The School of Mines 1889

Old Main, 1890’s  1st Dorm, Driscoll Hall, 1900’s  First day of classes, 1920’s

Students, 1930’s  Juniors and Seniors, 1940’s  Physics Lab, 1950’s

Students, 1960’s  Paul Shoemaker, 1970’s  Commencement, 1980’s

49ers, 1990’s  Robotics Contest, China, 2000’s  Students, 2010’s

New Mexico Tech 2010
Greetings to all Techies!

2010 was full of good news and bad news at New Mexico Tech.

First let me summarize the good news: Our faculty, staff, researchers and students continue to produce excellent results in the classroom, in the laboratory and in the field. New Mexico Tech continues to achieve high marks nationally against our peers and we are national and international leaders in our fields of expertise. New Mexico Tech is consistently recognized by college ranking systems and by reputation as one of the top science and engineering universities in the nation.

Tech scientists and engineers continue to churn out exceptional work in our academic departments and research divisions. Our outside funding for research continues to grow in a wide range of areas, including petroleum recovery, Homeland Security training, atmospheric physics and astrophysics, seismology, computer science and cyber security, chemical engineering, biomedical research and optics. In these areas and others, New Mexico Tech is thriving with a growing portfolio of funded research activities.

Now for the bad news: Tech relies solely on funding from the state of New Mexico to support our academic mission and the state budget has taken quite a hit over the past two years. To date, we have taken a 16 percent cut in our state funding. We have done an admirable job of finding creative ways to trim our spending, all the while maintaining our traditionally high standards in all academic areas. Despite the financial challenges we face, New Mexico Tech has stayed within our budget and will continue to operate in a healthy fashion.

Rest assured, we will weather this storm and continue to be a leading institution for learning in New Mexico, in the nation and in the world!

Dr. Daniel H. Lopez
New Mexico Tech President
Paul E. Shoemaker
President, NMTAA
Physics, 1971
Fellow Alums:
A new year, a new president for the New Mexico Tech Alumni Association, and a new opportunity to communicate with New Mexico Tech alumni scattered across the globe.
For the New Mexico Tech Alumni Association (NMTAA), the year began in October with the annual 49ers celebration. It is during that celebration that alumni return to Socorro to relive some of our more raucous behaviors – or at least to remember some of those behaviors – to reconnect with the university and with each other, and even to attend the Alumni General Meeting. At that meeting, officers were elected for the NMTAA and other alumni business was conducted.
Officers elected to serve until 49ers 2011 were: Paul Shoemaker, President; Brett Wendt, Vice President; Geza Keller, Vice President; and, Charles Major, Treasurer.
Permit me to offer a bit of background about me and my connections with Tech. I earned my undergraduate degree in Physics at Tech, graduating in 1971. I went on to secure a master’s degree in public affairs at the LBJ School at the University of Texas (1973) and knocked around professionally in government and private consulting until landing at Sandia National Laboratories in 1981. I’ve been at Sandia ever since. I’ve had several “careers” at Sandia, and presently serve as Deputy Chief Operating Officer of Sandia’s Nuclear Weapons Strategic Management Unit. In March, I’ll return to Carlsbad, New Mexico to again head Sandia’s operations there supporting the Waste Isolation Pilot Plant and to take on other defense waste management challenges.
At intervals during the last two decades, I’ve accepted invitations to work with administrators and faculty at Tech in crafting strategic plans for the university, and for the last five or six years I have played an official role for Sandia in strengthening both research and academic relationships between Tech and Sandia.
Tech is now in its 122nd year. These are times when Tech is prospering academically. Research conducted at Tech continues to be wide ranging and to have broad impact.
Tech faculty, staff, and students engage in activities that advance the technical state-of-the-art and help secure the nation. A Tech faculty member and Institute leader has even been tapped to serve as a cabinet secretary in the administration of New Mexico’s newly elected governor.
These are also times when Tech is facing significant operational and fiscal challenges, as are most state supported institutions in New Mexico. In order to balance budgets, New Mexico’s state supported research universities are being asked to take some pretty drastic reductions in state funding.
The New Mexico Tech Alumni Association exists to serve Tech alumni in a variety of ways, and it exists to support the place we know as the New Mexico School of Mines, New Mexico Institute of Mining and Technology, or as New Mexico Tech – depending on when we were there. Whether you choose to support an academic department, a research interest, a scholarship fund, or the school in general, 2011 would be a good year to choose to make that support felt.
I visit Tech often, especially in connection with the relationship-building role I play for Sandia National Labs. During a recent visit, I was allowed to see and even touch the first page in an oversized record book on which were recorded in a fine cursive hand the minutes of Tech’s first Board of Regents meeting, a meeting that took place on November 13, 1889. That experience reminded me of the enduring spirit of the place where we received a truly fine education and where we built connections with faculty, fellow students, and with administrators, connections that also endure.
In this new year, I encourage us all to refresh those connections, to continue supporting Tech, and to represent in our professional lives the value that a Tech education brings to us and to the disciplines in which we have chosen to work.

