

A message from the Department Chair



Hello
Students,
Alumni,
and
Friends of
EES

Department Chair, Dr. Martin (Marty) O'Connell (pic at awards ceremony)

Speaking of alumni, I would like to thank Michael Fitzgerald and Toby Roesler (UNO alumni) for their continued *pro bono* work, teaching undergraduate courses, helping students, and providing real-world insight for those students interested in petroleum geology. In speaking with both, it is obvious they wanted to give back to our Department because the passion for science that was sparked in them here helped carry them on to be successful professionals in their field. As EES continues to lose faculty (and are not currently allowed to replace them under UNO's hiring freeze), we more heavily rely on people like Mr. Roesler and Dr. Fitzgerald to help our students get the coursework they need so that the students may graduate in a timely fashion. Our hope is that we can keep inspiring young minds to succeed as professionals after they graduate, such that they too will feel driven to come back and help educate others.

Other alumni, friends, and corporate donors need to be recognized for their continued financial support of EES. Without these generous donations numerous student activities would not take place. These funds are often the source of student scholarships, field trips, and travel to professional meetings. In these tough economic times for UNO, many other academic units on campus are envious of our ability to support our students from external sources. Every month, Linda Miller and I are emailed a summary of donations from the Dean's office. A few months ago the Dean turned to me and said, "Who are all these people and why do they keep giving money to EES?" I responded that a great Department produces great alumni. When the annual College of Science Awards Ceremony rolls around, it is plainly obvious from the minute one opens the printed program that EES has more awards and external funding than the other departments. As the ceremony proceeds, an army of EES students steps forward to receive their certificates and checks. For a relatively small Department within the College, we are right up there with the others when it comes to external funding. Again, I thank all of you who have supported us in the past and hopefully into the future.

While I am on the topic of awards, I want

to congratulate our Linda Miller for being recognized as UNO's Employee of the Month for September 2014. Anybody who has worked in EES over the last few years knows that Linda is the backbone of our Department and the University has recognized her efforts and dedication to our students. Here are a few excerpts about Linda from her award nomination form: "Linda is one of a few staffers on campus who understands the value of hard work. Her work performance shows that she is not just a typical "9-to-5" worker. She truly cares about the students and does her best to make sure they (our "customers") are given the best treatment possible. For example, when there is a problem with student scheduling or funding for a deserving graduate student, Linda is typically the first person to develop an innovative solution. Through her actions over the years, she has gained the respect of both EES faculty and students. The most common response when something is amiss in EES is, "Um, maybe we should talk to Linda about this." Her integrity shines through, especially in the face of dealing with other employees who perhaps may not be conducting themselves at the same high level as Linda. She is the epitome of a team player from helping students to cooking lunch for faculty meetings to cleaning parts of our building that should have been cleaned by others. Linda is highly accountable and is in charge of our many research budgets, outside private donor accounts, and other internal funds. She hates seeing funds wasted and always looks for the best deal for everyone: the students, the faculty, and the Department in general." If you see Linda, please congratulate her for a job well done.

Although EES and UNO as a whole are going through some rough times, I believe it is the quality of our students, staff, and faculty that will get us through all of this. Please keep supporting us and we will continue to produce the highest level of education and research possible.

Thanks, Martin O'Connell

With the retirement of Skip Simmons, I was asked to become Department Chair earlier this year. While I could go on at length about the amazing amount of research that Skip, Al, and Karen have done in over four decades with the Department, I will not do so here for two reasons. First, I am in complete denial that such a large and integral part of our research and education will be leaving in a matter of months after being here so long. Sometime next spring I will come out of my daze and realize Al is no longer around to advise students, look after equipment, and protect our building and assets in general. The second reason why I don't want to fixate on their departure is that I would like some other folks to relate here in our newsletter their own stories and experiences of working with the MP² group over the decades. Along these lines, we would like to invite all of our alumni and friends to the 40th Annual Mineral Auction that will be held on Friday, October 10th at 7:00 p.m. The fact that Skip has hosted this legendary event annually for such a long period is a testament of his importance to the resiliency of this Department. This would be an excellent venue to come give your farewells to the MP² group and provide your own stories from past auctions and field trips. For example, I heard something about a field trip in the 1980s that involved driving a Departmental van across multiple states out West completely without a license plate. If anybody has the details about this one, I would love to hear about it at the Auction.



Dr. Martin (Marty) O'Connell, Associate Professor, Department Chair, Director of Nekton Lab

Nekton Research Laboratory

My lab, the Nekton Research Laboratory (NRL), continues to conduct various research projects ranging from estuarine organisms in the northern Gulf of Mexico to freshwater mussels in central Louisiana to coral reef work in Madagascar.

In the last year I have submitted numerous research proposals in collaboration with Senior Biologist and Database Manager Meg Uzee O'Connell

of the Pontchartrain Institute for Environmental Sciences (PIES). In January, we were awarded a grant from The Water Institute of the Gulf to develop habitat suitability index models

for economically important estuarine species of Louisiana. The results from this research will be used to inform the next Louisiana Coastal Master Plan. We were also awarded a grant from the National Fish and Wildlife Federation to conduct cooperative research regarding the development of Turtle Excluder Devices (TEDs) for the Louisiana skimmer trawl shrimp fishery (see details below).



I also continue to collaborate with

Assistant Professor – Research Dr. Will Stein of PIES on various projects including research on Tarpon (*Megalops atlanticus*), Warsaw Grouper (*Hyporthodus nigritis*), and invasive Lionfish (*Pterois volitans*). For example, we were recently awarded a grant to study potential settlement cues for commercially important estuarine dependent species in southeastern Louisiana. Our hope is to use wild-caught larvae and test their settlement behavior in customized experimental chambers constructed in one of our laboratories.

Shane Abeare (Ph.D. student)

has returned to Bay of Ranobe, Madagascar for one last field season before he returns in 2015 to defend his dissertation research. His research focuses on the spatiotemporal dynamics of fish populations and ontogenetic shifts in habitat use.



Patrick Smith (Ph.D. student) will also be defending his dissertation research in 2015. He is currently finishing his data analyses for his completed research on habitat choice in native Red Drum (*Sciaenops ocellatus*) that have been restored to an urban fishery in New Orleans.

