements in Central and South America this year.

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Kimberly Knight '97 of Anchorage, Alaska, was awarded a \$22,000 Rotary Foundation Ambassadorial Scholarship for the 1998-99 academic year. The award enables her to study abroad at a university of her choice and covers transportation, tuition, room, board and supplies. In exchange, Kim serves as an ambassador of goodwill and speaks at Rotary clubs and various other gatherings.

Congratulations to both Stephanie and Kim for your good work!

### **Stewart Fellows Named**

Congratulations to three members of the class of '98 and two from the class of '99 who have been named Duncan Stewart Fellows!

Megan Anderson, Peter Erickson and Adam Maloof were named Duncan Stewart Fellows for the 1997-98 school year. Stewart Fellows for the 1998-1999 school year will be Emily Burton and Catherine Hofmann, of the class of '99.

The fellowship was established in 1976 by Daniel Gainey ('49) in honor of Duncan Stewart, professor of geology at Carleton for nearly 25 years. It carries a stipend plus a fund which may be drawn on to cover research expenses. The principal criteria for selection are excellence in scholarship, a high level of intellectual curiosity, potential for scientific growth, a demonstrated ability to work independently and involvement in departmental activities.

These students will extend the number of Stewart Fellows to 62.

### **Movers And Streakers**

June 16, 1997 - Streaking is alive and well at Carleton, but unsuspecting movers can be shaken by it.

A highlight of the just-completed Spring Term finals week occurred Wednesday afternoon when the final being administered in Olin 137 (the huge lecture room) was streaked by 6 or 8 women wearing only something that looked like gauze on their heads.

Their strategy for the streak was to enter Olin wrapped in beach towels through the Mudd loading dock door, drop the towels just outside the lower door to Olin 137 and streak through the lecture room and away.

Alas, sometimes the best laid plans are confounded. This was the week in which we had to move most of the Geology equipment out of Mudd for temporary safe storage in other locations while the Mudd renovation took place in the Geo labs. The streakers never imagined that the Geo packing and moving crew, including a moving company crew which the college had contracted to move our heavier furniture, would at that moment be moving

carts and large objects through the Mudd/Olin link and into a storage room next to the lecture room door. The look of consternation on the streakers' faces when they found the burly hunks occupying the towel-drop location was priceless.

Carls, however, are not deterred so easily. The streakers hatched an alternative plan on the fly and completed their mission using another door, leaving the baffled movers standing there trying to figure out why those people were running around in towels with their heads wrapped in gauze.

The "movers" were shaken, the real movers were streakers.

### **Alumni Web Pages Available Through Department Site**

Want to see what some of your more "wired" friends are up to? Check out their web page! About 75 geo alums have web pages that have links from our departmental web site, from the class of '49 on up. Come on in at [www.carleton.edu](http://www.carleton.edu) and check it out - it's fun! You'll find everything from professional information to articles about hobbies to pictures of kids and pets which have been posted by our alumni family.

And if you'd like your web page available to other alums just shoot an e-mail to [tvick@carleton.edu](mailto:tvick@carleton.edu) and I'll put up the link.

### **Geology Department T-shirts Available By Mail**

I have a good supply of 1997 and 1998 geology T-shirts available which I can mail out. The cost is \$7.50 plus \$3 postage payable to Carleton College. Both years are all-cotton and OK to wear to your grandmother's house.

The 1998 shirt is dark "dusk" blue, a sort of grayish dark blue, with white ink. The picture on the front is a geologist at a bar trying to hustle the other patrons (fossils of different varieties) with the quote on the back of the shirt saying, "A geologist will date anything" (see the cover of this Newsletter). All sizes are available.

The 1997 shirt is light tan with brown ink. The cartoon on the front shows two stick figure people saying "Gee!" and "Oh!", the cheer of the Geo broomball and ultimate teams. On the back of the shirt is a Peanuts cartoon about the relationship between geologists and mud. I have many XL's and a couple XXXL's (!) if you know someone who is huge or you're looking for a nightshirt for a hard-to-fit youngster or a very sexy s.o. -- Tim Vick

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### **1996-97 Awards**

#### **Noyes Prize**

David McGee

#### **Mortar Board**

Lindsay Lightner

#### **Phi Beta Kappa**

John Fiege

David McGee

Geoffrey Ruth

Lindsay Schoenbohm

#### **Sigma Xi**

Dan Feiveson

Fawna Korhonen

David McGee

Lindsay Schoenbohm

Adam Soule

Allison Thomson

Ann Zawistoski

#### **Laurence Gould Prize in Natural Science**

David McGee

#### **Independent Research Fellowship**

Adam Maloof

Peter Moore

Frances Watson

Peter Moore

Kurt Steffen

Daniel Thornton

Kristin Ulstad

#### **Class of 1963 Fellowships**

Nicholas Pearson

Leigh Stearns

#### **Dana Award for Personal Achievement**

Nathan Magee

#### **Independent Research Fellowships**

Noah Finnegan

Sarah Goese

Heidi Guetschow

#### **Kresge Science Fellows**

Noah Finnegan

Sarah Goese

Heidi Guetschow

Katherine Werner

#### **Collegiate Academic Award**

Kristin Ulstad

#### **Minnesota Space Grant Consortium Scholarship**

Kristin Portle

#### **Watson Fellowship**

Adam French (special major)

### **1997-98 Awards**

#### **Mortar Board**

Lindsay Lightner

David Schneider

#### **Phi Beta Kappa**

Megan Anderson

Joseph Colgan

Peter Erickson

Adam French

David Jones

Adam Maloof

Daniel Thornton

Trina Vithayathil

Emily Burton

#### **Sigma Xi**

Megan Anderson

Joshua Bookin

Martha Carlson

Nathan Church

Joseph Colgan

Deborah Cussen

Erik Ekdahl

Caroline Elliott

Todd Fleming

Christopher Jones

Brian Klawiter

Lindsay Lightner

Nathan Magee

Adam Maloof

Miles Mercer

### **Senior Geology Majors**

This year's and last year's seniors, their hometowns and titles of integrative exercise projects:

#### Geology Majors - 1997

**David L. Barbeau, Jr.**, Marshfield, MA "Geology and the sense of place: A geologic history of the Tensleep Preserve, Wyoming"

**Joshua Feinberg**, Concord MA "Structural, petrographic, and geochemical analysis of Proterozoic Metamorphic rocks along Johnson Gulch, Wet Mountains, Colorado"

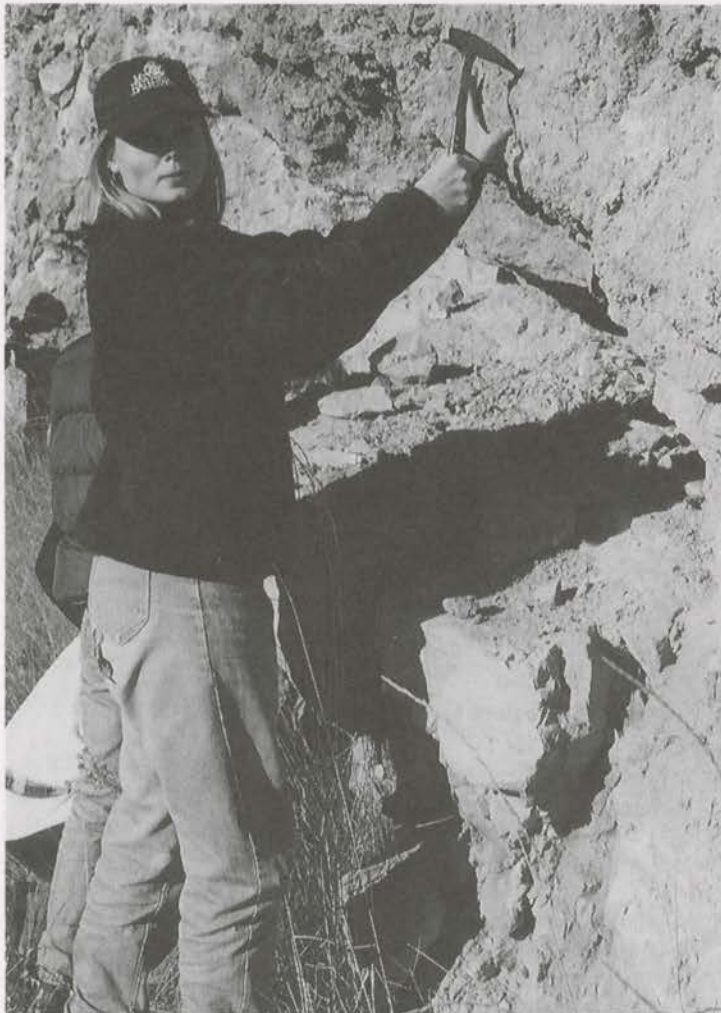
**T. Daniel Feiveson**, Princeton, NJ "Seismic reflection survey to investigate the possible existence of a normal fault in Rocker, Montana "

**Claire Fellman**, West Hartford, CT "Pollen analysis of a peat and marl core: Everglades, Florida "

**John Fiege**, Chevy Chase, MD, "tsy mitovy: A video on the multidisciplinary and interconnected nature of environmental problems in the Washington, D.C. region"

**Kimberly B. Knight**, Anchorage, AK "The tectonomagmatic evolution of the Coastal Dyke Swarm, Western Deccan Traps, Maharashtra, India: A dyke swarm in context"

**Fawna J. Korhonen**, St. Paul, MN "A petrographic and chemical analysis of the Panda Hill Carbonatite Complex, Southwest Tanzania"



## Departmental Trips 1997-98

The 1997 fall field trip was to the Black Hills in South Dakota; 29 students participated. The trip started out with a squally snowstorm but progressively improved as the weather got sunny and nice. At left, Ada Hamilton '98 takes a sample for closer study during the Little Elk Creek Canyon problem.

We took 36 students to Missouri this spring and had a very productive time there highlighted by a day on the Jack's Fork River led by Robb Jacobson '79 and Maria Panfil '93. Below, we took a break for a group picture at Elephant Rocks State Park.



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- Molly Madden**, Sewickley, PA "Emplacement mechanisms of a Lamprophyre Sill, Cotopaxi, Colorado"
- Nicole Maxwell**, Rushville, IN "Assimilation and fractional crystallization in post Tectonic stocks from the Wabigoon Subprovince, Ontario, Canada"
- David McGee**, Orinda, CA "Isotopic and trace element data from Lanai, Hawaii: Implications for magmagenesis in the Hawaiian plume"
- Erica Oesting**, Anchorage, AK "An investigation: the organic carbon content of the Liscomb Bone Bed Matrix, Coleville River, Alaska"
- George Oliver**, East Haven, CT "Facies and morphology of a Holocene alluvial fan and record of environmental instability in fan facies, Corral Creek, northwest Wyoming"
- Katrina Petersen**, Silver Spring, MD "Mapping Miocene through Pleistocene unconformities on the Continental Shelf off the Central Oregon Coast"
- Karen I. Purdy**, Papillion, NE "Nitrogen mineralization in disturbed soils of North Lake Tahoe, California: The role of nitrogen in soil restoration and revegetation"
- Geoff Ruth**, San Francisco, CA "Writing high school geoscience textbooks that rock"
- Lindsay Schoenbohm**, Appleton, WI "Footwall deformation of the Heart Mountain detachment, northwestern Wyoming"
- Ben A. Sheets**, St. Paul, MN "Geochemical and petrological evidence for the provenance of mid-Cretaceous sedimentation in the Methow basin, southwestern British Columbia"
- Sarah Simmons**, Pincher Creek Albe, Canada, "Exploring our watershed: Lessons towards a conservation ethic"
- S. Adam Soule**, Olympia, WA "The Formational history of Pu'u Ohau, Kona, Hawaii"
- Allison Thomson**, Corte Madera, CA "Large woody debris as a regulator of sediment storage in mountain streams in the Western Cascade Range of Oregon"
- Lisa C. Van Arsdale**, Pittsford, NY "A walk through the park: The evolution of the Genesee River Gorge in Letchworth State Park, New York"
- Laura Pauline Veirs**, Colorado Spring, CO "What's up on the Tibetan Plateau: the dynamics of continental deformation"
- Ann Zawistoski**, Ellettsville, IN "Creating a geologic display for River Bend Nature Center"
- Joshua Bookin**, Portland, OR "Field mapping and relative dating of glacial limits in the Sanctuary River Valley, Denali National Park, Alaska"
- Martha Carlson**, Eden Prairie, MN "Knickpoint migration and Tufa accretion in five south river tributaries, central Virginia"
- Kelvin Chan**, Chino Hills, CA "Punctuated equilibrium: What the fuss was all about"
- Nathan Church**, Oxford, OH "Paleomagnetic polarity at the Rupelian/Chattian boundary and petrology of the Scaglia Cinerea, Italy"
- Joseph Colgan**, Rochester, MN "Heart Mountain faulting and the emplacement of intrusive rocks at Painter Gulch, near White Mountain, northwest Wyoming"
- Deborah Cussen**, Bolton, MA "An analysis of Ostreoliths ("Oyster Balls") from the Carmel Formation (Jurassic), southwestern Utah"
- Erik Ekdahl**, L'Anse, MI "The origin of mafic enclaves in a Granitoid intrusion: Magma mingling in the Proterozoic of Colorado"
- Caroline Elliott**, Midland, TX "A tale of two chronosequences: Soil development and landscape evolution on two flights of terraces on shale and limestone bedrock, James River, VA"
- Peter Erickson**, Moline, IL "Incised erosion surfaces in the Appalachian Valley and Ridge Province, southwestern Virginia"
- Todd Fleming**, Glenwood, IA "The geologic evolution of eastern Eistla Regio, Venus and implications for corona modeling"
- Ada Hamilton**, Boston, MA "Stromatolites: Questioning the assumption of biogenic origin"
- Alexander Hildebrand**, Edina, MN "Evidence for turbidite deposits from the South in southern Belize"
- Sarah Jarvis**, Bloomington, IN "Petrographic and geochemical analysis of igneous rocks on the Island of Vis, Croatia"
- Christopher Jones**, Arden Hills, MN "Castles made of sand?: An introduction and evaluation of modern coastal protection and policy using a case study of a beach nourishment project on Salt Aire, Fire Island, New York"
- David Jones**, Baltimore, MD "Anomalous magnetization processes in the Great Ignimbrite of Bosa, Sardinia (Italy): Mechanisms and implications for tectonic analysis"
- Brian Klawiter**, Hayfield, MN "Petrology and geochemistry of the Secret Spring Mountain Area: a section of the High Cascades on the Oregon-California Border"
- Elijah Levitt**, Eugene, OR "Geochemistry and tectonic setting of Proterozoic amphibolites from the Road Gulch area near Texas Creek, Fremont County, Colorado"

