Message from the Chair

This year the Geology Department has made several major strides. On the facilities front, we have, at long last, been officially granted the full use of two (2!!) teaching rooms. Prior to the new year we had the official and exclusive use of zero classrooms for courses and labs, including introductory labs. Geology teaching labs were in fact designed by us into the Olin building, where we now reside, at the request of the Administration and of the building architect, but in an administrative switcheroo the rooms were designated for general use. Now, we can actually set up lab equipment, models, and demonstrations and actually have our students play with them after class time. Now we can teach a lab and hang around afterwards helping students with last minute problems, or just chatting, like we are supposed to do. This year we are also getting some much needed furniture for various labs and one classroom, including sinks and microscope cabinets. These were eliminated from the final building construction due to cost overruns. In addition, we have slowly been installing electronic locks on lab and classroom doors so our students can have access to materials, equipment, and workspace after hours using their student ID cards. This coming year we should finish the task, giving our students access to all the resources they need.

By the end of June we will have seen the first three Union Geology courses abroad. These are 3-week courses, one last spring to the Greek island of Santorini in the Aegean Sea led by Joan Ramage and George Shaw, one last December to New Zealand led by John Garver, and one this coming spring to Peru led by Don Rodbell. The two courses abroad that have been run so far were very successful, and more is written on them below.

Last year we had five students present papers at the Northeastern Section Meeting of the Geological Society of America (NEGSA) in Burlington, Vermont. This year we took six to NEGSA in Springfield, Massachusetts, where four papers were presented. Other students are presenting at other meetings. On the equipment side of the department, we were able to use funds from a Sherman-Fairchild grant and from a Kresge Foundation endowment to purchase several items that will be used in a variety of courses, including those at the introductory level. These include a solid-state current meter (no propellers to break!), a sample flux fusion system for faster and more reliable analytical sample preparation, a 3-axis base station seismograph, a major upgrade to the X-ray diffractometer, and a new field-portable 12-channel shallow seismic system. Our other equipment continues to function well. I am happy to report that some of our recent alums in graduate school have complained to us that the research facilities at their universities are not up to the standard they were used to at Union!

The recently announced “Plan for Union” includes provision for the addition of 20 new faculty members as endowments for the positions become available. Geology has put in a bid for two of these positions, with the hope of raising the number of geology faculty to six. The two proposed positions are in the areas of economic geology and hydrogeology. These two, we feel, will best fill the most glaring gaps in our curriculum which four faculty simply cannot fill, while at the same time offering to Union a range of introductory level courses. We anticipate that these new people will have diverse interests, needed for a small department like ours, and backgrounds sufficient to teach a variety of courses. Our current goal, therefore, is to increase the number of Geology faculty to six, which turns out also to be the average number in liberal arts college geoscience departments. We are cautiously optimistic for at least partial success in our bid for these new positions.

In any case, Union Geology continues to be successful and to do good things, some of which we outline below. Best wishes for the next year!

Kurt Wallacher
Class of 2000 post-graduate poll: thumbs up for Union Geology

Each year Union College conducts an exit poll of the approximately 500 seniors who graduated the previous year to find out what their next step was after Union. Of those interviewed, 18 were actively pursuing an advanced degree in the sciences (M.S. and Ph.D. programs, not including medical school). Of these 18, nine, fully half, were from the Geology Department and were studying in geoscience programs (4 women, 5 men). Not bad for a department with only four faculty, representing only 10% of the lab science faculty!

Union Geology is #4!

You may recall that we sent around a notice of the recent rating of Union Geology as #4 in research productivity among the top 50 geoscience programs at liberal arts colleges. What follows is the article cited on the tickertape notice on Unions' home web page:

**Union College Geology Department Recognized as One of Nation's Best**

Schenectady, N.Y. (Oct. 4, 2001) – Union College's Geology department was 4th in a ranking of geoscience research at national liberal arts colleges. The ranking, conducted by faculty at Mount Holyoke College, Ma, considered the number of articles, pages, and abstracts published in the scientific literature between 1987 and 1996. The results of this study were recently published in the Journal of Geoscience Education. Union, whose Geology faculty published 28 scientific articles in the literature, is joined by Williams, Colgate, Wesleyan, and Franklin & Marshall colleges as the top five ranked geoscience departments [in that order; Union is tied with Franklin & Marshall].

"At Union, we place a strong emphasis on research – at both the faculty and undergraduate levels," Union Prof. of Geology John Garver said. "This is a welcome validation that our efforts are well-placed."

The study notes that a research-rich environment is one of the key ingredients in motivating students to go on to pursue graduate studies after receiving their undergraduate degree. The United States National Science Foundation (NSF) has had a number of programs in place for over a decade aimed at addressing the steadily falling number of students in the sciences. The NSF has identified research-rich teaching environments as a key to encouraging science education in the nation.

The rankings' authors indicated a "growing interest in research at liberal arts colleges" and such research is "highly concentrated among a few schools." Further, they noted a "positive correlation between faculty research at an institution and the undergraduates who go on to receive Ph.D.'s in geoscience."

Garver noted that about 50 to 60 percent of recent graduates from Union Geology go on to advanced studies in geology and allied sciences. In their advanced-degree research, these students have focused on the full breadth in the geosciences including marine studies, coastal erosion, water contamination, tectonic activity, climate change, and climate reconstruction.

"My experience in the Union Geology Department gave me ample preparation and inspiration for my graduate research project focused on global climate change," said Brandi Molitor of Averill Park, Union class of 2000 graduate, who is pursuing a graduate degree at Western Washington University in Bellingham, WA. "Being surrounded by, and part of cutting-edge research teams at Union helped me realize successful science is a result of very hard work and perseverance."

"The Geology Department at Union brings students out into the field through class lab periods, extended field trips, and through faculty-student research projects that have included the Olympic Mountains of Washington, the Grand Canyon, the Russian Far East, the Alps in France and Italy, , the Andes Mountains of Peru and Ecuador, the Southern Alps of New Zealand, and the Pyrenees in Spain," Garver added. "Students learn along side us in real time, in the real world."

"For most students, finishing these research-rich courses can be an exciting time, because they realize that they can do science, that it makes sense, and that it is fun."

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periods, extended field trips, and through faculty-student research projects that have included the Olympic Mountains of Washington, the Grand Canyon, the Russian Far East, the Alps in France and Italy, the Gaspé Peninsula of Quebec, the Andes Mountains of Peru and Ecuador, the Southern Alps of New Zealand, and the Pyrenees in Spain," Garver added. "Students learn along side us in real time, in the real world. For most students, finishing these research-rich courses can be an exciting time, because they realize that they can do science, that it makes sense, and that it is fun."

**Winter Seminar Series**

The Environmental Studies Program (John Garver, Head) and The Association for the Protection of the Adirondacks cosponsored the Environmental Studies Winter Seminar Series in 2001. There were six events, open to the public without charge, held in the Nott Memorial:

- The Real Story of Contaminants in the Hudson from Sewage to PCBs, by Richard Bopp, RPI Professor of Geology.
- Adirondack Guides form the Hudson's Headwaters - A Short Season, Hard Work, Low Pay, by Chuck Brumley, Author & NYS Licensed Guide.
- Folk Music Along the Hudson, by George Ward, Singer & Folk Historian.

