INSIDE

The Mylonite

The Newsletter of the
Geological Sciences Dept.
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NEWS FROM THE CHAIR

NOTE FROM THE CHAIR 2008

Once again, greetings to each and every one of you! This will be the last letter I write to you all as Chair of the Geological Sciences Department. It is time for a change in leadership, new ideas and new approaches. I will end my tenure as Chair at the commencement of the spring quarter of 2009. At that time, Dr. Jon Nourse will take over the responsibilities. It has been a true pleasure and a privilege to have served you all for so long. Reflecting back on this past year, there is no doubt it was my most difficult year as Chair. The report below is far from up beat and only peripherally related to my stepping down as chair.

Before I get into the challenges of this past year, I want to thank all of you who responded to our request to create a Field Experiences Fund. As I have said in my thank you letters, State funding can not be relied upon or sustain our most fundamental of needs: the field program. Through this Field Experiences Fund, we hope to have an on-going source of funds that is independent of the State General Fund to maintain this absolutely key aspect and hallmark of our program. Thank you all very much!

Now, on to the depressing "stuff". The 2007 *Mylonite* was largely completed by the end of October of 2007. It painted a rosy, positive picture. As you may also recall that the *Mylonite* was not distributed until January 2008. The three month delay was a sign that things had radically changed within the College of Science. In essence, by the end of October 2007 the College had run out of money and all funds were frozen. All expenditures had to be approved by Dean Straney and the Provost. Only essential items were approved.

Spending was severely curtailed. The *Mylonite* was one of those "non-essential" items. It was only through collective Department persistence, the immense help of Ms. Mary Jo Gruca, the College's Development Director, and the University's Office of Advancement were we able to send the *Mylonite* out to all of you. It was no easy task.

All faculty searches within the College of Science were cancelled. Geology had already begun advertising and was receiving applications when our search for a Sedimentary Geologist was ended. As of this writing, the Sedimentary Geology position remains vacant and there is no faculty search underway. A search will not be permitted during 08-09. The Department will have been without this vital, fundamental discipline for at least three years. As Dr. Berry and I did two years ago, this coming spring quarter he and I will again team teach the Sedimentary Geology course.

The budget for part-time instructors was severely reduced. Promises and commitments I had made to this fine group of people, due to lack of funds, had to be retracted. I had no choice but to layoff instructors to remain within the constraints of limited funds. The decisions were difficult. I deeply regret what had to happen. The actions stemming from the budget crisis may have negatively impacted our pool of part-time instructors for some time to come. As a result of last year's events; courses were cancelled, curtailed in size, split between part-time and regular faculty, or simply not offered. The Department stayed within budget, met its target, but could not meet all the demand from the Cal Poly Pomona community.

The field component of Geology's program was

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also affected. Field trips for non-core classes were either not offered, cancelled, or run without compensation to faculty. Core course field trips were retained.

Newly hired geophysicist, Dr. Jascha Polet, had her start-up funds delayed. This slowed her research effort. Through her persistence and determination, she managed to free up funds to purchase several computers to permit a senior thesis (our first seismology senior thesis) to move forward and to maintain her research as well as real-time monitoring of global seismic events. For lack of instrumentation, she could not offer her exploration geophysics class planned for the spring '08 quarter. As of this writing, her start-up money is available for her needs.

In order to get through 07-08 all departments within the College, Geology included, had to turn to their discretionary, non-state accounts. Basic supplies, copying charges, field vehicle fuel and repair charges, which should have all come from the State General Fund, were billed against Geology's Foundation account. Needless to say, this was a major drain on funds largely derived from alumni contributions.

Oh yes, how can one forget Prioritization and Recovery (P&R)? The P&R recommendations hit the same week as the College's budget crisis started! In spite of being praised by the P&R committee for Geology's vital and unique role, both its programs, Integrated Earth Studies and Geology were recommended for either merger or discontinuance. There was also a recommendation to re-align Geology with other "environmental" programs such as regenerative studies, architecture, urban and regional planning and plant and soil science. Faculty and students spent many days crafting responses to the P&R recommendations, as well as participating in open forums. Valuable time was diverted away from academics, research, and departmental responsibilities. Geoscience majors were strong, united and vocal at the open meetings. Many of you fine alumni sent strongly worded commentary to the P&R committee. Across the board, in all University programs, the negative response to the recommendations was overwhelming. As a result, President Ortiz, suspended the process and is developing a more inclusive vision of Cal Poly Pomona.

To end this litany of negative news, let me say that due to the State's Budget shortfall and delayed 08-09 budget, the campus continues to face budget challenges. Anticipating a 7 % campus budget reduction many of the measures I mentioned above are still in effect. We continue to use our non-state discretionary fund to pay for some service contracts. This fund is greatly depleted.

There were bright spots in 07-08. At this year's Alumni Reunion we were most fortunate to give almost $10,000 in scholarships and awards. This was the first year that the Grayce Teal Memorial Scholarship was awarded. Two fine re-entry students, Kimberly Poste and Brian Oliver, each received $3,000 – full tuition and fees for a year! Kayla Kroll was the recipient of the Margaret Claire Van Buskirk Memorial Scholarship. Robert Ellis (last year's Van Buskirk recipient) was awarded the Ernest Prete, Jr. Geoscience Scholarship. Julie Brown received the Henderson – Valles Geosciences Award as well as a Brunton compass donated by Alumnus Brent Norum ('97). Shaun Moorish and Travis Avant each received a Peter K. Valles AGI Glossary of Geology. I wish all of them highest congratulations. They all are a credit to the Department and fine role models for all of our geoscience majors.

Dr. Polet was able to offer two new courses, Global Geophysics and Seismology. These courses will formally enter the catalog. Global Geophysics is co-listed with the Department of Physics. Both Seismology and Geophysics attracted wide interest from students in Geology, Physics, Engineering and other science disciplines. Dr. Polet is developing a course in mathematical applications for the Earth Sciences which will be taught this coming spring quarter. Her Exploration Geophysics course (the one she could not offer in 07-08 for lack of equipment) is scheduled for winter quarter 2009.

For the first time this fall, Geology is offering Engineering Geology II (GSC 415/415L). This course is a required course in the Civil Engineering Geotechnical Master's program. Thus, for the first time, the Department is involved in Master's level instruction.

In the fall of 2007, the Department, under the leadership of Dr. Jessey, submitted an excellently written proposal to start a Master's Degree program in Geology. The proposal has been viewed positively by the College Curriculum Committee, Dean Straney, and the Office of Academic Programs. It is now pending review in the Academic Senate. There still remains a long review process before becoming part of the Campus Master Plan and enters the implementation phase.

In the spring of 2007, Dean Straney initiated a call for proposals for a new program, Quality Learning Fund (QLF). The program supported innovative instructional programs which enhanced student learning. As mentioned in last fall's *Mylonite*, Drs. Marshall and Nourse received $15,000 from the QLF to establish an interdisciplinary international field studies program. Over spring break of March 2008, Marshall, Nourse and fifteen students, including a graduate Biology major, and

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students from Cal State Northridge, traveled to Costa Rica to conduct field studies emphasizing the tectonics, geomorphology and field mapping of the actively deforming Nicoya Peninsula of western Costa Rica. Yes, even the Biology grad student had a bio-related study.

Recognizing the changing nature of the profession the Department plans to search for a faculty member with expertise in Engineering Geology. When searches are approved, this would make an eighth faculty position. The new faculty position is justified because of the increasing demand for the engineering courses, involvement with Civil Engineering, and the need to expand the applied aspects of the program. This aspect of the program requires a full time coordinator.

Finally, be sure you look at the Grants and Publications section of this *Mylonite*. Note the shear volume of activity. Notice the very large grant sums. Notice that there are six different publications which include in total, eleven current or former students! This year, faculty have been stretched to their limits. Yet their scholarly activities are remarkable!

It is time to conclude Klasik's last Note from the Chair. I hope to see you all at our May 2, 2009 Alumni Reunion. We all wish Dr. Nourse much success as the Department's new Chair. I am sure the Department and its programs will prosper and grow under his strong leadership. I sincerely hope that when you look back on what has transpired "under my watch" that you remember mostly good things. So, it is with profound gratitude that I thank you all for allowing me to serve as Chair of the Geological Sciences Department.