### Geology Majors - 1998

- Megan Anderson**, Rochester, MN "The Crandall Conglomerate: A fluvial deposit, northwestern Wyoming"
- David Bitner**, Rockford, IL "Using the World Wide Web to consolidate information: The Cannon River Watershed"

## Departmental News

**Lindsay Lightner**, Salem, OR "Paleosols from the Mascall Formation, Oregon: Implications for Miocene Paleoclimate Change"

**Alison Macalady**, Golden, CO "A Mediterranean perspective on Middle Oligocene climate"

**Adam Maloof**, Lexington, MA "Superposed folding at the junction of the inland and coastal belts, Damara Orogen, NW Namibia"

**Aaron McDaniel**, Vail, CO "Strontium isotope analysis of the Scaglia Cinerea in Piobbico, Italy: an Oligocene sea level drop and Mediterranean isolation reflected in 87Sr/86Sr Ratio"

**Miles Mercer**, Rochester, MN "Dissemination of forecast information for the 1997-98 El Nino event"

**Peter Moore**, St. Paul, MN "Response of a Jokulhlaup-affected proglacial drainage system to glacial retreat: Skeioararsandur, southeastern Iceland"

**Anders Nilsson**, Marblehead, MA "Structure and petrology of Secret Spring Mountain's western slope"

**Nicolas Patterson**, Morgan, UT "Creating a lesson in hydrology in accordance with the Utah State core curriculum"

**Allison Payne**, South Bend, IN "Dancin' in the dirt: soil erosion on our farms"

**Kurt Steffen**, Minnetonka, MN "Geothermobarometry of Garnet-Amphibolites of the Archean Spuhler Peak and Pony-Middle Mountain metamorphic suites of the Tobacco Root Mountains, southwest Montana"

**Bridget Stevens**, Stockton, CA "Paddy agriculture in Sri Lanka: survey and implications of traditional and Green Revolution methodologies"

**Kathryn Szramek**, Salem, OR "Petrology and geochemistry of the Proterozoic rocks from the Howard and Jack Hall Quadrangles, Fremont County, Colorado: implications for tectonic setting"

**Daniel Thornton**, Indiana, PA "The influence of parent material and topography on the fertility of two volcanic ash-derived soils in Costa Rica"

**Kristin Ulstad**, St. Paul, MN "Textural characteristics of the microbreccia layer of the Heart Mountain fault, Wyoming-Montana: evidence for volcanic fluidization"

**Trina Vithayathil**, St. Louis, MO "A hydro-political study of a drainage canal: the Third River, Iraq"

**Frances Watson**, Concord, NC "Nesting success of Loggerhead turtles on Cape Island, South Carolina"

### Natural History Major

**Adam French**, Clarksville, AR "Reflections of the desert: a personal exploration of Joshua Tree National Park"

### Class of 1999

Alison Anders  
Erika Beyer  
Emily Burton  
Marin Byrne  
Carrie Davis  
Rachel Davis  
Benjamin Diener  
Noah Finnegan  
Brian Fleming  
Sarah Goese  
Heidi Guetschow  
Zachary Gustafson  
Erich Heydweiller  
Bretwood Higman  
Catherine Hofmann  
Millie Kimes  
Mizu Kinney  
Tiffany Mathias  
Andrew Mattox  
Nicholas Pearson  
Emily Peterson  
William Pike  
Kristin Portle  
Michael Rhodes  
David Schneider  
James Shaw  
Nathan Sheldon  
Michael Smith  
Leigh Stearns  
Kenneth Tape  
Katherine Trafton  
Katherine Werner

### Class of 2000

Thomas Alcivar  
Christina Berglund  
Sara Bertelsen  
Alden Boetsch  
Kira Campbell  
Matthew Howard  
Scott Hynek  
Jonathan Jensen  
Zachary Katz  
Edward Matney  
Luc Mehl  
Stacy Meyer  
Anna Nelson  
Elizabeth Penny  
Joanna Reuter  
Erica Richardson  
Patrick Roehrdanz  
Michael Stewart  
Stacy Tellinghuisen  
Nicholas Weinberg  
Annie Winkler  
Liila Woods

Minneapolis, MN  
Eugene, OR  
Prescott, AZ  
Garrettsville, OH  
Wooster, OH  
Orinda, CA  
Carpinteria, CA  
Cambridge, MA  
Sherborn, MA  
Duluth, MN  
Anchorage, AK  
Greenfield City, NY  
Syracuse, NY  
Seldovia, AK  
Petoskey, MI  
Bellingham, WA  
Deadwood, OR  
Honolulu, HI  
Seattle, WA  
Washington, D.C.  
Seattle, WA  
Lancaster, PA  
Bloomington, IN  
Bloomington, MN  
Pittsburgh, PA  
Schenectady, NY  
Minnetonka, MN  
La Crescent, MN  
New York, NY  
Fairbanks, AK  
Rumford, RI  
Webster Groves, MO

Chesterfield, MO  
Britt, MN  
Rockville, MD  
Lexington, VA  
New London, NH  
Tulsa, OK  
Parker, CO  
Baltimore, MD  
New York, NY  
Northfield, MN  
McGrath, AK  
Cleveland Hts, OH  
East Harwich, MA  
Los Altos, CA  
Berryville, AR  
Belgrade, ME  
Fargo, ND  
Holliston, MA  
Nashville, TN  
New York, NY  
Duluth, MN  
Ettrick, WI



### Afternoon Labs In The Field

While we usually have lots of pictures of major field trips, the unpublicized fact is that the vast majority of our field trips are local afternoon trips taken by individual lab sections. The local trips are less dramatic sounding but play a hugely important role in our educational program.

Above, (from left) Kelvin Chan '98, Bret Higman and Andrew Mattox (both '99) read the level of the ground water during the pumping experiment on the well field between the Cannon River and the football field as part of a Geomorphology class lab.

At right, a field team of students examine the soil profile during a Soils class field trip to a pasture atop a ridge.



## Student Research Activities In Our Department

[This was written by Mary Savina to Patricia Martin, Director of Corporate and Foundation Relations, as a background memo in preparation for a grant proposal, but it gives interesting insights into the Geology Department curriculum.]

Hi Patricia -

I volunteered to provide you with some basic information about geology comps, so that my colleagues can bombard your e-mail with other kinds of information. We require that each senior geology major undertake and complete an independent project of their own devising. They must write a formal proposal for the project which is reviewed by the department faculty and staff. Each student completes the project and reports the results in written, oral and poster form.

Many students choose lab and field-based research for their comps projects. Here are the titles of many of the projects of this type that were completed this year, broken into rough categories to indicate which were related closely to faculty interests, which were done as part of Keck Consortium student-faculty research projects and which were supervised in the field by non-Carleton faculty :

Projects closely linked to faculty research interests, which grow out of both off-campus seminars such as the Italy seminar run by Dave Bice last fall, and ongoing research by each of the faculty members: Nathan Church, "Paleomagnetic polarity at the Rupelian/Chattian boundary and petrology of the Scaglia Cinerea, Italy"; David Jones, "Anomalous magnetization processes in the Great Ignimbrite of Bosa, Sardinia (Italy): Mechanisms and implications for tectonic analysis"; Alison Macalady, "A Mediterranean perspective on Middle Oligocene climate"; Aaron McDaniel, "Strontium isotope analysis of the Scaglia Cinerea in Piobbico, Italy: an Oligocene sea level drop and Mediterranean isolation reflected in 87Sr/86Sr Ratio"

Projects done as part of Keck Consortium student-faculty research: Megan Anderson, "The Crandall Conglomerate: A fluvial deposit, northwestern Wyoming"; Martha Carlson, "Knickpoint migration and Tufa accretion in five south river tributaries, central Virginia"; Joe Colgan, "Heart Mountain faulting and the emplacement of intrusive rocks at Painter Gulch, near White Mountain, northwest Wyoming"; Deb Cussen, "An analysis of Ostreoliths ('Oyster Balls') from the Carmel Formation (Jurassic), southwestern Utah"; Erik Ekdahl, "The origin of mafic enclaves in a Granitoid intrusion: Magma mingling in the Proterozoic of Colorado"; Carrie Elliott, "A tale of two chronosequences: Soil development and landscape evolution on two flights of terraces on shale and limestone bedrock, James River, VA"; Peter Erickson, "Incised erosion surfaces in the Appalachian Valley and Ridge Province, southwestern Virginia"; Brian Klawiter, "Petrology and geochemistry of the

Secret Spring Mountain Area: a section of the High Cascades on the Oregon-California Border"; Eli Levitt, "Geochemistry and tectonic setting of Proterozoic amphibolites from the Road Gulch area near Texas Creek, Fremont County, Colorado"; Anders Nilsson, "Structure and petrology of Secret Spring Mountain's western slope"; Kurt Steffen, "Geothermobarometry of Garnet-Amphibolites of the Archean Spuhler Peak and Pony-Middle Mountain metamorphic suites of the Tobacco Root Mountains, southwest Montana"; Kati Szramek, "Petrology and geochemistry of the Proterozoic rocks from the Howard and Jack Hall Quadrangles, Fremont County, Colorado: implications for tectonic setting"; Kristin Ulstad, "Textural characteristics of the microbreccia layer of the Heart Mountain fault, Wyoming-Montana: evidence for volcanic fluidization"

Projects done with a non-Carleton mentor (in general, in seeking out these projects the students did their own networking to find opportunities, which allowed our 36 majors more opportunities than we could have provided for them): Joshua Bookin, "Field mapping and relative dating of glacial limits in the Sanctuary River Valley, Denali National Park, Alaska"; Todd Fleming, "The geologic evolution of eastern Eistla Regio, Venus and implications for corona modeling"; Lindsay Lightner, "Paleosols from the Mascall Formation Oregon: Implications for Miocene Paleoclimate Change"; Adam Maloof, "Superposed folding at the junction of the inland and coastal belts, Damara Orogen, NW Namibia"; Peter Moore, "Response of a Jokulhlaup-affected Proglacial drainage system to glacial retreat: Skeioararsandur, southeastern Iceland"; Dan Thornton, "The influence of parent material and topography on the fertility of two volcanic ash-derived soils in Costa Rica"

Other comps field research projects: Sarah Jarvis, "Petrographic and geochemical analysis of igneous rocks on the Island of Vis, Croatia"; Chris Jones, "Castles made of sand?: An introduction and evaluation of modern coastal protection and policy using a case study of a beach nourishment project on Salt Aire, Fire Island, New York"; Frances Watson, "Nesting success of Loggerhead turtles on Cape Island, South Carolina"

Other students propose and complete projects that involve environmental research with data and documents. Two examples from this year (there were others) are: Miles Mercer, "Dissemination of forecast information for the 1997-98 El Nino event" (Note: this project was an outgrowth of an internship that Miles had at NCAR in Boulder, Colorado); Trina Vithayathil, "A hydro-political study of a drainage canal: the Third River, Iraq"



## Departmental News

Still others propose and complete projects involving education, community service or outreach. One example from this year (there were others): Dave Pitner, "Using the World Wide Web to consolidate information: The Cannon River Watershed" (David set up the website for the Cannon River Watershed Partnership, a local non-profit group. Here's the URL if you want to check it out at "<http://nco.northfield.mn.us/crwp/index.html>"). Last year there were several projects of this type, including Geoff Ruth's "Writing geoscience textbooks that rock". Geoff wrote and tested a chapter on soils for a high school textbook. He is now teaching secondary school science in East Palo Alto, CA.