**Mini terms abroad**

**Santorini, Greece.** Joan Ramage and George Shaw led a new Union College miniterm abroad to Santorini, Greece. They managed to incorporate swimming, spectacular settings for eating fresh calamari and red snapper, Santorini tomatoes and the local specialty tomato balls, and an opera in Greek (Constantinos Paleologos) in the Odeion of Herodes Atticus (at the Athenian Acropolis) with a rigorous program of geology and archaeology in Santorini, Crete, and Athens.

The course focused on the Late Bronze Age (LBA) (c. 3600 B.P.) cataclysmic volcanic eruption that reconfigured the island of Santorini (by some thought to be the legendary Atlantis) and buried the Minoan port city of Akrotiri. The eruption also had major regional and hemispheric effects on climate. Union students Leah Englander, Jeremy Farrell, Emily Godfrey, Jeff Hoffman, Adam Hollenbach, Sarah Johnston, and Nicole McConvery studied the archaeology, the LBA soil surface and paleo-topography, the major phases of the eruption based on the ash stratigraphy, and walked on the more recent lava islands of Palea and Nea Kameni. They saw steam and sulfur vents on islands and were able to feel the intense heat just below the soil surface.

Student research projects investigated post-eruption stream incision in valleys near Akrotiri, man-made caves filled with stratified sediment, and the distribution of geochemically altered red rocks in the ash deposits. They also visited the major Minoan city of Knossos on Crete, the Athenian Acropolis, Sounio and nearby silver mines, and Mycenae.
The Santorini crew (minus Joan Ramage and George and Paula Shaw) perched on the rim of the caldera. The small island of Aspro Nisi (White Island) is in the background. The thick white layer was deposited during the Minoan eruption. Students from left to right: Nicole McConvery, Leah Englander, Sarah Johnston, Jeremy Farrell, Jeff Hoffman, Adam Hollenbach, Emily Godfrey.

Adam Hollenbach (L) and Jeff Hoffman (R) investigating a stretched pebble conglomerate, part of the metamorphosed basement rock exposed on Santorini.
Living on the Edge; New Zealand. This is a Union College course taught by John Garver that focused on earthquakes, volcanoes, and other geologic hazards where tectonic plates collide. What follows was published in the Geological Society of New Zealand Newsletter, July 2001:

A Union College course entitled "Living on the Edge" focuses on earthquakes, volcanoes, and other geologic hazards where tectonic plates collide. New Zealand makes a perfect natural laboratory for understanding the science and public policy behind these natural hazards.

A new international field course at Union College in New York, focuses on understanding the science behind geologic hazards that lead to catastrophic events. Fieldwork for the course is aimed at getting students to recognize hazards, understand the science behind the hazards, and then to see the role that society plays in mitigating and monitoring these hazards. Undergraduate students from Union College (upstate New York) are now in New Zealand for three weeks of fieldwork. Development of the course has been funded by the US National Science Foundation.

It is well known that New Zealand has interesting seismic and volcanic hazards, which is why the Americans are drawn here. This group of 10 students will first focus on the volcanic activity in the central volcanic zone, including the volcanoes of the Tongariro National Park and calderas around Taupo and Rotorua. Students will study the 1995 and 1996 eruptions of Ruapehu; the current hazard is that a lake in the modern crater may soon breach its outlet. The students will also study the lahars and devastating effects of the Tangiwai rail disaster of 1953 that resulted from a similar unstable situation. In Rotorua and Taupo, they will examine volcanic deposits, including deposits from the Tarawera eruption of 1886, and recent activity in Kuirau Park in Rotorua.

On Thursday (29 Nov.) students met at the Department of Earth Sciences at the University of Waikato, where they heard a lecture by Professor Peter J.J. Kamp on the tectonic evolution of New Zealand. This lecture followed a banquet in the Hamilton Gardens on Wednesday night, which was held as part of the annual meeting of the Geological Society of NZ (GSNZ) meeting taking place on the Waikato campus. The students were introduced to the Society by the President of the GSNZ, Dr. Simon Nathan.

"It is wonderful to have these American students come this far to see such well-displayed tectonic features here in New Zealand. They certainly have come to the right place, and we're happy to host them while they're here" notes Professor Peter Kamp (U. Waikato). "My introduction has given them a broad overview of the tectonic setting of New Zealand - sort of a blueprint of the tectonic architecture. In the field, I reckon they will be able to use this blueprint to understand the context of the hazards they come across."

In the Taupo area, students spent a day with IGNS scientists Dr. David Johnston and Dr. Brad Scott (Wairakai) who study seismic and volcanic activity and hazards to the public in the Taupo Volcanic Zone (TVZ). Here the students learned about the continuous monitoring efforts of New Zealand's volcanoes, and they learned of the impact that volcanoes and volcanic eruptions have on society. Johnston helped the students understand the impact of the eruptions of the Ruapehu in '95 and '96 on society and the local economy. "One of the important aspects of this course that makes it different from others is that we are trying to get students to understand the science behind the hazards as well as the preparedness and policy behind managing hazards" says Professor Garver.

The group then moved to Napier to see the effects of earthquakes from subduction and strike-slip faults which have been some of the most damaging natural disasters in New Zealand's history. Here students related the Art Deco Architecture in Napier to seismic activity in the nearby subduction zone which produces massive earthquakes including the 1931 earthquake and subsequent fire that leveled the city.

"While it may seem a long way to come to study faults and volcanoes, the public policy and emergency response in New Zealand is excellent and clearly worth understanding. I've been particularly impressed with the attempt to coordinate communication between the scientists and emergency planners. Ideally we need scientists who can communicate with the public about the practical aspects of the geology" says Professor Garver. In Wellington, the students met with scientists from the IGNS (Lower Hutt), and Dr. Russ Van Dissen gave them a geo-engineering tour of the Wellington fault and building construction that has resulted from proximity to the fault, including the special innovations incorporated into Te Papa. They will also learn what was done to cope with the seismic threat in the Wellington area, including the "Lifelines" project designed to facilitate interagency communication in the event of an emergency.
"We are thrilled to be of assistance to the Union College Geology Group as they explore the geology of our natural laboratory here in New Zealand. The Institute of Geological & Nuclear Sciences is committed to educational outreach and technology transfer, and that includes seeing that our knowledge works its way into public policy and industry. The Union College group will get a firsthand look at how our information is used by Lifeline groups in Wellington to minimize the impact of natural hazards" says Dr. Mike Kozuch, Institute of Geological & Nuclear Sciences Seismologist & Marketing Manager. "Geology can be a very rewarding career move or even a fantastic background to so many other areas of employment. It is a pleasure to host this group from the USA."

Some of these students are making this career move. Heather Barrett is one of the trip participants who came to Union to study geology and she hopes to eventually teach Earth Science in high school. "I am so excited to see the geology of New Zealand. Being able to travel here is a dream come true, but I was nervous about flying" says Heather Barrett, a second year Geology Major. Heather lives in Nesconset, New York, on Long Island; she had never flown before this trip.