Angela Williamson (M.Sc. student)

had a major breakthrough with her thesis research on the federally threatened Louisiana Pearlshell Mussel (*Margaritifera hembeli*). Angela and a team of scientists from U.S. Fish and Wildlife service have used laboratory studies over three years to determine the fish host for this rare freshwater mussel. Identifying this host, the Redspot Darter (*Etheostoma artesiae*), is a key step in helping this freshwater mussel species recover.



Arnaud Kerisit (M.Sc. student) is finishing his analyses on how larval invertebrates use the natural and artificial passes that enter Lake Pontchartrain. He also plans on defending his thesis in 2015.

The NRL welcomed two new graduate students this fall, both of whom will be working with TEDs. Jeff Gearhart (Ph.D. student) has extensive experience on TEDs as a Fisheries Biologist with NOAA. He is currently leading our newly formed TED Team as they work with local Vietnamese-American fishermen to study the use of TEDs in the Louisiana skimmer trawl shrimp fishery.



Geoff Udoff (M.Sc. student)

also works with the TED Team and will focus his thesis research on a new trawling device called the wing trawl. Working with fishermen in Bayou La Batre, Alabama, Geoff will study how the new wing trawl system compares to standard trawling practices in regard to reducing bycatch and increasing fuel efficiency.

Key members of the TED Team include EES undergraduate researchers, Lucy Green, Iain Kelly and Chloe Roberts.





Dr. Ioannis Y. Georgiou, Associate Professor, Graduate Coordinator and Director of the Pontchartrain Institute for Environmental Sciences (PIES)

Greetings to all students, faculty, alumni and friends. It's late September, and cold fronts will once again start to push through south Louisiana. Of particular importance since winter storms provide small opportunities to study event driven morphodynamic response of coastal system throughout the modern Mississippi River Delta plain. My lab – Coastal and Environmental Hydrodynamics and Sediment Transport - continues to perform research centered in coastal Louisiana, while at the

same time expanding our research in other areas (through collaborative work) including Brazil, Saint-Pierre, the eastern Mediterranean, South Carolina and Georgia, Texas, Virginia, the Great Lakes (Ontario and Erie), and along the New England coast. The lab conducts basic and applied research in coastal processes, earth surface processes and morphodynamics, and generally transport processes within the fluvial marine transition (FMT), the coastal ocean, barrier islands and deltas and interior wetlands. We try to understand these systems using both field observations (surface and subsurface) and modeling.

We have recently completed research on marsh edge erosion, extending the work of Kevin Trosclair, adding more sites to document differential terrace erosion and self-organization of these landscapes during winter storms. Our research on tidal bars with Shell Clastic Reservoir Research Team and collaborators at University of Houston and Boston University

continues with completion of new hydrodynamic reanalysis documenting conditions under which mud is deposited, further contributing to our knowledge on reservoir heterogeneity. Early results were shared with Shell, who funded this study and we are looking forward to our AGU presentation this fall. Our research with the Shell Clastic Reservoir Research Team on the dynamical processes driving morphology within the Fluvial to Marine Transition (FMT) continues, through investigation of planform metrics of natural systems throughout the world as well as through modeling. Our results show strong correlations and the potential to reduce the parameters used to scale these systems, with results that will appear soon in a review paper in Marine Geology. We continue our research on deltaic sedimentation in the modern Mis-



Kevin Hanegan at Yosemite falls in Yosemite National Park.

issippi delta plain, focusing on depositional environments such as distributary mouth bars and crevasse splays working, among others, with Chris Esposito, a previous MS student, who is now a doctoral candidate at Tulane University. We have submitted collaborative proposals to extend delta plain sedimentation work with LSU and LUMCON scientists (Drs. Bentley and Kolker), supplementing our previous datasets to reinforce our understanding of the underlying processes governing these deposits. Our research involvement in the lowermost Mississippi River and Delta continues with collaborators from the Water Institute of the Gulf, the State and the Engineer Research and Development Center at Vicksburg. We completed field work this summer on the Mississippi River Delta Front with collaborators from LSU (Drs. Sam J. Bentley and Kevin Xu) evaluating physical processes driving delta front instabilities; the early field results and model results are promising and exciting. And finally, our collaborations with Chris Hein at the Virginia Institute of Marine Sciences and Prof. FitzGerald, at Boston University brings us to Plum Island, MA, and to coastal basins in Brazil, where by combining coastal morphodynamic modeling and geological field observations we are exploring the complexities behind the evolution of these systems in response to sea level rise. We should probably mention that I was part of an effort to create (successfully) two graduate certificates at UNO, one in *Coastal Engineering*, and one in *Coastal Sciences*. These certificates are now approved by the Board of Regents and classes will begin in the spring of 2015. Participating faculty in these course offerings include Prof. McCorquodale and Prof. Ghose Hajra, in Civil Engineering, and Prof. Kulp and myself in our Department. I encourage everyone to visit the new website to see the details behind each of the certificates offered at ceas.uno.edu.



Pricilla Souza (Doctoral Student) at the Valley of Fire in Nevada

We welcome our new doctoral students, Pricilla Souza and Sean Kenny, and our new Masters student, Joshua Flathers. Pricilla (co-advised with Prof. Gani) is conducting research on the sedimentology and surface processes governing tidal bar evolution. The research aims to contribute to a better understanding of the evolution of tidal point bars and the complexity of their internal heterogeneity, which have a significant impact on the economic viability of hydrocarbon exploration on this type of subsurface reservoir. Pricilla completed re-analysis and description of field cores collected earlier, and started analyzing seismic data using Stumberger's Petrel Suite. Sean (co-advised with Prof. McCorquodale in the Civil Engineering Department) and Joshua are developing their research topics this semester. We also welcome a new researcher in our group, Dr. Ahmed Gaweesh, who will help with morphodynamic modeling efforts in the lower Mississippi River and Delta, and participate in new research in Massachu-



Dr. Ahmed Gaweesh, at Lakeshore Dr. near Lake Pontchartrain



Tara Yocum (EES graduating senior) and Joshua Flathers (Masters Student) performing experiments using the new fluvial/deltaic geomorphology flume.

sets, USA. Dr. Gaweesh's experience in river morphodynamics and classical training in hydrodynamics will be beneficial to other applications of morphodynamics in coastal systems. Kevin Hanegan is continuing his research in coastal and deltaic morphodynamics, testing the *runaway transgression hypothesis* on coastal systems along the east coast. He is also starting research on delta development and land building, testing the influence of upstream (fluvial flow and sediment input) and downstream (tidal range and tidal asymmetry) controls on the subareal land development and shallow stratigraphy resulting from re-introduction of Mississippi River into receiving basins. Kevin presented research results at the Community Surface Dynamics Modeling System (CSDMS) annual meeting, at the State of the Coast in 2014, and will present at upcoming venues such as the GSA annual meeting, and the International Symposium on Sediment Dynamics.