The department faculty welcomes student work in all of these categories. The greater number of conventional "field and lab research" compared to education, outreach, and environmental research using data and documents reflects students' wishes for their comps projects, not a faculty desire to "push" this type of project. We are careful to call the comps an "independent project" and not restrict it to "independent research." In fact, some of the field research projects each year include education and outreach components and many are related to environmental problems. We are able to nominate many geology majors to Sigma Xi, the Scientific Research Society, because by midway through their senior year, they have demonstrated a high potential for independent research through their work on comps.

We've found that spring terms, when students present their projects orally, is a most exciting celebration for the department. This year our nine sessions each featured four student talks of 15-20 minutes. We hold these sessions in a large lecture room; frequently every seat is filled with standees in the back. This year many parents were able to attend their daughter's or son's talks. The talks are as polished and professional as most of those we hear at professional meetings. The faculty evaluates each student's completed comps project by comparing it with the proposal that the student submitted and we accepted.

In addition to senior comps projects, independent research projects are integral to most of our core geology courses. Here's a "snapshot" of projects done as part of our curriculum this term (spring, 1998):

Yesterday (Monday, June 1) was the next to last day of classes. Students in at least four geology courses gave presentations about small group projects they had completed as a major part of the courses. Clint Cowan's students in Introductory Geology gave oral reports on aspects of the local geology that they had chosen to research in depth. These included such things as the history of Lyman Lakes (including turbidity measurements after last week's storms); how hog manure from a feedlot might affect the groundwater; how flow on the

Cannon River has been altered by retaining walls, bank protection and other kinds of engineering, etc.

My Introductory Geology students presented posters on the geologic history of southeastern Minnesota that they completed in small groups. Most sections of introductory geology at Carleton explore this geologic history through a series of local field trips during the term; students integrate this material through papers, posters and/or exam questions. The significant point is that the field work and integration is discovery and inquiry-based. We ask students to use their own observations to synthesize the history, rather than relying on any published material. In fact, students quickly discover that general textbook statements about different sedimentary environments are quite inadequate to cope with the complexities of nature as shown in our local rocks. Students gain real experience in working through geologic problems.

Ed's Paleobiology class presented posters on small group projects, some of which represented library research, others which were field and lab-based research (such as an ecological analysis of the fossilized shallow marine community of the Decorah Shale) and at least one of which was a computer modeling project (that group used the dynamic modeling program STELLA to simulate the extinction of mammoths by constructing a system where mammoth population distributions, hunting rates and other factors were integrated.) Students selected their own topics.

Dave's Structural Geology class gave oral presentations on small group experiments in deformation. I heard one group talk about how they created diapir structures by shaking layers of Argo cornstarch/water and green sand. Their "results" were frozen in Tupperware containers. Students in Dave's tectonics and structural geology classes usually do such experimental projects, relating the way the modeling material in the lab behaves to the ways real earth materials behave when deformed at (sometimes) slower rates over longer times.

The projects in these four classes also show how we try to prepare students for an eventual senior independent project by doing a number of small-scale independent inquiry-based projects in classes for the major. Most students in Introductory Geology will go on to major in fields other than geology, and Paleobiology also has a hefty proportion of non-majors. Expectations for the non-majors in these classes are identical to those for the students majoring in geology.

Mary Savina

# News From Alums

**1938.** **Mary-Hill French** and her husband, Bevan, were wonderful visitors to the Geology Department this spring. They were in Minnesota to give talks on the Sudbury Impact Crater in Canada at the Institute of Lake Superior Geology (at which they met 33 years ago!), the University of Minnesota and here at Carleton. Mary-Hill's comment was, "Ah, Carleton-in-the-spring!" Other events during the year included a three-month stay in Vienna while Bevan was a guest professor at the University of Vienna; a meeting and field trip on the Sudbury Structure last fall, and a Mediterranean cruise in January with a bad storm which caused a forced landing in Cyprus. In their spare time (?) they got the manuscript of Bevan's Meteorite Impact handbook, "a sigh of relief from both of us." Mary-Hill, we look forward to another visit from you sometime in the future!

**1939.** **Shirley Shale Palmer** has moved into an "assisted living" apartment in a retirement home due to a stroke in 1995. "I'm in a wheelchair but this place enables me to be as mobile as possible," she writes. She still goes north to Canada with her three sons and families, who live in Michigan.

**1941.** **Lloyd Pray** is continuing his research on the Capitan Reef (Permian age) in the Guadalupe Mountains National Park; he has been an emeritus professor from the University of Wisconsin for nine years. He deserves congratulations on having been awarded the Distinguished Educator Award by the American Association of Petroleum Geologists (AAPG), which was scheduled to be presented at the annual meeting in Salt Lake City in May. Lloyd added in his card that all is well with his family and 12 grandchildren.

**1942.** **Dode Wonson** sends a hello; she continues to stay in touch with the Earth via the Minnesota Geological Society. Dode recently received a "KARE-11 Kare Package" from the Minneapolis television station KARE. She was honored for her work as a volunteer at the Jones Harrison Residence. The award is given weekly to people who go above and beyond the normal routine in their work or volunteer efforts.

**1945.** **Dick McCarthy** is doing some supply preaching, pottery, and bridge in addition to working on his xeriscape yard. He's on the board of the Civitan Club and also volunteering for Ghost Ranch. I maybe shouldn't say that Dick lists his business as "Eatwell, Dolittle & Sitmore Consulting;" the corporate office might be flooded with job applicants!

**1946.** **Charles Higgins** reports, "During a recent adventurous tour of Morocco including some camping in the northwestern Sahara I was amazed to find there

really are huge erosional intermontane plains in North Africa, just as reported long ago by Bornhart and others. I hadn't believed in them, but they do exist and are most impressive. Go see them!"

**1947.** **Georganna Dean Dickson** writes that she loved her 50th reunion last June, "especially the remembrances of Larry Gould with Eiler and others of us who had wonderful, as always, tales to tell."

**1949.** **Bill Roth** is working part time searching out deals for a client who is looking for a door into the U.S. oil market. He writes that he sometimes sees **Alex Boardman**, whose office is across the street in downtown Denver.

**1951.** A note from **Thad Harris** says, "Marti (Hoke '53) and I will observe our 44th wedding anniversary this June! [for which the Geology Department sends a warm congratulations!] Ouray, one of the most beautiful corners of Colorado, has been our home for over 7 years. We were at Carleton during the Gould years and remember him fondly when we visit Arches National Park in Utah, which he helped have set aside as a park. We also remember his spring 'emotional control' speech!" Thad, your faithful scribe is too young to remember that speech, so if you could explain a little further I'd appreciate it. Was it anything like the "3-foot rule" I remember from boarding school?

**1952.** **Andrew Scott** writes, "After my cardiac arrest in 1987 I had to retire from Illinois Tool Works but June has made it possible for us to travel and see the world. We have been to Norway, Sweden, Finland, the Soviet Union, Greece, Turkey, Egypt, Japan, and China and this summer we plan on visiting Australia and New Zealand. Life has been very hard but we are survivors." Hope you have a wonderful trip!

**1953.** **Jim Mancuso** sent along a nicely done annual report from his new company, Queenstake Resources Ltd. (Toronto Stock Exchange listed). If the picture on the cover (of Jim and three other geologists) is any indication, he's having a wonderful time. Last year the company successfully raised over \$16 million in equity financing; it now is working on reconnaissance and drilling on several projects in Peru, Mexico and Chile. Good luck with the venture, Jim! **Stan Korfmacher** sends news of a new grandson born in November '96, Matias, the son of his son Karl and daughter-in-law Katrina. Stan is still collecting minerals and invites people to stop by and see his collection. In fact, Stan donated some of the beautiful specimens which were stolen in the burglary in 1994.

**1955.** **Joe Mancuso** writes, "Since I retired I have been having a great time traveling, playing golf, and

teaching one course per year. Last year I went to Spain and Portugal to visit mines and sample their food and wine. This spring I am teaching Economic Geology. We took my annual field trip to the UP of Michigan to see some real rocks and visit the Empire mine and taconite plant."

**1956.** **Richard Buchheit** says "not much is new on the Iron Range - we have the taconite producers pretty well trained!" He visited Bob and Jan Scheevel in Grand Junction, Colorado, last September during a month's vacation in the Four Corners area of the Southwest.

**1958.** **William Hollweg** sends a hello from Midland Texas. He retired from Mobil six years ago, all his kids are grown and on their own and he's enjoying traveling, fishing and golf.

**1959.** It's been a difficult year for **Norris Jones**. He wrote, "My wife, Judy (class of '61), was killed in a car accident December 18, 1997, and I'm chair of the Geology Department at UW-Oshkosh. I'm devastated by the first part of that sentence but trying to show I still have a sense of humor by including the second part with it. I'll survive." We're sad to hear of Judy's death- best wishes from the Carleton Geo folks Norrie. Thanks to Ed Husted for your address update...

**1960.** Thanks to **Michael McLanahan** for your address update...

**1961.** **James Minter** retired in March '97 and now spends half his year traveling, primarily in the winter months staying mostly in Palm Desert and La Jolla, California, and Las Vegas. He owns a house in the village at LaJolla near the beach and soon will be spending half his time there. **Jeff Hanor** was named the 1998 Birdsall-Dreiss Distinguished Lecturer for the Hydrogeology Division of GSA and spent most of late January through early May on the road giving a talk on the "Origin and migration of saline fluids in sedimentary basins". He writes, "The tour has taken me to 28 universities and national labs in (in chronological order) Louisiana, Nevada, Arizona, California, Utah, Texas, North Carolina, Virginia, New Mexico, Texas again (after all, it is a big state), Ohio, Michigan, Kentucky, Wisconsin, and Minnesota. A couple of more stops in the fall, and then I wrap everything up at the GSA Annual Meeting in Toronto. One of the great pleasures of the trip has been seeing old Carleton Geology colleagues and meeting new ones, including (again in chronological order): **Hans Nelson**, **Steve Ingebritsen**, **Gary Ernst**, **Sean McKenna**, **Libby Anthony**, and **Phil Brown**. It was a pleasure to be able to wrap up the Spring Leg of the tour at Carleton in early May, where I got to talk with the faculty and many of the students. It was very satisfying to see in what high regard Carleton Geology graduates are held around the country. Many of my hosts, upon seeing

the brief vitae I gave them for making up their introductions, would remark on the positive impact Carleton graduates have made on our profession, sometimes during the actual introduction itself."

**1962.** **Stephen Johnson** works for a unit of Amoco in Houston doing depth migrations of 3D data from the Gulf of Mexico. "Our group does the hard work of imaging so the geologists can do the easy work of interpreting!" he claims. Right. Anyway the work is done on high powered computer stations using 3 terabyte 3D surveys. **Clark Arnold** sends a hello and says he's in the same place and same business as he has been for the past two decades (an independent geologist), and he's having a good time.

**1963.** A note from **Wendell Duffield** tells that he retired from the USGS in November 1997. He writes, "I was with the USGS for almost 32 years, the one and only employer I've had since getting the old PhD. I maintain what is called a Scientist Emeritus relationship with the Survey, but have moved my office to the Geology Department of Northern Arizona University, here in Flagstaff, where I play the role of Adjunct Professor. Basically what this means is that I give the occasional lecture and serve as a general resource for students, in return for a comfortable office to work out of. And in addition to the above "research" activities, my wife Anne (class of '64) and I have formed a corporation (VGS, Inc.) which is the umbrella under which I do a bit of volcano and geothermal consulting. So, I now have three 'bosses' rather than one, and seem even busier than before retirement. My first 'private industry' product is a book 'Volcanoes of Northern Arizona', published by the Grand Canyon Association. I'm now writing at something whose working title is 'Tales From Kilauea', a collection of rather autobiographical short stories based on experiences from the three years that Anne and I lived in Volcano while I worked at the Hawaiian Volcano Observatory. I have a part-time geothermal consulting job in El Salvador, and several other similar jobs as possibilities for later employment. My advice to my (roughly) age contemporaries: Retire sooner rather than later. There's a lot more interesting things to do, than just the same old thing over and over."