Thank You!

John A. Klasik

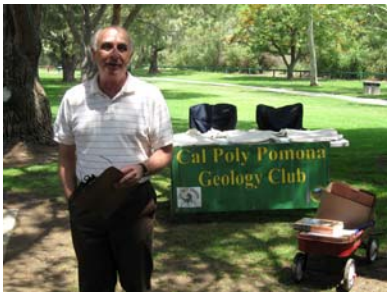
SPECIAL ANNOUNCEMENTS

2008 ALUMNI REUNION

The May 2008 Alumni Reunion was held at Carbon Canyon Regional Park. Carbon Canyon was also the site of the 2007 Reunion. This year, with trusty red Radio Flyer wagon in tow, we were ready for the long walk from the parking lot to the picnic tables at site number 9. Transportation of all things, most importantly "things heavy", was easily accomplished by faculty, alumni and current students. Learn-By-Doing paid off! The weather was great. The site was plenty shady.

The picnic was well attended. The fifty or so attendees were a mix of current students, faculty, friends and of course, alumni. It was a pleasure to meet and talk with all of you. Seeing so many returning alumni and a nice compliment of newcomers was most gratifying. It was great to see and renew acquaintances with such first time attendees as Scott McKeag ('82) (and his son). We believe this was Meredith Staley's ('03) first (of many to come) time at a reunion. Joanna Hawkins ('86) and husband Thom Deane ('83) were also new comers to our reunion.

The weather cooperated. It was a pleasantly warm and sunny day. The abundant shade of the picnic site made the early afternoon quite comfortable. Unfortunately, for Lucy Herber something photosynthetic was busily blooming and spewing forth pollen.



Alumni Reunion 2008

Poor Lucy had to spend her time in the more filtered confines of the Herber's car! Good husband Larry, frequently commuted back and forth supplying Lucy with food and drink. No, tough field person Larry, did not take advantage of the red Radio Flyer!

Thanks go out for all the time and effort, faculty, current students and alumni, spent preparing the fantastic array of food. As I pointed out in my "formal remarks" at the Reunion and as you read in the Note from the Chair, this was a most difficult, challenging and busy year at Cal Poly Pomona. Faculty did all the shopping for the main items - soft drinks, hot dogs, hamburgers, etc. Dr. Jessey, as always, did a great job of lighting the charcoal and cooking the food. He had help from several current students. Alumni brought a wonderful assortment of salads, pies, desserts, fruit, chocolate covered strawberries, and more. As always the food was excellent, and abundant.

This bucolic setting was complimented by the awards ceremony. Details about each award are mentioned in another article. The Department was most privileged and fortunate to be able to give so many awards. These awards recognized fine academic achievements, senior thesis research, contributions to the Department and / or Geology Club. The awards may single out some for formal recognition, but the awards and their recipients are representative of high caliber, role-model status of all our undergraduates.

The 2009 reunion will not coincide with Mother's Day weekend. The Cordilleran Section of GSA has already taken that weekend. Thus, we have very tentatively set the date for Saturday, May 2, 2009.

So, mark your calendars and make plans to attend next year's reunion. Depending on where we have the event, the red Radio Flyer wagon may or may not be there! See the kinds of things you might miss if you don't attend!!

SCHOLARSHIPS AND AWARDS 2008

This year the Geological Sciences Department was most fortunate to give almost $10,000 in scholarships and awards to seven fine geoscience majors. An entire trip from car to picnic site with the trusty Radio Flyer wagon was devoted to Awards!

As you read about these excellent individuals, also note that each award was given by a different presenter (the guys in the sun glasses). The approach proved to be an excellent personal touch and more firmly bonded the recipient to the award. Also, note in some of the photographs the "checks" given to the recipients. Campus procedures for disbursing monetary awards have changed rendering "real live" checks impossible. In lieu of "real live" checks, recipients were given "bigger than life" checks. Each check image, to a degree (at least in Klasik's convoluted way of thinking) reflected something about the award.

MARGARET CLAIRE VAN BUSKIRK MEMORIAL SCHOLARSHIP: Ms. Kayla Kroll.

The 2008 Van Buskirk award was given by Mr. Morty Price ('99) to Kayla Kroll. In 1997, Morty Price was the first recipient of the $750 Van Buskirk award. Morty has become a defacto member of the Van Buskirk Scholarship Board of Directors. Morty's presentation added a personal touch to the presentation.

Dr. Klasik, Morty Price ('99) and Kayla Kroll

The Van Buskirk Award is given to the student who epitomizes the passion for geology that Margaret Van Buskirk displayed. The Scholarship recognizes Margaret's hard work and commitment to her undergraduate studies.

Kayla Kroll displays many of the traits that Margaret Van Buskirk exhibited. Kayla is most serious about her education. She is committed to life long learning. Kayla's work is thorough, on time and well done. She took advantage of opportunities and made the best of her undergraduate experience. During the summer of 2007, Kayla participated in a Research Experiences for Undergraduates program through the University of Maine. Kayla contributed greatly to the Department: student grader; vocal advocate during the P & R forums, 06 – 07 Geology Club president, etc. She displays an enthusiasm for the profession.

Like many geoscience majors, Geology was not Kayla's first "choice". Kayla entered Cal Poly Pomona as an Engineer. Fortunately, the sciences and Geology were part of her curriculum. She changed majors and was very successful. Kayla is now working for ETIC Engineering as a staff geologist.

ERNEST PRETE, JR. GEOSCIENCE SCHOLARSHIP: Mr. Robert Ellis.

Robert Ellis is the 2008 recipient of the $1,000 Ernest Prete, Jr. Award. The award is given to a geoscience major who, through directed research, has fostered a better understanding of earth's physical environment. Dr. Jeffrey Marshall, Rob's senior thesis advisor, was the presenter.

Rob's senior thesis examined dismembered alluvial fans north of Claremont and Upland. His study provides a more accurate picture of the Quaternary history of this section of the San Gabriel Mountains. By carefully looking at the geomorphology, gravel provenance, soils, active tectonics and assessing the associated geologic hazards, he has advanced our knowledge of the central San Gabriel Mountains. A more accurate picture of the foothill region adjacent to a densely populated area of southern California has great merit.

Robert Ellis and Dr. Jeffery Marshall

Rob was the 2007 recipient of the Margaret Clare Van Buskirk Scholarship. He was the 07 – 08 president of the Geology Club. He served as a student grader. Rob is now attending UC Riverside as a graduate student.

HENDERSON – VALLES GEOSCIENCES SCHOLARSHIP: Ms. Julie Brown

Dr. David Jessey presented this year's $750 Henderson - Valles Geoscience Scholarship to his senior thesis student, Julie Brown. Through generous contributions from Peter K. Valles and his employer, Shell Oil, the Henderson – Valles Geosciences Scholarship was established in 2004. Through this award the faculty honors scholastic achievement, contributions to the program, diligence, senior thesis research, etc. Julie Brown was selected as this year's recipient.

Julie received the Henderson – Valles award for her high academic achievement and the many ways she

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has contributed to the Department. Julie's work was of consistently high quality and thorough. She is the first geoscience major to be part of the Cal Poly Pomona Honors College (program). She was a student grader. Julie has not only been busy with her own senior thesis, but has assisted Dr. Jessey in his research endeavors. As Fund Raising Chair, Julie's involvement in Geology Club has been key to the Club's 2008 success. The second annual cheese cake sale and the Juice It Up! events facilitated another successful year of fund raising. Julie is involved in Girl Scouts. Julie was the banner carrier for the Department at this June's commencement exercises.

Julie Brown and Dr. David Jessey

Julie is now a graduate student in geochemistry at the University of Nevada, Reno. We wish her great success and hope she continues on for her PhD.

GRAYCE TEAL MEMORIAL SCHOLARSHIP AWARD: Ms. Kimberly Poste & Mr. Brian Oliver.