Undergraduate researcher Emily Harper assisting in fieldwork in Lake Borgne



Research Associate Mike Brown (PIES Field Operations) taking notes on edge erosion at a site in Lake Borgne

Undergraduate Jeremy Henley successfully defended his senior thesis on "*Mechanics of hypoxia in Chandeleur Sound, Physical Controls*", and presented his results at *InnovateUNO*, a forum for undergraduate research at UNO, and at the *State of the Coast*, a biennial conference in Louisiana bringing together the scientific and engineering communities from academia and the industry. Emily Harper also presented a poster at *InnovateUNO*, titled "time-dependent sediment floc settling properties", and continues work and research in the lab assisting Mike Brown (PIES field operations) on a research project in Barataria Bay. Tara Yocum, now a lab veteran, completed research testing weather anthropogenic

delta crevasses in the modern Mississippi delta obey delta-scaling-laws (in terms of their evolution) similar to larger deltas in nature as well as experimental deltas produced in the laboratory. Tara presented her research at *InnovateUNO*, *The ULL Undergraduate Research Summit*, and at the *State of the Coast*, where she earned **first place** competing amongst 250 participating students from other State Universities. Tara is now continuing research on decadal response of shoreface erosion along the Mississippi River Delta plain, and assisting with other research within the lab and the Pontchartrain Institute.



Field trip to East Grand Terre with the Coastal Processes class in the fall of 2013.



Dr. Mark Kulp, Associate Professor

It is the first evening of fall, and I am enjoying the cool weather late in the day with an open window. I love all seasons, but fall has always been my favorite. One of the first things I loved about Louisiana is the cool, completely cloudless, bluebird, autumn days like we had today.

Things are moving along well this semester despite a pretty full plate. With regard to semester instruction, the biggest news is that this past summer Ioannis Georgiou, Dinah MayGarden and I developed (along with Penn State and Shippensburg University) a 15-week online "Coasts and Coastal Hazards" course as part of the NSF-funded Integrate program. All three universities are currently offering the course and compiling detailed comparative assessments of learning outcomes for students taking the course. The pedagogical guidelines for the course are rigorous, and this has led me to consider a new direction regarding how I think about instruction. The course development has been a lot of work, but the class is currently moving along well. At some point we intend to offer it as a MOOC (Massive Open Online Course), but that effort is still some distance out as we learn all of the nuances of the current course material in an online setting. The process of developing this course has also been a good stepping stone toward the (very recently) state-board approved online UNO coastal certification program that will begin to be offered

through the College of Sciences and College of Engineering starting next semester. What? You hadn't heard? Better go check it out!

Research continues on with projects around the northern Gulf Coast. My main interest is still the morphological and sedimentary framework of marshes and barrier systems, considering forcing mechanisms such as RSL, sediment transport, storms and antecedent geologic framework. Work led by Trey Kramer, now entering his 2nd M.S. year, is uniting coastal stratigraphy and historic sediment transport patterns to barrier spit evolution around Fourchon. It looks as if he will be wrapping up in the spring and several new students (Rachelle Thomason, Joe Frank and Bryan Carter) are currently fleshing out research directions for Spring 2016 graduations. In the next week, we have a report due on the management of the Chandeleur Islands, and in the very near future, Ioannis Georgiou and I hope to have secured a part of the large scale BICM project for the State through the U.S.G.S. Giddy up! I hope that everyone taking the time to read this is doing well.



Royhan Gani, standing on a metamorphic boulder in the Cornwall beach, England

Dr. Royhan Gani, Associate Professor

The past year was critical for my academic career, as I was up for tenure. I am happy to note that my tenure and promotion (to associate professor) has just been granted. What a busy year in teaching, research and student advising! I led a couple of fieldtrips for students in my Stratigraphy class to examine modern processes around Louisiana and ancient products (sedimentary rocks) in the Ouachita Mountain, Arkansas. Bringing geology students to outdoor is instrumental, as it opens an entirely whole new dimension (perception, the fifth dimension!) to students.

Last spring, and for the third time, a team of UNO graduate students (under my mentorship) participated in the prestigious Imperial Barrel Award competition run by American Association of Petroleum Geologists. Our outstanding students showcased UNO well, as they were placed fourth in a field of 13 universities (with many big names) at the Gulf Coast Regional Competition.

A few updates from my research lab - Stratamax. After successfully defending his PhD dissertation, Hiranya Sahoo is continuing research in my lab as a postdoc, extending his important research ideas in the Cretaceous coastal-plain and fluvial deposits of the Blackhawk Formation (Book Cliffs, Utah). Three manuscripts from his dissertation are currently in review in peer-reviewed journals.

PhD student Prabhat Neupane is making progress with his PhD research on late Cenozoic vegetation and climate change from isotopic analysis of the Siwalik strata of the Nepal Himalayas. After conducting his second fieldwork in the Himalayas, he again visited Brown University last summer for analyzing his second batch of sedimentary samples for lipid biomarker proxies. He is now busy synthesizing results, as he prepares to present his research at the AGU annual conference in San Francisco this December.

This is the second year for MS students David Cross and Corey Hinyup. During the past summer, they had a long and busy fieldwork in Utah that included studying daunting cliffs with ropes. Integrating field data with Lidar and Sirovision-generated virtual outcrop data, they are investigating the Blackhawk and Castlegate Formations in the Wasatch Plateau and Book Cliffs (Utah). Our field party was joined by my new PhD student Godspower Onyenanu (Nigerian), who finished his MS at the University of Manchester and then decided to come to UNO with a



As their lives hang on a rope, graduate students Corey Hinyup and David Cross are measuring a sedimentological section in the daunting cliffs of the Wasatch Plateau (Book Cliffs, Utah).

full scholarship from the Nigerian government's Petroleum Technology Development Fund (PTDF). He is focused on developing reservoir models from both outcrops (Book Cliffs) and subsurface (Gulf of Mexico).

