CONTACT

Newsletter of
The Geology and Environmental Science Department
Wheaton College

Vol. 11 No 1 Winter 1998/1999

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No, you didn't miss the last issue of the department newsletter; it wasn't lost in the junk mail or sent to the wrong address. We have a great backlog of information to share and finally take this opportunity for you our faithful friends. We will do a better job of getting CONTACT to you in the future. Let us know if you can be reached by e-mail and we can get you a "cyber copy" much quicker and more cheaply than via paper. Please do remember to send us your e-mail address.

Below you will find a lot of information about our recent grads. They generally continue a trend of getting employed as entry-level scientists within a year of graduation. A few are seeking graduate school placements, but the availability of employment is particularly tempting to those desiring experience and hoping to pay back college debt. As always, we covet news from all of you, especially those who haven't written or visited in a long while. Your interest in our program is an important contribution.

THE DEPARTMENT AND PROGRAMS

Geology and Environmental Science may be a small department but some big changes have occurred over the last year or so. It has been hard to adjust to the gain and loss of our fifth and sixth secretary since 1987. We now have the seventh, Jill Kendall and hope that she can be part of the team for a long time to come. Last school year, we also lost (it hurts to see them go) twenty majors to graduation. Yes, that's TWENTY, almost evenly split between Geology and Environmental Science! It is, of course, a wonderful problem to have sent that many on. Please pray that we can succeed in building up the existing group to previous numbers. Those more recently-declared majors appear to be a splendid mix of personalities. For no explainable reason, females are in the new majority; that's quite a change from the report

in the last issue. The faculty is humbled by the responsibility of serving these great people. Current and graduated students are being compelled by a strong urge to serve in developing countries. One student took last semester and the summer off to serve in Senegal. Another is gone this whole year to work with YWAM (Youth With A Mission) on their "Mercy Ship", Anastasis, as it ministers to the needs of Africans. August graduate, KARIL DODDS has applied for graduate schools in Geology, but she will spend the next several months with missionary development workers in Nepal. The roll call of 1997-98 graduates is as follows, Geology Majors: ANDREW ADARE, CHAD ANDERSON, ANDREA BALLA, MATTHEW BARNER, JASON BEMISTER, KARIL DODDS, GREG JOHNSON, BOB LANGWORTHY, JOANNE SCIGLIANO, MATTHEW SNELL and DOUG WALTER.

Environmental Science Majors: MIKE BURKE, JOSH CADY, MIRIAM GAGE, PETER JOHNSON, REBECCA JACOBS, RACHEL KUSESKE, CRAIG RENZ, BEN SHEESLEY and KAREN WUNSCH.

Program curricula just keep on changing. Not only do we have a newly required general petrology course, there is also a proposal to begin a combined geochemistry-mineralogy class. This will also be a Geology requirement and take the place of the half-semester non-lab mineralogy class we tried out just last fall. Profs Greenberg and Moshier will team teach both classes. Beginning this summer, Environmental Science majors will have the opportunity to take three special courses designed for their needs. Plans are to offer the sequence, Environmental Geology, Chemistry and Biology in years alternating with the Geology field courses in the Black Hills. Mike Guebert will teach the environmental geology class with a strong emphasis on field techniques and projects. The GIS (Geographic Information Systems) class was again offered as an experimental elective this fall. Various mistakes from the first time were avoided and a new focus on ArcView software was incorporated. Thanks to a generous gift from a friend, we were able to have alum, Graham Hayes join us from his firm in New York to deliver two and a half days packed with ArcView instruction.

Some excellent presentations were made to students and faculty by guests of the department. Graham Hayes gave a general promotional talk about GIS. Rich Herd, curator of the Canadian national meteorite collection told and

showed everything you need to know about meteorites. Martin Price came to us from the ECHO agricultural ministry in Fort Myers and gave a presentation on sustainable crops in community development. This last spring the Science Division hosted the annual science symposium with astronaut Shannon Lucid. Dr. Lucid used slides to describe her experience aboard the space station, Mir.