This was the first year (we sincerely hope many more will come) that the Grayce Teal Memorial Scholarship was awarded. The Teal family established the scholarship to honor the memory of Grayce. Grayce Teal graduated from Cal Poly Pomona in 1977. Geology truly changed her life. The Grayce Teal Memorial Scholarship is intended to assist students who have returned to college to pursue a degree in the geosciences. This year we were able to give two awards. The first two recipients, Kimberly Poste and Brian Oliver, were excellent choices for the $3,000 each, full year of Cal Poly Pomona fees and tuition. The award was presented by John A. Klasik


Brian K. Oliver, Kimberly Poste and Dr. John Klasik

Kimberly will graduate as an Integrated Earth Studies major at the conclusion of the fall 2008 quarter. Kim is very involved in the Geology Club. She took the lead in establishing an Association of Engineering and Environmental Geologists chapter on campus – a joint effort of Geology and Civil Engineering. She was a staunch supporter of the Department in this past fall's Prioritization & Recovery open forums. Kim is involved in such community activities as Orienteering.

Brian Oliver is continuing as an undergraduate Geology major. Brian was elected as the 08 - 09 Geology Club president. Brian is a hard working student who takes great care in thoroughly completing his assignments. He, like Kim, has been very involved in his high desert community and particularly involved in his church and Boy Scouting.

PETER K. VALLES AGI GLOSSARY OF GEOLOGY AWARD: Mr. Travis Avant & Mr. Shawn Moorish

Travis Avant completed his undergraduate studies in June of 2008. Travis' senior thesis, studying the aftershock sequence of a great earthquake in the Northwest Pacific, was not only Dr. Polet's first project, but the first seismology thesis in Departmental history. Travis is now a graduate student at New Mexico State University, Las Cruces. Travis will focus on structural geology. A Glossary of Geology is just the thing needed to start his grad student career on the right foot. We wish him great success.

Shawn continues as an undergraduate Geology major. Shawn's enthusiasm for Geology is ever evident. Shawn has been very involved in Geology Club. This past year, Shawn was the Club's webmaster. He worked diligently and continuously to produce a top notch website. The faculty feel Shawn has much potential as a geologist. This AGI Glossary is a tangible way to recognize his enthusiasm. Shawn will graduate in June of 2009.

BRUNTON COMPASS AWARD: Ms. Julie Brown

Dr. Jon Nourse presented this year's Brunton Compass to Ms. Julie Brown. This year's compass was donated by alumnus Brent Norum ('97). Brent is the College of Science Director of Information Technology.

Julie Brown and Dr. Jonathan Nourse

Julie's work in the field is noteworthy. She is a fine field geologist. During Dr. Nourse's introduction he praised her mapping abilities. Her finished maps were detailed, clear, meticulously drawn. If you have seen Dr. Nourse's field maps you know that, coming from Dr. Nourse, this is quite a statement!

FACULTY NEWS

DAVID BERRY

My activity for 2008 was essentially a carbon copy of the previous year—no exotic travel, but many short trips through southern California and the Southwest and, in part, for the purpose of cataloging the rapidly shrinking paleontological resources of the California coastal zone. The bulk of my time has been in fully packed classrooms, teaching and managing the mountain of paperwork generated by this activity. Also, during the course of the year, I have given my usual guest lectures in Forensic Science and Energy and Society.

In February I traveled to UC Berkeley to participate in a two-day short course on Global Climatic Change and Evolution hosted by the Museum of Paleontology and the Department of Integrative Biology. Several talks involved re-examination of the ranges of birds, small mammals, and plants, collected during the early Twentieth Century in the Sierra Nevada region and the comparison with their current ranges. The specimens are housed in various campus museums. Some species have shown an altitudinal shift over the last century while the distribution of others is more equivocal.

In March I attended meetings of the Rocky Mountain Section of the Geological Society of America. I was particularly interested in the poster session where my old college buddy, Joe Fandrich, gave an update on his investigation of a likely asteroid impact site in southern Utah. I confess that I once was skeptical about the interpretation of this widespread brecciated zone, but multiple lines of evidence now have convinced me that Joe, indeed, has found a "star wound."

In April, I participated in the Desert Symposium at Zzyzx where the old question of what does the Bouse Formation represent was considered again. I was able to attend two days of a multi-day field trip, led by Bob Reynolds of LSA, to representative outcrops of the Bouse Formation in areas between Amboy and the Colorado River. Prior to this I had studied a variety of Bouse Formation micro mollusks loaned to the Bernie Lane Laboratory by Bob. The goal was to determine various biofacies within the Bouse Formation that would indicate lacustrine, brackish, or shallow marine environments that might aid in better timing of the opening of the northern ancestral Gulf of California.

Another study, carried out in April-May of this year, was the identification of marine mollusks (Miocene Age) from the Kern River area near Sharktooth Hill in Kern County. Specimens were supplied by LSA and were housed temporarily in the Bernie Lane Memorial Paleontology Laboratory at Cal Poly Pomona.

The month of July was taken up by a micropaleontologic (in this case a microvertebrate) study of washed residues from the Cajon Pass (Cajon Valley Formation). The Burlington Northern Santa Fe Railway was adding another track in the pass and paleontologic survey and salvage were required. Literally tons of outcrop material were collected, washed, sieved, and processed for microvertebrate remains by LSA. Sadly, all I found were a few broken and poorly mineralized limb bones of Miocene mice. An LSA field crew, however, recovered a largely complete skeleton of a big Miocene tortoise (Geochelone) and also the calcaneum (heel bone) of a weird, large, camel-looking mammal which in its entirety is so strangely built that it appears to have been designed by a committee!

Bob Reynolds has asked me to write a chapter for the upcoming field guide to the geology of Owens Valley. This completed guide will be used as part of the activities of the Desert Symposium to be held again at Zzyzx next April. I am now reviewing the already published literature on the Paleozoic and lower Mesozoic paleontology of the region, I visited the area on a brief reconnaissance trip during late July.

In September I went on a brief whirlwind trip to Minnesota and South Dakota. The journey included a brief crossing of the Bad Lands with its fossiliferous Oligocene and Miocene units. More spectacular were the Precambrian igneous and metamorphic rocks of the Black Hills. At Mount Rushmore, I was able to witness, fairly closely, the granitic visage of George Washington getting a good facial or, should I say, an exfoliation. I learned that one of the technicians rappelling down and scrubbing Washington's twenty foot tall nose was, in fact, a geologist! Here is one more employment option for our graduates in Integrated Earth Studies—the National Park Service.

It was delightful, in fact a joy, to drive the highways of the lovely plains and prairies seeing only a few other motorists—no traffic jams and no congestion. Most pleasantly, there were no gangsta graffitos or monikers on the neat homes and buildings in the quiet Midwestern towns. My kind of place. Retirement to the Heartland of America is looking better and better!

DAVID JESSEY

Another year has passed. The big news for me is that this SHOULD be my final year as a full-time faculty member. If the bottom does not fall completely out of the U.S. economy I plan to opt for the Faculty Early Retirement Program next Fall. So I will become a part-time faculty member until I opt for full retirement. I'm not sure how it will affect my teaching and research

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load next year, I guess I will know more about that this spring.

Last spring I attended the GSA Cordilleran Sectional Meeting in Las Vegas, Nevada where I co-authored a poster with Julie Brown (now of UN-Reno) and Jessy Bruns on the volcanism in the southern Owens Valley. Altogether, I authored or co-authored four presentations/papers on volcanism in the southern Owens Valley and Mojave during the past year. By the time you read this I will have been the November guest speaker for the Inland Geological Society. I plan to talk about tectonic implications of basaltic volcanism throughout the Mojave and Owens Valley. I am also hanging out in the Rainbow Basin this quarter with the combined Field Module/Field Methods class. It was nice and cool a week ago, if you didn't mind the 50 mph winds that were blowing our tents over!

The much bigger activity will take place next April. I am the co-editor for the Desert Studies 2009 Symposium Volume and one of the co-leaders for a three-day field trip to the Owens Valley. The trip will highlight research by CSU faculty and government geologists in the Owens/Long Valleys. I am currently working on the field guide and have written or coauthored three papers for the symposium volume dealing with volcanism and ore deposits in the Owens and Long Valleys. Five current or recent geology students are acting as authors or coauthors for symposium volume publications. The volume should be published near the end of April 2009. More details on the symposium, to be held at Zzyzx, CA and the three-day field trip will be available on our website sometime this winter.