Joaquin Roibal
Hello members of the New Mexico Tech Alumni Association,
When I was elected in May 2010, it was a priority for me to bring back Porphyry, New Mexico Tech’s yearbook. The Porphyry was last printed in 2007, and before that, in 2001. In the fall semester of 2010, the editor in chief of Paydirt, Ms. Victoria Carreon, and myself made progress on the yearbook and institutionalizing the changes necessary to ensure that Porphyry will be printed for the school year 2010-2011 and beyond.
The hardest part of bringing back the yearbook was the lack of allocated funds for the project. Through raffles, support of key administration, and other fundraising, Porphyry has met a little more than half of our $10,000 required to print this year’s yearbook. All graduating seniors will receive a free copy and anyone else who would like a yearbook will pay $50. This year’s Porphyry comes in full color, hardcover, and foil embossed on the front. It is a yearbook designed as a true reflection of the experience of students at New Mexico Tech. In a time of social networking, with pictures and memories available “online,” some may wonder if a yearbook is still necessary. For this very reason, a yearbook is more warranted than ever. Please consider donating to the Porphyry, which ultimately strengthens ties among students, administration, and faculty for years to come.

- Joaquin Roibal
Student Association President
Porphyry
801 Leroy Pl., Campus Box AA
Alm: Joaquin Roibal
Socorro, NM 87802

Kiplinger's / Newsweek
Best 100 Colleges in Value
#42 – New Mexico Tech
Most Desirable Small Schools
#19 – New Mexico Tech
Most Desirable Rural Schools
#10 – New Mexico Tech

U.S. News & World Report
Best Universities in the West
#17 – New Mexico Tech

Forbes’ Best U.S. Colleges
#344 – New Mexico Tech

Princeton Review
Included as a top U.S. university
Top 50 Master’s Universities
# 25 – New Mexico Tech

Baccalaureate Origins of Science and Engineering Doctorate Recipients (National Science Foundation).
#15 – New Mexico Tech
(Tech ranks as the top public university in the nation in this category.)
Biology Professor Probing Deep Earth For New Life Forms

Dr. Tom Kieft is on a quest to find extremophiles – especially those microbial critters that thrive in the deepest ecosystems on Earth. The New Mexico Tech biology professor has two funded projects, one to explore the deep biosphere in mines in South Africa and one in South Dakota. He is also presenting research at the International Symposium on Deep Subsurface Microbiology in South Africa from January 17-24, 2011.

Kieft has two deep Earth expeditions planned for 2011 – one in South Dakota and one in South Africa.

In addition to the conference in South Africa, Kieft has an ongoing research project in South Africa. In June, he will be joined by Tech chemistry professor Dr. Michael Pullin and Tech master’s student Sarah Hendrickson. The Tech trio will be among the team that drills into the deep Earth to find more microbial ecosystems on another trip during June.

“In South Africa, the exciting find is microbial ecosystems that are separate from photosynthesis,” Kieft said. “These organisms get their energy from the products of rock-water interactions.”

Unlike surface and ocean ecosystems that depend on the products of photosynthesis, these extreme, deep Earth biosystems depend on rock-derived hydrogen, sulfur and other elements as nutrients.

“We have found a new type of ecosystem on Earth,” Kieft said. “These are exciting finds. We’re finding novel life forms and so far we know very little about them.”

He said that recent studies have shown that the majority of biomass on the planet is subsurface – and all of that life is microscopic.

The known biosphere extends deeper than 3.7 kilometers below the surface, or 11,000 feet, Kieft said. However, the true constraining factor for microbial life is temperature; biologists believe the upper limit that microbes can withstand is about 121 degrees C, or 250 degrees F.

The proposed Deep Underground Science and Engineering Laboratory (DUSEL) in South Dakota has a price tag of about $850 million, with funding to be shared by the National Science Foundation and the Department of Energy. The bulk of the funding is to be allocated for physics research, but a small percentage is intended for geology and microbiology work. Funded by the National Science Foundation, Kieft and David Bout of the University of Massachusetts are planning to descend to 7,400 feet below the surface in the Homestake Mine in South Dakota, where they’ll drill another 5,000 feet down in search of living organisms.

Scientists are quickly developing an understanding about these microbes. The first microbe to have its genome sequenced is Desulforudis audaxviator. “This is life in the slow lane, but these organisms still metabolize and change their environment,” he said. “We’ve been working on the subsurface for more than 25 years, but there’s still much more we want to discover.”

Scientists have discovered bacteria and archaea that thrive in these environments. Kieft said further investigations are needed to know if viruses, protozoa, or fungi may be able to live in these ecosystems as well.

These strange new life forms in these extreme environments beg several questions of the scientists who are on the trail of these microbes. During a Biology Department seminar in November, Kieft said evolutionary scientists wonder if surface life arose from these subsurface extremophiles. Still more scientists wonder if these non-oxygen environments could serve as analogs for other planets. If life on Earth can exist in environments totally separated from photosynthesis, could other planets such as Mars, where the surface is inhospitable to life, also host subsurface microbial life forms?

Hendrickson is presenting a poster at the Carbon Cycling Conference that compares several methods of extracting organic materials from the groundwater samples.

“Everything has to be uber-careful in an uber-dirty location,” Hendrickson said. “We’re collecting groundwater samples straight out of a borehole.”

The Witwatersrand Deep Microbiology Project operates in existing gold mines, which creates environmental and logistical obstacles for the scientists. Researchers descend to 3 kilometers beneath the surface and walk for a mile or more to reach sites where the miners have drilled into the surrounding rock. Some of the filtration must be done on site, with further extraction done at surface laboratories – either in South Africa or in the United States, Kieft and Hendrickson said.