There have been other bits of news from around campus that will affect the department. The HNGR Program Director for the last ten years, Bob Stickney announced his retirement. G&ES would really like to see a new director with Bob's extensive experience and an appreciation for the distinctive qualities that make for a good internship in natural resources and environmental studies. A decision on applicants will be made in the near future. The college is also seeking applicants for the newly created position of Dean of Natural and Social Sciences. If you know of anyone with a strong heart for integrating evangelical faith with liberal arts education and other "deanly" attributes, please have them contact us SOON. Steve Moshier is a member of the dean's search committee. Wheaton's Biology department is now looking for a terrestrial ecologist to replace Al Smith. Al will continue to teach part time but is voluntarily making room for a new person. Many of you should remember the character of the Armerding Lecture Hall. It had all the charms of a medieval dungeon, dark, stuffy, too cold or too hot, horrible acoustics, etc. The old cavern is history now. The renovated lecture hall is a relative delight. We all owe thanks to donors and the college administration.

FACULTY NEWS AND VIEWS

Jeff Greenberg

I have survived a roundtrip to Miami with all seven of the family in our van last Christmas and the program chairmanship of the '97 ASA meeting at Westmont College. I am currently trying to survive the teenage years of four children and my own challenge of chronic fatigue syndrome. There is a great deal to be thankful for including the department's recent success. Beyond the teaching, advising, recruiting and administrating there has been some time to continue involvement with the Christian Environmental

Council. I serve as the chair of the CEC Issues Committee with the responsibility of defining topics for conferences and policy actions. One future topic will be the global distribution and supply of fresh water. This year's CEC meeting convened at a Franciscan renewal center outside Phoenix. That was a venue to demonstrate the use and abuse of scarce water resources! Next year the CEC will meet at St. Simons Island, Georgia to deal with environmental justice. Among other ministry opportunities is the possibility to return to YWAM's University of the Nations to teach about environmental geology and missions development work.

The more scholarly side of my life was pleasantly encouraged by election as a Fellow of the Geological Society of America and by an invitation to help lead and keynote an international field conference in Wisconsin. The conference in late September was part of the IGCP working group on granitic rocks and continental development during the Proterozoic. This proved to be a delightful time of fellowship with investigators from Russia, Finland, Brazil and Italy. The rocks were ok too. Other highlights of the year include the preparation of a review essay for the TRINITY REVIEW on a book by a Christian economist, a tour of the 7100 foot-level of the Homestake Gold Mine in the Black Hills (with Mike Guebert, alum Peter Vagt and my Geo majors: we did find visible gold) and plans for a petrographic research project.

Steve Moshier

Reviewing the past year is difficult, as it forces me to admit that I have started many projects that remain unfinished. (I still have some papers to write from my Kentucky days, and I just have not gotten to them). One of the projects I worked on last year was a book on evidence for an old earth, sort of a geology primer for the lay Christian. My co-author lives in New Mexico, so we exchanged many drafts of early chapters by e-mail. We sent a proposal with three chapters off to Baker Books in May, but we have not heard even a "boo" from the home office in Grand Rapids.

One significant change last year was my break from involvement in the Black Hills. I spent most the summer in Illinois and many days in the office. A family trip to Cape Cod and trips back and forth to summer camps provided summer diversions. My main work project was to learn how to

make PowerPoint presentations for lectures. I created lectures for the sedimentology/stratigraphy and natural disasters courses. I sorted through 20 years of field trip slides and digitized about 250 of them with a slide scanner. I also created illustrations with our desktop scanner or downloaded images and graphics from various internet sites. The results were rewarding, as students appreciated more organized lectures with handouts containing each PowerPoint slide.

I have been blessed with some wonderful travel opportunities. After Christmas last year, I joined Dr. Nadine Folino (Biology) in leading a marine biology field trip to Belize, Central America. We spent 10 days on a tiny island on the barrier reef. The class of 12 students included Geology Major JEREMY VAUGHN and Environmental Science Major THAD NICHOLS. Poor weather kept us out of the water for the first few days, so we made a great map of the island and collected beach sands from different settings. We used a mini sieve to evaluate textures and built a falling head permeameter to calculate hydraulic conductivity. When the weather cleared, it was hard to keep us out of the water.

During the Spring Break, five students joined me on a field excursion to Arkansas. We survived a snowstorm in SE Missouri and generally chilly weather throughout the Ozarks. The highlight of the trip had to be one morning at the Coleman Quartz Crystal Mine near Hot Springs.

