

THE MYLONITE

THE NEWSLETTER OF THE GEOLOGICAL SCIENCES DEPARTMENT
CAL POLY POMONA | ISSUE 25 | DECEMBER 2017

NEWS FROM THE CHAIR • SPECIAL ANNOUNCEMENTS • FACULTY • ALUMNI

News From The Department Chair

It's time for the annual Season's Greetings from the Cal Poly Pomona Geology Department! This is our 25th edition the *Mylonite* newsletter—a silver anniversary, so to speak. The department is also approaching its 50th anniversary. Perhaps one of you can clarify when we branched off from the Department of Physical Sciences into Department of Earth Sciences?? Below you will find the usual updates in addition to news from various alumni we have not heard from in awhile. A special contribution from J. David Rogers (BS, 1975)—read more below-- is now linked to our Department web site: <http://www.cpp.edu/~sci/geological-sciences/alumni-and-friends/index.shtml> . Many thanks go to Monica Baez for coordinating the many alumni contributions and packaging this document just in time for the holidays.

2017 was another busy and productive year for the Geology Department. Our undergraduate population is holding strong at about **150**, despite graduating 19 BS majors students last year. Our graduate student count is approximately **40**. You may read the latest MS thesis products at: <http://www.cpp.edu/~sci/geological-sciences/masters-program/thesis-archive.shtml> . Most of our BS and MS graduates continue to land good jobs or move on to prestigious graduate schools. Geology Faculty and Staff have done a fine job advancing the department teaching and research mission while preparing for next year's conversion to the semester system. The first day Fall Semester is August 20, 2018. This will be a major adaptation for all of us.

Generous contributions from several alumni and friends made it possible to support the travel of multiple undergraduate and graduate students to scientific conferences. Over the past year 17 students presented results of their research at venues including the San Francisco national AGU meeting, the Honolulu Cordilleran Section

GSA conference, Houston Lunar and Planetary Science meeting, the Southern California Earthquake Center (SCEC) conference in Palm Springs, and the national meeting of the GSA in Seattle. Our students are most grateful for your donations.

This year we'll start with a photo of the GSC 491L Field Methods class posing in front of an outcrop of Mesoproterozoic biotite gneiss in Placerita Canyon. The surrounding area burned during the July 2016 Sand Canyon fire, opening up fresh opportunities for research on outcrops not mapped since the days of Oakshott (1958). (Photograph courtesy of Larissa Kupferschmidt):



Special Contribution from Alumnus J. David Rogers (BS Earth Sciences '75)

We were especially pleased to receive a lengthy writing from Dr. J. David Rogers, currently Professor and Chair of the Geological Engineering Department at Missouri University of Science and Technology. Some of you may remember Dave as an important collaborator with Larry Herber on publications related to landslides in the San Gabriel Mountains.

Inspired by last year's photo (below) sent by **Steve Carpenter** showing Geology students from 1974, he documents the history of a special period during the infancy of Cal Poly Pomona's Department of Earth Science. Below are a few photographs excerpted from the document that is now posted in full as an **Alumni Archive** on the department website:

<http://www.cpp.edu/~sci/geological-sciences/alumni-and-friends/alumni-reunion.shtml>

Thank you Dave, for putting together this memoir!



Summer Field Geology students at Cal Poly Pomona in August 1974: Front row (left to right) Allen Snyder, Bob Archer, Dave Rogers, and Steve Carpenter. Back row (left to right) Prof. Larry Herber, Hank Brown, Kathy West, Scot Carnev, and Rick Gorman.



Dr. Herber walking through our camp at Vasquez Rocks just after dawn, as we were loading the school van to be taken out for the morning's mapping session. My Jeep and dining fly are at far left and Kathy Wilson's camper is behind it, at photo center.



View of the Cal Poly campus taken from Kellogg West facility shortly before I departed in June 1976. This shows the quad, campus library and Elephant Hill in the distance, an old volcanic vent we mapped in detail for my igneous and metamorphic petrology class.



Students and professors discuss geology exposed in a highway cut in Baja California during February 1975 field trip. From left: Scott Carney, Don Tarman, Larry Herber, Bob Archer, and Gary Johnson.



Year end party for the Geology Department at Gerry Henderson's home in Hacienda Heights, early June 1976. This view shows Professors Larry Herber, Don Tarman and Bernie Lane (Walter Hess is in brown suit bending over, behind Lucy Herber).

We welcome and encourage more such contributions from any of you who have retained vintage photos and memories of the Geology Department. If you are interested reading past issues of the Mylonite newsletter, please see:

<http://www.cpp.edu/~sci/geological-sciences/alumni-and-friends/mylonite-newsletter.shtml>

GSC 499A Group Experiences Total Solar Eclipse in Southeastern Idaho

Last August Drs. Van Buer and Nourse led 19 students on a GSC 499A field trip entitled ***“Geologic Excursion to Northern Nevada and Southern Idaho.”*** This trip visited classic localities of petrologic, tectonic, and paleoclimatic significance including: Walker Lake, Soda Lake Maar, Pleistocene Lake Lahontan, the Cretaceous Sawwave Intrusive Complex, the Santa Rosa Range, McDermott Crater, Steens Basalt, the Western Idaho Shear Zone, remnants of the Lake Bonneville Flood along the Snake River, the 1983 Borah Peak Earthquake Fault Scarp, the Pioneer Metamorphic Core Complex, Volcanic Rocks of the Snake River Plain, Shoshone Falls, and the Ruby Mountains Metamorphic Core Complex. Students conducted research and presented summaries of their findings at these various places. One of the more spectacular viewpoints is pictured on next page:



Kaitlin Ruiz and Homar Colin describe volcanic strata of the Snake River Plain near US Highway 93 crossing of the Snake River in southern Idaho.

We also had some memorable camps at remote, scenic localities:



Grimes Creek camp site.



Kane Creek camp site.



Random Moose sighting along Kane Creek.

Central to the trip was coincidental occurrence of the first **Total Solar Eclipse** to hit the conterminous United States since 1979. We were fortunate to find a remote camp directly on the line of maximum totality in a small drainage west of Borah Peak. The weather conditions were clear on August 20, and we hiked up a hill to a nice viewing site. It was quite spectacular watching the umbra sweep in from the west. Below are some photos leading up to the main event:

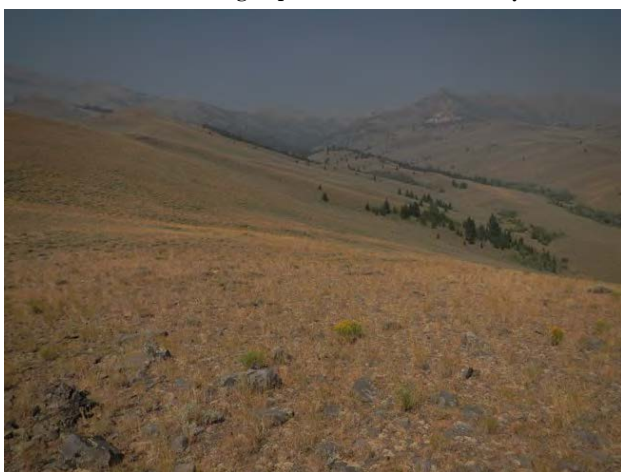


View northeast down to our eclipse campsite.





The GSC 499A group 15 minutes before totality.



View to the west where Umbra swept in a few seconds before totality.

David Yaralian (BS, 2017) joined the group at the last minute and obtained many professional photos with his telescope/camera setup back at base camp. Please refer to the Alumni News section to see more of his pictures.



David Yaralian's telescope setup at our camp.



This is what the eclipse looked like from the telescope (Photograph courtesy of David Yaralian).

New Upgrades to Our Teaching Labs

Last summer the undergraduate student computer lab (Room 4-A-626) was upgraded with 11 new PCs and three Macintosh computers. We are grateful to I&IT consultant Brent Norum '97 and Associate Dean Robert Kerbs for their efforts to place this room on the University priority list for classroom improvements. Dean Baski generously contributed College of Science funds for new carpeting in that room, and also purchased a complete set of comfortable chairs to replace the worn-out seats and stools in rooms 4-A-608, 4-A-634, and 8-239. This new equipment and furniture is fundamental to supporting student success in the Geological Sciences Department.

Geology Graduate Program Awards Four More Master's Degrees!

Four of our graduate students completed their Master's degrees since the last printing of the Mylonite. Several other students are just about finished with their final thesis writings. Let's congratulate:

DanDan Zhang: *"Investigation of the Ventura Fault by Ground-Based Magnetic and VLF Measurements"* (defended August 2017; Advisor: Dr. Polet)

Kenneth Craig: *"Soil Gas Investigation of Porter Ranch, California Related to Aliso Canyon Gas Storage Field"* (defended September 2017; Advisor: Stephen Osborn)

Scott Zylstra: *"Late Cretaceous Metamorphic and Plutonic of Proterozoic Metasediments of Ontarrio Ridge, Eastern San Gabriel Mountains, California"* (defended November 2016; Advisors: Dr. Van Buer and Dr. Nourse)

Michael Herrman: *"Imaging the Los Angeles Basin By Travel Time and Waveform Modeling of Data From a Temporary Broadband Experiment"* (defended December 2017; Advisor: Dr. Polet)

Please check out our MS Thesis archive at <http://www.cpp.edu/~sci/geological-sciences/masters-program/thesis-archive.shtml> to access PDFs of all MS theses completed to date.