The three week trip concluded with a 5-day tour of the Alpine fault and related fault strands on the South Island, potentially one of the biggest seismic hazards that New Zealand faces.

Notes from the Faculty

Bob Fleischer: Bob has continued work on personal radon dosimetry using eyeglass lenses. Eyeglass lens plastic works well as a radon alpha particle detector. The more recent results have been published in Radiation Protection Dosimetry. Bob is also working on a reevaluation of historical neutron dosimetry using induced fission tracks in glass that was near the atomic bomb blast at Hiroshima. Work on one good sample was published jointly with two Japanese co-workers – with the added bonus of a cover photo on the journal Health Physics. Since then he has been working on porcelain samples. Jonathan MacDonald has successfully determined doses for two of these samples and reported on the work at the Northeastern Section Meeting of GSA this past March. Bob is also studying the teaching of alpha decay-induced recoil atoms from sediments and similar materials. It turns out that, in minerals, the teaching that we are looking for does in fact occur. He is doing experiments on glass to test how this behavior limits the usefulness of $^{210}$Pb recoils to give retrospective $^{222}$Rn measurements in homes. Bob recently published an analysis of the problem (with Doremus of R.P.I. and yet another cover photo). Helping him with his work have been two students, Jonathan MacDonald and Jeremy Farrell. Jonathan did his Senior thesis with me on the subject of U, Th, and Rn daughters in lake cores to set limits on sedimentation rates. Bob continues to serve on the Union College Radiation Committee. Bob recruited astronaut Bonnie Dunbar to give a couple of general-interest seminars at Union, and she did a first-rate job. Bob was elected a Fellow of the American Society for Metals (now ASM International) – for both track and metals science. He has been working on an extensive work on intermetallic compounds. The book Intermetallic Compounds – Progress, appeared at the end of April 2002, in which Bob contributed two chapters on solid solution hardening and on particle-track formation. For the national and international community Bob has served as a reviewer for an NRC report on handling nuclear waste: "Principles and Operational Strategies for Staged Repository Systems." Also he was a reviewer for a Ph.D. thesis, "Studies on Radioactivity in Aquatic and Atmospheric Environst ..." at Mangalore University.

John Garver: It has been another busy year for me as my research and teaching has kept me traveling the Globe. My main research effort is still in the area of terrane accretion in the Pacific Rim and on the long-term record of Orogenic exhumation. Both directions keep the fission-track lab very busy with visitors from around the world. Last summer we launched another major field effort to the Kamchatka Peninsula in the Russian Far East. We had the most unusual field vehicle this year: a tank that was featured in “Taking in Kamchatka” in the Winter Union Alumni Magazine. Senior Sarah Johnston went along and did her Senior Thesis on the timing of exhumation of the Syedrinny Range, a metamorphic culmination in the Structure Zone.

In the fall, Chinese geologist Gaocan Wangh from Wuhan visited the fission-track lab to work on a collaborative project on the exhumation of the northeastern Tibetan Plateau. These are very interesting rocks that I plan to visit this coming summer if all goes according to plan. The Kunlun Shan is an area of the Tibetan Plateau that has only been uplifted in the past few million years. Hopefully this collaboration will allow Union students tremendous geological opportunities in China.

Alex Soloviev from the Institute of the Lithosphere in Moscow visited the fission track lab this spring. He and I continue our collaboration in Kamchatka.
Other visitors to the fission-track lab include Egyptian Structural geologist Mohamed El Shafie who is working on a project along the San Andreas Fault. Sarah Shoemaker (Union 2000) also visited the lab to date rocks for her Masters thesis at the University of Arizona. She is trying to determine if there is a thermal signature of the Cocos-Pacific-North America triple junction as it past coastal Mexico (Acapulco of all field areas!!)

In the winter break we offered the course “Living on the Edge” for the first time. This mini-term abroad went to New Zealand for 3 weeks to investigate the geologic hazards of living on a Subduction Zone. The students loved the trip and there is little question that it really helps to understand hazards when you see them in the field. Most students agreed that the highlight was the boat trip and hike on White Island – a most active volcano. It certainly was the highlight for me; the steam jets with molten sulphur were absolutely astonishing. As the year comes to a close we have high hopes on another productive field season and academic year.

Kurt Hollocher. As usual being chair has taken up an substantial amount of time. I had only one student working with me this past year, Leah Englander, who is working on the geochemistry of metamorphosed late Precambrian mafic rocks from the Dry Hill Gneiss in Massachusetts. The rocks are a unique collection that were acquired in the late 1960’s during construction of the Northfield Mountain Pumped Storage Hydroelectric Project. This project involved construction of a large reservoir on the northern end of the Pelham dome, a rather flat, highland region near Northfield Mountain, along with an extensive tunnel system and attendant underground power/pump house. The project can generate over 1 GW of electric power during peak demand. The acres of perfectly fresh rock exposed in the tunnels and underground powerhouse yielded a few tens of pounds of mafic and intermediate rock samples, taken from boudins and thin layers among vast volumes of strongly metamorphosed granitic gneiss, quartzite, and volcanoclastic sediments. They represent dikes or lavas from an episode of rifting roughly 613 million years ago on the margin of Gondwanna, possibly related to the breakup of the supercontinent that the Grenville Orogeny created about 1 billion years ago.

In the not-really-my-field department, I was coauthor on a recent paper in Palaios on fossil bacteria in dino poops (coprolites). These are Cretaceous hadrosaur coprolites from the Two Medicine Formation near Choteau, Montana. In the not-at-all-my-field department I am also working with a team at the Biology Department at SUNY Albany studying the behavioral effects of lead on fruit flies. The most interesting finding to me so far is that a little bit of lead seems to be good for the little guys!

Joan Ramage has continued her research on recent and ongoing change on the Juneau Icefield, southeast Alaska, using satellite images taken between 1974 and 2001. She will return to the icefield in August to work with students and field test some of the satellite observations. She has also expanded her snowmelt research in to the Yukon River basin. She has been working with Margaret Kostro (’02) on the variability of the Yukon River sediment load using the oceanographic satellite, SEAWIFS.

Joan led the new geology course abroad to Santorini, Greece with George Shaw (see separate article). With students, they developed a project investigating post-eruption fluvial reworking of sediment deposited in caves.

Joan has just accepted a job at Creighton University as the Clare Boothe Luce assistant professor of Environmental Sciences. She is excited about meeting Union Alumni in the Omaha region.
This is a digital elevation model shaded relief image made by Joan of the region surrounding Union College. Visible features include the Mohawk River winding through the center, the Hudson River and Taconics on the far right, the Helderbergs on the lower left, the drumlin fields of Schenectady and Niskayuna, the drumlin fields of the highlands to the south and west of Union, and the sand dunes covering the flat floor of glacial Lake Albany, to the south of Union. We will sorely miss Joan as a colleague and wish her well at her new appointment.