In May, I accompanied Dr. Jim Hoffmeier (Archaeology) to Cairo, Egypt for field work in the northern Sinai. Jim is interested in delineating the extent of ancient canals that are buried in the desert sand. These canals were revealed by aerial and satellite photos in the 1960's. We believe they are part of a system of canals that marked the eastern frontier of the Pharonic kingdoms. Jim just needed someone to help him utilize the maps and photos to find the traces on the ground. Using these resources and a simple GPS (which was donated to the department by DR. PAUL WRIGHT), we were able to map the existing roads and find at least one segment of the canal trace. Unfortunately, development in the area has covered over most of the canal system that was revealed on the older photographs. Also, we were unable to recover any datable materials from auguring in the canal down to about 3 meters below the surface. We hope to continue with our work there. After slaving in the hot sun, Jim treated me to

side trips to the Pyramids of Giza and a pre-dawn hike up Mount Sinai. The Wheaton College Alumni Foundation provided funding for the trip.

MIKE GUEBERT and I have gotten involved in some local fluvial geomorphology work. We are helping, along with other expert volunteers, with a watershed study for the St. Charles Park District (a community west of Wheaton on the Fox River and where I live with my family). A few students from the department are helping to sieve sediment and do discharge studies in the creeks of the watershed. In the Spring we will participate in a seminar/field trip on River Geomorphology for citizens in Kane County (community leaders, developers, landowners, etc.).

Mike Guebert

I must go way back to the summer of 1997. With some disappointment, I remained in Wheaton all summer to pursue scholarly writing. I did manage to finish and submit two articles on teaching methods in science, and I had a manuscript from my dissertation research accepted in *Geomorphology*. I also made significant progress on my faith and learning paper dealing with The Distinctive Role of Geology in Environmental Stewardship. I did achieve some writing goals, but I desperately missed the Black Hills.

During the last year, I have continued to implement as much field work and project work as I can in my courses. While students enjoy the field experiences, the Wheaton time-crunch always casts a heavy shadow. So many things are available for students here, both academically and extra-curricularly, they are often shortchanged on the field experiences. On the other hand, the joy of teaching in the field at the Science Station remains. It is the best way to learn and the best way to teach. Those of you who participated in the Black Hills summer program know exactly what I mean. I am guessing that the Black Hills program could very well be the best academic experience a Wheaton student could have. Last summer, I taught for eight weeks and co-directed the program with Jeff. (I personally enjoyed the extended stay, but it was a bit of a stretch for my family to endure such a long stay in such small quarters with so many people always around.) Next year, I will return for a shorter time to teach Field Methods in Environmental Geology in our new Environmental Science Majors track.

More recently, I have attended several interesting meetings and short courses. In early October, two students accompanied me to a two-day workshop on Characterizing Ground Water Movement Through Glacial Sequences. While I learned much personally, the real pleasure was seeing the two students engage themselves in the field portion of the workshop. They really impressed the organizers and they show great promise and enthusiasm for more independent research in the future. The very next week, I attended the annual planning conference of Lifewater International. This Christian relief agency organizes hydrology professionals as volunteers to develop water resources for the poor in Third World countries. I foresee a promising future for my personal involvement with Lifewater, and hopefully for involving students on short-term projects. This type of direct integration of hydrology with their

Christian faith has several students interested already. I am excited about the many opportunities we are encountering for students to put their faith to work within the context of their major.

For the rest of this year, I plan to turn my attention to the development of the comprehensive environmental stewardship program on campus. I would like to propose changes and improvements in many areas on campus, including the Environmental Science/Studies curriculum, extra-curricular activities, internship and short-term opportunities, student research, campus facilities and grounds management, energy and waste management on campus, and other yet unknown areas. Through this, I would like to bring the biblical mandate of creation care to the attention of our brothers and sisters in the Wheaton College community.

ALUMNI NEWS

As we receive notes, calls and visits from past students, we will pass their news along to you. Consider the following bits:

ANDREW ADARE (see his essay below) has gone to work with a petroleum company in Baton Rouge, LA.

MATT BARNER is working on his M.S. degree in Geoscience at Wright State Univ. in Dayton, OH.

JOSH CADY is working with Sanford Cohen and Associates at the Rocky Mountain Arsenal near Denver. He is involved in the cleanup of the military reserve, utilizing ground geophysical techniques.

STEVE DUNBAR is finishing up his extensive training with Moody's aviation school in Tennessee. Steve and wife Kristin are waiting on the Lord for the next major change.

MATT DECOURSEY and his young family are living in Indianapolis. Matt is busy with work in the construction business.