Additional Information on the Geology MS Program

The graduate program welcomes applications from our Geology alumni—many have been successful graduate students in the past despite working full-time jobs. Some examples include **Andrew McLarty** (MS, 2014); **Logan Wicks** (MS, 2014), **Hannah Mejia** (MS, 2014), **Josh Sargent** (MS, 2014), **Celia Pazos** (MS, 2014), **Suzan Perez** (MS, 2015), **Kennis Ho** (MS, 2015), **Shawn Morrish** (MS, 2015), **Rachel Hatch** (MS, 2015), **Raymond Ng** (MS, 2016), and **Ken Craig** (MS, 2017). It seems that earning a BS degree from CPP Geology Department provides good training / work ethic for completing a Master's degree.

The application deadline for spring quarter admission is **February 12, 2018**. Fall quarter applications are due **June 1, 2018**. Early application is strongly encouraged to allow time to process financial aid requests. Details of the MS program, including admission requirements, curriculum and instructional plan for the next three years may be viewed at: <http://www.cpp.edu/~sci/geological-sciences/masters-program/index.shtml>

How to Apply:

Apply online through <https://www2.calstate.edu/apply>

For prompt feedback, also send hard copies (or electronic files) of your application and supporting materials to:

Jonathan Nourse, Graduate Coordinator;
janourse@cpp.edu
Department of Geological Sciences
3801 W. Temple Avenue
California State Polytechnic University
Pomona, CA 91768

Semester Conversion Is Upon Us

This year we are putting the final touches on plans for the impending Quarter-to-Semester conversion. Fall conference begin August 20, 2018, with our first Semester courses kicking off on August 23. This will be an interesting adjustment for our students as well as geology faculty, as we all learn to handle 16 week-long terms rather than 11 weeks. Effective student and faculty work load will be increased also if one considers that a full-time (15 unit) schedule equates to 5 course per term rather than 3¾ courses.

The reader may view details of our proposed curriculum and tentative teaching plan for 2018-2020 at: <http://www.cpp.edu/~sci/geological-sciences/about/degrees-and-classes.shtml>

Also posted is the academic calendar for 2018-19 that shows the new schedule: courses will be in session from late August through mid-December, with three day week-ends around Labor Day and Veteran's Day and two days off for Thanksgiving weekend. There will be a longer holiday break until mid-January that may be conducive for field work in the desert. Then Spring Semester starts up, with a week-long spring break in mid-March and Graduation in mid-May. Also scheduled is a 9-week summer term composed of compacted courses offered through Extended University during June and July.

Geology Department on Facebook

If you enjoy pictures of students in action, there are many more posted on our student-run Geology Department Facebook site: <https://www.facebook.com/geology.csupomona>. This site is not officially censored by us, but Drs. Polet and Marshall provide occasional updates with news and images of various Geology exploits.

Personal Notes from Dr. Nourse

Last year passed by especially fast with many exciting new developments described below. I have just finished grades for the Structural Geology and Field Module courses. Fall quarter was a busy time for field trips that involved detailed mapping or structural investigations at Placerita Canyon, Cow Canyon Saddle, Glendora Ridge Road, Rand Mountains, West Fork San Gabriel Canyon, and Anza Borrego State Park.

2017 brought initiation of two new research projects, and resurrection of a couple old ones, all with fresh new army of student assistants. Undergraduates **Clark Murphy** and **Larry Martin** are helping me map the Limerock Canyon metasedimentary assemblage of Powell (1993) near Little Tujunga Canyon Road. **Jacob Palmer** and **Karissa Vermillion** are studying metamorphic exposures of the Placerita Canyon Formation (Miller 1934 and Oakshott, 1958) that were recently made accessible by the Sand Canyon wildfire. Jacob is studying fold geometries while Karissa is mapping metasedimentary units and performing U-Pb detrital zircon geochronology on quartzites. A general goal of all of these projects is to test possible correlations with the Ontario Ridge metasedimentary sequence whose Mesoproterozoic age was recently documented in the MS thesis of Scott Zylstra:

Meanwhile, **Homar Colin** is mapping a sequence of biotite gneiss, quartzite, calc-silicate, and marble in Lost Canyon (a tributary of Icehouse Canyon) that is the source of spectacular folded float fragments scattered along the trail at Mile 1.8. Graduate student **Michael Dykstra** is working with Dr. Van Buer and me to test possible age correlations between the Telegraph Peak Granodiorite, Mountain Meadows Dacite, and various rhyolite porphyry dikes in the eastern San Gabriel Mountains. We have run several samples recently at Stanford University's SHRIMP lab.

Preliminary results suggest a common ate Oligocene age for these samples dated so far, based on young zircon overgrowth on older cores likely derived from the Pelona Schist. We need to do more work to nail down the young age, but it looks like **Garrett Hazelton (BS, '93)** was correct about his proposed correlation between these rock units.

Phyllis and I are delighted to introduce a new addition to our household. We acquired a European English springer spaniel puppy, "Gordie," last May at age 11 weeks, and have shepherded him through a long period of juvenile delinquency. He is now almost full grown at 51 pounds, and has settled down somewhat although his energy level is still very strong at times. I take him for a 3 mile hike or jog each morning, then Phyllis walks him after work, but he still insists on another round of exercise in the evening. Gordie brings us a lot of joy around home and carries that into the Geology Department where he has made a lot of new friends. He frequently helps me collect samples or measure water in the San Gabriel Mountains. I am happy that Gordie enjoys the outdoors and is shaping up to be an excellent field dog.



Gordie celebrates the 4th of July.



Gordie chases stick in San Antonio Canyon, late July 2017.



Supervising strike/dip measurements on Glendora Ridge Road.



Gordie assists with collection of a quartzite sample in the central Rand Mountains. No, I didn't force him to carry that 20 lb rock back to camp, just his water bottles and kibbles.



Gordie goes Christmas shopping at Victoria Gardens.

Let me close by wishing all of you a very Merry Christmas and Happy New Year. Enjoy the holiday festi-

Student Successes

Graduation, 2017

Nineteen Geology majors and five graduate students walked in the graduation ceremony on June 11, 2017, a refreshingly cool Sunday afternoon. Pictured below are: (back row) **Dr. Murray, Mason Dossey, Reggie Agunwah, Kevin Garcia, Jon Marshak, Kyle Macy, Codey Reigel, Kendall Mayfield, Joseph Blount, Dr. Polet, Dr. Osborn, ;** (front row): **Jenna Marietti, Tina Agoncillo, Walter Leung, Garrett Pankratz, Katherine Baragan, Mayra Barajas, Janine Angenant, Lily Bahar Tanara, Amber Lacy, Anthony Camacho, Brenda Ballesteros, James Coyne, David Yaralian, Chloe**



Most of the 2017 graduation class.



Geology faculty pose with MS candidates Danny Miranda, Kevin Garcia, Reggie Agunwah, and Jon Marshak. Also present but missing this photo was Scott Zylstra.

The Geology banner was carried by **Kyle Macy**, to recognize his achievement of the top GPA of this graduating class. Per usual, everyone seemed to be in great spirits.



Kyle Macy leads the group to the ceremony.

2017 Alumni Reunion and Student Awards Ceremony

Last May 6 we held a Bar-B-Que / picnic at Higgenbotham Park in Claremont to meet with alumni and friends and present the annual awards. Special thanks go to **Drs. Osborn Polet, and Van Buer** for arranging the logistics of this event. The photos below show some high-



Higgenbotham Park venue for the 2017 Alumni picnic.



Clark Murphy cooked the burgers to perfection.



Dr. Nourse presents the raffle prize (a nice personal diary/sketch pad, courtesy of Peter Valles) to Karissa Vermillion's sister Ariana.

Henderson-Valles Scholarship

In recognition of her academic achievements, Geology faculty selected Chloe Sutkowski for this year's award of \$750. Chloe is now performing well as a first year MS student in our graduate program.



Drs. Nourse and Polet present the Henderson-Valles award to Chloe Sutkowski.

Margaret Claire Van Buskirk Memorial Scholarship

This \$750 scholarship recognizes a student who exudes enthusiasm for geology and dedicates significant time to better the learning environment around the Geology Department. This year we selected **Karissa Vermillion** for the award.



Drs. Van Buer and Nourse present the Margaret Van Buskirk award to Karissa Vermillion.

Ernest Prete, Jr. Scholarship

To recognize the environmentally significant research, **Tony LaBeau** received the Prete award of \$1000. For part of his application, Tony wrote a detailed description of a self-motivated research project in the Big Maria Mountains.



Drs. Van Buer and Nourse presents the Prete Award to Tony LaBeau.

Field Geology Awards

To encourage and promote the traditional practices of field geology, alumnus **Randal Burns (BS 2006)** continues to donate of Brunton compasses to the Department. This year two compasses were awarded to **Oscar Teller** and **Allison Prizlow** to recognize their quality work in our field mapping classes.