A first-year master’s student in hydrology, Hendrickson said the various applications of this research are exciting.

“This is a whole different ecosystem that we are seriously undereducated about,” she said. “These bacteria could be on every continent, but we don’t know yet. For the astrobiologists, this could help figure out what we should be looking for on other planets.”

These deep Earth microbes are similar to organisms that thrive around deep-sea hydrothermal vents, but have some characteristics that scientists have never seen before, Hendrickson said.

In addition to discussions of research methods and recent discoveries, the scientists at the South Africa conference will also discuss a global network of deep-Earth observatories – the Network of Inner Space Observatories – which would include installations on every continent.

Thomas Guengerich, New Mexico Tech public information, 575-835-5617.
Gold Pan is proud to introduce Mr. James “Jim” Doty, treasured alumnus, master of many trades, teller of terrific tales and a genuine good guy. Jim has been sending his recollections of New Mexico School of Mines to the Gold Pan staff periodically. In this edition, we’re sharing one of his colorful tales from the 1940s.

I am rapidly approaching 85, but I thought it might be interesting for students to know my history. I was about half way through the 11th grade when I joined the Navy. In 1945, my communications team was doing practice landings on Guam, with the 3rd Marine Division. We had just come from Okinawa, so it wasn’t hard to figure what we were there for. We had finished and were waiting for our ship to return, when the atomic bomb was dropped. While we were waiting, one of my team asked me what I liked in school; I said history and math. He said “you ought to like geology”; I said “what’s geology”? He said “It’s the history of the earth and there’s math in it”. I decided to investigate so I asked my team officer to help me write a letter explaining my position (unlettered and dumb). They wrote back and said “come see us”. In a few months, I was discharged and proceeded into civilian life. I discovered that the ability to send messages by blinking a light or waving your arms didn’t have much of a selling point in civilian life. Therefore I took a bus across the river (I lived on the Mississippi), stuck out my thumb and hitch-hiked to Socorro. It was summer, but the staff and a professor talked to me and told me if I took college algebra and trig in summer-school, they would accept me as a “more mature student”. They didn’t know what they had done, but I did, and later, they did.

Q
When I was in my second year, we were sitting on the steps of Fitch Hall (the mess hall was in the basement), a guy came up and said “they’re going to offer a course in geophysics”, I asked “what in the hell is geophysics”? He said “I don’t know, but they said you have to be smarter than hell, and they make a lot of money”. I said “I’M GONNA BE A GEOPHYSICIST!” I did and I never made a better decision. The guy was wrong on both counts (in my case), but I wouldn’t trade my life for anything. I married my wife on Friday 13, 1950, and graduated in May. We had enough money for her to take the bus home to her parents place and I bummed a ride to Los Angeles. I didn’t get a job until August, so I “bucked” hay in the San Joaquin Valley and rode the trucks down to L.A. to look for work. I got a job with Shell Oil in August. My final position was District Geophysicist. Times were slow so, after 13 years, I quit to go into computer programming. I worked there for...
two years and since geophysics had become digital, I went back to geophysics. I worked for Texas Instruments for 13 years (as assistant computer center manager, Europe-Africa-Middle-East marine operations manager, Western Hemisphere marine-operations manager, and manager of marine Quality Control) and in the process got an MBA from SMU and sat and passed the test for CPA. I decided I would go into business for myself, so my wife and I moved to California to make our fortune.

Unfortunately, California would not accept my experience, so I became a small business consultant in the Silicon Valley. This was at a time of a mini-depression, so my main business was with the IRS to keep my clients from shutting down because they hadn’t paid their social security payments. After about four years of this, I got a call asking me if I wanted to be Division Geophysicist for a major North American oil company. I, of course, hesitated for a microsecond and said yes. This was when the Beaufort Sea sale was big. When that cratered, the company asked me if I would be Chief Geophysicist for China. My wife and I said yes—we were there a little over four years of this. I got a call asking me if I would be a consultant (in Papua New Guinea and Pakistan) for about four years. When I think about every minute (well most every) and we had a ball.

Q
The year before I went to Mines was a disaster for the school, and I heard they thought about shutting it down. Thankfully, they brought Dr. Workman in, as president, and he hired a bunch of retired professors and young “brains” to come to Mines. Some I remember very well—Dr. Harry to head physics and Dr. Wilkening as his assistant are two, and Dr. Rafael Sanchez-Diaz to head the math department. I remember him so well; he was CRUEL. In those days, we had labs five days a week and classes six. Friday night, my buddy and I (he majored in Geological Engineering) had been down at the Capital Bar until closing; (mostly for atmosphere and intelligent conversation) and we didn’t get home until maybe 12:30. I had a 7:00 o’clock class in differential equations. Obviously, I was a little tired (with a slight headache, and a bit of an upset stomach), so I slept in (euphemism for passed out). Monday morning, I was in the class and Dr. Sanchez-Diaz asked where I was on Saturday—I said I was dreadfully sick, which meant hungover to the eyeballs. I asked if I should make up the class—HE said “No, Meester Doty, just write a paper” on something—I have forgotten what, but it was, in effect, another term paper! I remonstrated that I had already written one term paper and he replied “Meester Dory, if you don’t do it, you are asking permission to take this course over again” Needless to say, I wrote the damned paper. If I had searched the world over for a thousand years, I couldn’t have found a better place to get an education.