ANDY FULTON is still in the hydrogeology/environmental consulting world but is in the search for other positions including work with the Maryland Geologic Survey.

JAMEY FULTON has begun work on a Masters degree in Earth Science Education at Ball State Univ. in Muncie, IN.

ANDY GASCHO has the great blessing of doing geochemical research for his PhD at the Univ. of Hawaii. Too bad, but somebody has to study those gassy volcanoes.

SETH HOLZWARTH and his wife are ministers with Young Life in the high schools around Naperville, IL.

ASHLEY INSELMAN has completed her three-year service with Mennonite Central Committee in Uganda. She is now working for the state of Idaho as a senior research analyst and is also making application to integrative doctoral programs at the London School of Economics and Cornell.

ANNA KRAFTSON HOGUE is now teaching at a private high school in Chicago after completion of her M.S. in Environmental Education at Antioch New England University. She has the daunting challenge of mentoring inner-city girls and bringing the glory of nature into their lives.

BECKY JACOBS is now working at National Environmental Testing in Bartlett, IL. She is analyzing the chemistry of water and soil samples. She was married to Ben Sheesley in October and they both plan to pursue graduate school next year.

RACHEL KUSESKE will be getting married and take a position with an environmental firm in Delray Beach, FL.

JACK LEEDY is still in the energy exploration business but now with Kerr-McGee in Houston.

MIKE LOWE is at Tulane Univ., working on a Masters in Environmental Health.

TALMAGE PAYNE has been World Vision's Manager of Human Resources and programs in Cambodia. He may be changing positions with W.V. to responsibilities in even more difficult parts of the world.

PAUL RIBBE has officially retired from the Geoscience Department at Virginia Tech. His vast talents and energy are now focused on his role as Senior Elder of his church. Of course, Paul is still active in professional societies.

DWIGHT SCHUSTER continues to work on his M.S. at Cornell, with concentration on Education and Natural Resources.

JOANNE SCIGLIANO is now with Americorps VISTA (Volunteers In Service To America). This is a paid internship to secure grants for study and implementation of recycling education in poor neighborhoods in Milwaukee.

BEN SHEESLEY now works at Soil Probe Environmental in Aurora, IL. He operates a Geoprobe (direct push) sampler for soil and groundwater samples. He was married to Becky Jacobs in October and they both plan to pursue graduate school next year.

BRETT SWIGLE has completed his engineering degree at the Univ. of Colorado-Denver and plans to begin work on a graduate degree in Civil Engineering.

KARL TUREKIAN was awarded the American Geophysical Union's Ewing Medal for outstanding services to the marine sciences. Karl continues to set a fine example for those wishing to contribute to their discipline.

GROUND WATER HYDROLOGY NEAR FISHERMAN'S INN, ELBURN, ILLINOIS

Matthew Barner and Michael Guebert

(Submitted for "Quaternary Geology, Geomorphology, and Climatic History of Kane County, Illinois" in: Field Guide to Geological Society of America-North Central Section Annual Meeting, Champaign-Urbana, to be held April 22-23, 1999)

The Fisherman's Inn restaurant is located near several artesian wells and small springs on the bank of Blackberry Creek west of Batavia, Illinois. Several spring-fed ponds were originally constructed for fishing and holding trout for the restaurant. In early 1997, with permission from the restaurant, Wheaton College volunteered an undergraduate research project to understand the regional groundwater hydrology of the area. The ultimate goal was to delineate the recharge area of the springs and wells as information for spring-head protection for the restaurant owner. Our primary objectives were measuring, recording, and correlating fluctuations of: rainfall, spring and well discharges, and regional ground water levels.

During the first year of monitoring, (beginning May, 1997) the discharge of two springs varied little from 0.3 and 0.8 gpm, respectively. Three artesian wells flowed at annual averages of 2, 4, and 7 gpm with less than 3 gpm annual variation. Depths to water in seven nearby private wells ranged from 12 to 65 feet depending on topography (738 to 750 ft. elevation), with annual fluctuations less than three feet. Fluctuations in spring and well discharges and in ground water levels correlate well with seasonal climate

change, with maximum levels in mid-summer and minimum levels in December.