Oscar Teller and Allison Prizlow receives the Brunton compass award from Drs. Van Buer, Nourse and Murray.

A new award donated this year by **Peter Valles** was a leather geological field mapping case that holds notebook and drawing/drafting implements. We selected graduate student **Scott Zylstra** for this honor to recognize his ambitious mapping endeavors on Ontario Ridge.



Drs. Van Buer, Nourse and Murray present the Peter Valles field mapping award to Scott Zylstra.

Peter K. Valles AGI Glossary of Geology Award

Several years ago, **Peter Valles** began providing us a Glossary of Geologic Terms (published by the American Geological Institute) to award deserving students who might utilize some of these words in future geologic studies. This year's recipients were **Jacob Palmer** and **Kyle Macy**. We hope these books will expand their geoscience vocabularies and lead to great writings in the future.



Drs. Van Buer, Nourse, Polet, and Murray present AGI Glossaries to Jacob Palmer and Kyle Macy.

Hastings Triplet Awards

We continue the tradition of awarding Hastings Triplet hand lenses to encourage careful examination of rocks in the field. This year we had three deserving recipients: **Arnold Pimentel**, **Homar Colin**, and **Tahsin Anoor**. All have performed well in Optical Mineralogy and Petrology courses, and show interest in rocks and minerals.



Arnold Pimentel and Homar Colin were present to receive 10X hand lenses from Drs. Van Buer, Nourse, and Murray.

Peter Valles Field Notebook Award

We presented several bound "Rite in the Rain" field notebooks containing a vintage photo of young **Peter Valles** as a Geology major in the 1970s. The recipients below are known for their abilities to take careful notes during our lectures (a fading skill in these modern times). May they do the same out in the field:



Dr. Nourse presents field notebooks to Kaitlin Ruiz, Tina Agoncillo, Clark Murphy, and Manny Vejar. Also chosen for this award but not able to attend was Andrew Wieland.

Geophysics Award

A new award initiated this year has a Geophysics flavor, to recognize dedicated work of students enrolled in the Geophysics Emphasis area. I don't recall the details of the blue box below, but it contains a solar powered gadget that facilitates data analyses on Geophysics field trips.



Tina Agoncillo receives the Geophysics Award from Dr. Polet and Dr. Nourse.

In Memoriam: Dr. David Berry

We were all saddened to hear that our beloved Professor David Berry passed away after a long illness on April 11, 2017. Dave served as a dynamic Professor and mentor in the Geology Department from 1984 to 2014. His bread and butter classes were Paleontology (GSC 331), Historical Geology (GSC 250), Principles of Geology (GSC 111 and 141L) The Earth Revealed (GSC 101), Intro to Oceanography (GSC 120), and Natural Disasters (GSC 350). He taught these tirelessly, three courses per quarter, for decades. Many of you old timers will remember the annual

four-day Strat-Peleo trip led by Drs. Berry and Tarman to eastern California and southern Nevada. I tagged along during one of my early years (1990?) and still have a couple nice samples of Paleozoic corral and fusulinids in my collection. Dave was also a regular faculty leader for Biology's Spring Break field trip to Baja de Los Angeles (Baja California) when such trips were allowed by the University. He collaborated with Drs. Glenn Stewart and Lazlo Siig for many years on related endeavors.

Dave was always willing to take the time to talk to students outside of class. He was an inspiration to countless beginning students, and brought us many changed majors during a time when Geology enrollments were down. I recall several long conversations with him in the department office or in the field on topics ranging from politics to his early days as a student at Berkeley. His sense of humor was always very welcome when times were tough.

We all have very fond memories of Dave Berry, and greatly miss his contagious optimism, kind spirit, and his enthusiasm for Geology.



Dr. David Berry in his younger years doing what he loved.



Geology Staff Highlights

Monica Baez

The year(s) seem to fly by now. Next year will be my 12th year with the Geology Department here at Cal Poly and going on my 17th year at Cal Poly Pomona. I really enjoy this department and our awesome students/alumni. It's great to be able to hear your stories big and small, so thank you for your contributions to the Mylonite. I don't really contribute myself as I don't have anything, I feel, that is very interesting to say or tell. I'll just wish all of you a wonderful Holiday and prosperous New Year.



My 2013 Scion FR-S in 2016 and with a refresh this past summer in 2017. He's my mid-life crisis, HA! If it's not this it's video games with the hubby.

Carol Vera

So, OK, this picture was taken at one of our secret fishing spots along the Owens River right outside of Bishop. And yes, I did catch this myself and it weighed in at 5.5 pounds. We call this special spot "crawdad corner" and for a reason. After we had put my monster fish on a stringer and laid it in the water, we stayed a couple more hours. When we pulled the stringer up to leave, crawdads had munched on my fish, almost to the point of chewing him off the stringer hook. Hence the name "crawdad corners". Depending on the time of year you won't catch any trout but you sure can catch buckets of crawdads there!



Frank Wille

Frank is an essential part of the Geology Department here at Cal Poly. He's been with us for over 2 years now. From helping out with the many field trips to being fantastic at managing the shop and all the "to do" tasks that come along with it (not to mention all my pestering for the office stuff!). Frank is very well liked by faculty, staff and students and that goes without saying. We're lucky to have him with us. Thanks for all you do Frank.!



Frank Wille on one of his many adventures with the Geological Sciences Departments plethora of field trips.

Emeritus News (in alphabetical order)

Dave Jessey

Hi everyone. Hope you all are doing well. I'm fine. My health has improved. It is now almost 3 years since my treatment for cancer and there has yet been no evidence of a return. I still don't walk without a cane, but that is a small price to pay.

Haven't been traveling much this year. Rose doesn't like traveling at all. But its no big problem there isn't much of the US I haven't seen. Did go to Tucson again this year. Was fun, but not quite the experience it has been. Went with Taylor van Hoorbeke and my son. I didn't spend what I normally do. I have a problem that my collection has gotten so large there is no longer any room for more specimens. So I am now just purchasing rare minerals or A+ grade specimens to replace some of the less attractive ones I currently have. That gets costly so I have to reduce the numbers I buy. Also it doesn't leave too many dealers to purchase from as most don't have the quality I am looking for. Haven't made up my mind about going to Tucson in 2018 yet, but knowing me I will probably end up going.

All is well around the house. We are about to start a year or two of major remodeling. We get a roof in a couple of weeks, then remodel the exterior next spring. After that we

start on the interior. Not for me, I won't be around to enjoy the fruits of the labor, but my kids will get a palace. Speaking of the family, Rose still works for the local school district, Monica is now a counselor for victims of crime and domestic abuse after completing a Master's in Clinical Psychology and Mark is? Oh and Sakari and Boris are doing well, although not as active as they were a few years ago.

Not much else to report. Hope you all have a wonderful Xmas and New Year and oh, the mining industry is making another comeback. So there will always be jobs for geologists.

-David Jessey

John Klasik

Greetings to all you fine alumni!

I must start this 2017 letter with a paragraph containing some of my remembrances of Dr. David Berry. Dave was a trusted and valued colleague. He was my friend. He was dedicated to the Department and to his students. He had a bottomless pit of knowledge on virtually any subject. He was wonderful instructor. I was constantly amazed how he could walk into a classroom, right on time, and at the "flick of a switch" coherently lecture on the subject of the day. He always found ways to assist his students and get them through the course. He valued field experiences for all his classes – even the most basic. When Dave was in discomfort and had difficulty with the rigors of the field he found the strength to take his students on valuable field trips. His knowledge of stratigraphy and paleontology never ceased to amaze me. A stranger could walk into the Department office and show him a specimen. He would immediately say "Oh yes this is ___ age and came from the ___ formation". The person would walk out of the office pleased as punch. Since Dave's passing in April I have often recalled phrases Dave would use. The Shelton series of videos were "oldies but goodies". Even on the second day of a quarter when asked if he was busy he would say "well I'm up to my armpits in alligators". Finally, you will read below about my August eclipse adventure. Often during that trip I thought of Dave and I driving to La Paz, Baja, in 1991 to see the eclipse. In spite of avoiding 1200 miles of potholes, camping in some rather odd settings and drinking "gasoline masquerading as tequila" we thoroughly enjoyed ourselves. We both were ready for the "upcoming" 2017 eclipse. I am sorry Dave could not witness the 2017 event.

This is the 25th consecutive issue of the Mylonite. What an accomplishment! Other Departments and the College of Science have attempted newsletters. To my knowledge none have lasted. Our Mylonite is clearly the best newsletter. Containing, faculty news; staff activities; student accomplishments; student awards; commentary regarding

our wonderful annual alumni reunion; news from Emeriti; and, last but far from least, news from our valued alumni the Mylonite has endured for a quarter of a century. We created something that interests everybody. Alumni look forward to receiving the newsletter. The Mylonite has kept alumni and students abreast of Department events and its field adventures. In sum the Mylonite has documented twenty five years of Department history. I am positive this amazing legacy will continue. Congratulations to all the faculty, staff, students and alumni who have contributed to and made this such an amazing newsletter!