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I thought I was finished, but it’s hot today, so I didn’t play golf (I’ve still didn’t get home until maybe 12:30. I had a 7:00 o’clock class in differential equations. Obviously, I was a little tired (with a slight headache, and a bit of an upset stomach), so I slept in (euphemism for passed out). Monday morning, I was in the class and Dr. Sanchez-Diaz asked where I was on Saturday—I said I was dreadfully sick, which meant hungover to the eyeballs. I asked if I should make up the class—HE said “No, Meester Doty, just write a paper” on something—I have forgotten what, but it was, in effect, another term paper! I remonstrated that I had already written one term paper and he replied “Meester Dory, if you don’t do it, you are asking permission to take this course over again” Needless to say, I wrote the damned paper. If I had searched the world over for a thousand years, I couldn’t have found a better place to get an education.

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The 2010 49ers was a huge success! The New Mexico Tech Office for Advancement hosted an alumni reception that, though it was cold and windy, was well attended.

The Classes of 1969-71 celebrated their 40th reunion with a float in the 49ers parade and a reunion picnic in Water Canyon.

Plans for next year’s celebration include multi-year reunion events, tours of campus and research divisions at Tech, and many more opportunities to reconnect with classmates and faculty.
1. Where are you from, and why did you choose Tech?

Gallup, NM. Growing up in New Mexico, I wanted to be close to home, but not too close. I originally came to Tech for MESA and a summer mini-course. I met some great people that summer and they really got me thinking about Socorro.

2. What degrees did you earn, and in what years?

I test computer security tools and ensure that new hardware and software can operate in the current DoD computing environment. New Mexico Tech was a great springboard and helped me get my current job. Working under Dr. (Lorie) Liebrock, I was part of the Scholarship for Service - Cyber Corps program which helped fund my master’s degree. In return for the two years of school, I had to work for the government in information security for two years... While my commitment has ended, I’m still enjoying the job and all that it introduced me to.

5. What one thing do you miss most about Tech and/or Socorro?

At Tech my experiences were with various departments. It is always nice to turn up the music and dig into work with no one to bother you. I love reading and don’t do as much of it as I’d like right now. My current books are the autobiography of George Wendt and the latest Paulo Coelho. Lately I’ve had a passion for board games and getting people together to just enjoy games and cards. Some of my favorites (like Ticket to Ride) can be very easy to learn and very addicting.

9. How did you deal with the stress of college life at Tech? In other words, what did you do to unwind, or to counter the stresses of calculus, chemistry and physics?

The best stress relief at Tech was ballroom dance! Once I got hooked, I made sure my Thursday nights would be free and would just go dance to get the stress out of my system. It was great to dance with Techies, townies, and faculty and just cool off for awhile. Dancing at Tech was always fun because everyone did it for the love of dancing and was more than happy to teach you a new dance or some cool moves.

10. Are you active in the Alumni Association? What, if any, events have brought you back to Socorro?

I was on the Alumni Association Board, but haven’t been active in the last few years. It was great to see Tony Ortiz at a gathering a few months back in D.C. We caught up on Tech, Socorro, and more... There are a dozen or so Techies from my generation that are sprinkled throughout Maryland, D.C., and Virginia. We try to get together at least every few months to make some New Mexican food and catch up. Anytime one of us goes home for vacation we bring back chile to share. I’ve only been back to Socorro once for the President’s Club Dinner. It was a blast to be back. Most of my trips have kept me in northern New Mexico lately.

GOLDPAN CATCHES UP WITH GEORGE SCHMALTZ

Editor’s Note: For this inaugural issue of the newly designed Gold Pan, we went one-on-one with George Schmaltz, New Mexico Tech’s version of the Big Man On Campus. George was always ready to lend his hand—from chairing student clubs to ballroom dancing.

Valerie Kimble

1. You were very active in the Newman Center and in San Miguel Church — what other activities did you pursue while at Tech?

At times we would bring back chile to Socorro. It was a blast to be back. With various meetings and luncheons, I think I ate at the Brew Pub at least once every week.

4. What are you doing now? And, how did your Tech education help you meet your career goals?

Ride) can be very easy to pass on an item. It was great to learn and very addicting.

6. Was there a particular faculty member or advisor who you’d like to commend, and if so, what was it about that person that made him or her a valuable mentor?

I still remember lots of individual things from Tech... Dr. Judy Holcombe Stuteville and different items in both computer ethics and management classes... she had a way of showing she cared about students and helped prepare us for some real world situations in Ethics. Dr. Liebrock was also helpful in Computer Science... setting the bar very high with expectations of her students, but also helping us learn and achieve those goals.

7. Where do you see yourself in another 10 years? What other career goals do you hope to achieve?

I think I’ll still be working for the Department of Defense or U.S. government somewhere. One thing I’ve noticed is that there are so many different careers from just being in one part of the department—if you get bored doing research, you can try management, or customer engagements, or policy, ... I’ve enjoyed traveling for work and would like to take an assignment outside the building... whether working with other government agencies or other partners.