Don Rodbell. I have continued my research program on the Quaternary record of climate change in the tropical Andes Mountains of Peru, Ecuador and Bolivia, and on the record of environmental change recorded in lakes in eastern New York State. The South American research is now focused on developing high resolution (sub-centennial) records of climate change from authigenic marl preserved in Lake Junin, in the central Peruvian Andes, and on a continued effort to document the synchronicity of climate change in the tropics as compared with high latitude regions of both hemispheres. Some of the results from the latter were recently published in Science (31 May, 2002), wherein my colleagues and I report findings suggesting that the tropics led the Northern Hemisphere by several thousand years through the last deglaciation. Local research this past year was highlighted by coring to the bottom of the deep (~35 m) southern basin of Ballston Lake. This was accomplished as part of the Lakes and Environmental Change Course that I taught last winter (2002). The southern basin of Ballston Lake is unusual in that it is meromictic, which means that the bottom water never mixes with the surface waters due to the high density of the former. Because of this, the bottom water at Ballston Lake is anoxic and organic decomposition is slowed and entirely anaerobic. This anoxic conditions inhibit decomposition of organic material, and the funnel-like bathymetry of the south basin, both cause high
sedimentation rates. In the end, we obtained a ~17 meter-long core that covers at least the past 13,000 years; much of the record is varved and is replete with macro-organic material (like sticks) for radiocarbon dating. Coring the south basin of Ballston Lake has been a goal of mine for several years; I never thought it possible to core that much sediment in such a deep basin—fortunately the students in the Lakes course were willing to brave wind, ice, and an extra long lab period to acquire the core. Also from lakes close to home, we have developed excellent records of anthropogenic pollution from core top sediment. Dating by $^{210}\text{Pb}$ and radiocarbon has elucidated the impact of fossil fuel combustion, point sources of pollutants and even the passing of the Clean Air Act.

**George Shaw:** George has been on sabbatical leave for the past year. He worked with student Jeff Hoffman on a bentonite stratigraphy and geochemistry project in the Death Valley region. He is currently preparing two papers for GSA Bulletin and Geology. George also continues working on the Town of Wright (Helderbergs) hydrogeology project.

### New graduates, 2001

**Nick Balascio (2001)** Nick is a graduate assistant at Northern Arizona University in Flagstaff.

**Paul L. D’Annibale (2001)** <pldannibale@hotmail.com> Paul is a grad student at Clemson University. He writes: “I am enjoying living in the south where it is currently 70 degrees on December 2nd! The people and the department here at Clemson are good, and I have rediscovered my ability to do complex math equations and am currently thinking about pursuing a career in geostatistics. I just want to wish all the seniors in the Union Geology Department good luck and say thanks to all the professors. All of you guys helped make my transition to Grad School an easy task. Keep an eye on Schenectady for me until I get back.”

**Jason Lederer (2001)** <jason_lederer@hotmail.com> Jason is at the University of Indiana pursuing an M.S. He writes: “So, as for my thesis. Well, it is focused on characterizing tills in the Ross Sea, Antarctica deposited during the last glacial maximum. Basically I am using clay mineralogy and sand petrology as provenance tracers. Additionally, Sm/Nd ages are being collected on the same sediment by people at INSTAR, University of Colorado, Boulder. My advisor Kathy and Rodbell both had the same advisor out there. I am also planning on getting at the zircon fraction of the sand to obtain U-Pb ages, but that is a bit up in the air right now. Kind of an idea we came up with at one of our weekly meetings a couple of months ago. I think we probably will try to tackle that one. You see, there is no guarantee that the sand petrography and clay mineralogy will be useful as provenance tracers, but no one knows because it hasn’t been looked at, so we are trying it. Nd-Sm and U-Pb are likely to be useful though, but the same deal applies there as applies for the clay and sand. I took a seminar in clay mineralogy this past term. Very interesting...VERY COMPLEX! One of the arguments that exists is whether the west Antarctic ice sheet contributed all of the sediment to the Ross Sea, or if the East Antarctic Ice Sheet played a substantial role as well. We are trying to sort this out. If we can characterize the sediments and trace them to a source we can determine this.

**Jeremy Lundy (2001)** Jeremy is finishing up his MAT degree at Union College.

**Matt Montario (2001)** <mjmontario@hotmail.com> Matt is a field geologist for AMEC Earth and Environmental, Arlington, MA.

**Mike Nigro (2001)**

**Julie Seymour (2001)** We understand that Julie is teaching high school in New Hampshire.

### New graduates, 2002

**Leah Englander (2002)**

**Emily Godfrey (2002)**

**Jeff Hoffman (2002)**

**Sarah Johnston (2002)**

**Margaret Kostro (2002)**

**Sarah Newell (2002)**

**Andrew Spitz (2002)**

### Alumni notes

**Raymond Robinson (1936)** <rfmohawk@myexcel.com> Raymond is a freelance consultant to the gold industry. He reports that “I am able to continue in my professional work fortunately, consulting to the gold...”
mining industry. I have retained the nucleus of my mining claims on my discoveries, which suffered when the price of gold dropped and exploration in the U.S.A. all but ceased. In these days the status of the hard rock geologist and miner has diminished drastically and public support and sympathy is markedly polarized in rather small areas except in Canada and foreign areas. However, we carry on. GOD BLESS AMERICAN AND UNION COLLEGE!

**John S. Wold (1938)** John is a Geologist and President of the Wold Trona Company, Inc. and Gastech, Inc. The American Heritage Foundation of the University of Wyoming recently elected John as “Wyoming’s Oil/Gas and Mineral Man of the 20th Century.” The honor involved appraisal of all Wyoming 20th Century mineral personnel at every industry level. John has been involved in Wyoming oil, gas, uranium, coal, and soda ash activities for over 50 years, as well as ownership and operation of the largest North American talc mine located in west Texas. On a national rating of states, Wyoming is fifth in oil, sixth in gas, first in coal and uranium and the world’s largest producer of soda ash. John was the first professional geologist ever to serve in the U.S. Congress. As the “Member from Wyoming”, Congressman Wold served on the House Interior Committee and was the original sponsor in the House of Representatives of the “National Mining and Minerals Policy Act of 1970.” It extols the need for a strong, domestic, free enterprise mineral industry to strengthen national security. [Congratulations, John! The editor notes that John could as well be elected the “Union College Geology Department Man of the 21st Century”. It is only through his generosity that Union now has a Geology Department.]

**Maurice “Maury” Deul (1942)** Maurice writes: “My wife, Muriel and I were on a spring cruise to the southern Caribbean with Aaron Cohen ‘43 and his wife, Grace, and Irving Goodman ‘43 and his wife, Harriet.” Maurice has recently finished teaching a course called Geology of Energy Resources in a program, Energy Today, at the University of Pittsburgh’s Chemical Engineering Department. He also lectured on earth history at Carnegie Mellon University’s Academy for Lifelong Learning under the auspices of the Pittsburgh Geological Society. He says that gardening, especially with dahlias, is his main summer activity. Maurice “is the 2000 recipient of the Donald S. Kingery Memorial Award, given by the Pittsburg Coal Mining Institute of America to an individual who has significantly contributed to the improvement of mine safety and health. Maury, who taught geology at Union in 1947, currently works as a consultant specializing in mine safety, geology, geochemistry, and fuel science.” (From the Union College alumni magazine, v. 93, no. 3, 2000.)