**1964.** **Peter Rowley** "is starting my second year in the blast furnace that is Las Vegas. I transferred down here to co-manage a large project, Las Vegas Urban Corridor/Nevada Test Site project." Another reason for the move was that Peter's fiancée lives there, and they are building a new house a couple hours away in New Harmony, Utah. "That area has four seasons, and I have mapped near there!" Good luck with all the new projects, Pete!

**1965.** Congratulations to **Jan Tullis** who, we understand, has been named this year's Outstanding Educa-

tor by the Association for Women Geoscientists! Good work, Jan!! In other news, Jan says "I will be offering a pre-meeting 'Short Course' at the Toronto GSA meetings together with Christian Teyssier of U Minn., on Deformation Mechanisms and Microstructures. At present I have 2 visitors from Switzerland here in my lab for 6 months working collaboratively with me on an investigation of dynamic recrystallization mechanisms and their microstructural signatures, trying to bridge between experimental and natural studies. Also Cathy Manduca asked me to be on the advisory board for the Keck Geology Consortium, and I am pleased to accept."

**1968.** Susan Hartley has the good news that it "Seems that my son Andrew has decided to join the class of 2002 at Carleton in September! He is interested in biology, natural sciences and environmental studies." Good work Susan, you must have done something right.

**1969.** Bill Henry planned to complete his internship in internal medicine this June and begin residency in radiology at Baptist Hospital in Oklahoma City. But, and maybe at least as important, "I am engaged to be married Nov. 21 to Lt. Col. Linda Shattuck. We plan to sail in our spare time on the Emelander, the family's 39 foot sloop on Lake Michigan." They also had plans for visiting his sons, Will and Chris, in Colorado and Dallas this year. Best wishes on your nuptials, Bill, from the Geo Dept.!

**1971.** Jane Willard was awarded the very first Geologist's License issued by the Minnesota Architects, Engineers, Surveyors, Landscape Architects, Geoscientists, and Interior Designers Board. The Minnesota legislature added geoscientists, comprising geologists and soil scientists, to the board in 1995 and the rules were adopted in 1997.

**1972.** We were saddened in January to learn of the death of Finley Bishop, who passed away early in the morning of January 6 following a long illness. Finley is survived by his wife, Charlotte, their two sons ages 2 and 4, a stepdaughter, his mother and two sisters.

**1973.** Dick Pautsch writes he's "Left the oil business, legal business, California, and the USA and now live in The Hague in the Netherlands, where I'm with the IT subsidiary of Royal Dutch Shell." Dick, would I be right in guessing the IT is Information Technology? Anyway he encourages people to e-mail him at richard.j.pautsch@is.shell.com to get in touch with him. Bruce Nesbitt writes that he "managed to arrange a sabbatical in Austria from January to July 1998. There was suppose to be lots of Austrian skiing, but El Nino wreaked havoc on the winter here as well. My research here is on the analysis of solute chemistry of inclusion fluids in order to better constrain origins and evolution of crustal fluids. But the family and I am also managing to find time to travel. I am usually lecturing somewhere and they go along for the

"cultural experience". So far we have visited Austria, Hungary, Germany, Switzerland, Liechtenstein, Italy, France and Spain and probably one or two more countries before we leave."

**1974.** Joan Gasperow Harn is still working on fish protection and hydropower issues. "Best of all," she says, "we've finally succeeded in getting into the back country of the West without torturing our children and ourselves with heavy backpacks... Llamas!" Joan participated in what was probably the first-ever Farmhouse reunion this June celebrating 20 years of Farmhousedom. A note from Anne Rohsenow Thomas: "The Skidmore junior piano major broke his wrist but luckily just after he had given a complete solo concert. Leave the skateboard to the pre-teens, Noah. Randy (13) is thriving with new schools, reading and drama. Bill's furniture gets more and more elaborate (and paid for, no less!). And I keep sounding out 'stories' with first graders (100+ per day!)." It was great to see Margie Diamond Simpson at reunion; she was one of the participants in the Farmhouse reunion dinner during the alumni reunion on campus in June. Margie wrote by e-mail: "I'm a grandmother! My stepson (and his wife of course) had a baby on January 4, 1998. After 3 generations with a Charles, we now have a female Charleigh (pronounced Charley). Since I skipped a major step in the process, I don't feel nearly old enough to be a grandmother. Chuck and I are working and working on our boat. Three years ago we bought a 46' ketch that was in need of some repair. It turned out to be in need of even more repair than we guessed. So far we have replaced the standing rigging, navigation instruments, radar and the fuel and water tanks; torn out the bulk of the main salon down to the bilge; taken 1/2 ton of junk out of the engine room; started insulating the hull, replacing the hatches and rebuilding the galley and a complete rewire and replumb; upgraded some of the deck hardware, etc. etc. We figure the work is worth the effort as we expect to make the boat our home for a long time. Our plans now call for a 3 month trip to Puget Sound and the inside passage in 1999. When we get back, who knows?" Good luck with it Margie, we hope you have many happy voyages with her! We got a card after the '96 Newsletter was out from Emmy Hoffman Ulmschneider, written while she was teaching and her husband, Rene, was in Russia on a geology expedition. She had just returned from Australia and New Zealand for a three-week tour with People to People. She said, "The girls are growing as is their rock collection!"

**1975.** Jim DuBois sent a card saying, "I spend more time at work playing attorney than I do as hydrologist. I do legislative negotiation, policy and program development, and recharge permitting. Recently, I cut back to 32 hours/week to spend less time in Phoenix and

more with family. Two sons, 13 and 6, offer great challenges and lots of fun. My fly fishing technique is improving." Thanks to **Scott Fischmann** for your address update... **Dave Rogers**, a hydrologist at Los Alamos National Laboratory, is "Still a bachelor in a town full of fellow nerdy scientists! With no kids, hobbies fill my time- skiing, rock climbing, hiking, etc. I can now actually ski big moguls on telemark skis, sometimes; and lead up to 5.7 with only semi-damp underwear. At work we appear to be embarking on several years of significant additional groundwater characterization to evaluate possible extent of impacts from mainly Manhattan Project and early cold war activities here. With a water table depth rang-

Environmental Assistance so I'm guessing the Somalis are living in Minnesota, probably the Twin Cities. Since our last Newsletter **Will Maze** has moved into the petroleum geochemistry section of Exxon Production Research. He says, "Now I can almost say neottorhpane with a straight face!" Will, I apologize if I misspelled that word; I sympathize. My daughter is a biology student and she comes home with words like that too. Anyway Will is having fun sleuthing out circuitous paths between source rocks and reservoirs, and simultaneously watching Houston's residential developers encroaching toward his house (tune in next year to see if anything happened...) **Barbara Wonson-Liukkonen** has relocated to the Twin Cities from Du-



*Barb Rossing '76 and Dan Spencer '79 on the avalanche chute on the Holden Lake Trail in Washington with Dumbell Mountain in the background.*

luth, and is working on the St. Paul Campus coordinating water resources for the Minnesota Extension Service. She says, "After 20 years in Duluth, it's hard to get used to the crowds and traffic, air and light pollution. People here seem to have forgotten they're Minnesotans!" And don't even THINK about the freeways, right, Barb? **Bill Matlack** is now a research analyst in the Mining and Metals Equities Group at the brokerage house Salomon Smith Barney. "In many respects, my Carleton education prepared me well for this career change," he says. Hope the new job is working out well for you, Bill! **Ken Collier** was chief chef at a wonderful picnic on the Farmhouse lawn this June commemorating the 20 years of the Farmhouse being the Farmhouse. There must have been about 50 people there celebrating, counting all

ing from 700 to 1200 ft and complex geology this promises to be a very involved and expensive undertaking. Sadly (for a hydrologist) it's just not as exciting as Hanford or Savannah River, the big manufacturing sites. Education of our state regulators and neighbors regarding the subtleties of hydrology in the invisible subsurface continues as the greatest challenge."  
**1976. Philipp Muessig** says life is good- "My teen and pre-teen are fun, my partner survived a mid-life crisis and now loves her work at a museum, and I still give away money in my job. Recently we funded a cool project long in the making: a straw bale 4-plex with commercial winter rooftop greenhouse for a Somali co-housing group." Phil works for the Minnesota Office of

the spouses and children. Besides Ken's cooking, the attractions included reviewing the leaf tree upstairs and the famous wood block print of the house which has been newly rejuvenated. **Heather Macdonald** has returned to full-time teaching in the Geology Department after several years as an administrator. She writes, "It was both a fun and a challenging experience. I am now a member of the Committee on Undergraduate Science Education (CUSE) of the National Research Council so I get to see Rodger Bybee (who taught at Carleton when I was there) at meetings. He is the Executive Director of the Center for Science, Mathematics, and Engineering Education at the NRC. **Kea**

**Umstadd Duckenfield '91**, a graduate student in Marine Sciences here, taught some of our introductory labs AND participated in Geology Day, where more than 100 elementary school students 'did geology' on campus last spring. It was great to have her." **Jamie Foster's** family has been on the move lately. Jamie says, "We closed the jewelry store last Fall. I took the job of choir director at our church, and began working with/for the California Space and Technology Alliance (CSTA). We still own/operate the Cypress Landing Shops in Pismo Beach, CA. My wife, Lynn, is back in school reviving her teaching credential. Our son, Trevor (18) is in Belarus (April/May, 1998) visiting friends made 2 years ago and honing his Russian skills after doing some summer school at the Monterey Language Institute. He'll be a freshman aerospace engineering student at Cal Poly (San Luis Obispo, CA) this coming Fall. Our daughter, Tracy (16), who's been nannying since their birth the triplets that play Baby Kate on the Dr. Quinn Medicine Woman TV show, will be working at a day care this summer. She's also in her Dad's choir!"

**1977. Eric Simonson** is just back from his sixth Everest expedition, which placed a GPS receiver on the highest rock in the world to measure the movement of the mountain. Neat! He still guiding and traveling the world's peaks from Antarctica to Alaska to Asia. **Bruce K.**

**Nelson** is "continuing having fun studying geochemistry of volcanoes in various parts of the world (that are invariably more sunny than Seattle). I'll spend a few weeks on the Canary Islands this summer, and will also have a chance to get involved in a archeological 'side study' on tracing movements and perhaps diet of the guanches - the first known inhabitants of the islands. The big adventure of the past year was leading a class field trip to Oman to study the best preserved ophiolite on the planet. It's hard to beat an outcrop of oceanic crust plus underlying mantle the size of Rhode Island, all in a setting of fabulous scenery and fascinating culture." Here's a note from **Lynette Gandl**: "I am working for EPA Region 8, and my job title is Region 8 webmaster! I am in the public affairs office and, Yes, I manage the web page. Lots of fun, I get to use and satisfy my artistic drives and my editorial

skills, and also review everything for general technical appropriateness, so I haven't left science completely behind. Everyone thinks I'm a computer expert however, which is a hoot! Continuing to collect Belgian Shepherd dogs, we do sheep herding and lots of other sports. Living in the mountains outside Denver."

**1978. Lona Sepessy** and **Scott Jameison '78** send greetings from their family of two kids, Claire, 5 and Whitaker 3. She said, "Two kids, new house, gardening, volunteering at kids' schools, co-op board and church council have kept me quite busy this year. We still spend summers on Lopez Island in the San Juan Islands and are proud of the 14,000 sq. ft. garden/orchard we fenced in last summer." This summer's project is a new rainwater irrigation system and putting around in the **Hunky Dory**. **Craig Banister** "ended up working a lot of extra hours last year and didn't go on any big trips. I still made it home to my family farm in



*Alex, 4, and Claire, 7, children of Laura Nadelhoffer '78 and Vladimir Seizovic. Laura works in Citibank's North American Marketing effort.*

Minnesota in the spring for planting and in the fall for the harvest. It was good to help out during those busy seasons." **Janet Thigpen** sent a hello- thanks for your address update, Janet. **Steve Ingebritsen** has been promoted to Chief of Research Branch of the Water Resources Division, Western Region of the USGS. Good work Steve! Steve also has a new textbook published by Cambridge University Press entitled "Groundwater in Geologic Processes." **Zach Wilson** was here for reunion this year and seemed to have a good time. He wrote on his card, "Lots of travel this past year on business and pleasure to Germany, France, England, Hun-

gary, Japan, Taiwan, Hong Kong, Singapore, Brazil, Argentina and Chile. Looking forward to visiting that most exotic of locales - Northfield, Minnesota - for the 20th reunion." This reporter caught up with him at a reception in the Myers lobby! Mail is slow between Northfield and Paris, but we can say for sure that a couple of years ago **Brooks Wallin** had just started a new job in business development for TOTAL, a French oil company. His three children had recently entered a bilingual school.