I am also co-advising two graduate students. PhD student Pricilla Camoes Souza (Brazilian), co-advised with Dr. Georgiou, is working on 3D architecture of tidal channel-bars of modern Georgia Bay using cores and shallow-seismic data. Currently, she is busy completing a detailed (cm-scale) documentation of the cores characterizing lithology, sedimentary structures and ichnology. MS student Rachel Carter, co-advised with Dr. Sarwar, is investigating Neogene strata of the Mississippi Canyon, Gulf of Mexico using 3D seismic, wireline logs, and other subsurface data. Currently, she is busy with mapping submarine channels using seismic geomorphology techniques to understand how the rise of the salt domes impacted channel evolution.

I was invited (with travel grant) to give a talk on the influence of water on human evolution at the 4th annual Blue Mind conference held in Cornwall, England in June, 2014. This was an opportunity for me to visit the beautiful Cornish beach with fantastic exposure of rocks of the Caledonian orogeny. The talk was well received by a diverse, cross-disciplinary audience including scientist, medical professionals, artists and musicians.

To learn more about my academic activities, you can visit my webpage: http://ees.uno.edu/Gani_Royhan/



Royhan Gani and his graduate students conducting fieldwork in the Book Cliffs, Utah. From left to right, Godspower Onyenanu, David Cross, Royhan Gani, and Corey Hinyup.



Ganis are posing in front of Cretaceous shelfal storm deposits (hummocky cross stratification), Book Cliffs, Utah.



Dr. Mostofa Sarwar, Professor, Associate Provost, University Honors

What a busy and delightful life at UNO! Now I am supervising four Master's and two PhD students. I am also the surrogate supervisor of two Master's students. For geoscience students, Dr. Ghani and I got Petrel Software worth \$1.379 Million donation from Schlumberger. I also received three dimensional depth imaged data of Gulf of Mexico worth \$640,000 from Petroleum-Geoscience Services (PGS). Remember my student John Cramer and post-doc Dr. Naide Pan. John is now Business Development Manager of PGS and Naide is the President of PGS-China.

Remember Keith Snavley, my graduate student of mid-eighties! Our GCAGS paper of 1988 is accepted as a chapter of a book that will be published this year by SEG.

I also published two more books of Bengali poems this year in June. There is some geoscience in my poems. Some extended metaphors are based on expansive domain of geological loveliness.

Fifty percent of my time, as the Director of the University Honors Program and Associate Provost, is assigned for administrative job. My hard work for the Honors may be rewarded by transforming this to an Honors College at the end of this year.

We will miss Skip and Al. I am happy that they got their niche after a successful career at UNO.

Family is doing fine. My wife Syeda (aka Eufa) is continuing her medical practice at VA Hospital. She is now the Head of Anatomical Pathology. Turhan, the eldest son, after graduation from Harvard and the University of Pennsylvania is now an attorney in Boston. He is married to his Harvard sweet-heart Kathy. She got her MD from Johns Hopkins and is doing her residency at a Harvard Hospital. Arush, our second son, after graduating from Harvard is now an investment banker in Manhattan. Our only daughter Shaina is a senior at Tulane and getting ready for Medical School.

No wonder, it is a beautiful life! I would like to express Sarwars' heart-felt gratitude to Lou Fernandez and Joe Snowden here in the world and Bill Ward in the Heaven for everything they did for this strange wanderer from Bangladesh.

Association of Petroleum Geology—AAPG The UNO student chapter of the American Association of Petroleum Geology helps promote the advancement of the science of geology and technology within the student body. Our goal is to positively impact the future of anyone who is interested professionals.

During the 2013-14 school year the AAPG student chapter participated in many social and volunteering events. During the fall semester of 2013, the student chapter of AAPG at the University of New Orleans participated in numerous volunteering opportunities around the city. Twenty of our members volunteered at the Gulf Coast Association of Geological Societies (GCAGS). We helped out with various tasks spanning over four days. Some students stuffed "ditty bags", other students aided in running the registration booth, and many students volunteered to judge short talks. In December we attended the New Orleans Geological Society (NOGS) Christmas Party.

March found students volunteering at Supersaurus Saturday, an event held at the New Orleans Children's Museum. Supersaurus Saturday is a day where children come and learn about all things dinosaur related. Students also attended the NOGS Spring Social at the Old Rail Brewery in Covington LA where we got to meet many local young professionals in the industry.

The UNO student chapter of AAPG formed an Imperial Barrel Award (IBA) team for the spring semester. The IBA team worked a dataset from the North Sea and traveled to Huston to compete in the regional competition. At the competition UNO placed within the top two in the divisional section, allowing us to proceed to the regionals section the next day, in which we took fourth place.



In April members volunteered at the NOGS Golf Tournament in Abita Springs. This was a fun day in the sun where students helped set up and run the specialty betting holes for the day. The tournament helped raise scholarship funds that directly benefit many of our student members each year. The chapter hosted an educational talk by Eric Broadbridge, the co-owner of Northcoast Oil, at the Bulldog. The subject of the talk was the experience of moving from school into the workforce, different paths a career in the petroleum industry can take, and the differences between working for smaller and larger companies.



The student chapter kept bust throughout the summer, in June many of our female student members participated in the STEM Girl Scout Extravaganza. Where we set up multiple booths in order to educate girl scouts on the processes of hydrocarbon generation, migration and accumulation

The new semester is underway, and promises to be just fun-filled and busy as last year.

Serving on the board for the 2012-13 school year was: President, Rachel Carter; Vice President, David Bras-sieur; Secretary, Corey Hinyup and Treasurer, Lewis Jones. In May of 2013 our new board was elected. Serving on the board are President, David Cross; Vice President, Corey Hinyup; Secretary, Lewis Jones and Treasurer, Rachel Carter. We are led under the guidance of our faculty advisor, Dr. Gani.