8. What music is on your iPod? What are you currently reading? What is your current favorite hobby or pastime?

Music is completely random for me... country, rock, oldies, easy listening. Right now I’m switching between a new Celtic CD from Christmas, Glee, and Jack Johnson. Different music helps me deal with different parts of life... it is always nice to turn up the music and dig into work with no one to bother you. I love reading and don’t do as much of it as I’d like right now. My current books are the autobiography of George Wendt and the latest Paulo Coelho. Lately I’ve had a passion for board games and getting people together to just enjoy games and cards. Some of my favorites (like Ticket to Ride) can be very easy to learn and very addicting.

3. You were very active in the Newman Center and in San Miguel Church — what other activities did you pursue while at Tech?

A consistent supply of green chile and visiting Socorro Springs Brew Pub. With various meetings and luncheons, I think I ate at the Brew Pub at least once every week.

2. What degrees did you earn, and in what years?

After high school, I thought I might get the basics out of the way at Tech and then transfer. But Socorro grew on me. Seven years later, I actually left town, with two bachelor’s degrees (Computer Science and Electrical Engineering in 2004) and a Master’s in Engineering Management (with a focus on Information Assurance) in 2006.

George Schmaltz and Erin O’Rourke, President’s Club Dinner.
March 21  
**Presidential Chamber Music Series**  
7:30 p.m. at Macey Center.

$16/Adult  
$14/Senior (65 & over)  
$12/Youth (17 & under).  
FREE to Tech students with ID.

April 1  
**Karen Muller**  
7:30 p.m. at Macey Center.

Trios for Oboe, Viola and Piano. Violist Willy Sucre will be joined by oboist Thomas O’Connor and pianist Jacquelyn Helin, to perform Schilflieder, Op. 28 by August Klughardt and Deux Rapsodies by Charles Martin Loeffler.  
FREE concert.

April 8  
**Cirque Montage**  
7:30 p.m., Macey Center.  
A collage of traditional and cutting-edge circus acts featuring former Cirque du Soleil artists.  
Performing Arts Series.  
$14/Adult;  
$12/Senior (65 & over);  
$10/Youth (17 & under).  
FREE to New Mexico Tech students with ID.

Contact: New Mexico Tech Performing Arts Series.  
575.835.5688  
Email:  
pas@admin.nmt.edu

April 16-17  
**5th Annual Tour of Socorro**  
Off-road bike tour.  

April 29  
**Metales M5 Brass Quintet**  
7:30 p.m., Macey Center.  
M5, a lot of brass, a lot of music and a lot of fun!  
This Mexican brass quintet breaks the barriers of musical genre as they take the blues to the opera, Bach to the roads of Michoacan: fresh, funny, extraordinary.  
Performing Arts Series.  
$16/Adult;  
$14/Senior (65 & over);  
$12/Youth (17 & under).  
FREE to Tech students with ID.

Contact: New Mexico Tech Performing Arts Series.  
575.835.5688  
Email:  
pas@admin.nmt.edu

May 7 & 8  
**11th Annual Mother’s Day Pow Wow**  
Mother’s Day weekend at Sedillo Park in Socorro, New Mexico.  
Event organizer and contact: Donna Monette.  
505.881.8847

May 13  
**Socorro Area Alumni Reception**  
Reception at the golf course pavilion,  
6 p.m.  
Dinner

May 14  
**Commencement**  
The Office of Advancement has started preparation for the 50 year reunion of the class of 1961.  
The event will be over the weekend of graduation, May 13-15, 2011.

The Office of Advancement  
801 Leroy Place  
Socorro, NM 87801 or  
Doc Stanley: jeandoc@sdc.org  
www.socorroopen.com

The Socorro Open tournament entry fee includes a steak dinner, breakfast and tournament gifts.  
Registration deadline is May 31st.  
Visit www.socorroopen.com for more details.
people you know

1950s
Morris Worley
(B.S. in mining engineering, ’58) has had two articles published in the Journal of the Mining History Association. The first article was in the 2008 volume, titled “Roll Front to Yellowcake: Innovations in Uranium Mining; Recollections of the Highland Uranium Operations.” The second was in the 2009 volume, titled “The Cane Creek Mine Disaster: Personal Observations. To show I’m not just a relic of mining history, I satisfactorily passed the exam to become a Certified Mine Safety Professional in October 2009.” Worley wrote. He also manages the zeolite mining operations in Arizona for UOP, which is a Honeywell company. “It’s a good way to keep my miner’s boots on!” he wrote. “I hope to see some fellow miner’s boots on!” he wrote. He also managed the zeolite mining operations in Arizona for UOP, which is a Honeywell company. “It’s a good way to keep my miner’s boots on!” he wrote. “I hope to see some fellow miner’s boots on!” he wrote.

1960s
Barney P. Popkin
(groundwater hydrology, ’65) is currently a visiting scientist and affiliate with the University of Arizona, Hydrology and Water Resources Administration. Barney has had a typically diverse year of international consulting in water, wastewater, solid and hazardous waste, and environmental management. He wrote and negotiated Administrative Action Memos to streamline how 3,600 community livelihoods and stabilization grants worth $168 million could meet U.S. environmental regulations in Afghanistan and Yemen. He also wrote environmental compliance programs and procedure management plans as well as crop-pest-disease control manuals. He facilitated the Programmatic Environmental Assessment for an $800-million road construction and community capacity building project in Afghanistan. He has drafted agricultural, health, resource recovery, and wastewater grant concepts, and made presentations to donors and national strategy teams on innovative agricultural, soil and water management strategies for Yemen. He has trained agricultural extension workers in soil and water science and pest management and environmental procedures. He has designed irrigation wells and fields in Afghanistan. He facilitated approval of the environmental assessment of the Republic of Georgia Oil and Gas Corp.’s 30-km natural gas pipeline. He has advised agencies and donors on water and water-quality management in response to the Haitian earthquake and Pakistani floods. He has continued to lead the LinkedIn Environmental Marketing Association of Arizona group. Barney has submitted articles on Middle East Water Crises to Earth, Geological Control of Agricultural Production and Markets to The Professional Geologist, and Renewal Energy at Home; Case Study at International Village, Pristina, Kosovo to European Geologist magazines. Barney lives in Tucson with his wife and their brindle boxer, Buster Brown.