Stratigraphic information from reports (Visocky, 1990; Curry and Seaber, 1990) numerous state well logs, and nearby quarry outcrops (Stravers, and Curry, 1994) indicates the aquifer system in this region includes two unconfined, hydraulically connected units. The shallow Silurian dolomite bedrock aquifer is overlain by 100+ ft. of Quaternary sand and grave (Illinoian age Pearl Formation). The overlying glacial material is the Kaneville aquifer member of the Elburn aquiformation, Prairie aquigroup. Most water wells in the area exploit the lower portion of the sand and gravel aquifer.

A water table map constructed from water levels in the seven local wells shows an easterly ground water flow direction at a low gradient (3 ft/mi.) in the upland and increasing gradient near the regional discharge area of Blackberry Creek. Blackberry Creek flows south in a valley incised about 80 feet below the regional upland. Depth to water decreases near the creek producing several gravity springs on the valley hillslope. The depth of the Fisherman's Inn wells (90 ft.) in the upward flow of the Blackberry Creek discharge zone produces the artesian conditions in the wells. The recharge area of the springs extend approximately 2 miles to the west of Blackberry Creek.

In March, 1997, Chicago-Elmhurst Co. began dewater pumping in their Kaneville sand and gravel quarry 1.5 miles west of Fisherman's Inn. Public concern over lowered water levels in wells and ponds initiated intense public dialogue between citizens and consultants for Chicago-Elmhurst Co. Pumping was discontinued in December, 1997, at the same time (seasonal?) recovery began in local water levels. Pumping was not resumed as planned in 1998. Students at Wheaton College are continuing to monitor spring and well discharges and ground water levels to better define the recharge area of the springs and to understand the magnitude of impact of quarry dewatering on local ground water conditions.

References:

Curry, B. Brandon, and P.R. Seaber, 1990. Hydrogeology of Shallow Groundwater Resources, Kane County, Illinois, Illinois State Geological Survey, Contract/Grant Report 1990-1, 37 pp.

Stravers, Jay A., B. Brandon Curry, 1994. Late Pleistocene Stratigraphy and Deglacial Landforms of Northeastern Illinois; Kane and La Salle Counties, in: Guidebook for the 58th Annual Tri-State Geological Field Conference, Northern Illinois University, DeKalb, Illinois.

Visocky, Adrian P., 1990. Hydrology and Water Quality of Shallow Ground-Water Resources in Kane County, Illinois, Illinois State Water Survey, Contract Report 500, 39 pp.

SENIOR CAPSTONE PAPER written by ANDREW ADARE

One of the things I have always appreciated about geology is its diversity. Physics, Chemistry, Mathematics, and Biology are all studies which are extensively applied in geology, but it is also a very unique study in itself, both in the nature of what is studied and in the methods used. There is a unique way of thinking when studying geology that requires scientific objectivity and accuracy, but at the same time an ability to live with uncertainty. Just as astronomers deal with incomprehensible distances and particle physicists work at incredibly small scales, geologists study events and processes occurring in the immensity of geologic time, something that is capable of removing us from our subjects of study as much as large distances or tiny scales.

The framework of our grand unifying theory, plate tectonics, is a span of time allowing the imperceptibly slow rates of large-scale processes to form the surface of the earth as we know it. Contained in this time interval of billions of years is a history that can only be unfolded by pulling together all of the aspects of geology, in a way that they complement each other in truth and elegance. This theme of gathering together the different areas of study and trying to make sense of the

accumulation of knowledge I have acquired in my different geology courses is the obvious goal of the capstone course. The degree to which this goal has been met is greater than what I had expected at the beginning of the class. In retrospect, pulling everything together was almost inevitable because the broad and interdisciplinary nature of geology is inherent in the study of plate tectonics. An interesting feature of plate tectonic theory is that a deep knowledge of geology is not necessarily required for a basic understanding of the processes involved, such as spreading, subduction, and drift; and it is reasonable to think that someone who is just learning earth science from the beginning would have a fair understanding if they read the text from this class. However, returning to the study of tectonics after having taken 30 hours of geology courses solidifies how this paradigm governs structures, sedimentary processes, geomorphology, and mineralogy, and a sense of continuity and appreciation for hidden order is something that has been more deeply instilled in me.