My other plans for the upcoming year include an Ore Deposits field trip, hopefully to Tonapah (Round Mountain) and Ely (Robinson), NV in January. Yeah, I know it snows in Nevada, but that is part of the excitement for southern California geology students. Also planning the annual trip to Tucson in February, but right now that is pretty tentative. Hope to run into some of you at upcoming meetings or in the field.

JONATHAN NOURSE

Hola de Caborca, Sonora! It is November 15 and I am in the middle of my second 3-week Sonora trip to accomplish the objectives of a Fall Quarter sabbatical. This past nine days I have been tracing a low-angle normal fault (detachment) system superimposed on a 100 km long fold-thrust belt that is intermittently mineralized with gold. Two different mining companies interested in these structures are supporting my travel this autumn. During a recent October trip, I worked on a different detachment fault in central Sonora that has effectively sliced a porphyry molybdenum deposit in half and separated the two pieces by 5 km distance. It is very refreshing to map uninterrupted for weeks at a stretch, taking short breaks to compile the data on my laptop and think about the scientific implications. I am also sampling multiple restaurants in Caborca and Hermosillo, practicing Spanish with Mexican colleagues and field assistants, and enjoying the fine fall weather and desert scenery.

This December I lead a Field Module (GSC 491) to Anza Borrego State Park to camp out and map field relationships in the Borrego Mountain area. Some of you former Tectonics and Structure students will recall this area as the location of "Hawk Canyon" and "The Slot." The objective is to use Brunton compasses in concert with GPS technology and a gridded topographic base to create very detailed geologic maps and cross sections.

Three more of my students presented senior theses last year. Daniel Heaton compared the geochemistry and field settings of three plutonic units exposed on opposite sides of the left-lateral San Antonio Canyon fault. Kayla Kroll completed detailed mapping and strain analysis of the Montezuma Grade mylonite zone exposed between Culp Valley and Borrego Springs. Azad Khalighi conducted slope stability and flood hazard analyses of three drainages in Griffith Park burned during the fires of 2007. Daniel is now a graduate student at San Diego State University. Kayla and Azad are working as entry-level geologists at ETIC Engineering in Pasadena.

I look forward to teaching Structural Geology (GSC 333) this winter quarter. It would be ideal to visit some of the places I have been mapping in Mexico recently. Unfortunately, time constraints and our challenged field budget will not allow for this. The students will have to settle for selected outcrop photos presented during lecture or on examinations.

I hope all of you have a fine holiday season. Please continue to keep the Department posted about your recent endeavors and experiences. Or if you are in the neighborhood, feel free to drop by the office. Should you like to speak at one of our periodic Career Symposia, your comments and suggestions are always appreciated.

Gracias por su patrocinio continuado. Saludos!

JASCHA POLET

My first year as tenure track faculty has certainly been an exciting and busy one! I developed and taught two new classes for Geology majors (and several Engineering students): "Introduction to Global Geophysics" and "Introduction to Seismology, Earthquakes and Earth Structure". This Fall quarter I am co-teaching (with Greg Middleton) the new Engineering Geology II class, with my contribution's focus on seismic hazard

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analysis and strong ground motion. Although developing completely new classes has proven to be time consuming, I am really enjoying teaching students about all different aspects of seismology and geophysics.

In a similar context, it was also interesting to participate in the Earth Science Literacy Initiative Workshop, funded by the National Science Foundation, which was organized to create a community-based document that clearly states the "Big Ideas" and supporting concepts that all Americans should know about the Earth sciences. I believe I have gained insights from participating in the workshop discussions that will prove useful in the development of the department's long range academic plan, which will be used as input to the university strategic plan (the new P&R).

This past year I also advised my first senior thesis project. Travis Avant started his senior thesis research last Fall (2007), building on the work I presented at the 2007 Fall American Geophysical Union meeting, on two major subduction related earthquakes near the Kuril Islands, one on the subduction interface, the other following only a few months later within the bending oceanic plate. He defended his thesis on "Determining Fault Kinematics For Earthquakes With Unknown Focal Mechanisms Using Seismogram Cross-Correlation Techniques: Test Case of the 2006/2007 Kuril Island Earthquake Sequence" (I think Travis won the "competition" for the longest senior thesis title of the year!) in June. Travis is now attending graduate school at New Mexico State University.

Over the summer I spent a few weeks visiting the US Geological Survey's National Earthquake Information Center (NEIC) in Golden, Colorado. I am working on several different projects funded by grants from the National Earthquake Hazard Reduction Program to determine the size and fault parameters of global earthquakes in near real-time (within a few minutes to an hour after they occur). While in Colorado, I also took a short side trip to drive "America's highest paved automobile road" to Mt. Evans. I will present the research on near real time analysis of global earthquakes, which is a collaborative project with Paul Earle from the NEIC and Hong Kie Thio from URS Corp, at the upcoming Fall AGU meeting.

Unfortunately, I did not have many other opportunities for travel this past year, although I did make a short trip to Panama late this summer. The Panama Canal was certainly an impressive sight, but seeing (and especially hearing) a group of howler monkeys in the Panamanian jungle was the highlight of my trip.

Of course we had our very own earthquake this year (July 29, 2008) in the Chino Hills area, which I experienced while in the dentist's chair! I was asked to give a short presentation on this earthquake and the science behind it at the Fall Conference College of Science meeting.

I received much positive feedback after the talk, but also apparently managed to give many people a good scare about the possibility and consequences of a major earthquake on the southern part of the San Andreas Fault. I discussed this specific scenario earthquake in the context of the upcoming Great Southern California ShakeOut earthquake drill on November 13. To increase campus awareness of the ShakeOut (and the Geology department!) I invited Dr. Ken Hudnut, one of the authors of the USGS ShakeOut report, to give a talk at Cal Poly Pomona. His talk is scheduled for November 4 and an earthquake emergency preparedness fair will be held to coincide with this talk (more information about this event can be found at http://geology.csupomona.edu/shakeout.htm).

STAFF NEWS

MONICA GIANNINI

Not much to report since the last Mylonite went out. Just trying to get through all the budget changes and this bad economy of late. Because of this Ric and I haven't been able to really get out and about like we would like to. No Trona trip this year and since no one from the Geology Club went either, I do not know if it was a decent year for Halite, but I want to say most likely not, we've just not had the rains needed for a good Halite year just yet.

Hopefully when the next issue of the Mylonite comes around I'll have more to report, but for now this will have to do. Take care in the new year to come!

EMERITI NEWS

ROSALIE & RAYMOND GIROUX

Hi to All,

We are keeping busy and still healthy. Our vacation this year was over the Christmas and New Year holidays. We finally took that trip to Italy! Raymond and I took a Trafalgar tour and had a wonderful time. Our bus was huge – approximately 40 people on it. We were up every day at 6:30 and were on the road by 7:00. The tour kept us going until 9:00 pm! We quite literally walked and ate our way through Italy.

We left December 27, 2007 and returned January 6, 2008. Our first two days in Italy were spent in Rome. We went to the Spanish Steps, Trevi Fountain, Venice Square. We also toured Vatican City with a special visit to the Sistine Chapel. I took way too many

pictures of the Vatican. Then it was on to the Colosseum with its ancient stone roads marked with groves from Roman chariots (very impressive). The Tivoli Gardens were most impressive: huge fountains with shrubbery mixed in. Raymond and I went to an Italian opera dinner show one evening. Then we visited the Basilica of St. Frances of Assisi and oh yes, bought souvenirs.

We arrived in Venice on the eve of New Year's Eve (Dec 30th), and spent a couple of nights there. Venice was so beautiful. Raymond and I took in a gondola ride complete with a singer and accordion player! Also we toured the glass factory in the little fishing village of Burano complete with a fantastic seafood lunch. Our last night in Venice was New Year's Eve. We took in the New Year's celebration in St. Mark's Square. It was wild, firecrackers being tossed in the crowd and lots of people!