OK. On to my actives / travels of 2017. You may recall in 2016 Jerry and I visited Hawaii and Lassen National Park. So, I called the year, the "year of the volcano". Well, we had another volcano(s) to visit in 2017. In March we flew to Ecuador and the Galapagos. We first flew to Quito and were able to see the snow covered Andes. We then continued on to spend seven days on the Galapagos hot spot (see pictures). Thus two volcanic environments in one trip. I felt privileged to be on "Darwin's Islands". I was honored to walk among the many endemic species. It was truly a wonderful opportunity to visit an ecological environment unique to the planet. The Ecuadorians and the Galapagos National Park are doing amazing things to secure the safety and future of the wildlife and control the burgeoning ecotourism. We spent our time onboard the Motor Yacht Galaxy I (you can find pictures of it online).



The boat took us (sixteen in our group) to seven islands. We used pangas (sort of inflatable boats) to travel from the Galaxy to each island and to

view some of the marine wildlife. Hiking in total solitude was wonderful. Snorkeling in 80 degree water and seeing rays, white tip sharks, parrot fish, etc. was an added highlight. From the top deck of our boat the nights were clear and dark. I had never seen the southern hemisphere Milky Way and constellations so up close and personal.

In July we took our usual trip to the east coast and the south Jersey shore. The annual family reunion was another success. All 17 had a great time. However, this was the first year that I did not go in the ocean. Perhaps I am getting old (not true), but the 70 degree or cooler water was just too much of a challenge for me. Hopefully next year will be different.

As I stated above ever since 1991, I had had been looking forward to the August 2017 Great American Eclipse. Jerry and I drove 1300 plus miles to Tryon, Nebraska (population 157). Tryon was right on the center line and offered about 2m and 25s of totality. A local rancher / farmer graciously opened his fields up to the public. We had a fantastic setting to be witness to this amazing event. The August 21st eclipse was my third eclipse and Jerry's first. Our day started with dense fog clearing to dark overcast skies. An hour or so before first contact the skies cleared and we had an unobstructed view of the event. I sincerely hope many of you had the opportunity to witness this extraordinary phenomena. Total eclipses impact you at a sensory and an emotional, dare I say spiritual, level. I am now ready for 2024. I hope you are also.

After the eclipse we drove over the course of two days to Durango to visit a friend. We then visited Mesa Verde National Park. Finally we drove to Flagstaff to visit the famous Lowell Observatory. At Lowell we not only saw but had the privilege to look through the historically famous Clark 24 inch refractor. This is very same telescope and eyepiece that Percival Lowell looked through in the early 1900's to study Mars and Venus. I felt most honored and humbled by the opportunity.

Well, that summarizes my 2017. It was a wonderful year. I hope to see you all at the 2018 alumni reunion. I sure could use some alumni to talk to.

Best regards,

John A. Kleck



Faculty News *(in alphabetical order)*

Jeff Marshall

Howdy folks! I'm writing to you from the French Quarter of New Orleans where the 2017 AGU Fall Meeting is in full swing. Just imagine: 24,000 geoscientists swarming the Big Easy - Laissez la bon science rouler! This was another action-packed year in the Cal Poly Pomona Geology Department. Aside from the usual antics of teaching, field trips, and research, we began bracing ourselves for the upcoming tectonic shift from quarters to semesters. I taught my usual dose of Geomorphology, Natural Disasters, and Watershed Restoration, and burned plenty of time serving with the Geology RTP Committee (Chair), CSU COAST Initiative, NSF GeoPRISMS Education Advisory Committee (GEAC), and Geosciences Division of the Council on Undergraduate Research (CUR). This was also the final year of the NSF CEMaST RESPECT Program, working on geosciences lessons with Pomona elementary school teachers.

On the research front, this was the first year of my new NSF project investigating coastal uplift and paleoseismology along the east coast of New Zealand's North Island. This project is part of the "*Subduction at Hikurangi Integrated Research Experiment (SHIRE)*" which is a multidisciplinary collaboration between five US universities and GNS Science (New Zealand Geological Survey) to investigate megathrust earthquakes and tsunami along the Hikurangi subduction margin. In January, I traveled to New Zealand with undergraduate REU students Janine Angenent and Jessika Valenciano for a reconnaissance expedition with GNS colleagues along the rugged Wairarapa coastline, and to a planned trenching site on the Raukumara Peninsula. We also traveled by ferry to the South Island, where our GNS colleagues took us on a once-in-a-lifetime field tour of coastal uplift, fault ruptures, and landslides produced by the November 2016 M7.8 Kaikoura earthquake. Recent research is showing that this complex multi-fault upper-plate earthquake also likely involved deeper slip along the southernmost Hikurangi megathrust. This has important implications for our work further north along the North Island's east coast. For their senior thesis projects, Janine and Jessika worked with LiDAR data provided by GNS to map uplifted paleo-shorelines along an area of the Wairarapa coast that we visited during our fieldwork. The Holocene terraces and beach ridges found here represent individual paleo-earthquake uplift events (up to seven in this area!). Janine created a poster on her work for the GSA Cordilleran Section Meeting, and Jessika just presented her own poster yesterday here at the AGU conference. Janine completed her thesis last spring and graduated, and

Jessika is aiming to finish this year. I am now planning the next New Zealand field expedition with a new student team for early next year.

Over spring break, I traveled to Costa Rica for fieldwork on the Nicoya Peninsula, funded by a grant from the Cal Poly Pomona SIRG Program (Strategic Interdisciplinary Research Grants). This collaborative project involved colleagues Dr. Jay Smith (Biology) and Dr. Kristen Conway-Gómez (Geography), as well as one student from each department, Katherine Long (Geology MS), Claire Arre (Biology MS), and John Walls (Geography BS). We spent nine days mapping and surveying the ecological zonation of rocky intertidal platforms that were uplifted during the 2012 M7.6 Nicoya Earthquake. This knowledge will aid in understanding intertidal zone mortality patterns produced by the 2012 earthquake and any future events.

Over the past year, I participated in a bunch of research conferences and workshops. Last fall, I traveled to Boise, Idaho for the IRIS Subduction Zone Observatory (SZO) Workshop, which brought together several hundred international experts on convergent margin science. I served as a breakout leader for the Earth Surface Processes discussions. This workshop resulted in an NSF “vision document” called “SZ4D” that develops a plan for multidisciplinary cutting-edge research on subduction zone processes and hazards. This initiative is likely to be the successor to the decadal NSF Margins and GeoPRISMS programs. In December, I gave a talk on mentoring undergraduate research projects at AGU in San Francisco, and enjoyed once again our annual alumni dinner. In spring, I participated in the CSU COAST meeting at the chancellor’s office in Long Beach, and traveled to Honolulu, Hawaii for the GSA Cordilleran Section meeting. There, I chaired the undergraduate research poster session and presented Janine Angenent’s poster on our New Zealand research (she was unable to attend the meeting). During the conference, I played hooky several times, walking the length of Waikiki, grooving to slack-key guitar at the House Without a Key, enjoying some Ahi Poke and local microbrews, and driving up the Windward Coast to the North Shore, stopping at the Nuuanu Pali Lookout and Banzai Pipeline. After the meeting, I flew over to the Big Island to join a GSA field trip exploring Kilauea Volcano (Bryan Murray also participated). The first day, we visited the USGS Hawaii Volcano Observatory, the active Hale Ma’u-ma’u Crater, several older craters, and hiked across lava fields to one of the big normal fault slump escarpments. And, yes, pahoehoe is a lot easier to walk on than aa. On the second day, we rode bicycles across recent lava fields, past destroyed houses, to see the active flows pouring into the ocean. Overall, this was an awesome field trip that I would recommend for any geologist’s bucket list.

In summer, my son Kyle and I visited grandma several times in San Diego, joining friends for boogie boarding at Pacific Beach and deep-sea fishing in the La Jolla kelp beds (I caught a yellowtail!). I also attended the ESRI GIS User Conference at the San Diego Convention Center. Other summer adventures included a party weekend with old UCSB geology friends at the Live Oak Music Festival near Lake Cachuma, and a Solar Eclipse Party at our house with Cal Poly faculty colleagues and families. At the end of summer, I traveled to Missoula, Montana for my niece’s wedding and a bit of exploring. Highlights of that trip included a visit to the Ninepipes Museum of Early Montana and a drive through the National Bison Range, where aside from hundreds of lumbering buffalo, we encountered black bear, elk, antelope, and a rather pesky Dusky Grouse who insisted on climbing underneath our car to drink the air-conditioning condensation.

Kyle started high school this fall, and he is now taller than me! He is still playing soccer and is enjoying stage acting with the CHS Theatre. We both celebrate our birthdays this coming week, and will host another marathon Star Wars video game sleepover with friends, including a movie outing to catch the premiere of the “The Last Jedi”. After the birthdays, we head down to grandma’s house in San Diego for Christmas and the New Year. Peace to all and Happy Holidays!



Janine Angenent ('17) and Jessika Valenciano with our GNS truck, first field day at Tora Farm Settlement, Wairarapa coast, North Island.