The scale of the continental and oceanic plates, the magnitude of the forces that drive them, and the time over which the processes occur are all large enough to present problems for determining direct empirical data, so we rely on several assumptions when doing field study. Among the most important are the laws of superposition, uniformitarianism, and original horizontality. The two stratigraphic rules are straightforward and relatively intuitive, but the idea of uniformitarianism is by nature subject to scientific, and maybe even more so, philosophic debate over its validity. It has been evident in my limited experience that conclusive proof of uniform rates in natural processes over geologic time is hard to come by. The problem is that, in order to really know in an absolute sense what rate different processes move at, we need a modern analog of a process whose rate we have been measuring, and we haven't been measuring things for long enough to really know for sure whether some things happen at uniform rates. Over a span of 4.5 billion years, the smallest inconsistency or perturbation in something like a speculated rate of plate movement would amount to a huge discrepancy. All this is to say that I believe that natural laws like uniformitarianism are probably correct or at least very good approximations of reality, but it is part of the responsibility of a scientist not to overlook their limitations.

The idea of scale in geology is something that is a source of wonder, because the tools of a geologist range from SEM's to Landsats. It is easy to take for granted that tectonic deformation is visible on a thin section, and that a large outcrop and a hand specimen and an electron microscope image of the same type of rock often appear equally uneven and irregular. Something more seems implied by Pumpelly's rule than that folds of a similar deformational event are of similar shape and orientation, even though they are different sizes. There is a deep complexity in nature that manifests itself in a particularly striking way in geology, something that is confounding because trying to simplify by looking more closely just gets back to the start. Some examples are the geometry of faults, the irregularity of coastlines and landforms, and sedimentary processes. Finding a way to deal with this complexity requires us to try and work with it on its own terms instead of avoiding it by simplifying systems. Recognizing the complexity of some of earth's processes and systems is the first step in coming to a better understanding of their dynamics, because if forces us to abandon our deterministic philosophy and look for alternate patterns of order in nonperiodic systems. It is true that our present model for chaotic systems is inadequate, because just as it is impossible to predict where a noodle in boiling water will end up after even a short interval of time, we do not understand the mechanics of the similar convection cells that are thought to drive the earth's crustal processes. The desire to solve these types of mysteries are what cause geologists, and all scientists, to continue their research and hard work.

Prying into the nature of something we do not understand arouses our innate natural curiosity that is such an important motivation in studying science, but most people recognize that there are questions that cannot be answered satisfactorily by scientific explanation. Even though their study does not have a great deal of practical value, astrophysicists and cosmologists like Stephen Hawking and Carl Sagan have been met with a great deal of fame and success because they are trying to answer questions that have in the past been relegated to scrutiny only by philosophers, mystics, or theologians; and the people are pulling for them, because they are curious too. It seems that their hope rests in the goal of their study; that is, to bring the supernatural down to the natural with scientific explanation. Then they could rest easy in the assurance

that the Universe is a deterministic machine which we have mastered with laws and equations.

As a Christian, I know that this is an empty endeavor, which is not to say that it is not fruitful to ask big questions in a scientific way. On the contrary, this issue is what sets the Christian scientist apart from the non-believing scientist. On the surface both should ideally do impeccable science and try to come up with conclusive findings, but the motivations for exploring the nature of nature are vastly different. I cannot speak with any authority on the motivation of non-Christians in studying science, but I do know that it stands in sharp contrast to those who consider having an opportunity to peer into the mind and creative capacities of the God of the Universe as the highest form of worship.

With this in mind, I am confronted with the question of how this will be reflected in my future career. My transition from taking to giving back to science begins humbly as a geotechnical worker in the petroleum industry, and I am convinced that God has blessed me with this opportunity for a reason. A great deal of trust is involved in the big decisions at this point in my life, because although I am basically finished with college, I don't really know anything. I am going into the field equipped with a basic understanding of geological processes and principles, but more important than the knowledge gained in all those classes is the work ethic and high frustration threshold that I have acquired from endless labs and assignments. These things I value more than facts and thinking processes because they have added to my character, something that sticks in my heart and is always present no matter what I throw myself into later on. This is what has set my education at Wheaton apart, something I could not have possibly known before coming here. Thanks.

Let's Keep In Touch!

Please take a few minutes to let us and your classmates know what you've been doing: promotions, publications, election to office, marriage, parenthood, moving, awards. We'd like to hear from you. Send your news to the:

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Name	Response date
Home address(indicate if changed)	
Home phone	Office Phone
E-mail	
	Degrees from other universities
Present employer and brief job description	
Other news you would like to share	