The next day we went to Florence where we spent two days. We did some gold and leather shopping and visited the Galleria dell'Accademia with it's famous statues including the famous David. We then had an evening Renaissance dinner show at the Borghese Palace, along with music and dancing. It was then on to the leaning tower of Pisa. The repairs were in progress with cables running up the back side to pull it straight. They let people climb up the tower, but we did not. Too many steps for us!

That brings us to January 3rd and the Amalfi coast and Pompeii. The evening of the third, we stayed in a motel in Maiori on the Amalfi coast and spent next two days touring the beautiful coast line with its narrow, winding and very, very steep hairpin roads.

Pompeii was our next stop, with a tour of the city and a chance to buy some cameos at the factory there. It still smells like fire!

Then it was on to the beautiful island of Capri for a brief stop before heading back to Rome. We took a ski chair ride to the top of Mt. Solaro and took in a fantastic view of Capri and Mt. Vesuvius.

Weather cooperated the whole time. It only rained the last day when we were back in Rome for our farewell dinner dance. All I can say is, "Italy is a dream that will keep on returning for the rest of our life."

GEOLOGICAL SCIENCES SCHOLARLY ACTIVITIES ANNUAL REPORT JULY 2007 TO JUNE 2008

PUBLICATIONS

Peer Reviewed Publications:

Polet, J. and H. Kanamori, "Tsunami Earthquakes", invited contribution to the "Encyclopedia of Complexity and Systems Science", Editor: W. Lee, accepted to be published by Springer, 2009, 27 pages.

Non-Peer Reviewed:

Nourse, Jonathan A. and Stubbe, Paul, 2008, Summary of structure and mineralization at La Variedad, La Bellota, and Las Amarillas prospects, Leon Property, central Sonora, Mexico, technical report submitted to Colibri Resource Corp., 10 pages plus illustrations.

Professional Conference Presentations:

Reynolds, R. E., **Berry, David, R., 2008,** *Preliminary review of fossil localities from the Bouse Formation, Blythe Basin, California,* in Trough to Trough, the Colorado River and the Salton Sea, Desert Symposium Field Guide and Proceedings, Robert E. Reynolds editor, April 2008.

Nourse, Jonathan A., Irwin, J.J., and Stubbe, P., 2008, The Leon Property: geologic and structural set ting of molybdenum-copper-silver-gold miner alization in detached roots of the El Creston mineral deposit, north-central Sonora, abstract submitted to the 1st Congreso sobre la Evolución Geológica y Ecológica del Noroeste de México, Hermosillo, Sonora, México, del 21 al 23 de Abril del 2008.

Jacobson, C. E., Pedrick, J. E., Barth, A., Gehrels, G. E., **Nourse, J. A.**, 2008, *Implications of the Pelona-Orocopia-Rand schists for evolution of the Nacimiento fault, California*, Geological Soci ety of America Abstracts with programs, v. 40 , n.1.

Nourse, Jonathan A., Oskin, M. E., Iriondo, A, and Premo, W. R., 2007, *Laramide fold-thrust belt overprinted by Middle Miocene detachment faults, Caborca region, Sonora, Mexico*, Ab stract in Ores and Orogenesis: A Symposium Honoring the Career of William R. Dickinson, Arizona Geological Society, Tucson, AZ, p. 96-97.

Premo, Wayne. R., **Nourse, Jonathan A.**, Castineiras,

Pedro, and Kellogg, Karl, 2007, New SHRIMP-RG U-Pb zircon ages and Sm-Nd analyses of Proterozoic metamorphic rocks of the San Gabriel basement terrane: Keys for Laurentian crustal reconstruct tion?, Abstract in Ores and Orogenesis: A Sym posium Honoring the Career of William R. Dickinson, Arizona Geological Society, Tucson, AZ, p. 150-151.

Brown, Julie, M.[**], Bruns, Jessica J.[**], and Jessey, David R., 2008, Petrochemical trends of Neogene basaltic volcanism in the southern Owens Valley, CA, Geol. Society of America, Cordil leran/Rocky Mountain Sections, Abstracts with Programs, Las Vegas, NV. vol. 40.

Polet, J. and H. K. Thio, "The January 13, 2007, Kuril Islands Outer Rise Earthquake", Eos Trans. American Geophysical Union, 88(52), 2007 Fall Meet. Suppl., Abstract T32B-1420.

Manuscripts Submitted

Montero, W., **Marshall, J.,** Kruse, S., Wetmore, P., and Lewis, J., 2008 (submitted 11/07), Neotectonic faulting and fore arc sliver motion along the Atirro-Río Sucio fault system, Costa Rica, Central America: *Geological Society of America Bulletin*.

Sak, P. B., Fisher, D. M., Gardner, T. W., **Marshall, J. S.**, and Lafemina, P., 2008 (revised version submitted 12/07), Relationship among rough crust subduction, fore arc kinematics, and Quaternary uplift rates, Costa Rican segment of the Middle American Trench: *Geological Society of America Bulletin*.

Gardner, T., Webb, J., Pezzia, C., **Amborn, T**[**]., Tunnell, R., Flanagan, S., Kapostasy, D., Merritts, D., **Marshall, J.**, Fabel, D., Cupper, M., 2008 (submitted 2/08), Deformation of Late Neogene and Quaternary Marine Terraces, Cape Liptrap, southeastern Australia: *Quaternary Science Reviews.*

Marshall, J. S., LaFromboise, E. J.[**], Utick, J. D.[**], Khaw, F.[**], Morrish, S. C.[**], Piestrzeniewicz, P.[**], Gilbert, R. C.[**], Gardner, T. W., and Protti, J. M., 2008, Tectonic geomorphology and forearc deforma tion along the Nicoya Peninsula seismic gap, Costa Rica: Resumenes del IX Congreso Geológico de América Central, San José, Costa Rica, 2008.

López, A., **Marshall, J. S.**, Chinchilla, A. L., Sak, P. B., Chiesa, S., Alvarado, G. E., Gazel, E., 2008, Stress field map of Costa Rica: The Sigma Project: Resumenes del IX Congreso Geológico de América Central, San José, Costa Rica, 2008.

Ruotolo, A. M.[**], Ellis, R. A.[**], and Marshall, J. S., 2008, Tectonic geomorphology and clast provenance of uplifted alluvial fan gravels, San Gabriel Mountain Foothills, eastern, Los Angeles County, California: Geological Society of America, Abstracts with Programs, v. 40, no. 1, Abs. 16-1, p. 64.

Marshall, J. S., LaFromboise, E. J.[**], Gardner, T.W., and Protti, M., 2007, Segmented fore arc deformation along the Nicoya Peninsula seismic gap, Costa Rica: Eos, Transactions, American Geophysical Union, v. 88, Fall Meeting Supplement, Abs T53A-1121, 2007.

Marshall, J. S., 2007, Riding the waves of San Andreas: Geologic and engineering aspects of the 17 October 1989 Loma Prieta Earthquake, Santa Cruz, California: Association of Environmental and Engineering Geologists, Inland Empire Chapter Newsletter, v. 3, no. 10, October 2007**.**

Gardner, T., Pezzia, C., **Amborn, T.[**]**, Tunnell, R., Flanagan, S., Merritts, D**., Marshall, J. S.**, Webb, J., Fabel, D., and Cupper, M.L. 2007, Deformation of late Neogene and Quaternary marine terraces, Cape Liptrap, southeastern Victoria, Australia: XVII INQUA Congress Abstracts, Quaternary International, v. 167/168, p. 132.

Invited Presentations

Marshall, J. S., 10/17/07, Association of Environmental and Engineering Geologists, Inland Empire Chapter Meeting: Riding the waves of San An dreas: The 17 October 1989 Loma Prieta earth quake, Santa Cruz, California.

Marshall, J. S., 3/13/08, Woods Hole Oceanographic Institution, Geodynamics Lecture Series.

Marshall, J. S., 4/09/08, California State University Full erton, Geological Sciences Colloquium Seg mented fore arc uplift along the Nicoya Penin sula, Costa Rica: Implications for subduction erosion, underplating, and seismogenesis.