Jessika Valenciano and Janine Angenent along the Kekerengu Fault scarp from the 2016 M7.6 Kaikoura Earthquake, northern South Island.

Bryan Murray

Greetings!

This past year at Cal Poly Pomona has been fun one! Last year I co-taught two sections of Field Methods in Fall and Spring quarters with Scott Zylstra, one of our graduate students. We had some great students who endured some extreme weather conditions during our field outings, including a snowstorm at the Devil's Punchbowl, followed by upper 90's temperatures in the Marble Mountains. In Spring, the hot weather followed us to the Palos Verde Mountains west of Blythe for a Field Module course, where the class mapped and measured a stratigraphic section in an area that my graduate student (Abdulla Al-kaabi) and I are starting a new research project on some interesting redbed & volcanic deposits in the Colorado River extensional corridor. I enjoyed teaching a "Tectonics of Sedimentary Basins" advanced sedimentary geology course for the first time in the Fall; we discussed the various basin types that form in response to different tectonic settings, and spent a Saturday touring Ridge Basin, a spectacular local example of a strike-slip basin north of Castaic.

Over the past year, I presented some of my new research results at several professional meetings. I gave a presentation at the 2017 Desert Symposium in Zzyzx, CA on new geologic mapping and stratigraphic interpretations of the northeastern Calico Mountains—much of this research came out of the work my students and I completed during my Spring 2016 Field Module course. In addition, I gave a talk on this research, along with some brand new Ar/Ar ages, at the GSA Annual Meeting in Seattle this October. In Spring, I attended the GSA Cordilleran Section Meeting in Honolulu to present a poster on my ongoing research in the Copper Canyon area of the northern Sierra Madre Occidental, Mexico, which highlighted new Ar/Ar age constraints on extensional basin development and magmatism. The highpoint of this meeting was attending a GSA field trip (along with Dr. Marshall) to the Big Island of Hawaii to observe active volcanism at Kilauea. After a 2.5-mile mountain bike ride and 1.5-mile strenuous hike across a rough pahoehoe field, I observed the birth of the youngest rocks on Earth (and then poked at them with my rock hammer). Witnessing an active lava flow up-close stimulates most of your senses – the intense heat, the sulphur odor, the crackling sound of the glassy flow tops breaking during inflation, and the sculpture-like, otherworldly shapes and textures of the solidified flows – truly a worth-while experience that I can happily check off my geology bucket list.

I also had an exciting year with my family. Last summer, we spent a couple of weeks on a sailboat around Two Harbors, Catalina and had many hours of fun with my two kids, Coral (6) and Pearl (1), kayaking, swimming, and snorkeling and beachcombing for amethysts and other neat rocks. Watching them experience the natural wonders of the world for the first time is incredible. We also visited Yosemite and Redwoods National Parks, and all of us (including the baby) went white water rafting down the Rogue River in southern Oregon with some family friends over Labor Day weekend.

In the upcoming year, I have plans to head back to the Calico Mountains for a Spring Field Module course, lead a new field trip for my Earth, Time, and Life Lab to the Santa Ynez Mtns and Jalama Beach in Santa Barbara County, and continue field work in the Mojave region. Until then...

Bryan Murray

Dr. Murray observing an active pahoehoe flow at Kilauea



Mini-Murrays enjoying the tufa at Mono Lake.



Taking in the view of Yosemite from Glacier Point.



255L Field Trip to Devil's PunchBowl.



Stephen Osborn

Dr. Osborn has been on sabbatical for the fall quarter. He's been living temporarily in Arizona where he's been conducting his research work. He'll be back teaching winter quarter and hopefully he'll give us a nice update in the next Mylonite and tell us all about it. He regrets to have missed submitting an article in this years Mylonite, but wishes everyone a wonderful Holiday and New Year!

Jascha Polet

Hi everyone!

Another busy year has flown by!

In terms of research opportunities, this year my focus has been on the development of a new research group with collaborators from Caltech, Harvard and other universities, with the goal of investigating the role of the connectivity of the sedimentary basins from San Gabriel to San Bernardino in the amplification of ground shaking in Los Angeles due to a San Andreas earthquake. We have already submitted several proposals and are working on submitting a multi-year NSF proposal next year. As part of the Global Tsunami Model group, I co-authored a comprehensive paper on probabilistic tsunami hazard analysis, which will be published in Reviews of Geophysics in the next few months. Another paper will be published soon by the National Conference on Earthquake Engineering. This manuscript is based on the thesis by Raymond Ng (MSc, 2016), who is first author, and presents our results on the long period resonance frequency of the Los Angeles Basin.

In the last few months I have also stepped up my outreach efforts. Interest in the seismology of the North Korean nuclear tests, the recent large earthquakes in Mexico and even more recently in Iraq have led to interviews with newspapers and other media. In October, I really enjoyed presenting talks at two events for the local Pomona community: an emergency preparedness event organized by the Office of U.S. Congresswoman Norma Torres and a "Science on Tap" presentation at iBrew-Works.

Another highlight of this year was the Long Valley geophysical field module this July. This year, the focus of our field trip was on geodetic measurements of deformation of the resurgent dome and the subsurface characterization of the "dead tree" area near Horseshoe lake. Kaitlan Elizondo and Ashley Rivera presented this research at the recent Southern California Conference on Undergraduate Research.



GPS and magnetics near Crowley Lake

We experienced near perfect weather throughout the trip, and on the way back home via Yosemite National Park we were one of the first cars through Tioga Pass this year!



Perfect weather while exploring Hot Creek.

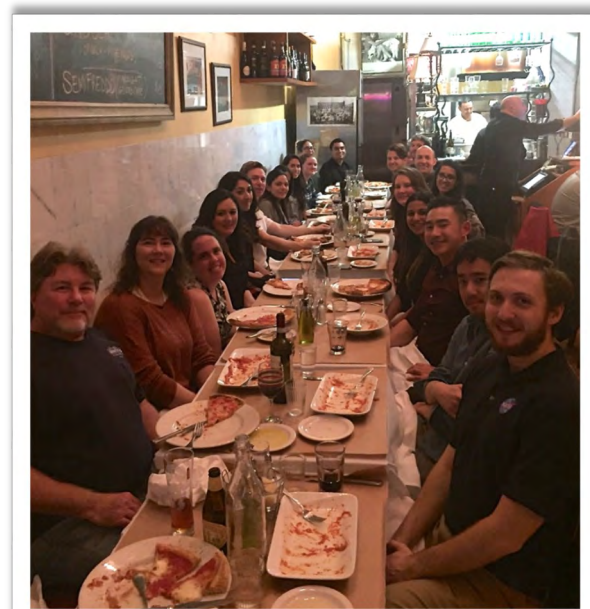


Group picture of the 2017 Long Valley Field Module.

This has been a very productive year for undergraduate and graduate researchers, who presented their projects at the Southern California Earthquake Center meeting, and the Southern California Conference for Un-

dergraduate Research, and who submitted numerous abstracts to the American Geophysical Union meeting in

New Orleans this year. Presentation preparations are in full gear right now for the AGU meeting in a few weeks. Since AGU always falls just after the Mylonite deadline, I have not yet shared any photos of the CPP dinner that we traditionally have at the meeting for students, faculty and alumni. Here is a photo of the dinner in 2017, with 20 attendees, including some very successful alumni!



2017 AGU CPP dinner.

In other research news: next week Michael Herrman will be presenting his MSc thesis research and Dandan Zhang defended her thesis earlier this summer. Also happening next week (it will be a busy few weeks!) are the MSc proposal presentations, four of which will be geophysics projects. Steven Moody will be investigating the subsurface structure of the Portuguese Bend landslide, Kyle Macy is working on an analysis of the earthquakes in the Yorba Linda Trend, Anisha Tyagi's project is focused on the seismic response of the San Gabriel and San Bernardino Basins, and Chloe Sutkowski will be using a variety of geophysical approaches to investigate potential grave sites near the Old Spanish Trail.

With MSc proposal presentations, AGU posters/talks preparations and a thesis defense coming up, I will end my Mylonite contribution right here and wish you all Happy Holidays!

Jascha

Nick Van Buer

Hello All,

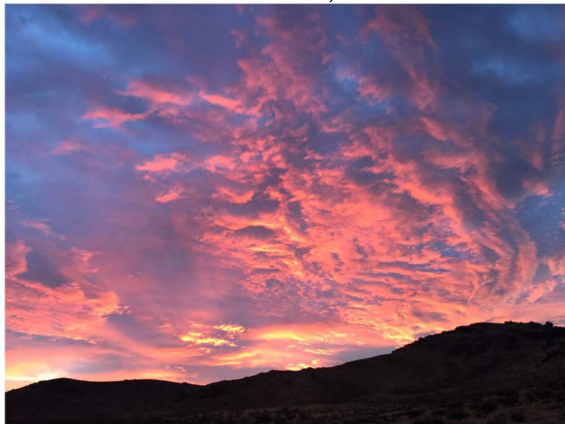
Another year of geological adventures. Highlights include a Field Module mapping economic resources in the Rosamond Hills, in partnership with the Cal Portland Company—this trip also featured one day of mapping in Death Valley since there was heavy rain everywhere else in California. Other new field excursions included metamorphic petrology stops in the Inyo Mountains, where students spotted a bear, and a week-long trip I co-led with Dr. Jon Nourse through Nevada, southeastern Oregon, and Idaho. This trip included a tour through my Ph.D. stomping grounds in the Cretaceous batholith of NW Nevada, as well as a view of the total eclipse (and a moose). A Field Investigations grad class mapped a heretofore unstudied ring dike complex in the southern Sierras.