**George Hanson (1943)** is retired.

**Bernard McGrath (1947)** Bernard is retired in Dallas, Texas.

**George R. Maculay (1950)**<caldonianboy@aol> George worked for Chevron for 30 years and for Westland Oil Development & New Energy Corp. for 18 years. He has finally retired after 48 years in the petroleum exploration and production business. He worked both onshore and offshore in Louisiana, Mississippi, Florida, and Texas. He lived in New Orleans on 3 different occasions, Jackson Mississippi, Lafayette Louisiana, and finally in Conroe Texas for the last 17 years.

**Robert A. Navias (1950)** Robert is a Consultant Geologist, “still practicing as a consultant, although I’m not looking for new clients. I still enjoy the work and its challenges and problems, so I’m not thinking about retirement. As an avocational activity, I’m busy with the local chapter of the New York State Archaeological Association. So far, I’ve written and presented three papers at annual meetings. Two of those papers involved mineralogy and geology as applied to prehistoric Iroquois problems. Yes, I still do some photography these days. Most of it is to illustrate reports or archaeological papers.”

**James H. Scott (1951)**<jimhscott@aol.com> James is a Consultant for Rimrock Geophysics Inc. He reports: “I’m semi-retired, still developing software for analysis of seismic refraction data that is being marketed by Rimrock Geophysics, of which I am president, mail room clerk, and entire work force.”

**Kenneth G. Johnston (1952)** Ken is “a professor of geology at Skidmore College, received the Eastern Section, American Association of Petroleum Geologists’ (the world’s largest geological society) Honorary Membership Award. The award recognizes his ‘nearly fifty years of distinguished professional achievement in industry, government, and academia.’ Kenneth resides in Valley Falls, N.Y.” (From the Union College alumni magazine, v. 93, no. 3, 2000.)

**Phil Perkins (1962)**<perkinsp@csr.nih.gov> Phil is a Scientific Review Administrator for the National Institutes of Health. “Greetings. As you can guess my present job is a long way from that of a practicing Geologist. I have a committee of about 30 scientists (M.D.’s & Ph.D.’s) who evaluate grant applications for the development of anticancer drugs. However, a good undergraduate education such as I received at Union, makes the transition to a new field much more possible. I hope to stop by the department next June for my 40th reunion.”
David W. Glamm (1954) <dglamm@home.com> David reports that he is “Fully retired, kids & grandkids all moving on. Progress becomes fewer aches etc.”

Donald H. Zenger (1954) <dzenger@pomona.edu> Don is retired from the Department of Geology, Pomona College. He says: “In retirement, I still maintain an office in the Geology Department. I am working on two projects involving dolomitization in Upper Cambrian and Mississippian carbonates in west-central Wyoming. I am an associate editor of “Carbonates and Evaporites”. I edit the alumni newsletter for the department as well as organize the annual Woodford-Eckis Lectureship…. I do some substitute teaching in sedimentology.

Herbert N. Benson (1955) <Benson1933@aol.com> Herbert is retired, and reports: “I have been retired from the oil industry since 1983 but still live comfortably here in Huston…. I found my work to be challenging and fascinating. It took me domestically to California, Alaska, and Texas and internationally to Australia/Papua New Guinea, Indonesia, all over South America and to the North Sea. Since my retirement, I have pursued other interests.

Lou M. Martucci (1956) <lmmartucc@3-cities.com> Lou is a Senior Program Manager at Battelle NW. He reports that: “I am in a stage of life that one might call ‘selective retirement’. That is, I work part time at the Pacific NW National Lab (Battelle NW Division) as an Emeritus Scientist and Senior Program Manager on projects that I like and with people whom I enjoy…. Also, I have a consulting practice with my wife wherein I perform work in organizational development. Currently I am engaged with the visioning and strategic planning process of the regional community where I live. Recently, I’ve returned to my academic roots in geology as I am engaged with the development of a National Park Trail for the Ice Age Flood that covered extensive areas of Montana, Idaho, Washington, and Oregon. A huge body of water (Lake Missoula), dammed by ice during recent glacial epochs, was released during a warming trend, and sent cataclysmic torrents of water, hundreds of feet deep traveling at 40-60 mph, over this region. The resulting pot holes, scab-lands, dry falls, etc., are remaining evidence of this geologic phenomenon impacting topography and surface features. We are seeking establishment of a National Trail that will trace the floodway and take interested visitors to existing sites where the event (actually a series of events) can be ‘witnessed’.

John T. Seward (1958) John is retired.

Edward Buchwald (1960) <Ozark@rconnect.com> Ed is currently a ½ time Lloyd McBride Professor of Environmental Studies and Professor of Geology at Carleton College. He says: “I will fully retire at the end of this school year having taught at Carleton for the past 35 years. It was a great career at one of America’s best small colleges. I got to be part of a terrific geology program; about 750 students majored in geology with me during this time. Many, many of them went on for doctorates and careers in academia, too. I retired several years ago as the faculty advisor to the Carleton Club Lacrosse team; that was a great kick, too. I can still remember attending the retirement dinner for Professor Edward S.C. Smith in the spring of 1960 when I graduated from Union. Who would have known it would happen to me, too. I found Professor Smith and Phil Hewitt to be major inspirations. The great education I received at Union got me started on a super career. Thank you, Union College!”

Dr. Jack (John) F. Shroder, Jr. (1961) <John_shroder@unomaha.edu> John is a Professor in the Department of Geography & Geology at the University of Nebraska at Omaha. He reports that: “My geology education under E.S.C Smith, Phil Hewitt, and Leo Hall has certainly paid big dividends to me. I am now enduring the media blitz occasioned by my geological and geographical mapping in Afghanistan and Pakistan. The hunt for bin Laden, with diagnostic and recognizable rocks and landforms behind him, and his henchmen goes on. Who could know that Geology turns out to be so useful and so informative in such a situation? And now we will most likely also use the fairly major resources still in the ground of Afghanistan (gas, oil, iron, copper, precious stones, etc.) to help rebuild the country and reclaim it from terrorists.”

Ross Sangster (1961) is retired.

Norman G. Lavery (1962) <commquest@aol.com> Norman lives in Missoula, Montana. He recently donated his organized collection of the Journal of Geophysical Exploration to the Union College Geology Department (from volume 1). This fine resource is integrated into our student (and faculty) library in the department, and has already been used by a senior working on an independent study project on sulfide ore deposits and reflected light microscopy. We thank Norman for his kind donation.