1970s
Chris (Mathews) Hall,
(Class of ’71), passed away June 20, 2010, in Spring Creek, Nev. She is survived by her husband, Tim Hall (Class of ’71), three sons and three grandchildren. She was a former teacher in the Socorro school system and helped form the Socorro Community Theater.

1980s
Dr. Phil Carpenter
(M.S., ’81 and PhD, 84) is a professor of environmental geophysics, engineering geology, seismology at Northern Illinois University. Dr. Carpenter’s applied research specializes in geophysical imaging of karst features and developing methods for geophysical (non-invasive) assessment of landfills and detection of pollution in adjacent aquifers. Field sites include locations across the United States and China. He is recognized for his advances in geophysical assessment of landfills, mine wastes, karst features, and detection of pollution in adjacent aquifers (midwest and eastern United States, China), coupled with agriculture, or other critical resources. She previously managed biological safety programs at Vanderbilt University in Nashville, Tenn., and at the University of Illinois at Urbana-Champaign. She is also a Certified Biological Safety Professional, as designated by ABSA. She serves as a member of ABSA’s Council and is the co-chair and primary designer of the 5-day course Principles and Practices of Biosafety, which was developed for biosafety professionals just entering the field. She is the recipient of ABSA’s 2003 Everett Hand Jr. Presidential Award for promoting the field of biological safety and fostering, by example, the high professional standards of the association’s membership.

Scott Phelps
B.S. in biology, ’82) is the President-Elect of the American Biological Safety Association. He will preside over ABSA during 2012 as President. Burnett is a staff member with the International Biological Threat Reduction (IBTR) program at Sandia National Laboratories in Albuquerque. The IBTR team members work across the globe to protect against the accidental or intentional misuse of the life sciences to harm people, animals, or plants.

LouAnn C. Burnett
B.S. in biology, ’82) is the President-Elect of the American Biological Safety Association. She will preside over ABSA during 2012 as President. Burnett is a staff member with the International Biological Threat Reduction (IBTR) program at Sandia National Laboratories in Albuquerque. The IBTR team members work across the globe to protect against the accidental or intentional misuse of the life sciences to harm people, animals, or plants.

Dr. Phil Carpenter
seismic monitoring of ambient seismic noise and earthquake occurrence in the upper Midwest (northern Illinois, southern Wisconsin, and eastern Iowa). [http://www.earthhistory.uiuc.edu/loucarpenter/]

Scott Phelps
A career educator, he lives in Northwest Pasadena with his wife Lisa and their two children. Phelps earned his master’s in geophysics from Cal Tech after graduating from New Mexico Tech. He has won numerous awards for teaching and curriculum development during his career. His profile as a school board member is on the PUSD website.

Bob Swanson
Swanson was formerly the vice president of drilling engineering services for Thermosource, one of the largest geothermal service companies in the United States. Prior to Thermosource, he worked for 16 years at Unocal and Chevron. He has managed geothermal programs in the United States, Philippines, Indonesia, and the Middle East. At GGE, Swanson will oversee all drilling activities at the company’s recent discovery at Toluauca, Chile. He will also provide support at four other Chilean prospect areas, as well as the company’s U.S. projects.

1990s
Daniel Holcomb
(B.S. in Management, 1995) earned a Juris Doctorate degree from the University of New Mexico School of Law in
The New Mexico Tech Alumni Website is now live. You will find some useful features and easy navigation around the redesigned site. Here is a quick highlight of what you can find on the new website:

- Alumni Directory: Thinking of an old classmate? You can now find your classmates and friends online. You can also put your information in the alumni directory to allow other people to search for you. You can put as much or as little information as you like.

- Easy access to the giving page. This is a secure site that allows you to give easily and freely from the comfort of your home with just a click of the mouse.

Where does your money go? This section will highlight students who are currently receiving endowed scholarships so you can see where and who is benefiting from your generosity.

The events calendar will allow you to see where we will be holding alumni receptions across the country. You will also be able to see what events are going on around campus.

You can link up to our alumni interaction Facebook page. Here we will have discussions, news, and contests allowing alumni to interact with each other in real time.

The website is [www.nmtech.edu/advancement](http://www.nmtech.edu/advancement). See you there!

Four years after launching a fund-raising effort, New Mexico Tech officially broke ground on the new Macey Family Children’s Center on October 27.

The new $1.5 million center will be purpose-built as a children’s educational center, serving pre-school youngsters age 2 to 5. University officials and major donors held a brief ceremony with golden shovels, while about a dozen children used bright-colored plastic shovels to mark the occasion.