In other news around the department, undergrad Jacqueline Zuniga helped unpack and catalogue hundreds of mineral specimens that were not previously utilized—these greatly enriched my teaching of Mineralogy this fall. Research wheels keep turning as well, and several students traveled with me and/or Jon Nourse to use the SHRIMP and LA-ICP mass spectrometers at Stanford and Cal State Northridge, respectively, for radiometric dating purposes. Student projects include geologic mapping, petrology, geochemistry, and geochronology in the San Gabriel Mountains and Mojave Desert, as well as one rock glacier project. We also had a big group of students, including Karissa Vermillion, Paula Soto, and Scott Zylstra, travel to Seattle to present at the Geological Society of America meeting. Congratulations to Scott for successfully defending his thesis this term!

For next year, I'm looking forward to holding a Field Module in the Big Maria Mountains, and dreading the advent of Semesters . . .

Happy Holidays! -Nick Van Buer

Sunset at the Rosamond Hills, with GSC 491L



GSC 499A students in the Pioneer Mountains, Idaho.

2017 News, Updates and Photos From Alumni & Friends

Once again we are proud to have such wonderful Alumni & Friends of the Geological Sciences Department here at Cal Poly Pomona. Thank you all for your support throughout the years it means a lot to not only the students, but the faculty and staff.

Following this intro is the latest news from our Alumni & Friends, pieced together by Monica Baez and Dr. Nourse. Some have come from our Alumni & Friends themselves and others from various notes from fragments of e-mails, phone calls and other communications, e.g; LinkedIn, that we have received over the past year.

We are always interested to learn what you all are doing so please send us an update anytime you have a few free moments. You can send updates and/or photos to either Jonathan Nourse at janourse@cpp.edu or Monica Baez at mlbaez@cpp.edu

Now on to what our Alumni and Friends have been up to:

Pattie Rose Gonzales (Pattie Stephens when at Cal Poly – 1982/1984)

Pattie Rose shared with us a great article as she did last year with an awesome update on what she and her husband have been up to since the last Mylonite issue. In Pattie's words "This has been a busy second year of retirement for our family. Getting to enjoy my Rocks & race Cars." Please follow the link to view Pattie's update and the wonderful pictures she shared with us of the Drag Racing that her husband is a part of and all the Geological things they

both do together: <http://www.cpp.edu/~sci/geological-sciences/alumni-and-friends/alumni-reunion.shtml>

Thanks so much Pattie for sharing this with all of us!

Darrin Hasham ('00)

It was fun to run across Darrin on campus last August just before lunch. We proceeded to El Merendero Restaurant and had a nice chat. He is still going strong at the geotechnical division at Kleinfelder Corporation, and is splitting time between its Los Angeles and Inland Empire offices. I also learned that our recent graduate, **Mason Dossey ('17)** is just started working at Kleinfelder under Darrin's supervision.

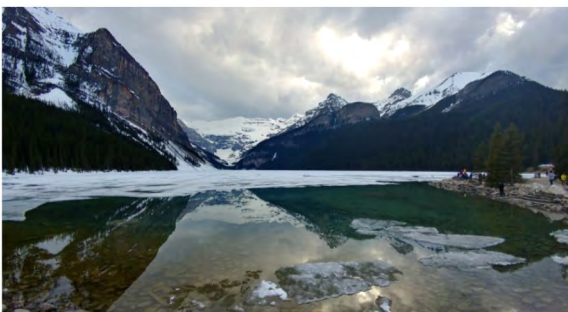
Robert Jones ('05)

Hello Everyone,

This year has been a very full year. Quarry and I celebrated our anniversary in May by traveling to Seattle, WA, British Columbia, CA and Alberta, CA. We flew into Seattle and began our road trip in which we would log close to



2000 miles on our rental vehicle. British Columbia was amazing, I have never seen such BIG GEOLOGY before. The Canadian Rockies were a sight to behold. Maybe it's from being in flat Houston for the last 3 1/2 years, but everywhere I looked was amazing. Around every corner was a huge valley, mountain range, gorge, water fall,



tree line, lake, glacier, etc. We even got a little snow we were not prepared for. Visiting Lake Louise just outside of Banff Alberta was an amazing experience. The lake is turquoise and glacier-fed. While we were there the lake was still frozen but it was still incredibly beautiful. I could go on and on about this trip. I took way to many videos and photos. We will definitely be going back in the future.

We also experienced the devastating effects of Hurricane Harvey. Many of our friends and family were impacted by the rain and severe flooding. We were trapped in our neighborhood for five days. Our community, Grand Mis-



sion, Richmond, TX, was significantly impacted. The entire Houston Metroplex was impacted. My hospital, Houston Methodist, located in the Houston Medical Center, made it through without any significant damage. I had never seen anything like this in my life. The rain fell so



hard and for so long. The track and speed of the Hurricane is what led to the extreme flooding. I moved to Texas in 2014 and since that time, here in Houston we have had three flooding events that fall well outside the 100 yr. flood plain; the Tax Day Flood, the Memorial Day flood and now Hurricane Harvey. The flooding caused by Harvey resulted in well over 75% of our housing development being impacted with high water. Due to our location in the southwest part of our development and the elevation of our home, water did not enter into our home or any of our immediate neighbors. Water came up 3/4

of the way up our drive which is about 4ft. above the street grade. Our neighborhood was almost like an island as we had swift water flowing around and through it. I have attached a few photos. Our immediate family members were safe and no damage to their homes. We have several



extended family members and friends who lost everything or who had significant damage to their homes. I tracked the water level as it rose and receded. At one point i calculated over 12 inches/hr. We had about 50 inches in total. The recovery process continues and there will be a lot of work to do in the upcoming months, both on the human level and the environmental impacts. This was my first hurricane event and is definitely one that I will never forget.

I look forward to reading the 25th Mylonite. It's amazing how the Geology Department continues to grow. I wish all the students success and hope they enjoy their experience at Cal Poly Pomona.

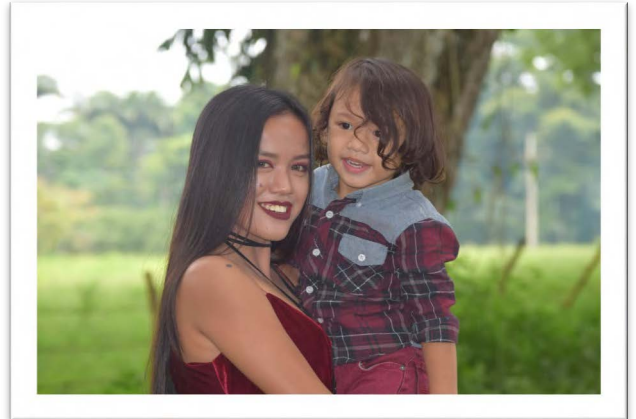
-Robert Jones

Scott McKeag ('82)

2017 has been a challenging year. Early in the year my exploration contract in Sudan was terminated. All of the original tasks had been achieved and I had developed, trained and mentored a strong National Sudanese exploration team. I am very proud of them. Together we discovered Jebel Ohier, a large neo-protolithic copper/gold porphyry in the Arabian Nubian Shield (ANS). Drill-out of this giant

porphyry system is ongoing and it is currently at 350 million tonnes of good grade copper.

I retreated to my eventual retirement home in the southern island of the Philippines, Mindanao. I have had the opportunity to spend ten months of quality time with my three year-old son and his mother. They are keeping me young! In my spare time I am renovating a small house



and I am dabbling at farming, both coffee and hogs. I must admit I am not a very good farmer. I just do not have the patience. The southwestern monsoon has been the strongest in years and the northeastern monsoon has begun and promises to be just as strong but thanks to

Global Warming, the typhoons have been blasting Japan instead. I also created a multi-discipline consultancy specializing in exploration, mining and environmental. Our maiden project is about to begin and I am eager to return to work. The Philippines is an amazing place to live and work. The country has its problems like all countries but the people are friendly and inviting and are amazed at American priorities. The place is teeming with unexplored land and mineral potential. If any of my colleagues are interested in investing in the responsible development of the Philippine mineral wealth, feel free to contact me.

I plan to live out my life raising my youngest son, chasing after his Mother, vacationing with my older sons and wandering the Philippine hillsides in search of mineral deposits that need to be found and understood. No better way for an exploration geologist to sign-off. But no sign-off until several more significant discoveries are under my belt!

All the best to my old friends and the younger graduates following us!
Regards, Scott McKeag

Anthony Mack ('13)

I've moved from Naples, Florida to Boynton Beach, Florida (east side of the state just south of West Palm Beach). I am working for Arcadis Company as an Environmental Task Leader. I primarily work with the Florida DEP Petroleum Restoration Program (groundwater clean-up work).