FINAL INSTALLMENT MP² Research Group

Dr. William (Skip) Simmons, Research Professor Emeritus
***Dr. Karen Webber, Assistant Professor Research *Alexander Falster**



The MP² research group, has been the final bastion of hard rock geology in Earth and Environmental Sciences. MP² stands for Mineralogy, Pegmatology, and Petrology (<http://pegmatology.uno.edu/>). Our specialty has been Pegmatology - the investigation of pegmatites, including their mineralogy, geochemistry and genesis.

Last year Skip presented a paper on the Chemical Characterization of Gem Tourmaline at the GSA annual meeting held in Denver, Colorado in October 2013. Skip was also an invited speaker for the Geology of Gem Deposits Mineralogical Association of Canada Short Course 44 held in Tucson, Arizona during the annual Tucson Mineral show in February, 2014 and presented a session on Pegmatite Gem Deposits.

In April the MP² group presented 3 papers at the Rochester Academy of Sciences meeting in Rochester, New York in April. Skip gave an invited lecture at the Sinkankas Symposium in Carlsbad, CA on "The Mineralogy of Olivine".

In June the MP² research group conducted the 12th annual Pegmatite Workshop in Poland, Maine. The Workshop is a week-long short course on pegmatites that includes lectures and daily fieldtrips to Maine's most famous pegmatites (<http://homepage.mac.com/rasprague/PegShop/intro.html>). Our textbook for the workshop, *Pegmatology*, continues to be popular. The course is a great opportunity for students to learn about the latest developments in pegmatite research and investigate pegmatites first hand with pegmatite experts. The workshop has been very successful since its inception and has attracted several hundred participants, including students, miners, and professionals from Brazil, Italy, Spain, Portugal, Germany, Sweden, Canada, Argentina, Germany, France, Australia and Russia. This year 14 students from UNO attended the Workshop. Donations to support student attendance of the workshop are always welcome.



MP² Graduate students

Congratulations to Karen Marchal, Kimberly Clark, Drew Boudreaux and Leah Grassi who graduated with MS degrees in May 2014. Jon Guidry, Susanna (Sasha) Kreinik, Myles Felch and C. Mark Johnson will be finishing up next semester. ((Back) Jon, Sasha, Drew, Leah; (middle row) Karen, Kim, Myles. Mark in front.)



This is the final year for the MP² group at UNO. In December MP² will move to the Maine Mineral and Gem Museum in Bethel, Maine. Skip is now retired and Al will retire in December. We are working with the museum to develop a new mineralogical analytical laboratory. Al will be the full time Research Technologist and Manager of the laboratory and Skip will be the Research Director in a part time role.



Skip and Karen joined colleague Encar Roda-Robles for a field trip to visit pegmatites in Spain in June after the Pegmatite Workshop. They visited several pegmatites that may possibly have an anatectic origin. They have a collaborative research program with Encar and her colleagues studying pegmatites. The trip included a visit to the world famous locations of Navajun, Spain, the world class pyrite location, and the Panasqueira tungsten mine in Portugal. Later in the summer, Skip and Karen also visited Santorini to see the famous caldera complex and sample the local wines.



Karen and Professor Rabbit at Santorini

Karen, Al and Skip attended the IMA meeting in Johannesburg, South Africa in September. Karen presented the results of Drew Boudreaux's MS work on Tourmaline from the Erongo Mountain pegmatites, Namibia. Skip presented the results of Leah Grassi's MS work on tourmaline from the Usakos pegmatite, Namibia. Al presented a paper on a new find of sodium-zirconium silicates from the Stettin Complex Marathon, Co. Wisconsin. Skip and Karen also attended a post-meeting field trip to visit pegmatites in Namibia. A lot of wine was consumed.



IMA field trip to the Roessing Uranium Mine, Namibia



1989 Graduation



I was an undergrad student beginning in Aug/1980. Around 1981, when the department was deluged with undergraduate candidates, I was taking Mineralogy in the fall of 1981, with Skip, of course. Mid way during the course, I began to seriously wonder if I was cut out for this degree. As much as I wanted to not fail, I did not think that I had the ability to fulfill the requirements and graduate, especially after I looked at that very long list of minerals (it was a

AL and Skip are so different but yet they are hard to separate like PB&J. They were always around the campus willing to help out any student including those from mineralogy that they had pushed to the brink of a neurological breakdown. So much so that these students could often be found working through the night before tests and sporadically taking a nap on the student lounge couches. Yeah the ones that you never knew if something was going to crawl out of them. These are some of my fondest memories. They knew somehow the perfect balance of pushing their students to show them what they were really capable of and from that it set the tone of what the future years were to bring. Like who knew you could get a group of college students beyond excited above any night on the town to drudge through a 30 degree river to get a rare mineralogy assembly, which I still have to this day. The countless stories of Al's heroic feats to obtain the perfect specimen whether it be under a cloak with a black light along a major interstate or facing angry armed farmers. They showed us what it meant to have passion in our careers and so many of us owe a debt of gratitude for making our careers and lives have that extra AL and Skip spark. Lesley Cady Prochasaka B.S. 2000 and M.S. 2012

freaking 8 x 11 page, single spaced, with two columns) and their exact chemical compositions that I would have to memorize for the final in Skip's class. Even though Skip did not really know me at all, I went in to tell him that I was withdrawing from his course, and from school in general. In spite of the fact that the department was seriously overrun with students at that time (the oil industry was looking like a good career path in the early 80's, and the lab was busting at the seams with people), he very genuinely took the time to encourage me to not quit, and to continue on, which I did. I did graduate in 1985, but went on to never work in the field. However, even though I am not really sure that I should be thanking him for being instrumental in me working myself very hard to get that degree, with no subsequent career path attached, I do still appreciate that he took the time to encourage me to go forward and not quit. It was a real confidence builder at the time, and I really also needed someone to encourage me. He really didn't have to do that, so thanks Skip for that. Vicky May Sadin

I did not realize that Skip Simmons was to depart UNO. I personally have not had the pleasure of meeting Al Falster, however, I wish him along with Skip, all the best in their lives outside of their UNO employment. I do indeed have a great story to tell on Skip Simmons. It is all absolutely true (in spirit at least), although some of the details make now be muddled in my head after so many years. Nevertheless, it is indeed a story worthy of passing on for Skip's Legacy sake.