GRANTS AND CONTRACTS:

Jessey, David R., and Kieta, Andrew[**], 2008, Micro-imaging Spectrometry, NASA JPL Grant #J2397; prog. GL519: $4,855.

Marshall, J. S. (As Senior Project Personnel) National Science Foundation (NSF) Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Program ($584,000): *Comprehensive Scholarship Program for Mathematics, Physical, Biological, and Computer Science*

Majors, Cal Poly Pomona University, Awarded to P.I. Barbara Burke, Cal Poly Pomona SEES Program.

Marshall, J. S. (Co-Principal Investigator) National Science Foundation (NSF) Continental Dynamics Program Full-Proposal: *Transformation of Oceanic Plateaus Into Continents (TROPICS)*, 5-year multi-university collaborative project, including Research Experience for Undergraduates (REU) Program, submitted November 2007 (Total Request: $5 million, Cal Poly Pomona Request: $254,000).

Polet, J., The Seismology of Shallow Intraplate Subduction Earthquakes: From Outer Rise to Interface; National Science Foundation; Original amount: $106,961; Transfer amount: $72,000.

Polet, J., Collaborative Research with California State Polytechnic University in Pomona and URS Corporation: Rapid Estimates of Rupture Extent for Large Earthquakes Using Aftershocks; National Earthquake Hazard Reduction Program; Amount awarded: $29,185.

Polet, J., Collaborative Research with California State Polytechnic University, Pomona, and URS Corporation: Near Real-Time Determination of Focal Mechanisms and Depths of Large Worldwide Earthquakes; National Earthquake Hazard Reduction Program; Amount awarded: $29,185.

Polet, J., Real-Time Determination of Earthquake Centroid Moment Tensors; US Geologic Survey Intergovernmental Personnel Act; Amount awarded: $10,584

Awards and Recognition:

Marshall, J. S., 2007 - 08 Provost's Teacher-Scholar, Cal Poly Pomona University

Marshall, J. S., National Association of Geoscience Teachers (NAGT), *On the Cutting Edge Web Site*, Early Career Faculty Case Study: Jeff Marshall, Cal Poly Pomona University

Marshall, J. S., National Association of Geoscience Teachers (NAGT), *On the Cutting Edge Web Site*, Teaching Geomorphology in the 21st Century, Geomorphology Course Case Study: Jeff Marshall, Cal Poly Pomona University

Professional & Creative Acitivites:

Marshall, J. S., Geosciences Division Councilor, Council on Undergraduate Research (CUR), Washington, D.C., (since 2004) currently serving 2nd elected term until 2010.

Marshall, J. S., Proposal Reviewer: National Geographic Society, July 2007.

Marshall, J. S., Proposal Reviewer: American Chemical Society Petroleum Research Fund (ACS-PRF), July 2007.

Marshall, J. S., Proposal Reviewer: International Ocean Drilling Program (IODP), July 2007.

Marshall, J. S., Proposal Reviewer: National Science Foundation Tectonics Program, Sept 2007.

Marshall, J. S., Proposal Reviewer: National Science Foundation Tectonics Program, March 2008.

Marshall, J. S., Manuscript Reviewer: G-Cubed: Geochemistry, Geophysics, and Geosystems, April 2008.

Marshall, J. S., Session chair and abstract reviewer for: *New Directions in Undergraduate Geosciences Education: Bringing Together Research, Teaching, and Technology in the Classroom and Field*, American Geophysical Union (AGU), Fall Meeting, San Francisco, CA, December 12, 2007.

Marshall, J. S., Session chair and abstract reviewer for: *Undergraduate Research Poster Session*, Geological Society of America, Cordilleran Section Meeting, Las Vegas, NV, March 2008.

Marshall, J. S., Faculty reviewer for student research abstracts submitted to the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Annual Conference, May 2008.

Marshall, J. S., Professional Development Workshop Facilitator and Group Leader, CUR Workshop on Institutionalizing Undergraduate Research, California State University Northridge, Feb. 15-17, 2008.

Polet, J., Attended UNESCO workshop on "Tsunami Risk Assessment" in Dubai, Oct 4th-6th 2007.

Polet, J., Proposal Reviewer: Geophysics Program of the National Science Foundation.

Polet, J., Manuscript Reviewer: Earth and Planetary Science Letters.

Polet, J., Manuscript Reviewer: Geophysical Research Letters.

Polet, J., Manuscript Reviewer: Geophysical Journal International.

Polet, J., Submitted successful application for Department membership to the Southern California Earthquake Center (SCEC).

Development Activities:

$2,000, Alice Lane: Alice Lane Student Support Fund
$1,430, alumni contributions: Field Experiences Fund
Melissa Bautz (Pratt), Lawrence Browne, Scott Carney, Kerry Casey, Sara Duval (Moran), Darrin Hashim, Kleinfelder West, Inc., Jeremy Lancaster, Cheryl Miller, Liz Osborne (daughter, Walter Hesse), Morty Price, Dan Smith, Mike Spira, Gary Thompson, Peter Valles & Shell Oil.
$1,000, Kathy Kwan & Morton Price: Margaret Claire Van Buskirk Memorial Scholarship
$500, Scott McKeag: Geological Sciences Discretionary Fund
$100, Alumni Reunion: Geological Sciences Discretionary Fund.
$15, 000 Roger Teal: Grayce Teal Memorial Scholarship Fund
$19,590, Rose Ryland: geophysical instrumentation
$600, Peter Valles: American Geological Institute (AGI) Glossaries etc. rock hammers, field notebooks, reference books
$4,422, Joe Siefke: Borate minerals

NEWS FROM THE ALUMNI

Here is a summary, with a little bit of fun added, of the activities of our fantastic alumni. This year's summaries represent a mixture of both "new" and "old" alumni, regular contributors and new contacts re-establishing ties with the Cal Poly Geology extended family. We appreciate each and every note you send us. We wish many more, all of you, would contribute updates. It is very evident that this section of the *Mylonite* is most thoroughly enjoyed by alumni.

HE IS NO DUD!

We received a great, lengthy, letter from **Robert Jones ('05)**. Plus, as you can see an equally great photograph. Robert graduated as an Integrated Earth Studies major in 2005. He went on to receive his master's degree from Cal State Fullerton's Environmental Sciences Program. He has worked or interned for several geotechnical firms as well as state governmental agencies. Robert is now an Engineering Geologist for Cal EPA's Regional Water Quality Control Board (since July 2008). He works out of Palm Desert for the Colorado River Basin Region. Robert says he enjoys reading the *Mylonite* and is already looking forward to this fall's 2008 edition.

First the photograph. Back in September of 2007, while working for ACT Associates, he had the opportunity to work at an oil company site near Seattle (Neil Gilham ('83) country). During the two and a half weeks of this job assignment, he took a brief "vacation" and went to Mts. Rainier, Baker and of course, Mt. St. Helens. Hence the great photo.

Anybody see a volcano?

Our "dud" story goes back to Robert's former "life" with Earth Tech (an employer of many our alumni). Robert worked out of Earth Tech's Colton office. Robert is not thoroughly convinced this story was not some coincidental "plot" by Earth Tech. Robert's last assignment with Earth Tech, was working at a site very close to the former Norton AFB. He was supervising the grading of a huge pad for future warehouses. He believed the site had innocuous base-related "waste pits". Well, the graders uncovered a fairly large cylindrical metal object. Robert said to himself: "Is that what I think it is?" Yup, a 500 pound unexploded bomb! Now this find occurred on the very day he was giving Earth Tech his three week notice! Coincidence??? You decide. With the San Bernardino Sheriff's Bomb Squad and the March AFB Bomb Disposal unit on site, the UXB was disposed of with C-4. It turned out to be a dud – no explosives inside. Well, this "find" was just the tip of the "ordinance iceberg". So, Robert with considerable relief, left Earth Tech with a bang.

Now, with Cal EPA his work is "more subdued". But, the thrill of being in Needles when it is 120^{o} F is always a high spot. Oh, yes, at the time of this writing, Robert was working for minimum wage and hoping a new California State budget would show up real fast! He should be back to his normal wealth by now.