**1979.** From **Dave Tolley** "After 17 years with Phillips Petroleum, I mustered the strength to break the 'golden handcuffs' and pursue an opportunity with significantly more potential. As the manager of our Information Security Department, my task is to develop and implement a corporate-wide information security program by developing policies, raising em-

ployees' awareness of issues like viruses, passwords and espionage and conducting risk analyses. It's a far cry from geology but my knowledge of geology is a major reason I'm still employed in the oil industry." **Dan Spencer** last summer "spent six weeks south of the border on an NEH-sponsored program, 'The Maya World in Guatemala, Chiapas, and Yucatan'--a fascinating immersion into ancient Maya civilization and contemporary Maya culture and religion. As of May, 1998 I am finishing my 5th year teaching Religion, Theology and Ethics at Drake University in Des Moines. A highlight of the year was teaching a course in the Fall: 'Greening the Drake Campus: Ecological Ethics Locally and Globally' where we used the Drake Campus as our 'ecological laboratory.' The students designed several studies and projects to make Drake a more environmentally sustainable place in terms of energy use, water, food, the urban environment, etc. Several of the projects are now being implemented. I also continue in the ordination process in the United Church of Christ. My candidacy was recently approved in an 'Ecclesiastical Council' and in October I'll be officially ordained to a Ministry of Teaching shared between the UCC and Drake. Summer plans include a first-time trip to Israel and the annual trip west to spend time with family, friends, and mountains. Nothing new on the relationship front, but hope springs eternal! Hope all is well with everyone in the Geo Network!" Dan modestly didn't mention that he was named Teacher Of The Year at Drake this spring - Good work Dan!! During the last year **Robb Jacobson** transferred from the Water Resources Division, USGS, to the Biological Resources Division, USGS. He says, "This is my third Division in the USGS, indicating that I am either extremely flexible or extremely difficult to work with. We moved from Rolla, Missouri to Columbia, a distance of only 99 miles, but the route traversed some very steep social gradients: in sum, Columbia is a very sweet, stimulating, and liberating place to live. Our kids (Sarah 7, Alex 6) have adapted well to suburbia. Anne is working on community gardening and improving our own feng shui. I am continuing to work on basic and applied research on Ozarks streams. Recently, I hired **Maria Panfil '93** as a very capable assistant to maintain our monitoring network and develop hydraulic habitat models for our intensively studied reaches. We are also trying to expand our understanding to scales directly applicable to land-use management issues in the Ozarks: lead mining, chip mills, cattle grazing, and confined animal feed operations. My new position is focussed on the Missouri River. I coordinate

(in theory) an interdisciplinary group of physical and biological scientists investigating habitat dynamics and habitat restoration strategies. Missouri River management is highly politicized; we are trying to provide the scientific basis for defining common ground among the competing factions." **Tillman Farley** reports that "Audrey, Rebecca, Ben, Brianna, and I are doing well. We have left the wilds of far west Texas and are now living back in Colorado. I am the medical director of a migrant and community health center and Audrey runs our Women's Clinic. I get lots of opportunity to practice my Spanish, and I do LOTS of obstetrics. The kids are growing fast (we now have a teenager!) and keep us busy and challenged. We are enjoying ourselves." An old card from **Steve Nagel** reports that he had been transferred by Amoco for several years in London.



*Holly, 3, and Wilder, 1, children of Marie Del Toro '79 and her husband, Bradley, navigating the sea of life in a laundry basket.*

**1980.** For the record in case anyone isn't already aware, we were deeply saddened in January 1997 when we learned that **Max Lyon** and two friends had been killed in an avalanche in Utah while they were winter camping. Max will always be remembered by his classmates and mentors as a person of huge energy and enthusiasm, and a wonderful teacher. We will always remember Max with fondness. **Steve Miller** has been getting exercise as the father of a one-year old boy, Stuart, and playing indoor soccer for the Screaming Philistines(!). His family is planning to move to Australia in September, so Steve please send us an update next year telling all about it! **Glenn Lee** was back on campus this June to be in the band for the reunion square/contra dance of the ages. Glenn, thanks for coming out for the dance, it was excellent! Glenn's Newsletter card says he's got a "new job (at NSF International, a non-profit public health company),

new girlfriend, new waistline (lost 30 lbs.), new address (in Toledo, Ohio), several new musical instruments including a button accordion. Getting ready for the new millennium, I guess." **Elizabeth Huntley Hughes** writes, "1997 was a tough year. My companion of many years, Rod Heller, died of cancer in August. The kids and I miss him very much. I restarted my business, Hughes Environmental Consultants, in February and am working from a home office. Kat, 14, and Will, 12, are going great. I enjoy having more time at home with them. All Carls are welcomed to visit." Sorry to hear that sad news, Libba. Hope things are going better now. **Reid Fisher** is still at the same old salt mine (Harlan Tait Associates in San Francisco), but he says he's had lots of landslides from El Nino rains to study. He's also quit the electric country music scene for the more mellow acoustic country and bluegrass and is having a blast. [Reid, this square dance thing at alumni reunions might just continue for a while, so if it looks like you could be attending a reunion be sure to give me a heads up so you can be in the band! Tim] When he wrote, **Mark Timmerman** had "just returned from a terrific spring break 'reunion.' Mark, **Jean Buchanan**, **Scott Tice** (almost '80), and **Mindy Bell** traveled together to the Gila Wilderness in New Mexico as we all turned 40! Our kids all joined and out hiked us." **Fred Seymour**, the Director of Technical and Scientific Systems for Newmont Gold, says "The price of gold is down so we are focusing on streamlining operations and increasing efficiencies; busier than ever." He reports that Marggi is back in school studying to be a French teacher; Mary, 14, starts high school next year ("scary!"); Jeff, 11, plays competitive soccer; and Anna, 8, has lots of friends and likes to draw. **Mindy Bell** writes that she and her 6-year old daughter Lindsey got together over Spring break for a 20-year reunion hiking trip in the Gila Wilderness Area of southern New Mexico with **Mark** and **Peggy Timmerman** (and their two daughters) and **Scott Tice** and **Jean Buchanan** (and their two sons). Having ten people stuffed into a Mini Winnebago was just part of the fun. Mindy's husband Darrell Kaufman has a new joint-position with both the Environmental Studies and the Geology Departments at Northern Arizona University in Flagstaff. (He is always looking for top-notch graduate students in Quaternary Geology!) Mindy is hoping to find a biology teaching job in the area high schools. Lindsey will be in first grade and keeps us hopping! **Ed Secor** sent us a nice gift, a group of mineral and ore samples this spring- Thanks Ed! They'll be useful additions to our collections of lab specimens. Congratulations and a big high-five to **John Goodge** who is now an Associate Professor of Geology at Southern Methodist University in Texas. He notes, however, "As usual, Vicki is still one notch

above and, being older, she gets to retire sooner! Now that I'm officially deadwood, I'm spending more time biking, brewing beer and playing catch with the kids. Quote of the year from Berit (4) to win a recent debate: 'The truth is not extinct.' Not extinct- just rarely observed!" I know how it feels, John, I lose debates with my kids all the time. It gets worse as they get older and more articulate and my own brain grows more cobwebs.

**1981. Jeff Mow** is "still moving south, this time to the warmer climes of Fairbanks, Alaska. Amy and I are pleased to announce the arrival of our son Peter last Easter Sunday," for which the Geology Department sends congratulations to Jeff and Amy and a welcome to Peter! **John Hankins** carries on the crime-fighting tradition of the Carleton Geology Department in distant corners of the nation: "In October I interrupted a burglary in progress at my house. I yelled 'Halt, I'm a geologist,' which resulted in the capture of one of the perpetrators. The guilty party is now using a rock pick courtesy of the state's correctional system." Go John! From **Cathy Villas-Horns**: "We had our second girl four months ago- she's a real sweetie. We're also having lots of fun with our 3 and a half year old daughter who is presently in a dinosaur phase. Why didn't they have dinosaurs when we were kids?!? We hope to do some camping this summer, including a trip to the Boundary Waters Canoe Area with the older daughter- no diapers! Work is going well; environmental work is rarely boring or redundant." **Becky Craven** and **Scott Linneman** had their second child, Dorothy Craven Linneman on May 3, 1997. Becky says, "We call her Dory. She's now walking and is more often referred to as Captain Destructo. I quit my full time job when Dory was born and have been home with Charlie (almost 4) and Dory for the last year, although I do a few hours of consulting now and then. We're broke, but we couldn't maintain sanity and keep up both jobs with two little kids. It surprised even me to learn that I love being an at-home mom. We visited with **Chris** and **Lucy Hinze** in February in Cascade, and see **Eric Larson** fairly frequently, since he has been finishing up a BS in Nursing in the same building as Scott's office. Scott was awarded the H.L. Talkington award for 1997-1998 by the College - the top teaching award for the school, nominated and selected by his colleagues. He's now working with several colleagues to revise the science curriculum for elementary education majors." **Jan Pohl Bronson** sent a card that didn't make the last newsletter saying she was working part time for the Anchorage School District's elementary science program, and she and her husband Mike were taking conversational Mandarin in preparation for adopting a daughter from China. She said, "We haven't yet learned the Chinese for 'plate tectonics' or



'let's toddle over to that outcrop, though." Another card that just missed the last newsletter was from **Gary Walvatne** who also was making preparations to adopt a daughter from China, but at the time of writing they were still in the assignment stage of the process. Gary and Cindy had just bought a 70-year old house. Mary Savina visited their house during last fall's GSA meeting and did meet the new family member. Another person with a new house was **Brian Leonard** who had been admitted to practice law in Washington and Oregon; his house was in Vancouver, WA.

**1982.** **Ethan Bleifuss** writes he's still teaching earth science in Minneapolis and "occasionally ventures out into the wilds and semi-wilds. Most recently canoeing on the Eleven Point River in the Missouri Ozarks." Pretty country down there, isn't it Ethan. **Lisa Wehmeyer Ryan** divides her energy between raising her two children, ages four and seven, and being a computer support geologist in the Far East Exploration Group at Exxon Exploration Co. She says, "I'm still doing GIS and Arc/Info but have been expanding my horizons (so to speak) into subsurface mapping, well logs, and some of the 3-D seismic tools." Lisa also said she sometimes runs into the other Carleton folks at Exxon, Carolyn White '84, Christine Rossen '82 and Will Maze '76. **Pete Wiegand** writes, "I switched from the engineering world into the accounting world last fall. It has been a positive change - new challenges and opportunities. " Pete's firm does business in all areas of accounting. Pete said he also recently completed his PADI diver certification in Cozumel, Mexico. **Heidi Bredenbeck Wells** says "Life here continues to be crazy and challenging. Our second baby is due in early June - no doubt we have no idea what we are getting ourselves into. Our book business is in its 3rd year and is going gangbusters with a few bumps. We are distributing bargain computer books to almost all the major chain bookstores and are weathering industry ups and downs. I never thought I would enjoy owning my own business but it is much more rewarding than running someone else's operation. We have 20 employees now and 50,000 square feet of warehouse space. We occasionally catch up with **Elliot Bruhl**. He and his family will be moving to Alaska in the summer. We also do outings once in a while to the zoo with **Ed Secor** and his son Daniel who is almost exactly the same age as our son, Dylan. So between the business and family we have almost no time to ponder the wonders of life and the universe. We still love visitors and have lots of space both here in Denver and up at our mountain house." By this time, Heidi, we should be welcoming your new child into the world- hope everything went smoothly with the birth! **Lisanne Percy** writes, "After publishing Central Oregon Green Pages for the last 3 years (a regional magazine promoting environ-

mentally friendly, healthful, and socially responsible lifestyles) I am selling the business and moving back across the Cascades to the WET side of Oregon. I love Bend, but my fiancée and computer wizard, Jason Brown, has a great job with Hewlett-Packard in Corvallis, Oregon, and he is tired of the 3-hour commute. I don't blame him! We plan to settle in Corvallis (my hometown), at least for the next couple of years. Meanwhile, my health is holding pretty steady -- I'm still dealing with food allergies and chronic fatigue syndrome. Jason and I have been living together in Bend for the last year and plan to get married sometime in 1999. My longtime friend and companion since Carleton graduation, Austy the Australian Shepherd, died of cancer just a month shy of her 14th birthday last summer. Although my physical address and business e-mail address will change soon, I will still receive e-mail at: [lisanne@bendtech.com](mailto:lisanne@bendtech.com)." Congratulations to **Pete Whiting** on his new daughter, Emma Abigail Whiting, who was born in July 1997. Pete reports, "she is healthy and happy like her older (three and a half) brother Zachariah. Mom Cindy has cut back to 75 percent in her practice and I try to get home early so we spend time with the young ones. I was awarded tenure this spring which feels good. The other big news is that Starbucks is now a 7 minute walk from my door. What with the Swiss bakery, the ice cream parlor, the bagel shoppe, Russo's Old time grocery, the bookstore and wine emporium within a block of Starbucks, we may never leave Cleveland!"