Sometime around the Spring of 1977 (as I recall, or perhaps Spring of 1976?) Skip led a rather large group of UNO Geology Students on a lengthy camping field trip. We traveled via long caravan in vehicles of varying states of repair and reliability from New Orleans to the Llano Uplift Region of Texas. On our way to The Llano Region we pulled into Bastrop Texas one evening just in time to quickly make camp before sunset. I recall being a bit puzzled as we first pulled into the "campground" there as it

I hope Skip's Farewell is a fun-filled event...bittersweet, but FUN. I recall his Mineralogy classes & field trips & mineral auctions as all fun. Maybe I just loved geology! Remembering fondly all the great times with Skip, and Bill Craig, Bill Ward, Ray Stephens, Drs Fernandez, Snowden, Allen...even Al Weidie...back in my & my late husband Jim Strahan's days in the Dept....circa 1975-80. The UNO Department was always a special place...full of special people. And Skip Simmons played a big role. My best to all,, Candace Strahan

I have a story for you, and it is a little different from all the other wild Skip mineral auction and antics stories that will most surely come in (although I am sure those will be very entertaining).

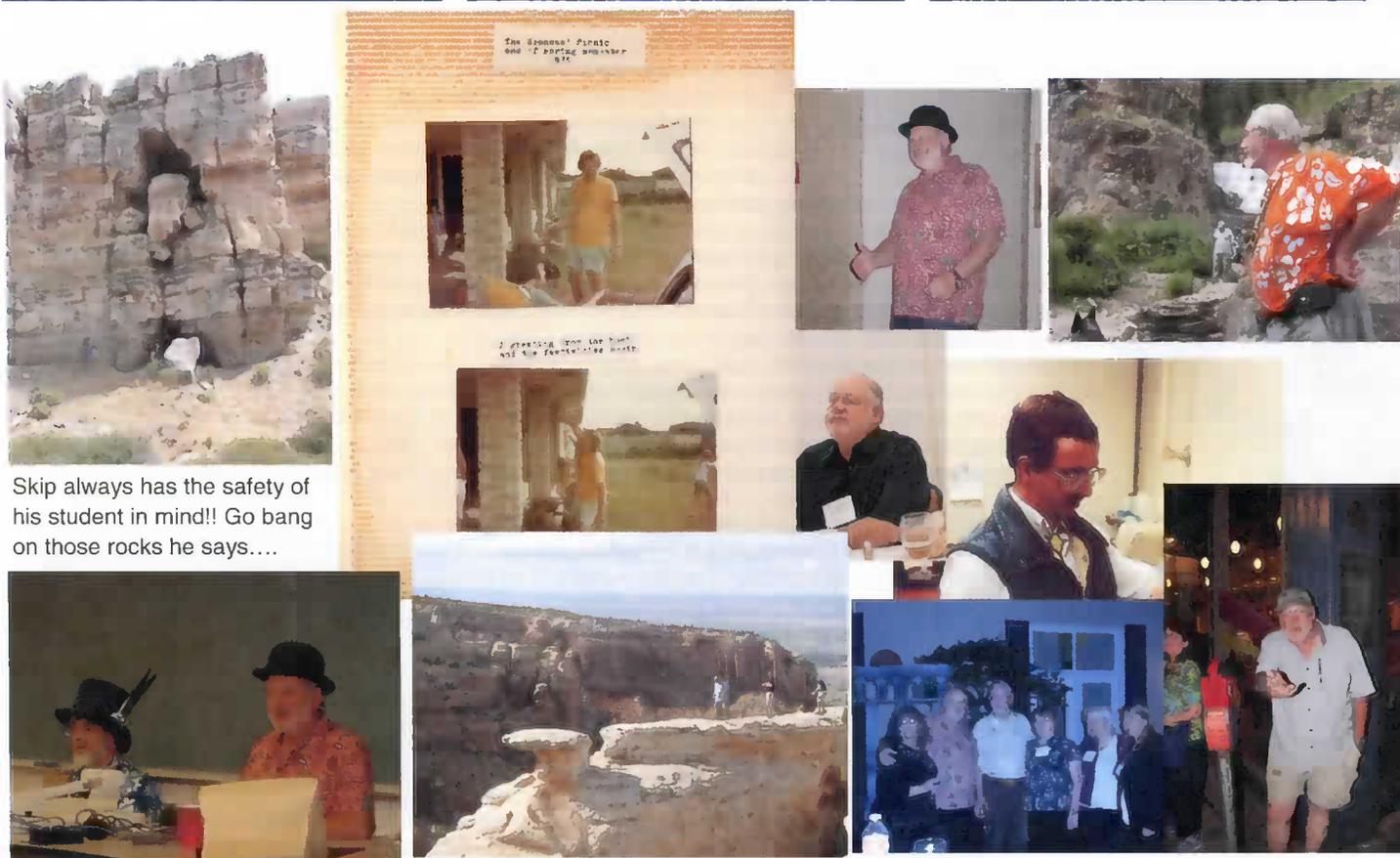
appeared to be nothing more than a small picnic ground within the middle of the townsite, but I soon did not give it another thought. However, the circumstance soon changed when suddenly a member of the city's finest in full uniform arrived and threatened to haul our leader (Skip Simmons) off to the local jail for "camping without a permit"! I remember the rather heated verbal altercation between Skip and the authorities took some time to unfold while we students were left wondering if we needed to pass the hat around for the raising of bail. Thankfully, it all ended without serious consequence. I'm not sure what Skip did to make things right that night (and I'm not sure I want to know either!). I'm just glad we did not have to break camp in the middle of the night before continuing on our way to Llano. Thanks for your efforts in giving Skip and Al a great send off, and please give Skip my warmest regards! Allen Cregg