Robert has expressed aspirations to pursue a doctorate. We certainly encourage this and hope that one day he will be able to fulfill this goal. He also needs to come to a reunion!

KEEPING SUPER BUSY IN WYOMING:

Melissa Pratt (Bautz) ('95) has a very busy life – both professionally and on the home front. Melissa is a Senior Environmental Analyst for the State of Wyoming's Department of Environmental Quality. Working in the Land Quality Division, her job includes field inspections and reviewing mining operations. The recent surge in uranium exploration in Wyoming has made her job even busier. Melissa oversees exploratory drilling operations as well as reviews the mine application proposals for in situ (as opposed to open pit) recov-

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ery of roll front uranium deposits.

With two young daughters, ages five and three, husband, Gregg, and Melissa are always on their toes! On the positive side, Melissa says the girls are old enough to hold their own fishing rods. That means extra rainbow trout caught in the brooks and lakes of the local "backyard" Wyoming mountains – see adjacent photo of Jenny and Theresa.

Can we go home now?

Melissa, as many of you may recall, is an excellent player of the bag pipes. She has taught classes, lead groups in parades, and competed in regional competitions. Recently, we have not heard about her bag piping exploits. We hope this busy life has not cut into her endeavors musical!

KEEPING BUSY SOUTHERN CALIFORNIA STYLE:

Steve Mulqueen ('78) wrote us a fine update. Steve has worked for the State of California for many years. Steve did not say if he was getting paid minimum wage or not. Currently Steve is an Associate Mineral Resources Engineer with the California State Lands Commission. His wife, Susan, is an elementary school teacher in Ventura.

Steve, like Melissa Bautz (Pratt) in Wyoming, works on projects related to the leasing of State land for mining. Steve is involved in the issuance of mineral prospecting permits and the monitoring of active mines under his jurisdiction. These mines range from sand and gravel extraction to gold.

You may recall last fall's *Mylonite* (2007) when Steve reported that he lead a field trip and co-authored the field guide on petroleum seeps for the AAPG National meeting in Long Beach (April 2007). This achievement was matched in May of 2008 when Steve assisted in a field trip to southern California oil and gas sites. This trip was sponsored by the Colorado School of Mines, Geology and Petroleum Engineering Departments. The petroleum geology, the petroleum industry and the fantastic geology of southern California were highlighted by Steve. The high point of the event, according to Steve, was a boat trip to the famous offshore oil and gas seeps of the Ellwood Oil Field in the Santa Barbara Channel. I think the oil field was the highlight, not the boat trip. I could be wrong.

Steve is also deeply interested in the rich mining history of California. He writes articles for the Ventura Gem & Mineral Society dealing with mining and Mojave desert history. If you want to get a sample of Steve's work check out www.ttrr.org. A compendium of articles related to Steve's study of the Tonopah and Tidewater railroad is on the site.

Quick the Blob is approaching!

The photo provided shows Steve and Susan at Exit Glacier, Kenai Fjords National Park, Alaska. Thanks for the great update! Hope you can manage to attend our 2009 Alumni Reunion.

THIS TOPS THE LIST OF A BUSY LIFE -- ANYWHERE!

Meredith Staley ('03), like many of you, is anxiously awaiting this year's *Mylonite*! What pressure we are under to produce the *Mylonite*! Meredith writes that it has been a very busy year for her – especially recently! She is not kidding – read on.

Meredith is the Director of the Archeology and Paleontology Laboratory at LSA Associates in Irvine (she has climbed the professional ladder very quickly!). That sounds like enough already, but last November ('07) she also took on a position with the Los Angeles County Museum of Natural History. At the Natural History Museum, she is a Paleontological Preparator for the Vertebrate Paleontology Department. In this capacity Meredith has been kept occupied working on specimens for the new Hall of Cenozoic Mammals. Specifically, she has been preparing for display a hippo like animal going by the name of Paleoparadoxia. Just for background, the creature Meredith is working on is closely related to Desmostylia (does that clear it up for you all?) If not, Desmostylia is an extinct, Oligocene marine amphibious herbivore and distantly related to the manatee (now I know what a manatee is!).

OK, if that is not enough, to convince you she tops the busy competition, in January; Meredith began working on her Master's Degree at Cal State Fullerton! Meredith will be working under the direction of Dr. Nicole Bonuso and, as a student-in-residence at LA County Museum, with Dr. Lawrence Barnes. Her thesis will be on the recent discovery of toothed "baleen" whales from the Vaqueros Formation of Orange County, and the paleoecological implications of cetacean distributions in the Vaqueros.

Meredith concludes by saying "With full-time work and school I'm very busy, but I'm loving every minute of it!" Amazing. Tire me out! Congratulations Meredith!! Now knowing how busy you have been, I am very grateful that you managed to attend our May '08

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Alumni Reunion. Please try and fit in this May's reunion!

RE-ESTABLISHING TIES

Over the years, one of the roles that the *Mylonite* has played is to re-establish ties with "stealth" alumni. This has regularly happened. Through last fall's *Mylonite* (2007 edition) we re-established ties with **Neil Gilham ('83)** and our "adopted" alumnus, **Steve Koenig ('92)**. This year **Scott McKeag ('82)** is among those who re-established ties.

Scott said "I recently received a copy of the *Mylonite* [2007 edition] and the accounts of all my old friends made me recall those good old days." Scott was a compatriot of the likes of Steve Zuker, Neil Gilham, Larry Thompson, Alan Trzcinko (spelled correctly), Peter Valles, Luke Roebuck, Ian Scar, Jeanne Dube. And, yes, as Scott so politely points out, this was way back when Klasik was still young and just a few years older than the gang. Scott, time moves on equally for all of the gang, not just Klasik!

Scott wanted to get re-involved with the Department. Scott, and his son (also an avid fisherman), drove all the way from (and back in the same day!) Las Vegas to attend this past May 2008 Alumni Reunion. Scott runs the Las Vegas office of McGinley & Associates, a Nevada-based Environmental Remediation firm. Scott reached out to Cal Poly Pomona's geoscience majors for interns to help with a major two year oversite contract.

Scott has fond memories – total recall fades with age – of Drs. Henderson, Tarman and Herber "dragging us all over southern Nevada and Utah" [Scott's words]. Scott offered to return the favor and drag our current majors around Nevada.

Finally, Scott likes dragging things around, promised to "drag" his whole family to the May 2009 Alumni Reunion. Scott we hope to see you and your family! But, don't drag them from Las Vegas. Let them ride in the vehicle!

Thanks for re-establishing ties. We hope the new relationship continues for many years to come!

ARIZONA AERIE UPDATE:

I use the word "aerie" to simply mean nest. It has been a very long time since we have heard from **Steve LaMascus ('91)** and **Nancy Fallis ('90) (also LaMascus)**. So, it was great to receive a Christmas note in December of 2007. The bottom line: all is well (and busy) in the Arizona nest.

You may remember that Steve loved (and still does!) to fly (we're keeping the next theme going). Steve has flown commercially for many years. Since we last heard from the LaMascuses, Steve has moved to the left seat! He is now Captain Steve for Mesa Air! Congratulations! Beyond being Captain Steve, he has been promoted. He is Mesa Air Group's Phoenix Regional Chief Pilot! This lofty position still permits some flying, but mostly Steve takes care of pilot concerns (20 hrs per day, seven days a week!).

Nancy works almost full time as a senior hydrogeologist for HydroSystems, Inc. Her work focuses on getting groundwater recharge and water supply projects permitted. The remainder of Nancy's time Nancy is spent as a loan officer for a residential mortgage broker. Oh, yes, Nancy is also a licensed real estate sales person! So if you want to buy and finance a house in Arizona with plenty of groundwater talk to Nancy! To round out and fill in for her remaining "free time", Nancy also volunteers for both the Boy and Girl Scouts. By the way, Nancy is also "addicted" to storm chasing!

Nancy says her children are "awesome!". The LaMascuses have two children, Rachel, now in 6th grade, and Alex who is in 4th grade. Both kids are involved in Scouting and excel in all areas of academics and the arts (they take after Nancy and Steve).

Steve and Nancy please continue to keep us updated as to your most interesting life! Yes, bring your children to an Alumni Reunion so we can meet these great kids!