**1983.** From **Tom Baring**: "I moved to Alaska and got married. Still trying to catch my balance, but life is good." Best wishes with both new adventures, Tom! **Laura Ferguson Jacobson** says they are still enjoying being in Ohio but they plan to move to Indianapolis during July of '99. Good luck with the move, Laura! **Kathleen Duffy Carmona** has been taking classes in summer school, and they plus her two boys ages 2 and 5 are keeping her moving. "I think I'm in a rut. This will be my 14th year in the same classroom. It's never boring, though." **Jeff Pipes** took all the money he made from selling his old car to **Prof. Clint Cowan** and Jeff and Florence bought a farm they have converted into a vineyard and winery. Jeff writes, "Florence and I are progressing in planting the vineyard and opening our winery. We will plant 7000 little vines in June, all Rhone grapes like Syrah. We hope to have the winery open next spring. All are welcome to come visit and taste the wine, see the sea lions and butterflies, and enjoy the beautiful central California coast!" You can see a preview of the scene on Jeff's web page, which is linked from the Carleton Geo website. **Tom Ferris** reports that he has moved back to the Twin Cities from Louisville. He's now a pilot for UPS, which I believe is the nation's third largest airline(!). **Brian Leonard**



At left in the upper picture, Seth and Ruby (twins now approaching two years old) and Kinchen keep Ruth McDonald and Dan Packer on their toes (or on the run?). In a letter last year Ruth said Dan was still teaching history at Albuquerque Academy and Ruth was doing some part-time computer programming at home in addition to herding the three kids around.

The lower picture shows Grace, Jeff Pipes' and Florence's daughter, in the new vineyard Jeff planted this spring.

Jeff wrote, "I installed a mile of 6-1/2 foot high deer fence around the vineyard and orchard, plowed, surveyed, trenched several thousand feet, installed underground lines for 7 miles of drip hose with 6000 drip emitters; marked each of 6000 plant locations with plastic picnic knives; and with the help of about a dozen guys, planted all the plants, staked them, and put a plastic grow tube around each one. The field now looks like I am growing orange plastic tubes instead of grapes!!!!

"I planted Rhone grapes (from the Rhone Valley in southern France). They are: 2 clones of Syrah (one French and one Australian), Mourvedre, Viognier, and Grenache. I will be able to make a killer Syrah, a rose, a killer Grenache, a southern Rhone blend (Chateau nuf du Pape), and a Viognier (a rare white that was Thomas Jefferson's favorite wine). People say that Syrah is the next Merlot. I hope so!

"The Chardonnay I made last year is still in the barn aging in a French oak barrel. I will bottle it in early August, after a year in the barrel. It is tasting really nice, complex, toasty, with lots of fruit still noticeable. My Zinfandel is killer! Really dense and chewy, as they say. I am hopeful we will get our official winery license sometime before Christmas."

Good luck with it, Jeff!



was looking forward to a fishing trip with **Tom Ferris** this summer when he wrote. Brian's wife Betsy finished her master in counseling psychology last December, his son Charlie is about to start kindergarten, and his daughter Celeste is now three years old. Brian reports they are enjoying the Northwest (Vancouver, WA) and even the long rainy season is OK. **Amy Zacheis** is a mother! Her new daughter is a girl, Hayley Kirkpatrick Zacheis, born Feb. 2. Amy says "She's wonderful and a lot of fun. I don't know what we did without her!" Amy added she's aiming to have her PhD in biology completed early in the next century. Another baby girl was born the next day to **Steve Sutton** and Ute; she is Mathilda Wittorf Sutton, born Feb. 3. Welcome to both new people! **Bruce Pfaff** writes, "We're still happily living in the Bay Area and now have 2 boys - Brian (3) and Justin (6 mos.). Needless to say, life's a little crazy, but we wouldn't

have it any other way. For the last couple of years, I've been a manager of international marketing and business development at Chiron, a biotech firm.

Quite a change from geology, but I'm really enjoying it." Thanks to **Matt Masotti** for your hello and address update...

**Steve Robertson** sends word that "Life these days circles around my

kids' activities, and right now I feel a little like a soccer dad, with soccer activities three evenings a week after work. The little time I parse out for myself is increasingly used for bicycling. Changed jobs in February and now work for the good people of Minnesota on wellhead protection projects for the Minnesota Department of Health. So far it's been great!" Meg is a librarian for a city library on the north side of the cities, and one night spotted me (Tim Vick) reading magazines in the library while I waited for my daughter Laura's orchestra rehearsal to be over (I'm an orchestra dad). Could'a knocked me over with a feather! Congratulations to the proud parents and welcome to the new daughter Jordan Maurice, born last Sept. 19 to **Ben McLuckie** and Stephenne Harold; Ben says, "What a great experience! Otherwise, I'm still a high school science teacher in Hoonah, Alaska, still

skiing, fiddling, biking, kayaking (but now with Jordan), still president of our local Internet Service Provider, still happily married to Stephenne Harold." **Sharon Anderson** was tenured (good work!) at Michigan State University, but then got a new job in the Earth Systems Science and Policy Department at Cal State Monterey Bay, which is much closer to Ernesto's field area in Mexico. Hope the new environment is working out well, Sharon. **Tim Cowdery** is a hydrologist for the USGS in the Windom, Minnesota, area, modeling ground water flow in a glacial outwash alluvial aquifer along the Des Moines River. He writes, "It's nice to be out of report-writing purgatory," and he added, "I'm looking forward to lots of camping this summer with my sweetheart Jo and daughter Charlotte."

**1984. Carolyn White** writes she's "chasing around our two-year old, Jasper... working part time... trying

to beat the heat in Houston and working on plans for a garage addition for our house... Looking forward to a trip to the U.P. (Michigan) for the month of July." And Carolyn knows that if the weather is hot in the U.P., Lake Superior is just a short butt-freezing jump away. **Elliot Bruhl** has accepted a job with the Indian Health Service in Sitka, Alaska, and planned to move there this summer. The report from home is,



Laura Ferguson '83 Jacobson's family: (from left) Paul, Peter, 2, Karl, 4, Alan, 6, and Laura.

"Gus is four and enjoys preschool; he would like to be a 'sedi-knight' when he grows up (what major is that?!) Emma is 1 and a half and has decided she is in charge. Sara is doing great. Reggie is having problems with hair balls this spring and threw up 3 partially digested mice this week." But at least there's good evidence that she's well fed. News from **Jay Jackson** and **Barb Waugh** is that Exxon transferred Jay to the Melbourne office in September for a three year assignment in exploration (he was formerly at the research lab). Jay says "I'll be working exploration in the Papua New Guinea thrust belt, an area with both fascinating geology and a very interesting culture, especially in the native villages of the highlands where we do much of our work. I'll do most of my work from Melbourne, but will visit New Guinea from time to time; I'm hoping to make my first trip to the Highlands next



A new addition to Julie Chen's '84 family is Ranya, born last year. In this picture she's being held by her older sister, Sana. Julie writes, "She's as wonderful as the first but having two has made life much more complicated."

month. Barb is taking a break from teaching in order to stay home with Eleanor. Fortunately, Barb and Eleanor have found lots of play groups and friends to keep them very busy and happy during our first few months here." After returning from a visiting scientist position in France, Mark Gordon "settled back into Houston and looked for a permanent job for too many months. Last August, I started working for GX Technology, a small company that sells software and services to the oil industry. The work has been interesting and I

have been busy. On the personal side, I am planning to get married this summer to Cecilia Pall who I met in Paris."

**1985.** Bill Dewey was planning his wedding ("getting hitched!!") on May 23 when he wrote his card- Bill, congratulations and we hope it went off without (or with?) a hitch! Bill said quite a few fellow geoids from '85 would be there... **Bret Berglund** is "Working for an Alaska Native owned company specializing in environmental remediation/restoration. Mainly cleaning up former military and oil and gas facilities out in the middle of nowhere. Sometimes, I feel more like a trash man than scientist. Recovered and recycled over 35,000 drums along one spot on the Yukon River and another 10,000 drums on an island in the Beaufort Sea. Incidentally, drums are called 'tundra flowers' in Alaska dialect. We are all hoping for a warm El Nino summer up here, we love global warming!" **Jon Parshall** and Margaret have a new son whom we welcome warmly, Derek Adam Parshall, born last November 9. "Anna is now three, and just a great little girl. I left Deloitte & Touche last year to go to work for **Dan McCreary's** (Class of '82) company Integrity Solutions (which was recently bought out and now is called KeyTech) as their Marketing Manager. We build high-end websites and applications for people. Great company, good fun, and a very laid back atmosphere." Jon says Margaret is working at home a few hours a week, but most of her energy is going into being a mom. **Jerry Carlson** writes that "Life's been really busy over the last year or so. On the job front, I'm still working for Ethyl Corporation. Last fall, however, a desired promotion led to an unsuspected transfer to the Detroit area in January, '98. I'm now working in Ethyl's Southfield, MI office as (deep breath) a Senior Technical Liaison Representative. That means I spend my days calling on the auto makers on all things related to automatic transmission fluids. Great job, but sadly, I haven't held a Brunton in 13 years. On the home front, the family relocated with me from Virginia (good thing!) and has been working hard to readjust to winters in the Midwest. Little Jerry is 7 now and Jennifer is 4. Went to Jerry's 1st grade open house last week and they had a rock station set up in his classroom. Couldn't resist trying to teach him a little geology. He thought the pumice samples were cool, but walked away when I began pointing out orthoclase feldspar crystals. Oh well,



Celebrants in Chris Smith and Mike Siddoway's wedding in May '96 included John Dunn, Christine Massey '85, Norm Brown, the groom and bride themselves, Karleanne Rogers Currie, Barb Waugh '85 and Jay Jackson. Mark Gonzalez '83 and Tim Kruse also were there but missed the picture (all Carls class of '84 except as noted).

Mary Savina I'm not." **Laura Runkle** writes, "I'm writing this as Libby (Elizabeth Alma Miller, born 6-13-97) is asleep, and Sam, our 5-year-old is reading. I'm working part-time teaching community education classes at Kirkwood Community College here in Cedar Rapids, Iowa. Sam and Libby take most of my time, along with some writing and consulting (computer, not geology, alas!) If any geoids come down to look at the washout from the Coralville Dam (great new exposures of Devonian strata from the flood of '93) have them give us a ring." **Maria Peterson** is "still working in the semiconductor industry as an R&D chemist, and loving it. Lots of product development (lab work), customer visits (field trips), presentations and papers makes it seem a lot like grad school, but the pay is a lot better. There are plenty of similarities between surface geochemistry (my grad school work) and wafer polishing and cleaning (my current work) so I would say my geology background is being put to good use." **Mike O'Connell** and family are drying out after a wet El Nino winter in Mission Viejo, California. A rare chance to see (and experience) large-scale surficial landform processes at work! Mike continues to find fulfillment as director of regional conservation planning for The Nature Conservancy of California. His second book, "The Science of Conservation Planning" was published by Island Press last October. (You can see a preview of the book by going to Mike's web page link from the Geo Dept. web page). **Brad Werrell** passed through town this spring... he's doing medical school at the University of Health Science College of Osteopathic Medicine. "I am a first year student, and I am working my ion channels to their maximum," he said. **Kris Grady Mitchell** sends a hello and writes, "Dale is still employed as Computer Master for the Physics Department at Ohio University. Benjamin is a busy three year old. Most of my time is involved with keeping Ben happy."