Elkanah (Ken) Babcock (1963) <kbabcock@idre.ca> Ken is a Scientific Advisor for the International Development Research Center in Ottawa. He reports: “Until 1996 I was head of the Geological Survey of Canada; a great job and a great Geological Survey. After that date the Survey ceased to function as an independent organization and my job disappeared as part of a massive government downsizing at that time. Since then I have worked as scientific advisor on environmental matters and on projects in Eastern Europe, which has resulted in a lot of interesting travel. During the past several years my wife Gail, a Syracuse
University geology grad, and I have become involved as owners of rental real estate in Arizona and we now have a home in Scottsdale AZ as well as in Ottawa, Canada, and spend an increasing amount of time in Arizona. At the end of this calendar year [2001] I will retire but will continue to consult in the foreign aid domain. Will continue to be active in rental real estate in AZ and we are shopping for an offshore-capable sailboat to fulfill one of my dreams. Geology at Union when I was there was Phil Hewitt and Leo Hall, good guys who provided a solid foundation for what has been a very satisfying career as geology professor, research manager, science advisor, and head of two geological surveys, the Province of Alberta and Canada.”

John Dreier (1964) <jedreier@worldnet.att.net> John is a Geologist of Deloro Mineral Ltd. He reports: “I have been working to turn Deloro from a minerals to an oil and gas company. We have just completed a small financing to keep us going and do some deals. Also, I have used the U.S.G.S. Denver Labs to do fluid inclusion, petrographic and microprobe work on an epithermal silver deposit – Pachuca Real del Monte Mexico to unravel the geochemistry of mineralization. I have been working on Pachuca off and on since 1972 when I sent down there to do a Ph.D. dissertation. The district was discovered in 1528 and put into production the same year. Since then it has been in continuous production and has yielded 1.3 billion oz of silver and 8 million oz of gold, along with Pb, Zn, and Cu. It is the World’s largest silver producer. I have about finished writing and hope to send out a first draft in a few weeks – hope to publish in Economic Geology.”

William H. Older (1964) <wolder@KTC.com> “After 35 years of real estate work for the NY State Department of Transportation and the Federal Highway Administration, I retired in 1999 and moved to the Texas Hill Country. My main activity is helping build houses for Habitat for Humanity.”

William Prescott (1964) <williampriscott@mindspring.com> William is at the Whitney Point Central School, working in his 30th year as Earth Science Teacher. He says that “Professors Leo Hall and Philip Hewett inspired me with their knowledge and wit.”

Richard Wagner (1964) <wagner@mail.uww.edu> Richard is a Professor of Management at the University of Wisconsin at Whitewater.

Jeffry A. Smith (1968) Jeffry is a Well Site Consultant. He reports: “The new breed of Petroleum Geologists are incredibly efficient thanks to computer technology; the old guard (me!) was trained in a get-your-hands-dirty curriculum. We spent months on end in the field overseeing drilling operations. Three years ago I decided to return to my roots and offered myself as a Well Site Consultant, but $8.00 oil didn’t help! This past year I have contracted with 14 different companies. This month Exxon offered me a position (contract) as Well Site Supervisor on a number of cutting-edge projects. This will be a fitting way to wrap up my career in the oil patch. P.S. I am really pleased with the direction the Geology Department has undergone. We have some spectacular surface geology in the west Texas; i.e. Big Bend, Marathon Fold Belt, Guadalupe – Capitan Reef Complex, Davis Mountains. If anyone is interested. I would love to guide.

Bill Warcholik (1968) <Bill1144@earthlink.net> Bill is Pastor at the Seventh-day Adventist Church. He recently returned from a three night backpacking trip at Big South Fork, TN, accompanied by his new step son, a student at Southern Adventist University, whose mother he married four months ago. He says: “Her name is Nathel which means “gift of God” which is what she is to me.”

Mark Dobday (1975) < work: mpd@haleyaldrich.com; home: mdobday@worldnet.att.net> Mark is a Senior Scientist and Manager of Geotechnical Laboratory Services, Haley & Aldrich, Inc., in Boston. He has been working on revising his lab’s quality control system for accreditation to the new ISO 17025 lab standard. He has also been doing a variety of project work that includes work on a new bedrock tunnel for a new airport subway system at Dulles International Airport, on liquefied natural gas storage facilities in Honduras and in the Bahamas, and a deep soil mixing bench test program to contain contaminants at a former manufactured gas plant in Detroit.

Andrew Lent (1987) <adlent@gw.dec.state.ny.us > Andrew reports: “I am still a Senior Engineering Geologist with the New York State Department of Environmental Conservation in Tarrytown, New York. I have been a geologist with New York State for almost 10 years. Since college I traded my field study area from the reservoirs of West-Central Massachusetts to the landfills, dumps, and hazardous waste sites of metropolitan New York City. Since September 11th I have spent much of my time at the World Center Trade disaster site (Ground Zero) and at the Staten Island Landfill providing environmental oversight for the DEC. I helped facilitate the recovery operations and provided environmental information to the public in a language they could understand. On a side note our society must become more scientifically literate. Our society’s scientists must also learn to be better writers. Communicating daily with people in authority without scientific literacy really made me value my liberal arts education at Union College. I am humbled by the opportunity to assist my fellow New Yorkers during these difficult times in a real and tangible way. I just wish the cleanup effort was not
necessary and the deaths of friends I never met could have been avoided. On a happier note, I was married to Holly Vollink, a protestant minister, two years ago.

Joshua B. Holden (1989) <Jholden@fwenc.com> Josh is an Environmental Scientist for Foster Wheeler Environmental. He reports that he has: “Just finished a 2 year stint in Newport, RI remediating landfills and doing small USF jobs. Next assignment Portsmouth, NH for 2 years doing a Navy landfill cap.”

David Adinolfi (1990) <dadinolfi@nc.rr.com> David was appointed associate attorney general for the state of North Carolina in October, 2000. In April, 2001, he was promoted to assistant Attorney General.

Leslie (Kahn) Logan (1991) <llogan@ensr.com> Leslie writes: “It's been quite awhile since I last sent in an update—time always seemed to get the best of me. But with the recent tragic events I felt compelled to get back in touch, as so many of you at Union were and still are very near and dear to my heart. I have been working as a marine geologist for the past three years at ENSR International, an environmental consulting company just outside Boston. My husband, Cameron, started an IT consulting company named Envisa nearly two years ago, also just outside Boston. On January 15, 1999, we welcomed our son, Harrison, into the world. He is now almost three and is absolutely incredible in every way. We are now expecting our second child, on March 17, 2002, and everyone is very excited! We hope everyone is doing well. Peace and much love.”

Rick Morton (1991) <jrh@gamewright.com> Rick works as a geologist for SAIC in Newport, Rhode Island.

Todd Smick (1991) <todd.smick@libertymutual.com> Todd reports: “Everything is going very well. I married last August and we are expecting baby #1 late May or early June. My wife is a graduate of Penn State, so we haven’t decided if we are dressing the baby in garnet or royal blue. [Having recently undergone similar difficulties, the editor recommends green or yellow as uncontroversial, non-stereotype alternatives.] One of many decisions, I’m sure. Things are going well professionally also. Recently I received the Liberty Mutual Legends Award, Leaders Award, and Top Producers Award for finishing in the top 3 in the country in new business sales. I look back fondly on my Geology days and always stop the TV channel to watch a good “Discovery” or “Nova” show. All the best! [The editor offers his congratulations!]

Daniel Jahne (1992) <djahne@SNET.NET> Dan “Stopped by the new Geology-Engineering Building this summer; Wow! What an impressive structure.” Dan is now a hydrogeologist and has just celebrated his sixth year working for Fuss & O'Neill Engineering.