EASTERN SIERRA UPDATE:

John Reilly ('94) and Doris Brukner (Reilly) ('86) have been loyal, regular contributors to the *Mylonite*. The Reilly's update came as a December 2007 note.

You may recall that John and Doris, several years ago, retired young from the Orange County Water District. They have been traveling, skiing and generally enjoying life ever since. This year was no exception. John and Doris said they are goal-oriented and like to plan their years so that they can cram as much as possible into them.

The winter of '06 – '07 was the Reilly's first winter in the eastern Sierra. The transition to total immersion in snow (that is possible in the Sierras) was ameliorated a bit by drought. They received only 50 % of the normal snow pack. But, the lack of snow did not prevent them from skiing three or four times a week! OK. On down days – meaning no fresh snow-- they would go cross country skiing. On days with fresh snow, they were the first to hit the slopes!

This past summer kept the Reilly's occupied by back packing and climbing peaks in Yosemite. They also traveled to the Pacific northwest for a three week, coast hugging, biking expedition from Portland to Kalmath Falls.

Doris and John, we wish you well. Try and stop in or plan one of your southern California visits around our Alumni Reunion in May of 2009.

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BRING ON THAT MYLONITE!:

Valorie Taylor (Plesha) ('86) has been a long time, regular contributor to our *Mylonite*, News from the Alumni section. She sent us two notes this year! She is a devoted, avid reader of the *Mylonite*. Reading the *Mylonite* is an annual ritual that she looks forward to. Valorie was most relieved when this year's edition finally arrived on her snowy wintery Colorado doorstep! She read it cover to cover! That was 24 pages of relatively small font!

Valorie works for a city outside of Denver. She was promoted to GIS Analyst II. That is as high as you can get and still actually do GIS -- rather than do administrative stuff. In anticipation of the 2010 census, she is working closely with the Census Bureau to update all there is to know about her city. By working with the most accurate and up-to-date data, Valorie hopes that more dollars will flow to her city. She is also working with the city's Emergency Preparedness agency. Valorie's role in this multi-million dollar undertaking is to provide quality, accurate digital information for 911 emergency dispatchers. Wow, some responsibility!

As the accompanying picture will attest to, this past August, the Plesha family headed off to Hawaii – again. They spent a week on the Big Island at Volcano Village. Valorie admits she is a "lava junkie". Given the fact that one of her two daughters chose going to a volcano over the beach, Valorie's passion for geology (volcanology) may be rubbing off. Valorie says she enjoys watching Hawaii's eruptions via the USGS's webcam. However, having real live lava lapping at your toes is far more impressive – and hotter and exciting! Hiking various trails, exploring the dark reaches of Thurston lava tube with flashlights and yes, in deference to her daughter, having fun on "what's left of the black sand beach at Kalpana" rounded out the week on the Big Island. The second week of their trip was spent on a cruise around the islands (no, not on the Disney Magic). The highlight of the circumnavigation was seeing from the ship, lava pouring into the ocean – at night! She said the family had a "blast (no pun intended)" exploring Volcanoes National Park.

Our Alumni really smoke!

Thanks again for corresponding with us. We do appreciate the stellar updates and photos!

HURRICANE IKE UPDATE:

Peter Valles ('83) works in Houston, Texas for Shell International Exploration and Production, Inc. Thus, he was in the sights of this past September's, Hurricane Ike. We emailed Peter shortly after Ike to find out how he, his family and Shell were doing.

According to Peter, Ike packed quite a punch with category 1-2 winds. There was lots of wind-related damage to Peter's home community: lots of trees down and collateral damage to homes and cars. He said rarely did a home, in the community of 90,000, escape some wind-related damage. He points out they live almost 100 miles from the coast! Prior to Ike, Peter's property was the proud owner of the largest pine tree in the neighborhood. Well, it was uprooted and lodged itself on his laundry room roof. The room's roof was crushed and rain was free to enter! The leaning tree occupied a rather scary spot over his home for three days before they could flag down a crane and have the tree secured and cut down. Peter says that was rather expensive!

On the job front, Shell's training center where Peter works was unharmed. But, Shell, learning from Katrina and Rita, closed operations until September 22nd. This unplanned closing forced Peter to cancel in-progress courses, etc. It was not easy from a business perspective, but families and safety come first.

A EUROPEAN NOTE:

Gary Thompson ('90) has been a regular contributor to the *Mylonite*. Gary adds a British perspective to each edition. But, Gary has had a difficult time fitting the May reunion into his frequent flyer schedule. "Alas, I will not even be able to gaze down from an over-flying airliner upon the big smokes [Jessey really does like big fires for his BBQ's] of another great reunion BBQ." Gary said, sort of apologetically, that the last time he visited Cal Poly Pomona Geology was in October of 2007! That is only a year ago! We always enjoy any and all alumni visits – no matter how long it has been since you have come by the office!

Now, I am curious, how many alumni started thinking about becoming a geologist through watching a movie? Gary reveals that the Indiana Jones movies (the original early ones) got him on his earth science career path. Interesting. Maybe Gary made a mistake and should have majored in anthropology (there is no archeology major at Cal Poly Pomona). No matter, we are very glad that Gary made the decision to be one of our majors!

The weather report from southwest England was cold for Easter [2008]. Gary said they had hail and even some snow flurries! Unusual for late March!

Congratulations to Gary and Felice on their

(Continued on page 16)

tenth wedding anniversary! They planned to re-visit Venice and Verona for the celebration.

ONLY GOOD THINGS IN THE MYLONITE! PLEASE!

This was the year for re-establishing ties. Long lost **Jennifer Bell** wrote to Dr. Berry in January. Jennifer now resides in southern Utah. She has Physics to get through before she formally receives her B. S. degree in Geology from Southern Utah State University – congratulations it has been a long row to hoe! She is also seeking a teaching credential. In the interim, Jennifer is doing substitute teaching. Boy Scouts, like Nancy LaMascus, takes up her "free time".

Jennifer, being a Merit Badge Councilor, says she is taking good advantage of Dr. Berry's Oceanography (GSC 335) class. Dusting off her oceanography notes re-kindled fond memories of Cal Poly Geology and the R/V Yellowfin cruise (I guess she did not get sea sick!).

Jennifer is the mother of four fine children – two boys and two girls. Her oldest, like Steve LaMascus, is interested in aviation and is considering either the Air Force or commuter jets. Her next youngest is a junior in high school. He will graduate and be certified in diesel mechanics. Daughter number one is in 5th grade, into horses, choir and orchestra. Daughter number two is just three years old. She just keeps Jennifer busy. Jennifer did not say if daughter number two can fish or not.

Jennifer, only good things have happened! Please continue to keep in touch. Enjoy the *Mylonite*.

MISCELLANEOUS ANNOUNCEMENTS:

Terri Amborn (Burgess) ('03) and husband Eric are expecting their first child in April of 2009. Congratulations!

Congratulations to out to **Kimberly Craig ('07)**. Kimberly is now engaged to her boyfriend (now fiancé we guess) Gabe. We briefly met Gabe at the May 2007 Alumni Reunion. We approve -- Gabe is a nice guy!

The Geological Sciences Department thanks **Garrett Hazelton ('91)** and **David Curtis ('97)** for their years as part time instructors. They have made a great impression on their students and have made a great contribution to the Department. Their services will be missed.

Morty Price ('99) and wife, Kathy Kwan, are expecting their first child, March of 2009. CONGRATULATIONS!

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Co-Edited and prepared for printing by:
Monica Giannini

16th Annual
ALUMNI REUNION
Saturday, May 2, 2009
Save this date and join us!
We look forward to seeing you
at the 2009 Alumni Reunion!

Some of the Geological Sciences graduates of 2008 at the 2008 Alumni Reunion.
L to R: Daniel Heaton, Kim Poste, Allison Ruotolo, Robert Ellis, Kayla Kroll, Julie Brown and Dr. Nourse

IF YOU HAVE CONTACT INFORMATION UPDATES OR NEW VENTURES IN YOUR PROFESSIONAL OR PERSONAL LIVES, PLEASE LET US KNOW!

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