“All of this would not have been possible but for all the generous individuals who donated to the building fund, but most particularly, our strong benefactors, Bill and Cheryl Macey,” university President Dr. Daniel H. Lopez said. “The Maceys pledged to match all other donations, plus supplied start-up funding and capital. Without that sort of undying support, we wouldn’t be ready to build such a great facility.”

Bill Macey graduated from New Mexico School of Mines in 1942. He has been New Mexico Tech’s staunchest supporter over the years. He donated more than $1 million for the construction of the Macey Center in the 1980s. Macey has also stalked matching funds for other donations for the construction of a new Children’s Center. Mr. Macey also supports Tech’s highest academic award, the Macey Scholarship, which is a highly-competitive $5,000 award given to four Tech students each year.

Mr. Macey said he first got the idea after making a small donation to the Center in 2006. The new Center will have 6,000 square-feet of indoor space and 9,142 square-feet of outside area. The Center will also increase its capacity from 52 to 48 children.
alumni events in bethesda . . .

The Advancement Office staff has increased the number of alumni receptions around the nation in the past year. Successful, well-attended receptions have been held in Tucson, Las Vegas, Bethesda, Seattle, Reno, San Jose, Albuquerque, Denver, Washington, D.C. and other cities.

. . . and tucson

The functions provide an excellent time to connect with fellow Techies in your area and get caught up with Advancement Office happenings.

The calendar of events is online at http://www.nmt.edu/advancement.
in memoriam

Dr. Osman Inal 1940-2010
Saturday, Dec. 11. Dr. Osman T. Inal passed away at his home after a long illness. "Dr. Inal was a superb teacher, an outstanding researcher and a close personal friend," university president Dr. Daniel H. López said. "The entire New Mexico Tech community is saddened by his death and he will be sorely missed." Dr. Inal joined the faculty at Tech in 1972 as an associate professor of materials engineering and earned full professorship in 1980. He added the title of associate vice president and dean of engineering in 2001. He also served as department chairman for more than 15 years.

He was a prolific researcher, with more than 230 publications to his credit as author or co-author. He advised 40 master's students and 18 doctoral students during his time at Tech. "Osman's enthusiasm for working with students and guiding them from undergraduate through post-graduate work was unmatched," López said. "His dedication not only to students, but to this institution was total, deep and unyielding. Our farewells go to our great friend."

Osman Tugay Inal was born on Leap Day, February 29, 1940, in Turkey. He was especially proud of having a birthday on Leap Day. On his most recent birthday in 2008, he accentuated the fact that he was celebrating his 7th birthday! "Dr. Inal's profession and career at New Mexico Tech was a huge part of his life," said his fellow professor in materials Dr. Paul Fuierer. "His unique personality is legendary among students. As long-time chair of the Materials Engineering Department, Osman's legacy will last for years to come." Dr. Inal's specialties included explosive welding and forming, polycrystalline intermetallics, plasma and laser surface modification and the development of reactive solders and braze alloys. "He and his family took in every international student who came to Tech. He gave selflessly to helping them financially and with culturalization to the United States. He was a deeply caring person for students. This is a loss of a good friend to New Mexico Tech – a loyal and dear friend in every way possible" said Dr. Peter Gerity, vice president of academic affairs.

Over the years, Dr. Inal established a pipeline of Turkish students who came to Tech, including several of his nephews. He also was an effective recruiter domestically. "He's well known and has many friends throughout the United States," Hirschfeld said. "He's closely related to many researchers at Los Alamos and Sandia national laboratories. Many of his students have gone on to very prestigious positions." He was an active member in many professional and academic societies and regularly volunteered for service to New Mexico Tech, professional societies and government committees. Dr. Inal won the university's Distinguished Researcher Award at Tech in 1989. From the Alumni Association, he won the Distinguished Faculty Award in 2001 – the same year he was inducted as a Fellow in ASM International, the largest materials professional organization. Hirschfeld said Inal's fellowship with ASM was an elite post and a crowning achievement for his career.

Dr. Gerity said Dr. Inal's research is recognized and cited worldwide. He was continuously invited to deliver keynote addresses at international conferences throughout his career, he said. Dr. López said, "As Adal Stiphein said on the occasion of Dag Hammarskjold's death, 'We will mourn his death until the time of ours.'"

If you would like to donate to the Dr. Osman Inal fund, please contact the Office for Advancement at 575.835.5616 or email alumni@admin.nmt.edu.

Stephen Adair passed away on Dec. 8, 2009, at the age of 55, at his home in Santa Fe. Steve earned his bachelor's degree in petroleum engineering at New Mexico Tech in his 40s. He was a member of Tau Beta Pi, the engineering honor society. He had an exciting career in the petroleum industry, working on numerous offshore exploration oil rigs and natural gas fields. He traveled the world extensively. Steve loved the water. His passions were windsurfing and kite-boarding. He spent much of his life on the lakes of New Mexico and the ocean off the coast of Maui. He maintained a residence at Makawao, Hawaii, near Kanaha Beach.

Marion Lee Andrews, Class of 1959, passed away May 6, 2010 from complications of cancer. He was delighted to have been able to attend his 50th class graduation reunion in May of 2009.