-Anthony Mack

Ricky Nelson ('81) - (update via Dr. Nourse)

It was nice to reconnect with Ricky Nelson last month. Rick is recently retired from an executive position at General Dynamics and has moved to Costa Mesa from Tucson. We had an enjoyable lunch at Kellogg Ranch Restaurant recalling some of the early days in the Department. Rick made a very generous donation to the Geology Department and will soon be involved in some department seminars geared toward enhancing job-seeking skills for our students. Back at the office we made a random phone call to his old classmate **Steve Zuker ('81)** and managed to catch him in his Denver office. Steve's mineral exploration company, Pucara Resources, is still going strong developing precious metal properties in Peru.

Valorie (Taylor) Plesha ('86)

I don't know if this comes too late for this year's Mylonite, but I thought I'd send a quick update on life as a GIS Analyst in Colorado. I never was able to find gainful employment in geology, but I became really good at GIS before it was even an offered degree at any university. I work for the City of Thornton, entering and managing spatial data, helping to decide where to site new city buildings, all addressing of all properties, and providing a spatial view of solving issues that city governments face. We did have a bit of excitement while excavating for our new police/fire substation: one of the workers hit something harder than expected while digging, and realized that it was bone. A paleontologist from the Museum of Nature and Science determined that it was a triceratops skull. When this news was shared, I went looking for a geologic map of Colorado, and georectified it on the public land survey grid, and bam! It was smack in the middle of the right formation. The discovery occurred less than two miles from my house. Sadly, my house sits on a younger, dinosaur-free formation. Yes, I checked.

[Remember Thornton's triceratops, "Tiny?" Turns out he's a another dinosaur entirely.](#)

My youngest daughter is set to graduate from Colorado State in the spring with a degree in mechanical engineering. She has spent several past summers working for Water World, our local water park, as an engineering intern and a slide inspector, and she hopes to find employment in the industry after graduation. My older daughter has been on her own for the last three years working for the Space Telescope Science Institute in Baltimore, working on the Cosmic Origins Spectrograph (or COS for short) on the Hubble. Both of my kids are smarter than me, but don't tell them that, please.

My husband and I are just as busy as empty nesters as we were when the kids were here. We have done a fair bit of traveling, combining Disney cruising with land vacations. We visited England, Ireland and Iceland last year and France, Spain, and Portugal this year. I finally visited Ste. Chapelle in Paris to see the floor-to-ceiling stained glass that I first saw in pictures in an art history class at Cal Poly - another bucket list item checked off.

Best wishes to all!

-Valorie (Taylor) Plesha

J. David Rogers ('76) - (see page 1 & 2)

J. David Rogers shared with us a wonderful memoir of his time here as a student at Cal Poly Pomona in the Geology Department. It is 36 pages long, so needless to say a Mylonite in itself. We did not want to omit this wonderful piece from J. David as it is a great walk down memory lane for at least a few of you. His article is in full at this link complete with pictures: <http://www.cpp.edu/~sci/geological-sciences/alumni-and-friends/alumni-reunion.shtml>

Matt Shumaker ('78)

In December 2016, The American Exploration and Mining Association granted me their annual Distinguished Service award. I continue in my job as the Chief Mineral Examiner for the Interior Department's Bureau of Land Management. I postponed my planned 2017 retirement, and now look forward to retiring in 2018.

Chloe Sutkowski ('17)

I attended SEG (Society of Exploration Geophysicists) this past September in Houston on a travel grant by ExxonMobil to participate in a workshop focused on learning to use seismic data to locate oil and gas reservoirs.



Chloe

Another update is from **Oscar Teller ('17)** and me. We have both been working for a company in downtown LA that is monitoring the ground settlement effects of a tunnel boring machine digging out a new portion of the Metro gold line that will connect other lines through downtown to improve the public transportation system.



Chloe & Oscar Teller's job site in DTLA.

Gary Thompson ('90)

Dear Cal Poly current and former professors, students and alumni,

Looking back, it has been an eventful year here in the United Kingdom. Theresa May is our new Prime Minister, but I was unprepared for the speed of the election campaigns. Now, we are navigating our exit from the European Union. Although many predicted trouble for the UK as a result of BREXIT, so far the UK seems to have been very resilient.

We wouldn't be English, without dwelling on the weather. So, in September, I took some video of what looked like a funnel cloud, while riding on a train from Gatwick Airport. After some research, I found there was indeed a waterspout, on that same day in Cornwall. Later, in mid-October, Hurricane Ophelia swung through our parts. That morning, it was eerily overcast and everything was bathed in yellowish-orange light. The sun was a reddish-orange. Apparently, the hurricane brought in red dust from the Saharan regions, as well as some smoke from the fires in Spain and Portugal.

This year we have been focusing on our house again; working on the gardens, putting in backyard patios and a new driveway. I changed job roles slightly, but I am still in our local Marks and Spencer store. Felice attended tap dance classes throughout the year and was in two of her dance academy's shows. Our son, Gianpaolo, made us very proud this year. He was top of his class again! He saw the Big Pit National Coal Museum in South Wales and

attended a residential trip to EDF's Hinkley Point nuclear power station (where he met CEO of EDF and the French Ambassador). He also had his school's highest mark for a paper which summarized research on plant adaptations to wildfire. His studies brought to mind my own experiences at Cal Poly, Pomona. Somehow, he still found time for the trombone, acting in a school play, and a trip to Disneyland Paris.

This summer holiday was different to those previous because we went to Disney World in addition to Disneyland in California. Orlando was very humid and hot. We enjoyed ourselves but we also collected our share of blisters. In Laguna Niguel, CA, we viewed the partial solar eclipse via a pinhole projector and the surrounding plant leaves. We also took in an interesting tour of JPL and topped off a year of Marvel movie-watching by going to a Stan Lee tribute show; where we met Lou Ferrigno (the TV series' Hulk). After a visit to Disneyland, Anaheim (yes, our son managed to fit in 3 different Disney parks, this year) we drove up-state. We visited the Apple and Google HQs and spent some time walking the campuses of Stanford and Berkeley.

Finally, we just returned from Sanremo, Italy. The people, shopping, views, food and drink were fabulous in Italy. We spent an afternoon in Monaco, where we saw the Palace and drove some of the Grand Prix circuit. We spent a few hours at the Oceanographic Museum. It is located in a massive, impressive building, situated on a Cliffside, overlooking the sea. There, we saw aquariums, animal skeletons, and environmentally-themed displays. Jacques-Yves Cousteau was director of the museum. We saw his submarine and some very old diving suits there. I was simply amazed at the sheer density of buildings in Monte Carlo. Nearly everywhere you look is a high-rise.

I really look forward to reading about everyone's achievements in the *Mylonite* each year! I wish everyone a great 2018! Best wishes to all!

-Gary Thompson



Overlooking Monte Carlo. Port de Hercule and part of the Grand Prix circuit in the foreground.

Me and the skyline of Monte Carlo.



Me at JPL in Pasadena, CA



The morning Hurricane Ophelia swung through Taunton. Note the cloudiness and the yellowish tinge due to the Saharan dust, etc.

Peter Valles ('83)

Dear Cal Poly staff, students and alumni,

My big news this year is I will retire from Shell Oil Company on December 31, 2017. After over 32 years of service, it is time to move on and pursue other interests and passions. As I reflect on my career, I realize how important Cal Poly was to my becoming a successful exploration geologist in a major integrated oil company.

In 1985, I arrived in Houston, Texas to the Pacific Frontier Division, Alaska District at the age of 24 years. The competition was fierce and there were many geologists who showed up from very prestigious schools from all around the country. I soon realized that the name of the school one attended did not really matter. What became immediately evident was my education at Cal Poly had prepared me to compete with anybody, from any school, here in the US or anywhere around the world. Within three weeks of showing up to work, I was sitting on a rank wildcat well in the Arctic Ocean off North Alaska, looking at well cuttings through a microscope. I wrote down my observations and sent in my descriptions every few hours. My report was faxed into the Operations geologist in Houston and then straight to the Chief Geologist for Shell Oil Company and then forwarded to the President of Shell for review. There was a great deal on the line and I was already having impact. Possessing the skill of being able to look at rocks under a scope and render a detailed and accurate description while seemingly a basic task, was ever important because Shell Oil company was going to make a multi-million-dollar decision on the basis of the data they collected from that wildcat. Descriptions of the rock in the subsurface was a key component of that data. My time in school prepared me for a successful career as a geologist and even beyond and into my time as a manager and senior leader. So whenever you find yourself looking down a microscope in the geo-lab or elsewhere, please remember that you are learning a valuable skill. Your powers of observation and ability to articulate what you see is so important! There are many more examples I could cite and will leave it for another time.