**1986.** **Andrew Graham** says "We put several thousand miles on the baby stroller in the last two years: moving from Minneapolis to Boston and then to the West Coast. We have settled permanently (we hope!) in Olympia, Washington. The preschool curriculum in geology is very advanced here: my 5-year old knows about trilobites, plate tectonics and pyroclastic flows!" From **Craig McCaa**: "In June I'm leaving Alaska for a Peace Corps stint in Ukraine. Soon I'll be able to say I've lived near both Chernobyl and Three Mile Island! I'm excited about a new adventure and a change of pace, but I'm also a little sad to leave Alaska, which feels like home now. I'm spending my last two days at work teaching 6th graders to pan for gold." Good luck in your new travels, Craig! **Susan Baxter** and **Stu Grubb** are raising two kids (Muriel and Micah), 13 chickens and one dog. Susan says, "The

chickens keep us well stocked with fresh eggs, so friends are encouraged to stop in for omelets, quiche or French toast." Susan has changed employers after seven years at her old job, and now is a project manager for West Central Environmental Consultants. Stu is still a senior hydrogeologist for HDR Engineering. **Christine Massey** is still directing K-12 summer science programs, teaching an occasional Introductory Geology course at the University of Vermont, and traveling the globe in the name of geology. "I've been witnessing a steady flux of Carleton Geo alums towards Burlington these days... must be something in the water!" From **Sean McKenna**: "We have been enjoying camping excursions around New Mexico, Karen and I became soccer parents when Libby started playing on a team for four-



*Barb Waugh '85 is taking a break from teaching in order to stay home with Eleanor.*

year olds last fall, Kyle is enjoying preschool and swimming lessons, my work days are spent modeling flow and transport through fractured rocks at various nuclear waste repositories, and I put together and taught a geostatistics short course at last years GSA meeting in Salt Lake. For summer fun, we are trying to tame the plants in our new yard. Had a few Carleton alums visit in the past few months: **Jeff Hanor '61** came and gave his Birdsall-Dreiss lecture at Sandia and **Christine Massey '86** and Paul Bierman were in town a few weeks ago using Albuquerque as a base for some field work." **Mary-Russell Roberson** has moved to Atlanta, where Mark is at Emory to become a physician assistant. She says, "Susannah is busy learning to swim, read and dance. I'm still working part-time as a

freelance science writer. My next adventure is writing an audio script for a self-guided tour at the zoo in Tulsa. Also planning another geology lab book, this time one that can be used on any college campus. In Atlanta, I've enjoyed getting to know **Mindy McGovern**, who graduated from Carleton in the late 70s or early 80s and helped start the natural history concentration." **Tom McCabe** and **Bonnie Wong** skied their way through last winter, skiing every day and working at Goldminer's Daughter Lodge in Alta, Utah. Bonnie, it was nice to see you again at reunion this June! **Let the record show** that on March 25, 1997, the Geology Department received a letter postmarked San Francisco, March 19, 1997, containing the following note: "Hi everybody- The rocks and birds and sand and stars and everything are really very cool here. I don't have a postcard but I wanted to check out Ecuador's oldest mail system- leave mail in a barrel on Floreanna Island with no postage and it's supposed to get to a worldwide destination anyway. Love and Pahoy-hoy, Bonnie Wong." Bonnie had put the note in the barrel in June of 1996 so it only took nine months to get here, not too bad for a long distance in a corked, floating bottle. By the way, when it arrived here it did have an American "Terry and the Pirates" 32 cent stamp on it.

**1987. Kristin Hazard** says she's "happily practicing appellate and health care law. I enjoyed seeing Lisa, Mike and Jeff at reunion [must be last year's]. Give me a ring if you are in Portland. I'd love to catch up, especially with you Death Valley alums out there." **Chris Carlson** is "spending the majority of my time at work on the review of a major metallic mine proposed for the Canadian Shield in northeastern Wisconsin. The project is both technically complex and highly politically charged. The permitting process has been underway since January of 1994 and likely will not result in a decision until 2000 or 2001. In my spare time I dabble in more geology as I try to complete my dissertation on the migration of septic effluent in the Indiana Dunes. I am still managing to spend important time in the out-of-doors recharging my batteries. In the last year I have been to British Columbia, Alaska, Montana, Idaho, Wyoming, southwest Texas, and the Boundary Waters of northern Minnesota. Life without mountains, lakes and streams would have little meaning."

**1988. Peter Sauer** finished up grad school in Boulder and is now a post-doctoral fellow at the Woods Hole Oceanographic Institution in Massachusetts. He says, "It's great to be in a new place with new challenges, and I love living with a dock in my front yard. Much as I love the people here, I miss non-oceanographers, so drop on by anytime." **Carolyn Carr** and **Jonathan** have bought a house in South Minneapolis, and Carolyn is "busy tearing out lawn and planting

native prairie and woodland plants." On the side she's also Program Co-Manager for the Sustainable Resources Center of the Urban Lands Program and all-around good person. :-) **Liz Leibold Schnackenberg** is making her debut here in our annals, welcome Liz! She is now a hydrologist for the US Forest Service working on the Routt National Forest in Colorado. Her area "Recently experienced a 13,000 acre blow down event and we are now working on management strategies. I have also been enjoying playing hockey with Steamboat Springs' Chix With Stix women's hockey team." A note from **Carmen Curtis Basham** says, "Mark and I are very excited to be back in Colorado. Not that we did not have great times in Boston or Rochester, but Colorado feels like home. So we bought a house and have had a great season of skiing, snow shoeing and camping. We are also working now [she's teaching math and science at Columbia Middle School] and I love my teaching."

**1989. Bill Dinklage** has finished his PhD and is teaching at community colleges and looking for a full-time teaching position. "I've realized that it's going to be hard to leave Santa Barbara," he says. Good luck in your search, Bill. The right job will make the move much easier! From **Kim Hannula**: "I think I'm becoming a grownup- I bought a house two and a half years ago, and now I'm getting married May 23 to Jay Swan (we've been living together for the last 7 years). And we've got a cat." Well, the cat settles it. Best wishes for a long, happy life together Kim! **Ben Edwards** has three big news items: 1.) November 3 1997 we added another family member, Kaelan Dorothy Felknor-Edwards 2.) End of November I officially graduated from U.B.C. with a Doctorate 3.) This fall I am joining the faculty at Grand Valley (Michigan) State University as an Assistant Professor. Ben says, "I am currently finishing up work at the Geological Survey of Canada and a post-doc at UBC, and packing my bags. Kim has been on maternity leave from Canamera Geological (a diamond exploration company) since late October, and is now supervising packing, cleaning, moving, Teagan and Kaelan, and most of the other important things in our life. We're all looking forward to being back in the mid-West (or is Michigan the mid-East?) and seeing more of our friends from that half of the continent." Great news from **Hilary Liller Ward**: "At 10:30 p.m. on June 10th we became proud parents of a baby boy, Benjamin Lawson Ward. He was 7 pounds 9 1/2 ounces and 21" long (for people who get excited about knowing such things). I am just home from the hospital and still moving a little slowly but doing better everyday (the birth was ultimately an emergency c-section after a rather scary labor, which the doctors and us decided it would be best to end for fear that something was not going right...it is sort of a long and harrowing tale).

Anyway we are all fine and happy now!" Welcome Benjamin! After some years as a sailor, **Karen Merritt** has been spending more time on shore these days. She says she's "working two jobs, both with a 'small j.' I'm the one-woman bakery at a local cafe, baking all fresh, mostly organic, breads and pastries. I'm doing it all by hand, no mixers or anything, which makes the whole enterprise quiet and satisfying. But the main thing I'm doing now is taking a writing class through Vermont College. They offer

'classroom without walls' programs in which you interact with a chosen professor mostly through mailed material and on-line. I found this last fall and it has been wonderful to just be involved with thinking, writing, reading. I feel like it has opened the world wide again from this little corner of Maine. I'm starting to think about school again-doing a math degree with some promising possibilities for teaching in these kinds of programs. I hesitate for several reasons including my natural antipathy toward being back in classrooms, but am intrigued by getting involved in 'alternative' teaching scenarios." Good luck with everything Karen- keep us posted as things progress.

**1990.** Hi to **Betsy Hunt** up there in Vermont from Tim. Thanks for your address update, Betsy. **Rebecca Arenson** is just done with her first year of an MS in Marine Science, focusing on wetlands, at the College of William and Mary in Virginia. "I'm really enjoying school, though probably have vitamin D deficiency from being inside too much in these final weeks. Have a new kitten named Cascade and getting into the local contra dance scene." Rebecca was also planning a trip to Alaska to see her parents this summer. Congratulations to **Andy Garrett** who has finished his medical school at Dartmouth! When he wrote he was planning a cross country "easy rider" trip to California in May and then starting a 3-year stint in Philadelphia. **Anna Bandick** writes, "I'm living in So Cal now, somewhere I never really thought I would end up. I moved down a year ago after I finished my master's in soil science at Oregon State. I've gone from rocks, to dirt, and now to water. I'm the manager of analytical services for Argo Scientific, a BetzDearborn Co. I'm having great fun



*Hilary Liller 89 with Karina and James Ward in their field; the corn crop belongs to a neighbor.*

with the job. We're technical support for reverse osmosis systems. The lab mostly analyzes water samples and identifies foulants." Anna says she's enjoying the desert a lot too, getting out to see the flowers and do some rock climbing. **Sharon Stern's** recent job teaching high school math and chemistry has ended, and as of June she was looking for a job or possibly moving to Madison- who knows? Not all plans can be cast in concrete all the time! Well Sharon, no doubt something will work out- let us know when it

happens! **John Ostergren** sent a card for the last Newsletter saying he'd been admitted as a PhD candidate at Stanford. His research area is lead speciation in mine wastes and related model systems. **Andrea Earley** was back on campus in June for a great alumni reunion square/contra dance. Thanks for the music Andrea- it was wonderful!

**1991.** **Eric Baer** has moved to Des Moines. What, no volcanoes in Iowa?? Well, rest easy, it's Des Moines, Washington! He writes, "I began a tenure track job teaching geology at Highline Community College this year. This summer I hope to take a class on a field trip to the Colorado Plateau for three weeks!" Eric if we know you it will be a great trip. **Jenny Nigrini** is "Just finishing up my second year here at Boise State University and loving it. Never thought I would be singing the praises of Boise, but I am. Lots of outdoor stuff to do here and I'm enjoying my job too! Last summer I spent 6 weeks in Ladakh, India and Nepal. Incredible! Every Geo. major should check out the Tibetan Plateau and Ladakh is way cheaper than Tibet. Hiked a lot, learned a lot, and managed to walk over a pass 18,000 feet up in the air without coughing up a lung (although it was close)." New arrival Jack Duckenfield was born to **Kea Umstadd** on June 4. He weighed in at 7 lbs. 7 oz. and was 20 inches long. Congratulations to Kea and Paul, and welcome to the world Jack! **Catherine Inman** sent a card from Nepal which didn't make the last Newsletter saying she had extended her Peace Corps work for another year. She was doing a lot of teaching about basic sanitation and health skills. She said, "Conditions are pretty primitive, and I'm sticking with basics- the "latrine queen." But she said she had

good friends, beautiful scenery, a crazy job and lots of exercise.

**1992.** **Sean Kempke** is here and there, "still avoiding the real world. I'm currently enjoying life on the shore, substitute teaching, dissecting cats and subjecting all of my students to Sarah McLachlan music. Soon I'm off to go sailing. Long live camp jobs." **Jen Wenner** writes, "passed my qualifying exam in March and am working on a project dealing with granites in the Sierra Nevada Batholith! I am also heading off to Ireland again for 5 weeks this summer to TA field camp. I love Boston and have lots of room in my house for guests. If people need a place to stay for AGU or other reasons give me a call (617) 789-4980." From **Clifford Blizard**: "I'm a first-year Montessori teacher, working with 18 highly energetic 6-9 year olds. Next year my school will add a middle school program (7th and 8th grades), and I will teach geology and biology there part time, while continuing to work with younger children. I look forward to becoming a geologist again!" Clifford also said he's moving to a new place within walking distance of school, and I can say that being able to walk to school does wonders for your psyche. There's nothing like getting out in the weather, whatever it may be, a couple of times a day, to keep you in touch with the real world. **Erik Stokstad** writes, "I opened the fridge the other day and found a wealth of strawberries with a surprise note from **Liz Butler**, who's in town and had just gone berry picking. Turns out her mother lives two blocks from me. I'm still editing news stories for Science magazine ([www.sciencenow.org](http://www.sciencenow.org)), singing in the National Cathedral, and touring the free museums. Visitors welcome, and don't feel you have to bring fruit!" Gee, that's funny, Erik. Liz materialized here last week, too, at alumni reunion. When I told her I was confused if she lived on the east coast or the west, she just shrugged!