Jack Desvaux, age 91, a 1941 graduate of the New Mexico School of Mines, passed away on May 11, 2010. He was associated with ASARCO for 35 years in a variety of technical and supervisory positions. Jack was mine superintendent at Ground Hog mine in Vanadium. Following several promotions and transfers, he served 10 years as manager of the eastern division of the company's exploration department, headquartered in Knoxville, Tenn. Prior to his retirement, Jack was an administrator in the exploration department in New York. Jack traveled extensively and, at various times, had homes in New Mexico and Arizona, New Mexico, Arizona, New Mexico and the ocean off the coast of Maui. He maintained a residence at Makawao, Hawaii, near Kanaha Beach.

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Josh was born October 23, 1977, in Wisconsin. After graduating from Tech, he began his career with Marathon Oil Co. in Houston as a drilling engineer, which included assignments in the Gulf of Mexico, Kansas, and Oklahoma.

(Bob) Bob Trout, who earned his MST at New Mexico Tech in 1975, died April 17, 2010, of congestive heart failure at Gerald Champion Hospital in Alamogordo, N.M. Bob was born June 6, 1933, in Roswell, N.M.

When the Korean War broke out, Bob joined the Naval Reserves. He remained in the Reserves for 16 years. With an electronics background, the navy tapped him to teach electronics. He found he loved teaching and made it his life’s work.

He began his education at NMSU-C and went on to attend ENMU where he majored in physics with minors in mathematics and secondary education. He graduated magna cum laude, earning math honors and most promising secondary teacher. Bob earned his master’s degree in 1975 from New Mexico Institute of Mining and Technology, Socorro, N.M. Bob continued to add to his educational background in physics, vocational education, computers, robotics and waste management.

His teaching career spanned from the Naval Reserves to public teaching in Lovington, N.M., NM Jr. College, Goddard and Roswell high schools, Carlsbad Schools, NMSU-C, Caranillo, Texas, Park College, NMSU-A, assisting at Holloman Middle School in the electricity unit and retiring from teaching college algebra at Central Texas College at age 72.

Memorials in his name and may be mailed to Souad Lercher, PO. Box 1942 Roswell, NM 88202. Monies will be donated to a charity in Lebanon, providing education and medical services for under privileged children.

Josha “Poco” Kamas

Bernard Mahony a 1952 petroleum engineering graduate, passed away on May 20, 2010. According to his daughter, Colleen Mahony-Meinke, he had an adventurous life and traveled widely.

Michael George Mashaw passed away on April 21, 2010, at the age of 36. He was a 1997 graduate.

Shannon Shaw, a 1986 alumnus in petroleum engineering, passed away on Aug. 31, 2009 at his home in Corrales, NM, from melanoma. Shannon came to New Mexico Tech after graduating from Carlsbad High School and attending Texas Tech. His first professional job was with the BLM in Carlsbad, followed by the Mineral Management Service in Cameron, Calif. In 2007, he returned to the BLM as supervising petroleum engineer with duties in New Mexico, Texas, Kansas, and Oklahoma.

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Meet Omar Soliman, a Techie conducting research in nano-technology. Omar had many reasons to attend New Mexico Tech after he graduated from Socorro High School in 2008.

One reason is that his father is a professor. He also appreciated that Tech stacks scholarships, allowing him to pocket some cash his freshman year. He also wanted to be involved in research.

“Tech has the most possibilities for undergrad research,” he said. “As a high school senior, I was doing chemistry research, making nanoparticles to help fight cancer. I was shooting them with a laser beam and taking pictures with a scanning electron microscope. That’s stuff most people don’t do until grad school.”

Soliman now works on a team building two wireless sensor networks; one will detect forest fires; the other will detect intruders.

“Ever since I was little, I wanted to study computers,” he said. “My dad took me to his office and he had a behemoth computer on his desk. I wanted to know what buttons to hit to make it do cool things.”

Soliman recently became a Microsoft Student Partner. This year, he’ll demonstrate Microsoft products to students, including XBox Connect, Windows 7, Mobile and Office for Macs.

“I’m pretty excited,” he said. “Thousands applied and I was one of only 50 or 60 hired.”

We caught up with Omar, and was able to ask him a few questions:

Where are you from?
I was born in Albuquerque, but I have lived in Socorro for my whole life (minus one year in Saudi Arabia).

What year are you in?
I am a current senior.

What is your major and what are your goals once you graduate?
I am majoring in computer science with a minor in business management. When I graduate, I hope to work for Microsoft or Google or in video game design.

Why did you decide to come to New Mexico Tech?
I’m a local, so initially I would have preferred to go to a different school. I ultimately chose to go Tech and I’m glad I did because Tech is a great value and it is noted for its excellent academic reputation.

What activities have you been involved in at NMT?
I play soccer for the Miners, the Tech soccer club. I participate in the Hi-Tech Ambassador program for the Admission Office. I currently work at the Tech Children’s Center as a teacher’s aide. I also work in the Computer Science and Engineering Department researching wireless sensor network development and deployment. Earlier, I worked for a year in the chemistry department researching nano-technologic dosing and delivery for use in human body-mapping and cancer fighting. I am also a resident assistant for the Summer Mini-Course at Tech. I also met the Mythbusters team during filming at EMRTC.

What do you enjoy doing in your spare time?
What spare time? Oh . . . then I guess playing soccer and golf and gaming.

Any words of wisdom for potential Techies?
Take it seriously; this is not a fly-by-night school. But, when you graduate, a Tech diploma is a world-wide master key.

Omar has been named as the student regent at New Mexico Tech by Governor Susana Martinez.

Omar Soliman