I have been blessed to have such a long and successful career and wish to thank Dr. John Klasik, Dr. Lawrence Herber, Dr. Donald Tarman, Dr. David Jessey, Dr. Bernard Lane, Dr. Gerald Henderson for teaching me the critical skills required to survive and thrive as a professional geologist and beyond. I also wish to thank Rosalie Thompson who used to have Monica's job and who ran the Cal Poly Geology Department for many years. I must also thank Mike McAtee who was instrumental in the Cal Poly Geology summer field camp of 1982 (Mazourka Canyon, Poleta Folds and Mt Morrison Roof Pendant). Without his dedication and creativity, we would have never made it.

The camp was led by Doc Tarman, lasted 6 weeks and cost each student \$500 dollars (\$1284 in dollars of today). Here are a couple of photos from the early days at Cal Poly and in Royal Dutch Shell over the years. See you at the reunions and hopefully on a field trip sometime.

Peter Valles

Face of Cucamonga Peak, Summer 1980.



11/1/86—Beaufort Sea Alaska on Helipad on Gravel Island.

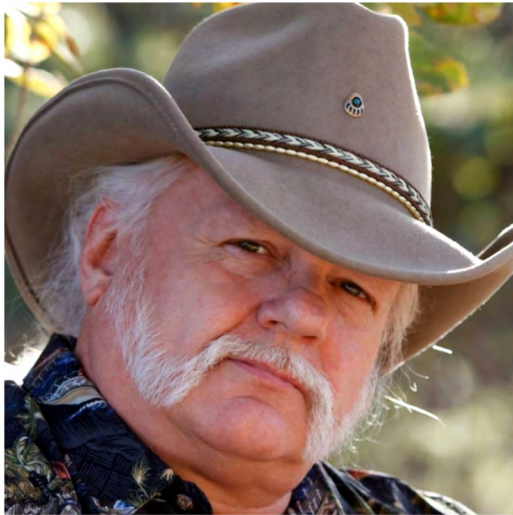
Shell Oil Geologist on Canmar Explorer III drillship in Chukchi sea, summer 1988.



W. Peter Vos ('81)

I was a Cal Poly Geology major between 1976-1980, during the years of Drs. Donald Tarman, Larry Herber, Gerald Henderson, Bernie Lane and John Klasik. I've worked in the Geosciences during and after quite a stretch in grad school. I have to add that the quality of the education at Cal Poly Geology was so important and fundamental when I got to graduate school, I cannot overstate this. There were techniques, methods, concepts and practical solutions I was exposed to that I did not see with other grad students arriving from more "theoretical" universities. This allowed me to get the things done that were needed to be done and then concentrate on the upper level concepts and ideas offered there, whereas the other with me had to learn (or unlearn-relearn) things I had been taught and exposed to at Cal Poly. That was readily apparent my first year in Colorado. After that time period, had to stop doing geology for a living because of the economic conditions (i.e. no jobs) and I came back to California, joined my family's firm where I had to re-educate myself in areas I never would of thought of, that is buying, marketing and creating new products and packaging for retail in our wholesale/distribution company based in Long Beach, CA. An MBA later, married with twin 15 year old girls (I'm an older Dad), I now am active in investing with particular interest in mineral and energy stocks, as well as more traditional ones.

-W. Peter Vos



Kacie Wellington ('11)

Hello Cal Poly Geology!

I've been working as a Project Geologist for Teck Resources Ltd. with their Zinc exploration team, based in Vancouver, BC. I've been on the Red Dog Mine exploration team in the Western Brooks Range Area of Alaska for 6 field seasons from 2011 to 2017 and will continue to work for the same team next season as well. With Teck, I've had the opportunity to work at the Pend Oreille Mine in Washington for a couple of months and will eventually work on other projects they have around North America in the future. In 2016, I also worked for a geotechnical engineering company (Cotton, Shires, and Associates, Inc.) based in the Bay Area as a Staff Geologist during a downturn in the mining industry.

During the field seasons (which are typically from March to October), I've been very involved in the drill programs (both skid-mounted rigs and helicopter-supported rigs) for several projects happening at and around the Red Dog Mine; ranging from true greenfields exploration to resource definition at the mine itself. I've also core logged, geotech logged, soil and stream sediment sampled, and have been on a several IP survey teams. As unimpressive as Zinc seems to be, we use it so many of our everyday products (coins, sunscreen, galvanizing, electronics, vitamins, etc.).

Other than work, I've been able to do a lot of traveling; a wonderful reason why I love the rotational schedule. Uganda, Nashville, Cancun, Amsterdam, Waco, Boston, Seattle, Vegas, Tahoe to name a few places. While I have been mostly based in La Verne (just north of CPP) since I graduated, I will be slowly making the transition to Vancouver, BC over the next couple of months!

All the Best,
Kacie

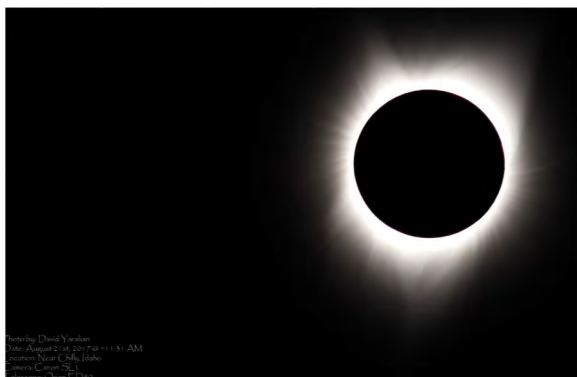




Kacie Wellington out at a jobsite.

David Yarialian ('17) - (update via Dr. Nourse)

David and recent graduate **James Coyne ('17)** joined the Cal Poly Pomona GSC 499A group at our southern Idaho campsite the night before the August 20 Total Solar Eclipse. David is now well situated in a paleontology-related job in Montana. He brought a sophisticated telescope / camera setup to document the eclipse. It was amazing what one could see beyond the naked eye. David graciously allows us to share these professional photographs captured during the two minute period of totality:



Kim (Poste) Zelmer ('09)

I have a very short and simple update. I was working at MWH from 2011-2015 with Rob Ellis and Alli Ruotolo but since then, I have been busy with my twins that were born November 2015. I am a stay at home mom for the time being.



Kim and her family.

Alumni Updates from Linked-In and Elsewhere

Below are some tidbits that came in over the past year. Please forgive the messenger if any information got convoluted—J. Nourse

Mason Dossey ('17)

Mason wrote me last July:
I'm starting work Monday with a company called Kleinfelder as an Environmental Field Tech. I was told that my site supervisor's name is Darrin, who also went to Cal Poly, and that you gave me a very positive recommendation. Thank you very much! If you ever need anything from me, don't hesitate to ask.
Sincerely,
Mason Dossey

Aura DeLeon ('16)

Aura wrote in June:
Dr. Nourse, I am writing to express my gratitude for speaking so highly of me to Carol Price from Ninyo and Moore. I know your words played a significant role in helping me obtain the job as a Staff Geologist.

Regards,
Aura de Leon

Lucas Lenhart ('15)

Lucas has graduated with honors from USC's Master of Business for Veterans program (MBV), Cohort IV.

Azad Kaligi ('08)

Azad is now a Geologist at Geo Forward, Inc. Based on a recent post, he seems to be working on "How CRE developers are conquering environmental obstacles: Methane Testing and Mitigation."

Chris Tafoya ('15)

Chris has been working as a Soils Technician at Southern California Geotechnical, Greater Los Angeles Area.

Terry Watkins ('03)

Terry recently was awarded his California PG (Professional Geologist) certificate and was promoted in February as Senior Hydrogeologist at Geoscience Support Services, located in San Dimas.

Gabriel Heyer ('15)

Gabriel has been working as a Soil Technician at Southern California Geotechnical in Yorba Linda since September 2016.

Russel Kyle ('96)

Russel started a new position last December at Wood Rogers, Inc. in San Dimas as Principle Hydrogeologist.



If you have made it this far, please read a few more lines and consider giving back to the Geology Department:

*****A Request for External Support*****

We in the Geology Department wish to express our sincere gratitude to the many alumni and friends who have made generous contributions in recent times. These gifts have been directed toward fundamental needs that include thin section preparation, laboratory analyses of rock samples, geochemical analyses of water samples, student or faculty travel to GSA and other professional conferences, field vehicle expenses, campground and parking fees, and purchase of field or laboratory equipment, camping gear and firewood. Several recent gifts from **Sally Lane, Ricky Nelson, Peter Valles, Randal Burns, Larry Herber, and Darrin Hasham** (among many others) continue to support our department mission.

These are challenging economic times for everyone. That is why your gift at this time will be especially meaningful to all of the students and faculty in Geology. In offering your gift, we ask that you make your check payable to **Cal Poly Pomona Foundation** and mail to the address below. If you wish your contribution to be directed to a particular emphasis, please indicate so on your check:

Geology Department
3801 W. Temple Avenue
California State Polytechnic University
Pomona, CA 91768

Thank you so much, and we very much appreciate your continued patronage.



The Lemon Moraines



GSC 491L Field Trip to Long Valley with Dr. Polet



It's a bird, it's a plane! ~ GSC 499A Field Trip—Solar Eclipse - Idaho.



Geologists/Geophysicists are happy when we just "get a rock"



Thank you for making this Mylonite a success, we couldn't do it without your contributions. Have a wonderful Holiday and New Year!