Keith Correia (1994) (with Caroline Degenhardt of Middletown Connecticut) <a.team@prodigy.net> Keith and Caroline are pleased to announce their engagement. “Preliminary plans are for a summer 2002 wedding. Keith has been promoted to Director of Operations for the Pacific Northwest with his company, American Dairy Queen.” They recently purchased a home in Kirkland, Washington. Caroline is director of communication for the Community Foundation of Southeastern Connecticut.


Kevin Allison (1995) <allisonkp@aol.com> Kevin resides in Burnt Hills with his wife, Shelly. They have an adorable new baby, Kaitlin Mae, born January 6, 2001. Kevin teaches science at Shenendehowa High School, and Shelly works for State Farm Insurance.

Jason Baker (1995) <Bakes1@hotmail.com> Jason is an Oral & Maxillofacial Surgery Resident at Westchester Medical Center.

Jeff Bigelow (1995) <jbigelow@deltaenv.com> Jeff is an Environmental Consultant for Delta Environmental Consultants, Inc., Salt Lake City, UT.

Julie Griswold (1996) <griswold@pdx.edu> has started her second year at Portland State University working as a student contractor at the USGS Cascades Volcano Observatory. She is working under Richard Iverson, also her thesis advisor, studying debris flows.

Scott E. Lewis (1995) <TOKAMAC@AOL.COM> Scott is an Environmental Geologist with MSA, P.C. in Virginia Beach. He lives in VA Beach with his dog Rocks, and is planning on heading home to NY within next year.

Shane Holunga (1996) <spholunga@oees.com or shane.holunga@amec.com > Shane recently started taking classes at Tufts University and is studying site remediation technology. Shane works for Amec Earth and Environmental.

Jeffrey Nebolini (1996) <nebolini@hotmail.com> Jeff was a Freelance Graphic Designer. He reports that: “I finished a year of grad work at Rochester Institute of Technology where I studied Graphic Furniture Design. Now I’m applying to other grad programs. I’m currently freelancing for a furniture design company in Hartford, CT, and others in Boulder, Albany, Stowe, VT, and Cleveland. I’m really enjoying the work and haven’t forgotten about geology…in fact I just dug up my old mineralogy notebooks looking for diagrams of XTL
structures! I’m using the structures as inspiration for textile patterns I’m working on. Hope everything is well in the GEO-Department.” In late news he reports that he has relocated to Rochester, NY and is self employed.

**Eric Seplowitz (1996)** <ericpgstaffing@yahoo.com> Eric “recently returned from a summer working at Seney National Wildlife Refuge in the upper peninsula of Michigan. He is now working in Stamford, Conn., as a recruiter for Peter Gray Staffing.” (From the Union College alumni magazine, v. 93, no. 3, 2000.) Eric recently visited Union and said he is doing well and is thinking of relocating to the Capital District area.

**Michael Bullen (1997)** <mebullen@msn.com or mebulle@dellnet.com> Mike is a Senior Geologist of the EXXON Mobil Exploration Company. Mike says: “Come on down to Texas! There are currently many opportunities in Petroleum Geology working for the big oil companies. Believe it or not, the work is great and there are tons of young, enthusiastic people. I won’t be in Texas to much longer [has been working on Gulf of Mexico exploration], as I’ll be transferring to Malaysia for 6-8 months starting in February. Should be a fun work assignment. Hope y’all are well.”

**Jeremy Newman (1997)** <verticalfever@hotmail.com> Jeremy is now a medical student at the University of Colorado Health Science Center. He reports that: “Medical school has been incredible so far–I love it! We are taking anatomy, biochemistry, physiology and neurobiology. Outside of classes I have been climbing in the Rockies whenever I get the chance. Hope everyone is well!”

**Alexandra Buchert (1998)** <alex@xibis.com> Alex relates that she and her husband Simon have been back in the U.K. for over a year now, and have settled in the city of Leicester (~110 miles north of London). She says: “Six months ago we leapt into a big mortgage for a house that needed renovation. The house is now totally habitable, and the two of us work from a home office. Our primary business, running for almost four years, is providing internet based software to web design firms. We’ve just recently set up a new company (in partnership with another couple) specializing in one content management product (http://www.invisible-solutions.com). I must admit, I adore England and find it to generally be a more civilized country! Can’t see myself relocating back to the U.S. We’ve got a lovely little house rabbit, Chestnut, who keeps the office cheerful. We keep busy with a young people’s walking group, as there are footpaths everywhere in Britain for people to roam. We’ve got an open house if anybody finds themselves in England.”

**David Conner (1998)** <symorgh@hotmail.com> David works for Evergreen Testing and Environmental Services, Inc., in Waterveliet, NY.

**Rachel Graham (1998)** Rachel has been working with the Hamilton Hill community in Schenectady and is founder of the COCOA House (Children of Our Community Open to Achievement). This is a community outreach project that involves after school activities that include after basic literacy, school help, and even tutoring by Union College students. Rachel, and two others, were recently honored by the Schenectady YWCA as “unsung heroines”. Rachel has not given up a career in geology, but at present she is more interested in helping school kids. (In part from The Sunday Gazette, February 25, 2001, p. B1.)

**Karen Lichtenstein (1998)** <klichten@arches.uga.edu> Karen writes: “Hello! I’m writing in regards to the department newsletter and thought it would be easier for me to e-mail a blurb to you than send you one. I am currently finishing my third semester of the geology Masters program at University of Georgia. Earlier this year I received a one-year fellowship from the Athens EPA to work in the Broad River (just north of Athens) and the project is serving as my thesis project as well. I’m busy, but all’s well down here!”

**Peter Castiglia (1999)** <castiglp@unm.edu> Peter is living in Albuquerque, N.M., where he is a research assistant for the Department of Earth and Planetary Sciences at the University of New Mexico. He writes: “I am currently pursuing a graduate degree in geology while doing fieldwork in northern Mexico. Loving the sunshine and the mountains each and every day!”

**George Lombardo (1998)** <Lombarg@aol.com> George is an Earth Science/Chemistry teacher at the Aquinus Institute of Rochester. He is enjoying his career as a science teacher at this small, private school. He teaches both earth science and chemistry to Freshman and Juniors and hopes soon to begin an elective class in geology. He received an M.S. degree from the University of Rochester in the Earth & Environmental Science Department 2000. [Congratulations, George!]

**Joel Cooper (1999)** <jcooper6899@aol.com> Joel is a student at the Massachusetts College of Liberal Arts/Berkshire Medical Center and is applying to graduate schools for an M.S. in biology, biochemistry, and toxicology. He says that he is working hard, and “valuing the work ethic instilled in me while in the Geology Department at Union

**Kathleen Ruggiero (1999)** <K2west@aol.com> Kathleen is a teacher of fifth grade at the Siwanoy Elementary School, a public school in Pelham, NY. She says that: “Our grade level departmentalizes and I am the science teacher! The school and the kids are great – I love it!”
Michael Sherwood (1999) <msherwood@handexmail.com> Michael is Project Hydrogeologist & Health and Safety Coordinator for Handex of New York, and is a graduate student at SUNY Stony Brook.