Reflections from the last 30 years...It is impossible to put 30 years of Skip and Al stories in a single newsletter snippet; there has been far too much research and volumes of funny stories could be written. It is fair to say that with this group, time was spent both working hard and playing hard. I was only one of the countless undergraduate and graduate students that Skip has positively influenced and, although I learned much about geology, pegmatites and how to be a researcher from Skip, those were just classroom lessons. I learned to be a great teacher in the field by watching and emulating. I also learned how to drive on really bad dirt roads and that no geology field trip is complete without getting the van stuck at least once. Perhaps most importantly, Skip also taught me how to get a van unstuck (he made sure we had ample opportunities to practice). Some of my fondest UNO memories come from these field trips. In addition to seeing and learning about the geology at fantastic locations, we woke one morning in a cow pasture to Skip singing *I Feel Good* by James Brown, we learned to build a potato gun, and we launched many potatoes in Wyoming. We were caught fishing in a trout spawning area in Yellowstone and watched Skip try to coax trout from the bucket to swim in the river. After much and pleading by Skip, the Park Ranger gave us only one collective ticket rather than individual citations. Skip, Al Falster and Karen Webber are the core of the

MP² research group. This group of geoscientists is world renowned in the area of pegmatite research and all three have minerals named after them: Simonsite, Falsterite and Karenwebberite respectively. In spite of all of the amazing research that has taken place, Skip and Al were always there with a wee dram (or two) of single malt scotch when it was needed. They were also generally up for some late night mayhem. We've pushed Skip around the building in a shopping cart and wedged him into (and out of) my kayak in the hall. I have watched Al stuff and entire Whopper in his mouth at one time and spent much time with him exploring pyrotechnics. We've blown up Peeps (the Easter candy) and used liquid nitrogen to launch stuffed animals. Our perhaps most epic feat was an accident. While recrystallizing samarskite, Al and I melted the outer part of a furnace, welded it to the top of one of Dr. Stoessell's hot plates, and hid as it cooled, cracked and launched shrapnel across Al's office. Skip was not particularly happy with us that day but we were eventually forgiven and on to the next adventure. All good times! Sarah Hanson

With the imminent departure of the MP² group, faculty and alumni have all been asked to submit a story or fond memory to our newsletter about Skip, Al, and Karen. Here is mine. A few years back when I was scrambling to get tenure, I spent most Sundays working in my office at the GP Building. Typically on these Sundays the only living things around here were me, Al, and the cockroaches scurrying down the hall. Once, I needed to walk over to one of my labs in the Science Building to check on some fishes being used for our research. As I walked out of the GP Building, I saw a flash of motion as a large primitive projectile hurtled through the air to my right. It struck a large cardboard box and standing a few yards away with something in his hand was Al. After a stunned pause, something deep in my memory caused me to blurt out, "An atlatl?" "Yes! Very good," Al replied. Although it was an excellent shot and his cardboard prey was neatly skewered through, Al seemed more pleased that the dumb fish guy actually new what an atlatl was. We began to talk about the history of the weapon, some of the physics involved, and a little bit about the composition of the material

used. All of this conversation led to an obvious question from me: "Al, why are you hunting cardboard boxes with an atlatl?" "To keep people interested in science!" He went on to explain that over the years he found that the best way to get students excited about science is to always keep them on their toes by exposing them to new things constantly. Once the students are drawn in by the novelty of whatever situation, then you can discuss the scientific roots behind everything. My office is right next to the Mineralogy Lab and many times I have overheard Al working with students and using this method. The conversations were always stimulating and sometimes even involved firecrackers (yes, real firecrackers). One need only to talk to those EES graduate and undergraduate students who have worked with Al to realize the success of this educational approach. I left Al and his atlatl to go deal with my fishes, but I kept thinking about the various issues we covered in our conversation. Later, on my way back to my office, I took an alternate route back though the loading dock just in case I was mistaken for a cardboard box. Martin O'Connell



Skip always has the safety of his student in mind!! Go bang on those rocks he says....



The Society for Earth and Environmental Sciences (SEES) at UNO is the foundational student organization at the EES Department. It is open to all students at the university who have an interest in the geology and environmental science, as well as a desire to reach out to the wider community and beyond in the furtherance of earth and environmental science awareness and education. SEES achieves this goal by awarding scholarships, sponsoring educational trips, organizing department and community events and bringing students together, fostering an atmosphere of community within the department. We have a unique commitment to one another in the department and to the department itself.

Our annual Mineral Auction which is our main fundraiser each year—was the most successful in its history. This allowed SEES to grant more and larger scholarships, sponsor two faculty-led, student-organized trips rather than one, and sponsor several



talks by professors both from this department and visiting. We also held four all-department

cookouts, which included our annual meet and greet for new students and faculty and our famous and popular end of year, post-exam R&R bash (lower left).

Trips in the 2013-2014 year included a week-end camping excursion to the barrier islands of Louisiana, (above) in order to give the students an opportunity to see this critical landscape and understand what is happening to it, and what can be done to save it. Dr. Mark Kulp and Dr. Ioannis Georgiou, whose research interests focus on this area, gave their time and knowledge in the leading of this very successful trip. Students got to see the islands from the water, as well as camp on the beach and spend an evening getting to know one another and their professors.



Another trip took our students to the renowned Houston Museum of Natural Science, (right) a great institution close to

home. This trip led by our resident Paleontologist, Dr. Kraig Derstler, and Research Professor William "Skip" Simmons, founder of the Mineralogy, Petrology and Pegmatology Research Group at UNO, allowed our students the opportunity to experience these exhibits along side professors who have made these fields their life's work.

SEES is geared up for another banner year. We hope you will stop in, and if you are a student interested in earth science, come join us!



--Susanna T. Kreinik, graduate teaching assistant, SEES president 2013-2014.

Sigma Gamma Epsilon SGE



Karen Marchal SGE Tarr award recipient for 2014.

As an honor society in the Earth and Environmental Sciences, Sigma Gamma Epsilon's first and foremost goal has been student success. We also feel that students should gather personal and professional experience in addition to their academic experiences. As such, we of SGE dedicate our time and energy to our community and department.

SGE is excited to announce our continuing tutoring program, and the sponsoring of our Graduate Seminar to prepare future graduate students in the department. Our community involvement has consisted of participating in: Save Our Lake – Beach Sweep, judging the John Curtis High School Science Fair, sponsoring an exhibit at Rockin' in the Swamp, volunteering at the Couterie Forest within City Park, and volunteering with Super Saurus Saturday at the Childrens Museum.

SGE facilitates a departmental mentoring program in which incoming freshmen, or transfer students, are assigned a mentor. This program is designed to integrate incoming students and to help familiarize new members with our department, build student relationships, and to give academic counseling when needed. By providing these services, we hope to increase retention within EES.