**1993.** **Ben Surpless** writes, "Getting married in June 1999, plan on defending in December 1998, ballroom dancing my way across the country in January-March of 1999." Sounds like a great time- good luck with it all Ben! **Chris Hagerman** has returned to Minneapolis to finish his masters at the U of M. He says, "Life revolves around reading, writing, and a virtually endless number of undergraduate papers to grade. Ultimate and travel help keep me sane." **Lance Dockter** writes that "After months of searching, my wife and I finally bought a house in Riverview, Florida. Many new responsibilities added to daily life. I also jumped to a different consulting firm (#3 in Florida for me so far) based in Atlanta, Fla. Hopefully I will stay at this one for a while. Seems to be a good, solid company with the right attitude." Good luck with the new job, Lance! **Dave Lund** has moved to Washington, DC, for a year-long fellowship with NOAA on the societal

applications of interannual climate forecast information. He says he's still deciding whether to make a career in academia or government, but he welcomes guests if anyone is passing through DC. **Eric Jensen** is working on his PhD at the University Of Arizona, along with several other Carls (**Cathy O'Reilly**, **Ofori Pearson**, **Karen Swanberg**). "With Shelby Boardman coming to Arizona for his sabbatical, we are planning to take over the geology department! I am also working part time for Independence Mining Co., and am trying to start a small mineral exploration firm with two other graduate students. Life is busy, but life is good!" A note from **Todd Osmundson** writes he "just finished year one of post-baccalaureate work in Botany at the University of Montana, and will be spending the summer as a research assistant for the Field Museum of Natural History (Chicago) working in North Carolina, Michigan, and China on a comparative study of the macrofungi of the eastern U.S. and China. The guitar is a little too bulky for international travel, so I've decided to take up the mandolin---I'll have to bring along a few pages from my copy of the Dacie's collection, and I'm sure that I'll be thinking of you as I play them!" Good choice of instruments, Todd! I think you'll find the mandolin interesting and fun to play.

**1994.** **Beth Pratt** writes that she "spent the first part of 1998 crewing on a sailboat off of tropical Australia. Crazy, warm weather! Now I'm back to Alaska and Antarctica to cool down again." (Beth, you can put whichever class year you like on the newsletter card and that's where I'll put you- Tim) **Starr Marea Johnson** has found a new niche in the geology profession: "My parents are thrilled that all of their money on college tuition is being put to its intended use. I am working for an environmental consulting firm and loving it." That's great to hear, Starr (well, it's great you're doing geology, but even better that you're having a good time!). **Julia Daly** writes "I finished an M.S. at Delaware and now am in hot pursuit of a PhD at the U of Maine. I'm looking at Holocene sea level change as recorded in marshes - it should be good fun. Still playing Ultimate; what we lack in organization we make up in enthusiasm. I'm excited to be living in Maine and I'm even more excited NOT to be moving this year! Come visit!" I hope this Newsletter reaches people in time, but **Aron Clymer** writes that he's "Getting married August 1- and you're all invited! Laury and I plan on spending the last half of our honeymoon in Italy, celebrating the 5th year reunion of the Italy Geology program at Coldigioco. The Fiat of Wit rides again!" Congratulations and best wishes to your new family, Aron! **Liz Symchych King** continues to plow her way through grad school. "Got my masters last summer and am looking for new places and ways for zircons to tell me their story from their oxygen



## Alum News

isotopes..." **Naomi Lubick** is off to Columbia: "I am leaving my job as Production Editor at Annual Reviews on May 8th. I'll be working small jobs to make living money for the summer, and I have an internship with an organization called the Science Interchange, maintaining their web site for the summer and writing science news for the web and radio. And then in September, I begin the Earth and Environmental Science Journalism program at Columbia University. I get to live with **Anu Gupta** for the first year of the program (when I'll be working on my geology masters)! It's a good thing she'll be graduating because the second year, in the journalism school, I'll be so busy I won't have time to sit down!" **Myongsun Kong** graduated with her M.S. in water resources management last year-good work Myongsun! Got a card intended for the last Newsletter from **Geoff Collins**. At that time he had just finished his master's in geology at Brown and started on his PhD. His research was on Venus and Jupiter.

**1995.** **Dan Fehler** is still testing software at Mylex Co. in Minneapolis. He says, "The nearest I've gotten to geology since graduating has been sweeping the sand out of my garage. I've also taken up home brewing to contribute to my growing alcohol dependency." A note from **Ofori Pearson** and **Cindy Alm** says, "We got married last year in April and had many Carleton people come, including seven geo majors. It was wonderful to have so many friends there! Ofori has completed his first year at the University of Arizona as a geo grad student. He loves being back in school and has

a great advisor, George Davis. I am teaching 6th grade in a rural public school. Every day is a challenge with 24 pre-adolescents, but I love it! Come visit us in the desert!" **Tripp Bishop** moved to Tucson, AZ in 1996 to begin the master program in hydrology and water resources at the University of Arizona. "After a year of classes I decided that I really didn't like what I was doing," he writes. "In December of '97 I got a job as a web developer/computer programmer here in the hydrology dept. It's been a lot of fun thus far. In January I enlisted in the Army reserves and will be going Basic training this summer to learn how to be a scout. I'm really excited and a bit nervous at the same time." Sounds like quite an adventure, Tripp- good luck with it! **Mike Unger** is finishing up his first year of graduate school at Rice in Houston. He says, "I'm working with Basil Tikoff (a friend of Julie Maxson's and a University of Minnesota PhD.) for a Master's on a shear zone in the Sierra Nevada Batholith. I'm hoping to be able to characterize the evolution of strain through time in a transpressional regime by doing 3 dimensional strain analysis (using a technique called AMS -- anisotropy of magnetic susceptibility) throughout a pluton which accommodated transpressional strain during the Late Cretaceous. I'm hoping to be able to calibrate the AMS technique to observed strains (mafic inclusions mainly) -- something no one else has really done before. I'm also hoping to be able to study the mechanical behavior of a magma as it crystallizes. All in all, it is amazing how much my comps helped me to solidify what I wanted to do in

graduate school -- 3D strain in my comps, and 3D strain for my Master's." **Rowan Littell** and **Jenizie Ziebarth** were married in Madison a year ago June; congratulations and best wishes to both of you! **Jay Stetzel** writes that he spent the past school year in New Mexico working at a boarding school for kids with learning differences. He was in charge of a cabin of eight boys and taught a pre-algebra class. This summer he's in Vermont leading canoeing, backpacking and white-water kayaking wilderness trips for kids.

**1996.** **Anders Noren** spent last winter guiding dog sledding trips in the Boundary Waters Wilderness in Northeastern Minnesota and only occasionally wandered down here to give us trouble. He writes, "In August I'll be starting a master's program at the University of Vermont in geomorphology. Come and visit if you're in the area!" **Karissa Baker** has just



There were 18 Carleton grads at Cindy and Ofori's wedding including seven geo majors: Mary Savina '72, Mike Gaud, Jay Stetzel, Roy Luck, Trish Gillespie, Kate Jesdale (all '95) and Beth Pratt '94.

finished two years of teaching middle school in New York City courtesy of Teach For America. Future plans, at the time of writing, were a work in progress. **David Mitchell** has made it through his first year of the University of New Mexico. "I'm looking forward to conducting my master's thesis field research this summer, mostly near Taos, NM, studying the relationship between rates of incision and stream power of four streams. I'm looking forward to having an NSF graduate fellowship winner, **Sara Gran**, be my field assistant and tell me how to do my research! **Ian Wallace**, **Jay Stetzel** and **Kate Jesdale** have all visited **Mike Gaud** and me here in Albuquerque this year." Meanwhile, **Sara** says "I just survived my first year of graduate school at the U of Vermont, where I'm studying geomorph/neotectonics/cosmogenic isotopes. Before



*Justin Clarke found that salmon husbandry is a hands-on endeavor, even (or especially) during the spawning season. This 2.5 ft long male was a resident at the White River Federal Hatchery in Bethel, VT.*

starting school I got to be the maid of honor in my brother, **Rik**, and **Karen Bobbitt's** wedding... I don't see **Karen** every day at school anymore but she'll be popping up at holidays FOREVER now!" This summer **Sara** planned to help **Dave Mitchell** do field work for his MS at the University of New Mexico near Taos. And, although **Sara** didn't say it on her card, we are proud of her for winning a National Science Foundation fellowship- go **Sara**! **Kevin Theissen** writes, "I started grad school this past fall here at Stanford and am currently preparing for a field season in Bolivia on Lake Titicaca (Tim hopes he got that spelled right.. Sorry **Kevin** if I messed it up) My research group is reconstructing South American paleoclimates using stable isotopes. The Bay Area is great and I bump into Carleton Geology alums daily!" **Cari Johnson** writes

that she's "still plugging away here at Stanford. I just passed my qualifying exams, so I'm officially a candidate now and I'm getting ready for a third field season in central Asia and Mongolia. I'm having fun with the Carleton crowd here, including **Kevin Theissen** and **Ben Surpless**. **Gary Ernst '53** is on my committee, too. I also get to see **Adam Soule**, who's working just down the road at the USGS (but getting ready to go off to school next year)." **Justin Clarke** spent six months working for the Connecticut Dept. of Environmental Protection's Atlantic Salmon Restoration Program, which was responsible for stocking 1.4 million salmon fry in the Connecticut River. He also has been working for the Farmington River Watershed Assn. on several GIS projects, including a parcel map of a "Wild and Scenic" section of the river and an inventory of water company owned lands in the state as part of a Trust For Public Land report. After a cycling trip out west this summer, **Justin** was planning to be back at the Watershed Assn. and also attending the University of Virginia's masters program in urban and environmental planning. **Scott Propson** moved back to Northfield to join the college staff this year; he's now a user consultant for the Administrative Computing Center (ACS). So far he seems to be having a good time, at least he's usually smiling when you see him around. **Shannon Ginn** sent a letter from Panama after she had gone through part of her Peace Corps training session. Her projects were to focus on implementing environmental education programs in primary and secondary schools; **Shannon**, hope it's been very successful!

**1997.** **Molly Madden's** card was filled out by her Mom, who wrote, "Molly is a natural Resources Management Volunteer in a small village in Niger. She is planting a demonstration millet field to show conservation techniques. She would love to receive mail, especially from Carleton friends!" **Molly's** address is "Molly Madden, Peace Corps Volunteer, Corps de la PAIX, BP 10537, Niamey, Niger, West Africa." Her family's address is listed in the back of the Newsletter. **Karen Purdy** is the General Manager of Jandd Mountaineering in Santa Barbara; she says she's "Very busy learning the ropes of a successful entrepreneurship while business is booming, but working in the outdoor industry still keeps me connected to outdoor activities and interests." She adds, "Training for possibly participating in the Santa Barbara Triathlon is quickly revealing my desk-jockeyness!" **Karen** said she recently had a nice visit with **Emily Darby** who's doing well in med school in Seattle. **Kim Knight** is off to explore southern Africa for a few months, including a visit to the IAVCEI conference in Cape Town and some research on the Etendeka, along the Skeleton Coast of Namibia. (Kim, you can hit me with a rock if I butchered the spelling of those places too badly- Tim) **Lisa**

## Alum News

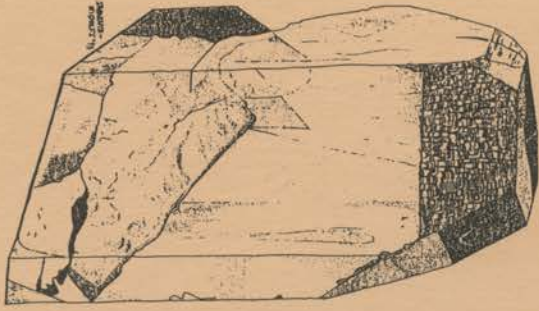
**Catherine Van Arsdale** lists her job title as Science After School Teacher and Science Explainer at Pacific Science Center, but the real skinny is that "After climbing Mt. Everest early in 1998, I settled down in Seattle to teach science and play music in bands. Right now I am playing drums for a folk band after a brief stint as a punk rock drummer." She's living with **Laura Veirs** and angling to get a research assistant job at the U of Washington. Laura, for her part, sent a card saying, "Hey y'all - I am living a life completely devoid of all rocks except for all the rock musicians with whom I daily interact. I teach guitar out of my home and play in a funk band, and I teach kids how to play piano, too. When one of my students becomes a master composer I will tell him/her that I never really knew how to play." **Firn Schoenbohm** has been working for the Large Lakes Observatory in Duluth but now

she's on the move again: "I'm leaving for Greenland the 1st of July. Did I mention that I've been learning to shoot a rifle lately? For polar bear protection. Its a very scary thing, my gun (on loan from my deer hunting grandfather) makes a very very loud noise and kicks hard. I'm also eating meat because I won't have any other option in Greenland. Tim, you wouldn't even know me. Gun shootin' jerky eatin' Firn." Firn, we want to hear about your adventures in Greenland-please keep us in mind for some stories! **Nicole Maxwell** writes she is "living in Portland, Oregon, with Chris Markwyn and working in the library at Lewis and Clark College, which sadly does not have a geology department." As of late June she had just decided to enter a graduate geology program at the University of Utah in the fall.



**Stephanie Phippen '96** on the volcano in Ecuador, Volcan Pasochoa, which she studied on her Fulbright Scholarship. Stephanie writes, "The caldera is filled with a dense cloud forest, at the base of which is a nature preserve. After writing up a technical report on the volcano I plan to leave a simplified version for the interpretive center." Stephanie is headed for Colorado State University in Fort Collins this fall to begin a masters in fluvial geomorphology. (Photo by Dan Feiveson)

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