Alex Bartholomew (2000) <si1078@hotmail.com> Alex is at the University of Cincinnati working with C.E. Brett on an M.S. Project involving the correlation of marine and non-marine sediments in the Catskill delta and its peripheral Devonian correlatives.

Stefan Bagnato (2000) <bagnato@mos.albany.edu> Stefan is a graduate student right nearby at SUNY Albany. He relates: “I am using isotopic and trace metal ratios from corals to understand [year and decade] scale variability in surface ocean conditions in the tropical Pacific. I am working to calibrate a new genus of coral, which has not yet been used in paleoclimate research, but could potentially hold some of the longest records of climate information in the tropical pacific that we’ve seen. I finished my scuba certification in June and we are planning on going to Fiji in December to retrieve long coral cores.”

Jamie Toney (Garrand; 2000) <Jlg35@dana.ucc.nau.edu> is now at Northern Arizona University studying the palynology and fire history around alpine lakes in the San Juan Mountains of Colorado and northern New Mexico. She just took a course in "Geochemistry of Natural Waters" with Rod Parnell. She says that she recalled pleasant times with aqueous geochemistry at Union, and “learned more about carbonate systems and acid mine drainage than I ever really wanted to know.” [editor realizes this must be a joke] She claims that her preparation for this course was good: “I had a better background going in than most of the other geology students. While other students moaned and groaned, I aced it!” [editor is always pleased to hear things like this] She is working with Don Rodbell on a manuscript for Quaternary Research on her Union senior thesis. She loves Flagstaff and enjoys the department, though she is not particularly enjoying having to take classes in archaeology and vertebrate paleontology; “ick”, she says. She most misses our up-to-date labs. Jamie further reports that: “Levi and I bought a house in Flagstaff that we are fixing up. I spend most of “free time” hiking the spectacular trails in Flagstaff with our 2 puppies, Sadie and Hazel. I am currently revising a manuscript that came out of my undergraduate thesis work on Ballston Lake that Don Rodbell, Norton Miller and I hope to publish in Quaternary Research in the near future.

Nick Balascio (2000) <nickbalascio@hotmail.com> Nick is a graduate student at Northern Arizona University.

Stephen Hadley (2000) <shadley@hotmail.com or Shadley@hotmail.com> Steve is in the United States Peace Corps, working as an Environmental Planner in the Philippines. He reports that “I am right now in Baguio, after having Thanksgiving in Secada with other Peace Corp volunteers. Had a good time and ate a lot of good food, which is always the mission on that particular holiday. Things here go well and I am meeting a lot of cool people and am happy not to be living in the U.S. especially now after Sept. the 11. That seems to be the name that people are giving to the event like Pearl Harbor refers to that bombing, that was so many years ago. I am having a tough time trying to do work here so it leaves a lot of time for travel. The people at my site move very slowly, and so it allows for me to see the country and there is so much of the country to see. It is hard to get around this place for there is so many islands and it can take days to get to places because you might have to take several boats and buses. I am, though, learning how to get around this country…. I read that Union in their infinite wisdom is going to cancel the CE Department; Union sure is doing a good job of screwing things up and weakening the school.”

Jeremy Newell (2000) is now married to Erika Manchini, apparently also a Union graduate of 2000.

Lacie Quintin (2000) Lacie writes from the eastern equatorial Pacific, floating around on the JOIDES Resolution during Ocean Drilling Program Leg 199 (Equatorial Pacific Paleocene sediments) and doing the on-board geochemical analyses. She wrote after being aboard for 2 weeks and said that the work was “very hard”. She was in charge of analyzing all of the bulk sediment samples from cores by ICP-optical emission spectroscopy. That meant learning the instrument, the software, and the analytical procedures, and mass producing the analyses. She said the other analytical people aboard didn’t know how to work the instrument, so in addition to running the instrument she was also the local chemical instrumentation professor. For pictures see the ODP Leg 199 web site: http://www.anmed.org/odp/public/life/leg199.html. She said that being aboard the Resolution was a great experience. She also says that she will be getting married next November at Union College, to the same guy she was dating at Union [but, to the curious, she didn’t confide in me his name].

Ian White (2000) <i-white@lyos.com> Ian is a grad student at Western Washington University. He writes: “Ahh yes, continued education. It’s good be a student again after a much needed year of physical labor. I’ll be
working on some active faults in Northern California for the next two years while continuing to get acquainted with the West Coast. Hope you’re all doing well.”

Obituary

**Fred Wyatt** Fred passed away on January 25, 2001, after a long illness. Though I do not know all of the details, he was, among other things a Captain in the Navy, a Member of the Lacrosse Hall of Fame, an Original Member of the Los Angeles Community Board of Trustees, and a long-time friend of Geology at Union. He was buried in Arlington National Cemetery.

**Yngvar Isachsen** Though not a Union College alumnus, many Union alums, and many other geologists, have known Yngvar as a friend and as a colleague. He died a few months ago at the age of 81 after a long illness. Yngvar was born in Norway in 1920 and immigrated to the U.S. in 1925. He joined the New York State Geological Survey at the State Museum in 1958, and was known as a tireless proponent of geology in general and New York State geology and mapping in particular. He was well known for his efforts to help students, and many of his maps and writings were designed to interest and inform the general public about geologic science. He will be greatly missed.

Awards

The Edward S.C. Smith Prize: 2001; Nick Balascio
2002; Jeff Hoffman.

The Geology Faculty Prize: 2001; Sarah Newell.
2002; Sarah Newell.

Departmental Honors: 2001; Nick Balascio, Jeremy Lundy, and Julie Seymour.

Geology Funds and Support

Donations to the Geology Department can be made to two dedicated funds:

1. The **Geology Alumni Fund** is a relatively small, continuing (not endowed) fund that is used by the Geology Department for items not covered by the normal departmental budget, by grants, or other sources of funds. These principally include travel and registration fees for students to conferences and for field trip support. This year, for example, it sent six students at the Northeastern Section Meeting of the Geological Society of America, in Springfield, Massachusetts. Four of the students presented papers that were well-received.

2. The **Geology Field Fund** is an endowed fund dedicated to supporting student field work, including field camp scholarships and research work. This endowment has grown to about $130,000 and is half way to our initial goal of $250,000. Our original plan was for this endowment to fund field camp scholarships, field trips, some field projects, and the Carbonate Sedimentology trip to the Bahamian field station on San Salvador Island. Now, in addition, we now have several new courses aboard that involve student travel to Greece (Santorini), Peru, New Zealand, and Australia. The number of Geology majors has grown, and our needs have grown in terms of supporting student field work. Our ultimate endowment goal is now $1,000,000. Most recently we received two donations, one from a local area high school teacher and one from a local community college professor, as their thanks for participation in field trips with Union Geology students.

These funds help us to help our students have the kinds of opportunities they need to excel in graduate school, the geoscience industry, and in any other field they wish to apply themselves. I wish to thank all those who have donated to the Geology Department.