This May, Karen Marchal was awarded the Tarr Award in recognition of her exemplary leadership, commitment to SGE and contribution to the EES department. In addition, students Greg Pellerin, Andrew Stiebing, Justin Hebert, Joshua Flathers, and David Brassieur were adorned with honor cords during the graduation commencement ceremony last May.

There are 26 active SGE members, and on Wednesday, November 15, 2014, eight new members will be inducted: Gerald Raymond, Elizabeth Levy, Lewis Jones, Taylor Hux, Erica Lassen, Rachael Gaspard, Austin Collins, and Greg Pellerin.

Congratulations to the newly elected 2014 – 2015 board of The Omicron Gamma chapter of SGE: Andrew Adams- President, Rachael Gaspard- Vice President, Gerald Raymond- Treasurer, and Erica Lassen- Secretary.

Jon Guidry, 2013 – 2014 President



Student Scholarships and Awards 2013-2014

New Orleans Geological Society Memorial Foundation Graduate Scholarship Award: Rachel Carter

New Orleans Geological Society Memorial Foundation Graduate Scholarship Award: Jon Guidry

New Orleans Geological Society Memorial Foundation Senior Scholarship: Andrew Adams

New Orleans Geological Society Memorial Foundation, Junior Scholarship Award: Lewis Jones

Olga Braunstein Scholarship for EES Undergraduates: Lindsey Aucion and Christian Silva

Olga & Jules Braunstein Service Award Undergraduate: Andrew Adams

Chevron Geology Graduate Student Scholarship: C. Mark Johnson, Andrew Boudreaux, Gerald Raymond Jr., Andrew Adams, Patricia Borges, Lewis Jones, Christina Varuso

Shell Minority and Women in Science Award: Rossana C ara, Pricilla Souza and Karen Marchal

SGE Tarr Award: Karen Marchal

Magnolia Transfer Award: Emily Harper

SEES Scholarship: Tara Yocum, Rachel Carter, Jeremy Henley, Rachael Gaspard, Karen Marchal

Exxon Minority Geoscience Support Scholarship: Taylor Hux, Shikari Washington and Patricia Borges

Geology and Geophysics Research Scholarship: Corey Hinyup, Kevin Hanegan and David Cross

William W. Craig Memorial Scholarship: Susanna(Sasha) Kreinik

Jennifer R. Miller Memorial Scholarship: Kimberly Clark

Glenn Hebert Petroleum & Geology Scholarship: Myles Felch and Joshua Flathers

Glenn Hebert Coastal & Environmental Scholarship: John Kramer III and Gerald Raymond Jr.

TOPS Honor Award: Emily Harper

Jurassic Coast, England



PRICILLA SOUZA - GRADUATE STUDENT

I'm a geologist from Rio de Janeiro, Brazil, currently working on a PhD research with Dr. Georgiou and Dr. Gani. The research aims to contribute to a better understanding of the evolution of tidal point bars and the complexity of their internal heterogeneity, which have a significant impact on the economic viability of hydrocarbon exploration on this type of subsurface reservoir. This will be achieved through a detailed 3D examination and interpretation of the hydro-dynamics processes and internal architecture of modern tidal point bars using cores and shallow seismic geophysical data.

I received my Bachelor and Master's degrees in Geology in 2008 and 2011, respectively. Before that I also received a Bachelor degree in Computer Science in 1998. I have worked for multinational oil companies for 6 years, since 2006, initially for Shell and more recently for BG, before moving to New Orleans in 2013 with my husband. I worked in different areas, from New Ventures, Exploration, Development to Well Operations, including an international assignment in BG's headquarters in the UK during 9 months with the structural geology specialists. I also attended several G&G courses and field trips in South America, North America, Europe and Middle East. Some of the projects that I worked on include the identification of the structural evolution of a carbonate pre-salt field in Brazil during the rift phase, performing 3D structural seismic interpretation and creating 3D static models including fracture modeling and analysis; 2D and 3D seismic interpretation of the major faults and the detachment surface of the delta of the Foz do Amazonas, identifying the main features related to HC migration and trap; study of the tectono-stratigraphic evolution of the West Africa deepwater turbidites; 3D structural restorations of the East Central Graben (North Sea) and the sub-Andean thrust faults in Bolivia. I also worked during 3 years as operation geologist of deepwater wells drilled in Brazil for pre-salt and post-salt objectives. My Master's thesis discussed the tectonic evolution of the southeastern Brazilian continental margin during the Cenozoic. Distinct brittle deformational phases were proposed based on field work analysis as well as structural (kinematic and dynamic) and petrographic analysis of fault zones which have their origin associated with the continental prolongation of an oceanic fracture zone during the South Atlantic opening.



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DONATIONS AND GIFTS TO EES

The Department of Earth and Environmental Sciences has thrived in large part because of the support of our alumni and friends. Monetary contributions have allowed teaching, research, and scholarship programs within the Department to flourish during periods when state support wavers. Permanent support to the Department has been established with the creation of endowed accounts from which the interest is used to support a specific purpose. These accounts are managed by the UNO Foundation and include:

William W. Craig Memorial Award (No. 80696): an award for students who display excellence in teaching earth science.

Jennifer R. Miller Memorial Award (No. 80711): an award for graduate students who display research excellence in environmental geology

Jules & Olga Braunstein Undergraduate Scholarship(No.80351): merit-based scholarships for undergraduate geology and geophysics majors

Geology and Geophysics Research Fund (No. 80633): a fund to support graduate student thesis research.

The Department maintains the **Earth & Environmental Sciences Fund (No. 90243)** which is used to support special projects, such as the purchase of vans, departmental seminars, special events and faculty and student travel.

Contribution to any of these funds is greatly appreciated. The preferred form of donations is a check that is payable to the **UNO Foundation** and sent to the **Department Office**. If you want to target a specific fund, please indicate the name or number of the fund on the check.

SPECIAL THANK YOU FOR YOUR GIFTS (2013-2014)

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Sarah Hanson

Gem & Mineral Society of LA, Inc.

Mark Gallagher (in memory of Bill
Ward, Bill Craig & Al Weidei)

Carolyn Green

Glenn Hebert

Art Johnson

New Orleans Geological Society
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Stacy Smith

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Bryan Stephens

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